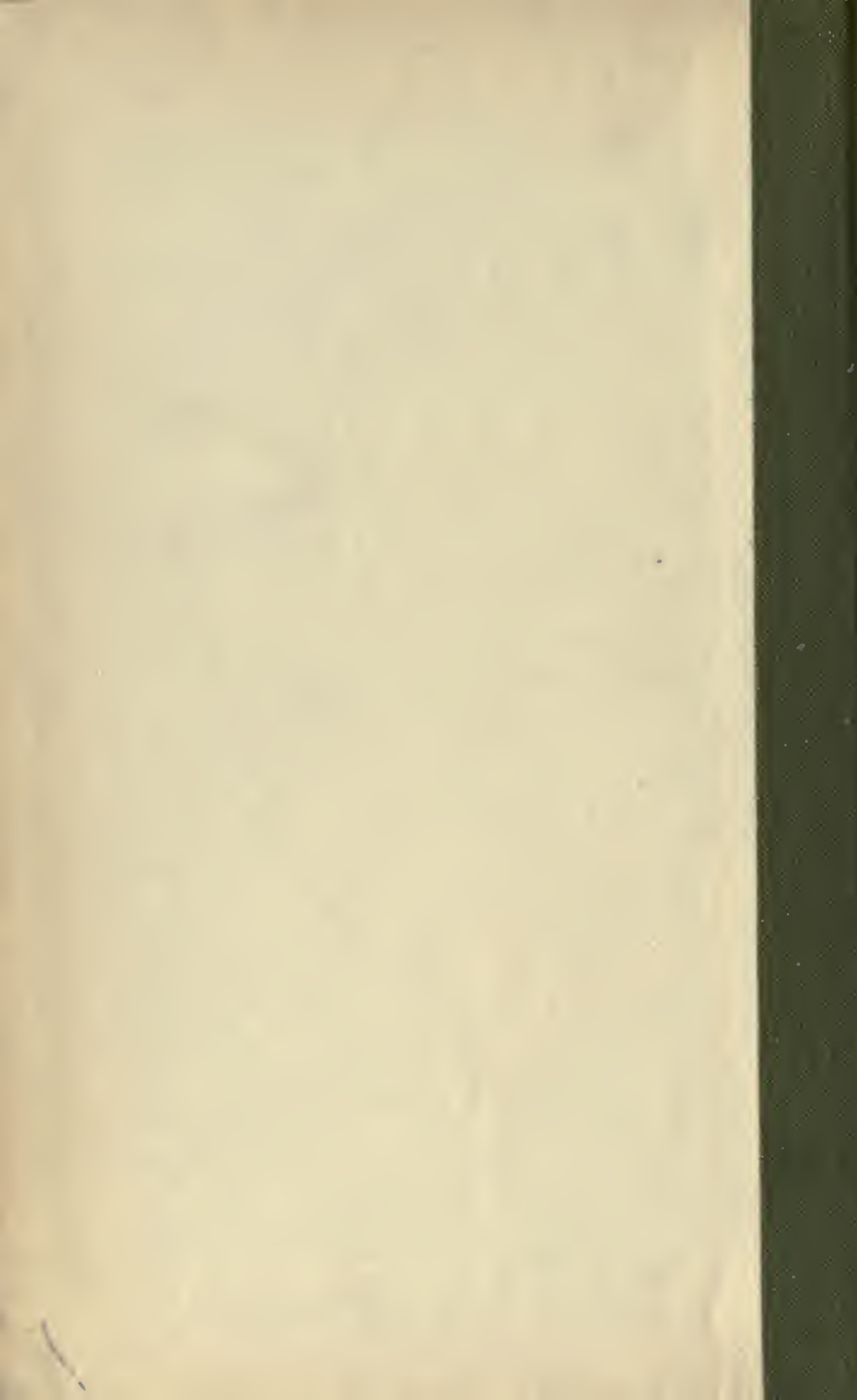
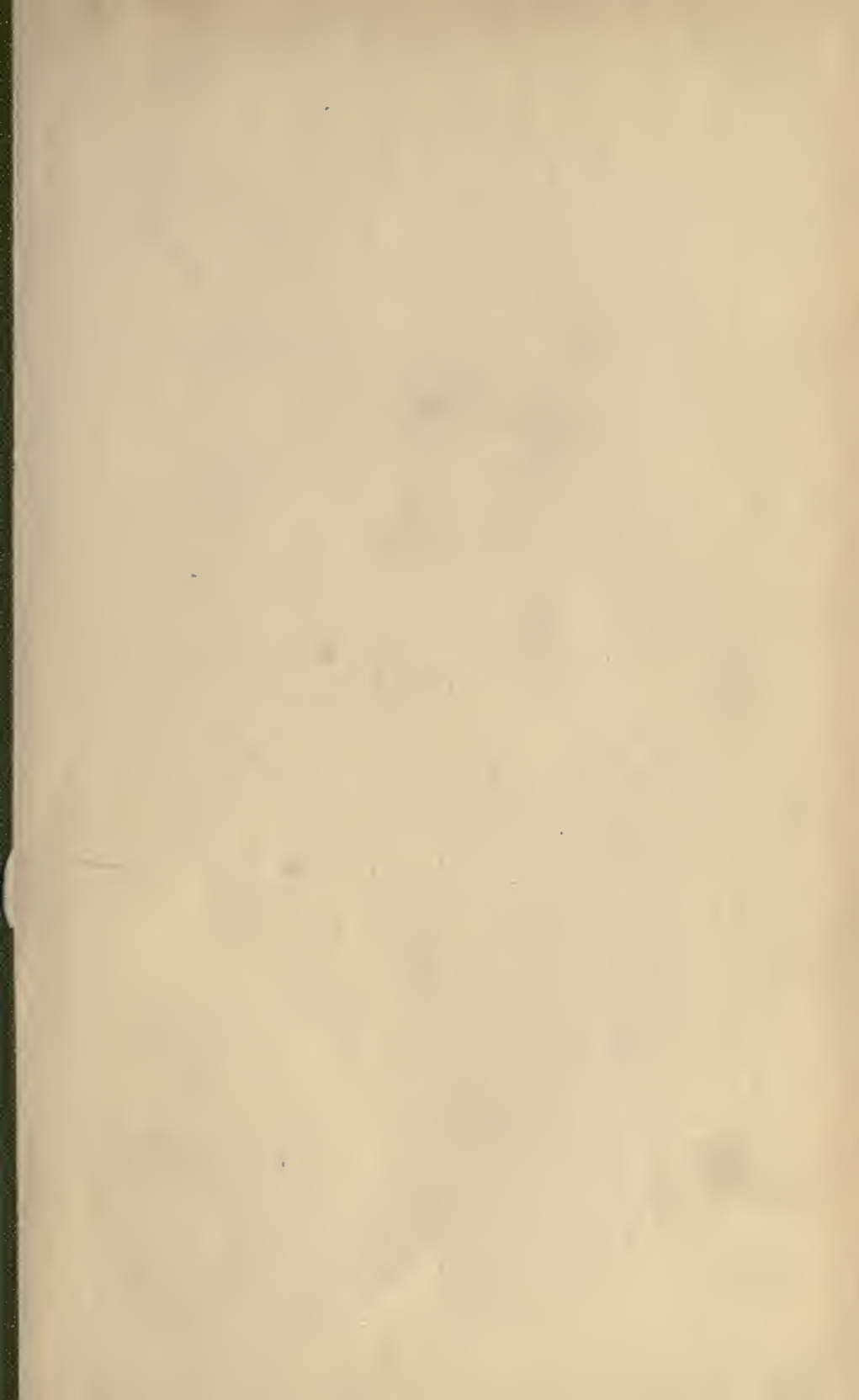


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THE

PHILOSOPHICAL REVIEW

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EDITED BY

J. G. SCHURMAN AND J. E. CREIGHTON

OF THE SAGE SCHOOL OF PHILOSOPHY

WITH THE COÖPERATION OF

JAMES SETH

OF THE UNIVERSITY OF EDINBURGH

54261
1902

VOLUME X—1901

NEW YORK
THE MACMILLAN COMPANY

1901

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THE PHILOSOPHICAL REVIEW.

THE ESSENTIAL IN RELIGION.

BY all students of history it has been recognized that in the religious spirit is to be found one of the most potent of the forces which have determined the character and the destiny of nations. Nor is it less evident, on the other hand, that among many of the leading peoples of the world, the sections of society most distinctively intellectual and progressive are largely composed of individuals who have passed beyond the influence of the religious tenets held by their fathers, either adopting toward such religion a directly hostile attitude, or passively ignoring it, because they regard its dogmas as too dubious to be accepted by them as the rule of faith and duty.

One may regard this scepticism of the more cultivated minds in Italy, France, Germany, and England, with distaste or with satisfaction, one may look upon it as an indication of intellectual growth, or as a proof of moral obliquity, but its existence in various forms and degrees it is impossible to deny. It is little wonder if, in view of this fact, the question at times presses upon us, as to what part, if any, religion is to play in the future story of civilization. Is it a force that has nearly spent itself, or that at least is diminishing, and is destined to diminish further, and at last to disappear? Or are its roots so closely interwoven with the deepest instincts and needs of the human soul, that its reign must be as enduring as humanity itself? Or is it possible that religion is a permanent factor in the life of our race, but that it is destined to pass into wholly new forms, and to express itself in

manifestations hitherto unrecognized, corresponding to the rise of the masses of mankind to higher stages of intelligence, and to the enlargement of their moral horizon.

Obviously the whole significance of any discussion of this problem depends upon the attaching of some definite meaning to the word 'religion.' Very numerous and very diverse have been the definitions offered of the term. Generally they have erred by suggesting too narrow a restriction of its denotation. What religion is, has too often been taken to mean what some one form, or some one function of religion is. Not seldom the word has been limited to the higher, or more intense manifestation of devotional feelings, or to what has been held to be the more worthy presentations of spiritual truth. From this it comes that we are still sometimes assured that many savage people have 'no religion.' From this, too, originates the misleading classification of religions into 'true' and 'false.' Evidently, however, any such restriction of the term is unwarranted. Like all other important phenomena of human society, religion has appeared in many forms, being modified and qualified by the innumerable circumstances determining the character and the environment of races, communities, and individuals. Moreover, any careful study of religions leads us to recognize the historical continuity of the religious consciousness, and we see that the 'higher,' more complex, and more spiritual forms of cult and creed, have been evolved gradually from those that were simpler and more crude. Nor, again, is any satisfactory exposition given of the true nature of religion, if only one aspect of the religious life is recognized in the definition. Thus "morality touched with emotion" may perhaps stand as the expression of the dominant note in the creed of a Matthew Arnold, as it might in that of a Marcus Aurelius, or, with a difference of emphasis, of a George Fox; but it would be an obviously inadequate description of what religion meant to a Calvin, or a Thomas Aquinas. We must try therefore to lay our foundation more broadly and more deeply.

When we ask ourselves what we mean when we speak of a religious man, a religious community, a religious race, we find

that we have in view a certain temper of mind, a certain way of facing the facts of existence, which affects the whole tone and color of the emotional life, and which has a determining influence upon conduct, upon that external side, that is, of a man's individuality by which alone his fellows can judge of him ; whether the creed be low or lofty, simple or complex, it must be *felt* ; whether its outer expression consist in ceremony or ritual, in philanthropic work or in fanatical persecutions, *some* effect it must have on the emotional and the practical life ; if either of these factors be wholly absent the phenomenon is not that of religion. Thus, for example, almost all critics of Immanuel Kant have agreed that his account of religion was deficient and incorrect, just because in identifying it with the recognition of the moral law as a divine command, he almost eliminated from his definition the element of emotion. On the other hand, we should for the most part hesitate to call Rousseau a 'religious' character, not because of any defects in his creed, nor from any lack of emotional susceptibilities, but because his beliefs, though genuine, and often accompanied by keen feeling, were not to any appreciable extent 'springs of conduct.' The mere religiosity of the sentimentalist is not a genuine religion at all. The definition of the Epistle of St. James is obviously directed to the exclusion of just such unpractical sentimentality. "Pure religion, and undefiled before God, and the Father, is this : To visit the fatherless and widows in their affliction, and to keep himself unspotted from the world."

Yet there must be more than the influence of feeling upon conduct, to constitute religion. Mr. Herbert Spencer points out that the loving mother nursing her child gives us an example of a perfectly moral action performed under the stimulus of purely enjoyable feeling. Yet it would be absurd to speak of her act as a 'religious' one. To revert to what has been already said, there must be a certain way of facing things, a certain direction of the intelligence, which must offer an appropriate object to the feeling, and through it direct the conduct. And it is this, which we may call the intellectual factor in the religious consciousness, which constitutes the very heart and core of our problem.

What is the intellectual factor present in, and essential to, 'religion'? There would be little difficulty could we say that there must be an assent to a particular creed, embodying some one theory of the ultimate nature of the universe; and that to give such assent is the only duty of reason within the religious sphere. But such a view is, of course, impossible, save to the representatives of the narrowest forms of theological dogmatism. Even the most superficial glance over the history of religion makes it evident that no limit can be set to the theories and conceptions which have been held by men profoundly religious, as being of the essence of their creed. Apart from the enormous number of sects within Christianity, the creeds of Jews, Mahometans, Parsees, Buddhists, to name only a few, are at absolute variance from each other. What specific articles of belief were common to Confucius, and Pascal, and Marcus Aurelius, and Bunyan, and Socrates, and Simeon Stylites? Surely it is clear that it is not because of adhesion to any one theological dogma or metaphysical conception that we rank these men as religious. We must conclude then that there is no particular belief as to what the ultimate reality of things is, or as to man's relation to that reality, which is either essential to, or incompatible with, the possession of religion.

And yet, if, as we have seen, the intellect bears its part in religion, the question must be faced regarding the nature of that part. In attempting to answer this question, I venture to offer a tentative explanation of the word 'religion,' which, if not fulfilling all the requirements of a strictly logical definition, may at least take account of all the elements which seem intrinsically necessary to it, and which are, therefore, to be found even in its most diverse manifestations.

Religion is the intimate and vital apprehension, by the individual, of what is conceived to be reality, in its fullest sense, *la vraie vérité* of things; whether such reality be regarded as co-extensive with, as included in, as inclusive of, or as distinct from, the world of natural phenomena, it always, however, being regarded as in some way related to the individual himself; any such apprehension must embrace belief, emotional response, and

the determination of conduct, in so far as conduct is supposed to have a bearing on the connection of the individual with such reality.

Is now our proposed definition sufficiently broad to cover all cases in which we find manifestations of the religious spirit? It may be well to test it provisionally, by observing its applicability to a few examples representative of religion, at widely separated stages of thought, and under the utmost diversity of creed and cult.

We may begin with one of the lowest and crudest forms of religion, the fetish worship of the savage. Professor Tylor has described fetishism as "the doctrine of spirits embodied in, or attached to, or conveying influence through, certain material objects." Fetishism is thus, as the same writer declares, but one form of animism—the general belief in spirits, so widespread among savage and barbarous people. Difficult as it is for us to figure to ourselves the vague and incoherent view of things that fetishism represents, yet this, to puerile superstition, must signify a genuine effort of the imagination to reach down to the real through the appearance. The influence of his belief on the conduct of the savage varies under different conditions of race and environment, but often such influence is very great indeed; and the alternations of childish terror with equally childish attempts to wheedle or even to bully the unseen power through its material representation, are, in spite of their naïveté, not unlike the display of feeling we often find among worshippers whose creed is far less crude and unsophisticated. Even in fetishism, then, we find there is implied a belief in a certain reality, there are feelings aroused by such a belief, and, to some extent, there is a direction of the conduct by these feelings.

But the savage worshipper of sticks and stones, who is wholly incapable of giving the grounds of his belief, and who oftener regards his fetish with cowardly dread, or selfish greed, than with respect or veneration, is but at the lowest stage of religious progress. His crude theory is half materialistic, his emotions are sordid, his conduct, though influenced, is hardly at all moralized by his belief in the supernatural.

Let us turn to the religion which offers the most striking contrast to this instinctive animism, and consider a highly spiritualized creed, as devoutly held and fully realized by a Christian saint. By men of all beliefs the *Imitation of Christ* has been studied and admired for the intensity and purity of its sentiments, its lofty ethical tone, and its absolute sincerity. The religion of Thomas à Kempis is of a highly emotional type; for monasticism, restraining the free use of the intellect, and confining the practical activities within a narrow circle of devotional and disciplinary exercises, necessarily tended to give a disproportionate preponderance to the purely subjective side of life. But if his apprehension of what he held to be spiritual reality was mystical rather than rational, if it was assumed rather than proved, it was none the less strong and intimate. If he says little of the need of a belief in God, it is because doubt was for him impossible. The Divine presence, the source of the soul's joy and power, is the thought that inspires all his meditations and prayers. Nor is its influence confined to the creation of an ecstasy of devotional feelings; it is the inner and hidden spring which fertilizes and beautifies the whole life, and renders the conduct holy and Christlike. The recognition of the dependence of the soul on God, the joy and peace that such a recognition brings, and the righteousness and strength that flow from it—this is the whole of religion as it is presented in the *Imitation*. "Above all things, and in all things, O my soul, thou shalt rest in the Lord always, for He is the everlasting rest of the saints." "Behold! my God and all things! what would I more, and what happier things can I desire!" "Turn Thou^{us} unto Thee, that we may be thankful, humble and devout; for Thou art our salvation, our courage and our strength."

Now let us notice an example of the religious spirit, in which it is the intellectual apprehension of truth, rather than the emotional fervor, which dominates. Nothing could seem, perhaps, further removed from the ecstatic contemplation of the *Imitation of Christ* than the calm rationalistic philosophy of Spinoza's *Ethics*. But that the temper and teaching of Spinoza were profoundly religious has become apparent to every unprejudiced

student of his system. If the great Jewish thinker was not the "*Gott-ge-trunkene Mann*" that Novalis called him, the epithet is misleading only because it represents the dominating idea in his mind as an exciting and stimulating conception, and not as was really the case, an illuminative and regulative one. *Deus sive Natura* was for him synonymous with reality in its intrinsic unity, the infinite totality of the universe, conceivable by thought alone, and of which the individual objects apparent to sense are the 'Modes,' or finite manifestations. But while Spinoza rejects, definitely and deliberately, the anthropomorphic representation of the Deity, while the personality of God is a doctrine that he holds to be wholly antagonistic to the scientific and philosophical point of view, yet God who is Nature, world-force, and world-essence, to whom neither intellect nor will, as we commonly understand them, is to be ascribed, is none the less the object of man's intensest and purest love; and it is in its realization of its oneness with the Divine that the soul finds the source of its highest and noblest activity. To know God, to love him, and to act ever under the influence of that love, this was as much the ideal of happiness, the only true life, for the outcast Jew who was held in abhorrence as an atheist and blasphemer, as it had been for the mediæval monk. "Our salvation or blessedness, or liberty, consists in a constant or eternal love toward God"; "The highest virtue of the mind is to know God, and from this knowledge arises the highest possible peace of mind"; "Blessedness is not the reward of virtue, but virtue itself."

If, then, in view of such examples as these, and they might be multiplied and varied indefinitely, we take as the sufficient and indispensable characteristics of the religious spirit, the firm and vivid apprehension of reality (however conceived), an emotional response to this belief, and the regulation of the conduct by it, we can perhaps perceive how the decay in the religion of Christianity among the cultured classes has come about; and we can catch some glimpse of the probable fate of religion itself, in the more civilized and highly educated communities. Popularly, religion has been identified with a theology which includes as essential the belief in the supernatural and miraculous. The children of Cath-

olics and Protestants alike have been taught from early youth that miracles are credible; that faith, the chief religious virtue, must accept as assured fact certain stories of divine interposition in, and interference with, the relation of natural phenomena to one another. The Catholic is taught to believe in the liquefaction of the blood of St. Januarius, the Protestant to scoff at this as a contemptible superstition, but to accept as credible the story that Balaam's ass spake with man's voice. Now, such a creed, in an age like this, can be accepted by men of clear intelligence and logical habit of mind, who are to some degree familiar with the present position, the methods, and the results of the various natural sciences, only in so far as subjects of a religious character are excluded from the sphere of their mental activity. It is for the most part possible for such persons to give assent to current theological dogmas, only so long as they make no attempt to *think* them. That men of great intellectual force, who are capable of keen and merciless analysis in regard to other matters, do maintain the tenability of such beliefs, is indisputable; and it would be absurd to assume hypocrisy or deliberate insincerity in such cases. If we consider how earnestly and perserveringly it has been taught for centuries, by moralist and theologian alike, that the moral life is dependent on an acceptance of certain religious dogmas, we shall realize that there is no ground for wonder, and little for contempt, if even earnest and able reasoners have been timid in regard to instituting or recommending a frank and thorough examination, where it seemed that it might be dangerous to the foundations of character and conduct. But more and more is it becoming difficult to hold the tradition of supernaturalism as a vehicle of vital and essential truth. To those who are guided by emotion rather than by thought—and their number is great—it is indeed practicable, even for the educated, to regard the Bible, or the Lives of the Saints, merely as a *point d'appui* for tender feelings and aspiring hopes, though perhaps in such cases the adhesion to implied theological doctrines is more apparent than real. But to men who covet more rational and logical processes, there are but two alternatives—they must set as their mark, not truth, but orthodoxy, and search out with painful ingenuity the

strongest attainable props and guards for their tottering creed, too often satisfying themselves with arguments the fallacy of which in any other connection they would readily detect, till they at last "with much toil attain to half-belief"—or they must boldly apply to all theological questions, however fundamental and vital, the same methods, with equal frankness and impartiality, that they would strive to make use of for the disentangling of knotty problems in secular concerns. In the former case, the structure of credulity becomes subject to dry rot, and in time will crumble away; in the latter case, it is liable to be shattered at a blow.

Now religion cannot maintain itself on a half-belief or on a no-belief; it requires, as has already been stated, an apprehension of reality, which, however partial, incoherent, and imperfect it may be in itself, is yet for the individual himself a genuine reaching down to the heart of things. For this, a creed of supernaturalism and miracle still suffices in the case of those wholly ignorant, and even in that of those more or less educated, if untrained in reasoning and knowing little of the results of modern scientific research or of philosophical analysis. It suffices, too, for men of active life, who have little taste or power for critical investigation, but who warmly appreciate the pure and lofty ethics of the New Testament; and for that very large class of men, and especially of women, who, finding in religion that satisfaction of their emotional needs which seems otherwise denied them in the prosaic and dull routine of every-day existence, ask nothing else from it. It need hardly be pointed out how vast is the number of persons, in even the most intelligent and well-informed communities, who are included in the categories we have indicated. Supernaturalism is not dead, it is probably not even dying, so far as the vast masses of the population of Europe and America are concerned. But each generation extends the circle of those who deliberately reject or practically ignore its influence. If it is with the belief in the miraculous that we identify religion, it seems safe to say that the sway of the latter over the educated classes is doomed, and if, however slowly, the masses of the people are to be raised to

a higher level of thought and mental training, its influence upon them must gradually wane.¹

But too strong a protest cannot be made against such an identification, for which, indeed, there is no justification either in history or in philosophy. Religion implies a faith, not in this or that presentation of truths, but in truth itself; and whoever finds in truth his ideal, and strives to realize it in whatever way is possible for him—however clearly he may recognize that his approximation to it can be but partial and imperfect—possesses the intellectual element of religion. The presence of such an element is implied in any active endeavor of the mind to attain to real fact. How that reality may be conceived of matters nothing, so far as the genuineness of the religious life founded on it is concerned, though of course the comparative adequacy of the conception will determine whether such religion will permanently prevail as consonant with the demands of human reason. Are there, then, any grounds for doubt that reverence for truth, and the earnest effort to appropriate truth, are permanent factors in the progress of our race? And has it ever been found that this effort to get at the heart of things, to see life steadily and to see it whole, has been void of emotional response or of influence upon conduct? To the scientific or philosophical mind, and they differ only as the object of reverent investigation is the partial and specific, or the universal and generic, the love of truth is itself a passion, and a passion which by its very nature tends to purify the soul from all low and selfish affections. Sincerity, patience, self-devotion, openness of mind are some of the virtues that are characteristic of the lover of truth. To strive to make the ideal of life an actual fact, this is morality. To recognize the claims of the real, refusing to rest content with the merely transient and surface aspect of things; to strive to reach their true meaning, and to find joy and peace in bringing the life into harmony with it, this is religion; and this no extension

¹ I intentionally omit here, as foreign to my purpose, any discussion of the other causes, political, social, and economic, which appear to be potent factors in the decay of theological faith among many European nations.

of scientific method, no new discovery of facts or new formulations of natural law, no investigations into the workings of reason itself, can ever render outworn or effete.

For what is the essential difference between the irreligious and the religious man? Surely not that the one denies and the other asserts the existence of the supernatural. It lies, not in what the belief is, but in how the belief is held. One man is content to look no further than to the externals of things, to concur in phrases without asking their significance, to set a value only on the obvious and the immediate, to drift idly on the stream of life. With such a one, whether he calls himself an orthodox churchman or an agnostic, his conception of what is real is so vague and so vacillating, as to awaken but tepid feelings, and to have no appreciable effect upon action. Another man, whether to him the fact of facts presents itself as a Divine Father, whose love guides his children and whose wisdom governs the world, or as that ever-unfolding mystery of natural law in the universe in which reason finds its reflection and its satisfaction, or as a humanity which gives all its interest and its worth to the material world, in any case recognizes in it what for him is the highest attainable truth, and what as such calls out his deepest emotions and shapes his ideal of life. If sincerity, earnestness, and devotion to knowledge are likely to remain, to grow and strengthen with the higher evolution of our race, then, however present creeds may drop out, and religious organizations may decay, the influence of a genuine belief upon the heart and life cannot cease. The content of belief may undergo a change as knowledge increases and the reasoning power develops, but this change we may well feel assured, will involve the loss only of what is temporary and extrinsic, and will lead the way to a higher and purer form of the religious life.

E. RITCHIE.

THE STOICAL VEIN IN PLATO'S REPUBLIC.

THE earlier part of Plato's career as a teacher fell within a period of rapid development in the history of thought. The great Sophists, pioneer teachers of the art of living and of speaking, as they claimed to be, were dead; and their teaching had become the dogma of weaker and less scrupulous followers. A school of dialecticians followed in the path marked out by the earlier Eleatic school. Socrates no longer cross-questioned high-born youth, or Sophist, or politician, but his pupils were developing the thought of their master in several distinct, almost antagonistic schools. It was a period, as Plato himself says in the *Theatetus*, when the philosopher must descend into the arena where the battle of the philosophies waged hotly.

With all these various modes of thought, Heracleitean and Eleatic, Sophistic and Socratic, the philosophy of Plato was in close touch. The influence of earlier physical and mathematical theories upon his work, his debt to the Megarian school in matters of logic, and above all his direct inheritance from Socrates, are pointed out in proof of this fact. In the field of ethics, however, Plato's debt to Socrates is so great that it is customary to overlook other influences. Plato's debt to his master can hardly be overestimated. The intense ethical earnestness which pervades all his writings, the effort to grasp the virtues in clear accurate definition, the belief that such knowledge reaches the essence of the virtues, and develops the virtues themselves in the mind of him who knows them—such was Plato's legacy from Socrates. Perhaps twenty years had passed since Socrates's death, when Plato was writing the *Republic*, and the question I propose is this: Can we trace the influence of other ethical thought than that of Socrates, in particular the influence of the Cynic school, in the somewhat elaborate picture of an ideal ethical society which the *Republic* presents to our view? That phase of Socrates's ethical thought which was developed by Aristippus and his companions, has not failed to leave its mark on Plato's system; and it is

hardly conceivable that so strong a mind as that of Antisthenes should have had no effect on the somewhat younger, though far more comprehensive thinker, with whom he was associated under the spell of Socrates. That the Academy was probably the younger rival of the stern school which gathered in the gymnasium called the Cynosarges, is but additional reason to look for some direct influence of its doctrines on the writings of Plato.

Antisthenes is mentioned but once in the Platonic dialogues,¹ and that as a pupil of Socrates who was present at the time of his death. In several passages, however, Plato refers to his philosophy without mentioning his name. The main principles of the philosophy of Antisthenes are familiar enough. Starting with the Socratic doctrine that virtue is the only good, *i. e.*, the only thing necessary for happiness, he drew the further inference that pleasure as a principle of action is wrong, and that practically pleasure itself is an evil. He would "prefer to be mad rather than to yield to pleasure," we are told. He held with Socrates that virtue is essentially a matter of knowledge, and he would consistently set aside all that interfered with that knowledge of self which resulted in self-mastery. Thus he was led to reject the complicated civilization of his age, its artistic and literary ideals, in a word, its culture as well as its shams and vices. Even so far back as the Homeric poems, an ideal people of the north had "lived on milk and herbs and practiced virtue." It was a return to this ideal state of nature which Antisthenes preached, only it was in the life of animals that he found the ideal according to which he would remodel human society.

The peculiarities and extravagances of the Cynic school attracted quite as much attention as the thought of its founder. Much of this extravagance cannot be laid to the charge of Antisthenes himself, although his system is one-sided and imperfect in-

¹ *Phædo*, 59 B. Cf. Jowett, *The Dialogues of Plato*, III, 437. American Edition: "Plato nowhere alludes to the ethical teachings of the cynics" [with one or two possible exceptions].

K. Barlem, *Antisthenes und Platon*.

Urban, *Ueber die Erwähnungen der Philosophie des Antisthenes in den platonischen Schriften*. 1882.

F. Dümmler, *Antisthenica*.

deed, when compared with the saneness and breadth of Plato's thinking. Plato's point of view is so normal, he writes and thinks with such true perspective, that it requires a real effort to fix attention on his relations with Antisthenes. There is, however, one vein of thought running through the Republic, and appearing occasionally in his other writings, which owes its existence in large measure, I believe, to Plato's fellow-student in the same field. This vein I venture to call Stoic rather than Cynic; for the result of this blending of Antisthenes with the wider thought of Plato as it appears in Plato's own writings, is more like the later combination of Cynicism with the thought of the older Academy—it is more like Stoicism—than like Cynicism proper.

We may take as an illustration of the relation between Plato and Antisthenes, that famous passage¹ in which the philosophic life is described as devoted to the practice of dying. The body, we read, is ever hindering the soul's effort for true wisdom by its pleasures and appetites, its weaknesses, and even by its sense-impressions. The true philosopher will withdraw his soul so far as he can from communion with the body; he will scorn its pleasures and pains, in devoting himself to those higher interests in which the soul has her true life. It is Socrates who speaks, but the words are rather in the spirit of Pythagoras than in the spirit of the real Socrates. And Plato's main point, the kinship of the soul with ideas, is equally far from anything in the philosophy of Antisthenes. In Plato's attitude toward the body, however, we have a reflection of the practice inculcated by the cynic thinker. For Antisthenes, the supreme effort of man was to attain that self-mastery which was the essence of virtue and of wisdom. This effort the body hindered by its pleasures and pains, its maladies, its appetites, its imaginations. The true philosopher, then, will neglect the body, and withdraw himself from it in the pursuit of the ideal which philosophy proposes. The philosophic ideal presented in this passage is different from anything that had been before proposed by philosophy; but the attitude toward the body was that which had long been preached by Antisthenes, and perhaps was already being caricatured by Diogenes.

¹ *Phædo*, 66.

Or again, we might take as an example of the Cynic note in Plato's writings, his attitude toward the great statesmen of Athens as represented in the *Gorgias*. All that the Athens of the fifth century stood for, its art, its wit and rhetoric, its wealth and temporal magnificence, the ambitious aims of a politics which sought to make all of Greece center in Athens, all this was rejected by the Cynic. His ideal was the life according to nature, which was most fully exemplified among animals. The Sophist's antithesis of law and nature had borne this uncompromising fruit. Again, Plato's goal was a different one, the standard by which he judged the great men of the past was more practical, more truly ethical, viz.: What had the orators and statesmen done to make the citizens of Athens more civilized (*ἡμερώτεροι*), more subject to high ethical ideals? But the language he used of Miltiades, and Cimon, and Pericles, we have good reason to suppose, had been used of them before in that sterner school at the foot of the Lycabettus rock.¹

But it is of the *Republic* that I wish especially to speak. It would be manifestly unfair to attribute the severe ethical spirit which pervades the social institutions of the *Republic* to the influence of Antisthenes. The source of the spirit of Plato's ethics is to be found in Socrates. And yet when the principles according to which the society of the *Republic* was founded, lead to the same results as were taught by Antisthenes, we cannot pass over the identity of spirit from which these results sprang. Indeed it was by Antisthenes, not at Megara nor among the Cyrenaic thinkers, that the real work of Socrates was most truly understood and carried forward. For Antisthenes and for Plato, virtue was the one rule of life: for Antisthenes, because it and it alone was necessary for happiness; from Plato's higher standpoint, because it was the only means to that more highly developed permanent life of the state, in which each member found real happiness in the normal exercise of his powers. Antisthenes taught that pleasure when sought as an end became an evil; Plato was ready to go even farther. Socrates and his followers had regarded happiness (*εὐδαιμονία*) as the good, the end to which

¹ Cf. Dümmler, *Antisthenica*, pp. 7-11.

virtue was the means ; but Plato in a striking passage in the Republic rejects the happiness of the individual class or person as an end, in almost as emphatic language as Antisthenes had used with reference to pleasure. When charged by Adeimantos (*Pol.* 420A ; cf. 465E, 612) with making his rulers and guards no better off than mere hirelings, Socrates points out that the city has not been constructed for the benefit of any one class but of the whole. As the statue-painter does not paint the noblest part of the statue, the eye, with the most beautiful color, namely sea-purple, but with the natural color of the pupil, namely black, in order to make the statue as beautiful as possible ; so, in order to make a happy state, it is necessary to consult the right and proper function of each class, not the happiness of any one class.

In the Republic, then, Plato is ready to go even farther than Antisthenes. The latter says : Avoid pleasure, be virtuous, in order to be happy ; Plato finds the true principle of ethical life in the demand on the part of society that each member perform his own function for the community, and so far as any individual is concerned, his particular happiness is relatively of no moment at all. Certainly Plato did not obtain his ethical standpoint from Antisthenes, but it is fair to say that he developed it, and gave it its uncompromising form in discussions to which the positions taught by Antisthenes at least gave the occasion. In the *Philebus*, for example, Plato gave full weight to all the truth there was in the interpretation of the Socratic ethics by Aristippus and the Hedonists. But if one were to read the Republic by itself, he might say that Plato's attitude toward ethical problems was quite in line with the teachings of Antisthenes.

It is not, however, in the main standpoint of the Republic, so much as in the particular conclusions worked out on the basis of this standpoint, that the influence of the Cynic mode of thought is to be traced.

When Plato begins to outline his city in the Republic, he describes an extremely simple city, with its simple, natural mode of life—to which Glaucon retorts : It is a city of swine. Socrates, accepting the suggestion, goes on to describe a 'fevered' city with all the luxuries which prevailed in the Athens of his

day. The original city has been thought to refer to the social ideals of Antisthenes, and Glaucon's remark has been interpreted as Plato's condemnation of the Cynic state of nature. On the contrary, the writer of the Republic turns wistfully away from the simple city with its 'natural' wholesome life. The simple city is expanded into the 'fevered' city, and thus Plato gets his contact with actual life; but as he goes on to give his city an ideal form and content, it is, as he says, very largely 'purged' both of the evils of luxury, and of luxury itself. That there is a direct allusion to the Cynics here, I very much doubt. But we may well believe that Plato's tendency toward a simpler mode of life was due to the influence of the Cynic ideal.

The state of nature extolled by the Cynics does not at all come up to Plato's large conception of what is meant by nature. It is not difficult to believe that Plato is alluding to the Cynic idealization of nature in general, and of animal life in particular, in a passage toward the close of the Republic (*Pol.* 586B) where he describes the pleasures of ordinary men as like those of cattle. They go about feeding with their noses to the ground, Plato says, absorbed in the satisfaction of their immediate wants, and never lifting their heads to see the beautiful about them. And yet we may find many points in the Republic where Plato's own thought seems to have been shaped by the influence of this idealization of nature. I propose to discuss the traces of this influence under three headings: (1) A few conceptions Plato borrows directly from this Cynic mode of thought. (2) He never frees himself entirely from the charm of that simplicity which characterizes the Cynic 'state of nature.' (3) He accepts the phraseology of the Cynic principle and constantly uses it, but he uses it in a much broader and truer meaning than that with which it was originally propounded.

1. Very early in his discussion of education, Plato avails himself of the simile of shepherd dogs, as a useful guide in determining the qualities of the guardians of his state. To a certain extent the comparison is humorous, especially when Socrates uses it to deduce the 'philosophic' nature of his *φύλακες*,¹ but at times he

¹ *Pol.*, 376A f.

uses it in real earnestness. The dog is keen of scent, swift, and strong; he unites spirit in dealing with enemies, with gentleness toward friends—such are the qualities of the genuine guardian. Again, when the question of the place of woman is brought up for final settlement,¹ it is the simile of the shepherd dog which suggests that women are to share all forms of man's education and work; and when the question of marriage is to be decided, the habit of the breeder of animals who breeds from the best and strongest specimens he can command and destroys weak offspring, is actually proposed as an ideal for human society.² What is this but a direct offshoot of that 'nature'-worship which in rather a crude form was cultivated by the Cynic school.³ Human society is to be in a measure constructed after the ideal of animal society. The author of the book *On the Nature of Animals*, with its picture of animal life as a pattern for human life (for such we must believe was the content of Antisthenes's book), had made this procedure familiar to Greek thought; and later Cynics found a grotesque satisfaction in protests against the culture of their day, much like the protests of the early Massachusetts Quakers, latter-day Cynics, against the vanities of Puritan society.

According to Aristotle,⁴ Plato was the first to propound the theory of the community (*κοινωνία*) of wives and children, and it would be rash to doubt this statement in regard to so striking an innovation. We know that it was taught by Diogenes and by later members of the Cynic school. And if we cannot claim the origin of the conception for Cynicism, then we must say that Plato was so imbued with the spirit of that school that he originated one of the most striking and far-reaching principles for the realization of its ideal. Whether Aristotle is right, whether Plato adopted a Cynic idea, or created a Cynic idea, is a minor matter. We do find it as one of the foundation-stones of his ideal state.

¹ *Pol.*, 451D f., 454E.

² *Pol.*, 424B. The whole level of the race is to be raised *ὥσπερ ἐν τοῖς ἀλλοῖς ζῴοις*.

³ The presence of children in battle, also, is justified by the fact that animals fight better in the presence of their young. *Pol.*, 467B.

⁴ *Politics*, Bk. II, ch. 7, §1. Cf. Dümmler, *Antisthenica*, p. 5. It seems plain from Plato, *Pol.* 452B, 457A, that Plato is doing more than anticipating possible objections to his proposal; evidently the subject had been ridiculed before, but whether or not the earlier proposal of it emanated from Plato these passages do not indicate.

More than once Plato speaks of the corrupting influences of wealth.¹ The thought is not peculiar to Cynicism; but it is a remarkable tribute to the influence of the Cynic school on Plato, that the rules which he lays down for the gold and silver portion of society go so far in the direction of the Cynic ideal. In the strata of brass and iron, men could own property, build houses, and live in families; they had money to go on private journeys, or to spend as they would; in fact, the norms of civilized society were but slightly disturbed. It was no dreadful thing for the state, if the miserable men who mended worn-out shoes did not live up to the highest ideal for life in the state. But the guardians of society would defile the gold and silver of their nature, if they touched gold or silver coins; they could call nothing their own but the garment on their back, which took the place of the animal's furry coat. They lived together, as it were, in herds, and ate at common tables. Only thus could Plato's state be realized. In a word, Plato does not interfere with the life of ordinary men, but the highest type of man must conform to an ideal, which, in many points, resembles that proposed by the Cynics. What higher tribute could Plato pay to the rivals of the Academy?

Perhaps the question will be raised here whether this ideal was Cynic in origin, or whether it was the result of Plato's admiration for things Spartan. In Sparta alone in Greece was found the public table for soldier-servants of the state; here women as well as men were trained in gymnastic exercises, even though they did not go to war; here commerce was frowned upon far more than in Athens; it was in Sparta that *iron* money is said to have been used. Plato praises the Spartan state so warmly in the Protagoras, that one might be tempted to say that some of the elements of the ideal state which I have just mentioned were due to his admiration for Sparta. Did Plato obtain his political ideal from Sparta? Diogenes Laertius (VI, 27) tells that, when Antisthenes was asked "Where are good men to be found?" he answered: *ἀνδρας μὲν*,

¹E. g., *Pol.* 421E and especially 469D, where *ἀνελεύθερος* is used as equivalent to *φιλοχρήματος*.

ἐίπεν, οὐδαμοῦ, παῖδας δὲ ἐν Λακεδαιμονίῳ.¹ My inference is that Plato's ideal was undoubtedly influenced by Spartan practice, but that probably he was not the first disciple of Socrates who looked to Sparta for some elements of his social ideal; probably he was following in the steps of Antisthenes.

2. So much for Plato's direct debt to the Cynics. Secondly, I should like to point out that Plato never frees himself entirely from the charm of that simplicity which, for thinkers of very different ages and nationalities, characterizes the golden age. The simple life of the guardians I have just mentioned, but the trait is by no means limited to this single point. It is a guiding principle in Plato's theory of education, both in music and in gymnastic training.² The athlete avoids Corinthian maids and Attic cakes, just as in music, in literary culture, he is to avoid instruments of many scales, complex rhythms, and the mimetic art. The dramatic artist who can play on every variety of mood is to be honored as a god and escorted out of the city. He belongs, it may be, at the court of Syracuse, and Plato had never forgotten the fickle favor of the tyrant who caused him to be sold as a slave. His teaching on this subject is summed up in the words: "In music variety breeds lack of self-control, in the matter of diet it breeds disease; so simplicity of music produces self-control in the soul, and simplicity of gymnastic training produces health in the body."³

Again, the city in which the relations of the classes transcends the simple harmony of the Platonic city is no longer a simple body. It must be "called by a grand name,"—it is several cities. So the simple city is the stronger, the better able to maintain its position, the more permanent. The thought of simplicity is so bound up with the very essence of the Republic that I need not say more of it.

It does, however, lead to a very interesting question, namely, as to the place of art in the Platonic state. That art is to be subservient to the state, we may infer at once from the singleness of

¹ Cf. Antisthenes, *Frag.* LI (W. 66); XVI (W. 53); XLVII (W. 65).

² *Pol.*, 404DE.

³ *Pol.*, 404E.

purpose which dominates the whole structure. Just as the individual is subordinated to the whole, and performs his functions in order that the state may have a healthy, vigorous life, just as all education is carried on with the same end in view, so art becomes for the philosopher a means, and not an end in itself. So far as the Cynics are concerned, their attitude toward plastic art, music, science, and literature is well known. Whatever did not directly tend to moral culture was discarded. The story that they scorned even the power to read and write is probably false. Diogenes is said to have wondered at the *littérateurs* who studied the character of Odysseus, and neglected their own faults; at the musicians who tuned their lyres, while their hearts were out of tune; at astronomers who studied the stars, and fell into a well. The Cynics wished to discredit all forms of culture which did not directly serve an ethical end.

This is not the occasion to examine in any detail the attitude of Plato toward poetry and art, but instead I should like to point out three principles which determine this attitude. (1) The principle of simplicity, which has just been mentioned. Enough has been said, I think, to indicate its great significance for Plato's theory of art, as well as its intimate connection with the primitive ideal of simplicity upheld by the Cynics. (2) The principle that like produces like, and is attractive to like. The youth of Plato's state are to be surrounded by beautiful things till even unconsciously the sense for beauty is developed in their souls. (3) The principle that all music and art which fails to serve the ethical end of making men's character better is to be banished. This is identical with the Cynic principle mentioned a moment ago, although its application differs somewhat. The Cynic rejected literature and art, poetry and science, because he did not see how they directly served an ethical end. To Plato's larger vision they did in great measure serve to cultivate character; to this extent, and not one whit further, Plato is ready to admit them into the state, and encourage them in it. Plato has frequently been criticised for his utilitarian attitude toward art. This attitude is the result of the influence first of Socrates, and then of that scholar of Socrates who gave clear and definite shape to this portion of his teaching, namely Antisthenes.

Plato has been criticised for continuing to use the verses of the poets, as though they were the inspired teachers which the multitude thought them to be, when in fact he would practically banish them from his ideal state. It is interesting to note that Antisthenes does very much the same thing. He goes much farther than Plato in his criticism of the mythological content, *e. g.*, of the Homeric poems, and poetry as an art he condemns both as unpractical and unsimple, but he is only too ready to support his positions by quotations from Homer. It is indeed no unheard-of thing today for anti-religious social reformers to justify their doctrines by appeals to the Bible.

3. Thirdly, I should like to point out to what an extent Plato keeps the Cynic phraseology, while at the same time he gives to the words a larger and deeper meaning. So in all his praise of simplicity, he does not mean the utter disregard for fashion and for culture which the Cynic ideal embodied. He fully appreciated the value of custom and even fashion as the practical foundation of ethics.¹ For Plato, simplicity was not the abstract Cynic ideal, but it had a much more genuine ethical content.

This use of a term with new and broader significance is most striking in the case of the Cynic watchword 'back to nature.' For the Cynic, nature had a negative quite as much as a positive significance. It meant negation of culture, and of all those external goods which a developed civilization had learned to prize; and it came to have positive meaning only as the Cynic saw that among animals these goods which he esteemed false were not prized. The goal which Antisthenes proposed was a human society remodeled according to the truth and simplicity of nature; and by nature he meant the life of the lower animals. Where the Sophists had taught that the first step in progress which men made was to combine for protection, Antisthenes held that this was the first downward step toward that degraded, debased form of life which was exemplified in the Athens of 400 B. C. This severe judgment of the civilization of his day was due partly to the sternness of his ethical ideal, partly to a distaste on his part for all those appearances of culture which, he saw,

¹ *Pol.*, 425B, etc.

were prized far above the reality. This contrast of the *seeming* and the *real* in human society, of the man or city which seemed to be great, strong, unified, just, with the one in which these qualities were really found, could hardly be emphasized more than it is in Plato's Republic. The greatness of the second Athenian empire had not those elements of real unity and soundness which would commend it to the philosopher. In Plato, then, we hear the echo, sometimes faint, sometimes clearer, of the Cynic protest against the rottenness of the civilization of that day. And in harmony with Antisthenes, Plato proposes a return to nature. The word *φύσις*, and compounds in which the same root appears, recur on almost every page of the middle books of the Republic. The ideal state is constructed 'according to nature' from its foundation up; in its *naturalness* is to be found its unity and strength, as well as its capacity to realize the ethical ideals of wisdom, discretion, and justice. No Cynic could have kept this ideal of life in accordance with nature more constantly in mind, if he had written a Republic, than did Plato himself. This antithesis between nature and law or custom did not of course originate with Antisthenes, but I cannot believe that it would have held the same controlling place in Plato's thought, had it not been the watchword of a school that was in a sense the rival of the Academy.

But in proposing nature as the standard by which human society is to be judged, Plato is far from that reverence for an animal type of life which characterized the Cynic ideal. The state of Antisthenes¹ is described as one in which "hare and lion have the same rights." Perhaps Plato is referring to this² when he describes a democracy as a "pleasant state, without ruler or simplicity, allotting equality to equal and unequal alike." *I. e.*, Plato criticises the Cynic ideal of a state based on nature, on the ground that it would exhibit the same political evils as a Greek democracy.

By a state 'according to nature,' Plato meant something very different from the Cynic idea. He begins by recognizing differ-

¹ Dümmler, *Antisthenica*, p. 6; cf. Diog. Laer., VI, 5 and 8.

² *Pol.*, 558C, cf. Aristotle, *Polit.*, III, 8, 1284 a 15.

ences of natural endowment in individuals, and goes on to describe a society in which each individual performs that function for which he is fitted by nature. Such a society would achieve the unity of an organism in which the whole was first, while each individual and each class fulfilled its part in the life of the whole; an organism working out its destiny under the same type of law as that which governed the world of animals and the world of things. It is clear at once, that by 'nature' Plato does not mean brute nature, and that the Cynic does mean brute nature. But in the larger, broader, at times more ideal view of Plato, we find the kernel of truth that lay in the Cynic conception, namely, that human society exists, and is to be studied as a part of the larger world of nature which includes animals, plants, and things.

As Plato worked out this conception of nature in its application to human society, the essence of it amounted to this: that each individual should perform such a function in the state as his particular nature fitted him to perform. The welfare or happiness of the individual was of no moment in comparison with the welfare of the state. Professor Gomperz,¹ treating of the Cynics without reference to Plato, suggests that we find traces in the opinions attributed to them of a subjection of the individual to the community, which is quite in line with the Platonic principle to which I have just referred. Heracles, whose worship was all-important at the gymnasium of the Cynosarges, was extolled by the Cynics as their ideal man, the concrete expression of their ethical views. Heracles was of course the toiler, the man who performed the labors which fell to his lot without shrinking, and with no thought of future pleasure or present pain. But Heracles, like Prometheus, was at the same time one of the Greek expressions of the semi-divine being who labors for the benefit of mankind. Like Hiawatha he slays the hydra, like Arthur who "dave the heathen, smote the beast and felled the forest," he cleanses the land of powers that prey on innocent men. His labors are not arbitrary, but for the good of one community and another. From this concrete ideal we may argue that a primary element of Cynic virtue was devotion to the good of the com-

¹ *Griechische Denker*, S. 136.

munity. In so far as the Austrian critic is correct, the Cynics anticipated in its ethical bearing, the fundamental thought of Plato's Republic.

I have spoken thus far of the main ethical principles of the Cynic system, and of their influence on Plato as it appears in the Republic. This influence is not limited to particular passages, but affects the texture of the whole work.

After such a general survey, I may be justified in referring to a passage in the Republic which stands somewhat by itself, in which one phase of the Cynic ideal comes out with great distinctness. At the beginning of the third book, Plato is arguing that the poets must not be allowed to picture the future life as something terrible, nor yet to represent the heroes of the epic as indulging in excessive laments for the dead. "The good man" we read¹ "does not consider it a dreadful thing for a good man to die, however close his friendship for him . . . nor would he lament the death of his friend as though the friend had suffered something dreadful. . . . We may go even farther and say that such a man is self-sufficient (*αὐτάρκης*) himself for himself, with reference to living the good life, and that he differs from other men in that he is the very last to stand in need of a companion. . . . He is the last, then, to think it a dreadful thing to be deprived of a son or a brother, or of property, or of anything else that he cares for. . . . Finally he would be the last to lament such a loss, but he would bear the calamity with great serenity."

Diogenes is reported to have said that Antisthenes had taught him what he could and what he could not call his own: "Property is not mine, relatives, members of the household, friends, honor, etc., all these are not really my own . . . but I am free and untrammelled so far as they are concerned." Antisthenes is reported to have answered the question as to what good had philosophy done him, by saying, that it had given him the ability to converse with himself, *τὸ δύνασθαι ἑαυτῷ ὁμιλεῖν*. To use the word of Plato and of the Stoics, he is *αὐτάρκης* so far as any human ties are concerned. In another passage in the Republic, Plato says that a man may be permitted to grieve for an only son, but

¹ *Pol.*, 387D.

in the present passage his language is almost word for word that which is attributed to the Cynics. As I have said, the passage is unique, and should not receive too much weight ; but after having pointed out the great influence which the Cynics exercised on Plato's general position, one need hardly hesitate to regard this passage as taken over from Cynic teachings.

In leaving the Cynics, Antisthenes and his school, it is perhaps fitting that I should attempt to state more accurately the character of their influence on Plato. There is no reason to believe that Plato was ever a pupil of Antisthenes. The two were pupils of Socrates, and much that is common in their thought might have come from this common source. The Cynic element in Plato's teaching, however, is not prominent in his earlier writings as it is prominent in the work of his prime. Further, it is plain that Antisthenes developed considerably the ethical teachings of Socrates. On the whole, Antisthenes did this quite in the spirit of Socrates, and Plato might naturally accept his results as the interpretation and natural development of Socrates's ethical teachings. To a certain extent, Plato may have borrowed from the Cynics with no other thought than that he was stating the teaching of Socrates. Still we must never forget that the Academy was in a sense the rival of the Cynicschool, which in all probability was founded before the Academy. The semi-foreign teacher with pupils from all grades in society had set an ascetic style for his followers. The Academy was supported by the rich and cultured in Athens ; it was attended by noble youth from all the Greek world ; rich men sent gifts from Syracuse—no doubt from other centers of Greek culture—to help carry it on. And with all Plato's sterner ideals the fashion of the Academy is said to have been exactly the opposite of that practiced by the Cynics. We read of the elegance of attire as well as of manner practiced by Plato's companions and students. Rivals and representatives of opposite tendencies as the two schools were, Plato could not have borrowed Cynic doctrine as such. What he borrowed directly from the Cynics, he took because it bore the stamp of his master Socrates. Other features of his system were common to him and to the Cynics, because they had become part of the philo-

sophic property of the time. That the Cynics had perhaps originated them, or given them form, was unimportant for Plato, for they had received general currency and were his for the asking. In these two ways we may account for the Cynic elements in the Republic: they are due partly to the fact that Plato regarded the Cynics as the exponents of the teachings of Socrates his master, partly to the fact that some of their views appealed to the philosophic spirit of the age and had found general acceptance.

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METHOD OF ÆSTHETICS: A NOTE.

ÆSTHETICS, as understood in this paper, is the investigation of the nature, laws, and ends of art, as a science of the universal idea of beauty. The history of thought specially in its more recent phases warrants this definition. The peculiarity of modern æsthetics, as compared with ancient, is the cultivation of closer relations with all the sciences. We see, as never before, that the beautiful in art is always the true in science.¹

The unfruitfulness of æsthetics in the past is a fact to which the student is attracted very early in his studies. Sully, among others, has called attention to this as perhaps the most characteristic fact about the subject, but Grosse has, it would seem, pointed to the real reason of this unfruitfulness when he says that it is "because the science of art still holds to a wrong method, and because it still limits itself to an insufficient material."² At any rate the history of opinion clearly shows that the real results have come since the time when the subject of method became of supreme importance, *i. e.*, practically since the time of Kant. In Fechner, and the advocates of psycho-physics, we see this tendency clearly portrayed. To a large extent, however, methodology is still the most pressing problem in the scientific investigation of the phenomena of art. It is certain that until we are agreed as to our methods, little that is scientific can be expected. Meanwhile, perhaps the best service that can be rendered not only to art but also to science is to discuss the question.

I wish to suggest a few thoughts on this subject in the present paper, looking towards a somewhat radical reform in the methods employed in the study of art. Without further introduction to, or justification of, this procedure, let me invite attention to two aspects of this question: (1) the claims of scientific method on æsthetics; (2) the influence of this method on the problems of æsthetics.

¹ Karl Pearson, *Grammar of Science*, 2d ed., pp. 30 ff.

² *Die Anfänge der Kunst*, ch. 1. (Eng. tr.)

I.

I assume in the first of these inquiries the possibility of a science of beauty. What I desire now to show is that in order to fully accomplish this worthy end, to be science in the proper sense of the word, æsthetics can and must assimilate the scientific method.

Method is the distinguishing feature of science when compared with ordinary knowledge or opinion. The knowledge of the plain man and that of the scientist is not different in material content; both have the same universe to study, and the same data to explain. In this sense, therefore, it is true as Clifford says: "There are no scientific subjects—the subject of science is the (common) human universe; that is to say, everything that is, or has been, or may be related to man."¹

What, then, we may inquire first of all, is true scientific method? This question faces us, and it must be answered, at any rate briefly, before we urge the claims of this method in its application to the study of art.

Scientific method aims at three things:

- (1) Classification.
- (2) Discovery of laws.
- (3) Criticism.

And the greatest of these is criticism.

Now all science is bound together by the unity of this three-fold purpose. By this I do not mean to imply that it is not possible to increase the *ways* of *applying* this method. For there is a great variety of these, which claim the title of being exclusively scientific, but which are rather determinations of standpoint than independent methods. Such a division as that into the logical, psychological, and metaphysical, is a case in point. Here we have no clear recognition of the common purposes that animate every branch of scientific investigation, but rather a series of points of view, from which various classes of phenomena may be scientifically studied. It is true, of course, that science and logic, for example, are related; but logic is not science, and the methods of

¹*Essays*, 2d series, "Aims and Instruments of Scientific Thought."

science are not the methods of logic, as the latter science is at present understood. Indeed, it is highly doubtful in the writer's mind at least, if the question of method properly falls within the domain of logic at all. It is the function of logic not to determine the methods of science, but to tell us if they agree with the laws of thought. Logic is a science of *thought*, not of fact. Psychology is a science so far as it follows a scientific method; and it is the function of psychology to set the psychic facts in scientific order, and not, as is too often done, to invent that order. Metaphysics may be a science; if so, its true function will be to set forth the conclusions of science as a harmony of spiritual concepts under a universal synthetic ideal.

The same general criticism needs to be made of another series of so-called scientific methods, which are not so much methods as determinations of standpoints. Such 'methods' as the so-called genetic method, the nature method, the historical, anthropological or ethnological method, the sociological method, and so forth, are not properly scientific methods. What makes them scientific is that they partake of the three comprehensive aims of science already mentioned. What unity science enjoys is due to the common method pursued in *all* its branches.

Now the claim of the scientific method to the whole realm of human knowledge, actual and possible, rests on two considerations which I shall immediately apply to the phenomena of art. In the first place, the scientific method claims to be the only complete method of studying the universe, and therefore of any part of it. For example, the first business of this method is classification; the facts of any particular domain of investigation, say the phenomena of art, must be first of all set in order, so that they may be accurately envisaged. What this statement involves as regards the true determination of any scientific fact cannot be fully set forth here; but meanwhile it may be observed that, inasmuch as facts are the data of all true science, this labor of classification stands in the forefront of æsthetic problems. Next to this aim of the scientific method, comes the discovery of laws in the sequence and relationship of the classified phenomena. For *mere* facts do not constitute sci-

ence ; to description must be added explanation, and explanation is, in the ultimate analysis, the causal interpretation of phenomena under the principle of sufficient reason. Scientific laws are the best explanations the human mind can give of the mode of behavior of observed sequences. In this sense there are laws of art, or explanations and interpretations of the facts of art under the principle of sufficient reason. But, the third aim of the scientific method is the most important of all, viz., criticism ; for thereby the knowledge of science becomes free from error and 'knowledge for all.' If the first two aims concern the *tasks* of pure science, as such, the third is, so to speak, the *life* of pure science, and therefore inseparable from it. When these three objects, classification, discovery of laws, criticism, have been carried out in relation to any facts of the universe, we have a complete study of the same.

But this statement involves the second consideration to which reference was made ; for if one method rules throughout the whole domain of scientific knowledge, it follows that no class of facts can be isolated from its influence. Therefore, by the operation of this method, æsthetics is necessarily brought into connection with all science. This I regard as the most important modification introduced by science into æsthetics ; by it the facts are unified and rendered available both for theory and practice.

In the light of these considerations we may conclude that if there be a science of beauty, it is because there is a scientific *method* of treating the phenomena presented in æsthetic experience and the history of art. For it is this method alone that renders it possible to classify the facts of experience, to deduce laws therefrom, and to criticise the results.

II.

In turning now to the second aspect of this question, we come to the influence of scientific method on the *problems* of æsthetic science, presuming now that such a science exists. The clue to this important matter is contained in what has just been argued,

that true scientific method, when applied to the science of æsthetics, brings this science into connection with all true science. For the æsthetic judgment is not essentially different from the scientific judgment as such. Professor Tyndall,¹ as Hume long before him, taught us to connect the imagination with both forms of the noëtic faculty. Karl Pearson, indeed, goes so far as to say that science owes more to the training of the imagination, simply as an instrument of discovery, than to any other psychical activity, the laws of science being regarded (by him) as products of the creative imagination. Without going as far as this, we are certainly warranted by conservative opinion in concluding that the scientific interpretation of the universe is the only one which can permanently satisfy the æsthetic judgment.

If it is claimed that this destroys the sentimental beauty and poetry of life, it is safe to reply that science is no enemy to true sentiment; what is false and meaningless it is the common business of both art and science to abolish; for the false and meaningless can never be permanently beautiful. "There is more real beauty in what science has to tell us of the chemistry of the distant star, or in the life-history of a protozoan, than in any cosmogony produced by the creative imagination of a pre-scientific age."²

Taking up the first group of problems, the empirical, and recalling that the three-fold aim of the scientific method is to classify, explain, and criticise, we may see at once what is the first of these empirical problems of æsthetics. It is that of classifying, explaining, and criticising the phenomena presented in art life, and, through the scientific method, that of bringing all science to the service of this object. Take an illustration as the analysis of any æsthetic fact, say the awareness of a rhythmical foundation in art work, which involves the consideration of the various ways of discriminating this fact from other facts and their classes. Abstraction comes first.

But again, this fact, when clearly discriminated, is seen in this way to stand in some organic concrete connection with all the

¹ *Fragments of Science*, Vol. II, pp. 101 ff.

² *Grammar of Science*, p. 36.

facts of the universe capable of clear perception. Therefore, the student of æsthetic rhythm is obliged, as Fechner, Helmholtz, Stumpf, Mach, and others have shown, to consult physics for a complete account of the judgment that certain rhythms in music, poetry, architecture, and natural objects, afford pleasure and suggest to the mind the presence of an absolute ideal in beauty. Sensations of rhythm are, in short, the first great classification of æsthetic facts that the application of the scientific method to art affords.

But this is not all. Further analysis reveals the presence of organic data not exactly falling under the known laws of matter and motion. The phenomena of growth, implicated in all living things, in their processes—these phenomena are all illustrated in the æsthetic life. Play, impulse, instinct, imitation, and related facts are, as all science now acknowledges, facts resting on organic changes subject to geographical, climatic, and other influences. Sensations of rhythm are facts in space and time, and under the form of feelings of pleasure take hold of all these organic sciences. In other words, æsthetic evolution displays throughout what Mr. Marshall calls the activity of the algedonic principle. The roots of this principle are in the physics of rhythm; but its complete consideration involves the study of the natural history of pleasure.

And this is not so easy a task as many students of æsthetics have supposed. It involves considerations ranging all the way from natural and sexual selection up to the highest development of mental action in the sublime and the beautiful, in short all the organic sciences, physics, and biology. But out of this herculean labor (some of which has already been done), we shall get a new classification of the æsthetic facts, which will place at the disposal of the imagination, in both science and art, a vast field of true æsthetic pleasure otherwise lost in vagueness and falsehood. If, too, for obvious reasons, we must rely chiefly in this work on those branches of biology which deal with the psychic root, biopsychics and psycho-physics, this must not be understood to mean that all related sciences are not of service to it. Classification is a task which belongs to every branch of science, and each part throws light on every other.

The same general line of remark applies to the second great aim of the scientific method as applied to æsthetics, viz., explanation under the concept of law. The precise determination of æsthetic law, like the same object in physics and biology, depends on the analysis and classification of the data under investigation. Classification leads to law under the relating activity of the mind. If æsthetics be a normative science, as I believe, the norms or laws of beauty can be made out; in fact such a science of norms already exists in a crude state in the laws of rhythm, pleasure, and taste. Here, as in all branches of science, the object must be to discover the real relations and sequences of the phenomena.

The same is true of the third main division of our science, the philosophical. The object of philosophical æsthetics is to clear the data and laws of æsthetic science from false or erroneous material, and to unify the valid concepts into a single system of correlated ideas. But the *method* of this work must still be that of science; criticism must rest on classification and inspire it; it must lead to the discovery of laws: constant correction is the *conditio sine qua non* of clearer synthesis in every branch of philosophical investigation. This limitation the philosophical student shares equally with the student of empiric science. The science of æsthetics is not complete without the effort to state clearly what that science teaches of an *ultimate* nature. The only difference here, in comparison with the other and more primary branches of the science, is that the critical spirit prevails above the practical. But the method is still the same.

Surely the time prophesied by Wordsworth has well nigh come: "If (he said) the time should ever come when what is now called science . . . shall be ready to put on, as it were, a form of flesh and blood, the poet will lend his divine spirit to aid the transfiguration, and will welcome the being thus produced as a valued and genuine inmate of the household of man. The remotest discoveries of the chemist, the botanist, or the mineralogist will be as proper objects of the poet's art as any upon which it can be employed. If the labors of men of science should create any material revolution, direct or indirect, in our condition, and in the impressions which we habitually receive, the poet will sleep

then no more than at present, but he will be ready to follow the steps of the man of science, not only in those general indirect effects, but he will be at his side carrying sensation into the midst of the objects of science itself."¹

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¹ Observations prefixed to the *Lyrical Ballads*. Since the above note was written a vigorous attempt to treat art in a scientific manner comes from Sweden in Yrjö Hirn's *The Origins of Art*. Still it is not guided by any very clear *method*.

THE SOURCE AND ÆSTHETIC VALUE OF PERMANENCY IN ART AND LITERATURE.

MODERN man has a prejudice against himself. Nowhere does he assert this prejudice so much as in æsthetic theory and criticism. Ask him by what test he determines the greatness of art and literature. He will answer: 'By the test of time; by the power of art and literature to yield perennial charm. Do not the Hebrew prophets and poets endure? Do not Homer, Dante, and Shakespeare endure? Do not Raphael, Michelangelo, and Beethoven endure? Great art is immortal.' Ask him now from what source great art and literature derive their perennial charm. He will answer: 'Not from the native and unaided faculties of the human soul; these are the source of the trivial and the fleeting. The perdurable in art and literature is, literally, *extra-human*. It is not in obedience to mere literary conventions that, for example, the Hebrew prophets proclaim their utterances to be the word of the Lord, and themselves but the mouth-pieces of the God of Israel; or that again Homer and Milton invoke the aid of the gods and Muses in the accomplishing of their poetic tasks. Inspiration, as it is called, is real and vital. Human nature in itself, uninspired from without, is unequal to the task of creating the permanently satisfying in art and literature. Enduring art is impersonal.'

Man's prejudice against himself will have it so. Great art is immortal, permanently fresh, and satisfying to a thousand generations; and the permanently fresh and satisfying in art and literature is *extra-human*, impersonal. One may readily attempt to remove this prejudice. One may appeal, confidently, no doubt, to philosophy, to poetry, to nature herself. Nothing in art or life is good or super-excellent, one may say, except in so far as it is valued or loved: nothing in art or life is trivial or fleeting, except in so far as it is appreciated slightly, or divorced absolutely from human interests: nothing in art or life endures, except in so far as it satisfies the permanent or vital functions of human

nature. Or, one may say, a moment of conscious sentient existence, if only a moment, is sufficient unto itself, and of imperishable value. But if philosophy gain no advantage, one may appeal to art or literature itself—to poetry :

“ Because the rose must fade
Shall I not love the rose ?
Because the summer shade
Passes when winter blows,
Shall I not rest me there
In the cool air ? ”

Are not philosophy and poetry convincing enough ! Then must one appeal last of all to the ever fresh sense of the beauty of the new born day. The beauty of the morning comes as no other comes—immediately, directly, as a ‘gift’ of the air, and the woods, and the sea, and the hills, and the sky : earth-born indeed, but free, pervasive, joyous, imperishable !

To be fresh and satisfying to a thousand generations—is that the test of the super-excellent in art and literature ? There seems to be no doubt about it ; both creator and critic submit that really great art and literature yield perennial charm. Grant that it is so, and that, despite man’s prejudice against himself, the greatness of art and literature is wholly human ; still creator and critic insist upon differing as to the source and æsthetic value of the art and literature which possess perennial charm. The qualities of art and literature, they submit, are only as enduring as their sources. The formalist, on the one hand, insists that the formal qualities of art and literature are their essential and permanent qualities. Appreciation of these qualities is indeed difficult ; yet the beauties they yield have their source in the perdurable faculties of human nature—in the faculties which, as Kant would say, give ‘form’—space and time relations—to objects in nature or in art. The technician, on the other hand, exalts in art and literature, those qualities which afford delight by way of skill in invention or dexterity in workmanship. As long as man is man he can never lose his interest in the charm of ideal, even if sometimes mechanical, treatment of theme. The delight in that must be perennial. The impressionist in turn submits that man’s interest in what yields vivid or choice sensation shall never fail ;

delight in delicacy, or splendor, or harmony of color and of tone, in visions of fair women and brave men, in 'spectacles,' as Plato would say, of pomp and circumstance and power, is perdurable as the senses and imagination are perdurable. Finally, the expressionist for his part insists that what men shall never cease to care for in art and literature is—to use Arnold's formula for the source of the enduring quality of Homer's poetry—the profound and beautiful application of ideas to life, or, to put it in the language of the criticism of painting, the ideal treatment of noble themes. Noble themes, what are they? What, the expressionist, replies, but happy scenes of domestic life, great events in history, and the exalting thoughts and emotions that give life its consecration and its light! As these, in virtue of their absolute worth in the conduct of life, are everlasting in charm and interest; so the art and literature which embody them must remain permanently fresh and satisfying.

How plausible now to submit that if the greatness of art and literature be wholly human, the art and literature which possess in equal degree all possible æsthetic qualities, artistic, technical, sensuous, and moral, shall be immortal! Yet it would not be so. Art may possess in perfection all æsthetic qualities, and, nevertheless, fail to win us forever. The noblest Greek sculpture, for example, cloy by its very perfection. Not by possessing in supreme degree any single æsthetic quality or qualities do art and literature remain permanently fresh and satisfying. It is natural, no doubt, to suppose that the higher or the nobler the creative faculty or source of given æsthetic qualities, the greater and more enduring must be the art which possesses these given qualities. It is not so. Perfection in art has nothing to do with permanency, and permanency nothing to do with masterful execution in workmanship, with lofty inspiration with depth of conception, or with exalting emotion. Art and literature possess perennial charm only when their strictly æsthetic qualities, formal, technical, sensuous, and moral, sustain a peculiar relation to the vital functions of our being. There is not in this, as on first view it may seem, a subtle or ingenious doctrine of Naturalism. Æsthetic theory and criticism never will be sane and responsible until judg-

ments upon the truth and worth of art and literature are, as in morals, based upon knowledge of the nature and functions of human personality *in its integrity*. From the point of view of the whole man, the vital functions of human nature are, certainly, somewhat physical; they are, however, as characteristically spiritual. To put the matter once again, as before: *Art and literature possess perennial charm only when their strictly æsthetic qualities sustain a peculiar relation to the vital functions of our being.* But how so?

Realize adequately that what is nearest to us, that what is permanently with us, is the sense of the material and spiritual reality of things (of the earth, the sea, the sky, and of our own bodies, our own souls), or, as they say in the criticism of painting, the sense of form and movement. The art which conveys directly — ‘presents,’ not ‘represents’ — form and movement shall have a permanently fresh value. I do not say that it shall be the most winning art, or the most deeply satisfying to this or that individual, to this or that age; but that it shall have permanently fresh value. For art and literature aim at the ideal enhancement of life for its own sake. This they secure by way of three modes of æsthetic appreciation. There is the mode of appreciation which cares for nothing in a work of art except formal and technical beauties—for ideal treatment of the theme. The vulgar, Mr. Whistler tells us, cannot attain to it. There is, again, the mode of appreciation which cares for nothing in a work of art except the ‘ideas,’ or noble themes and attractive ideals it embodies. The great number of the highly cultivated, despite their culture, Mr. Berenson tells us, never care for the essential in art as art, but only for depth of conception and attractiveness of ideal—for the noble and beautiful application of ideas to life. It is only to this mode of æsthetic appreciation that the dictum, *De gustibus non est disputandum*, can apply; to the mode which exalts in art the preference for what is worth while in life. Such a mode of appreciation in different ages, and amongst different peoples, necessarily is forever changing its standard. The first mode, however, based as it is on primordial sensational impressions, and on the perception of relations amongst sensible elements, is relatively permanent; and to those who have capacity for the

appreciation of formal values in art, is always pleasing. There is, finally, a mode of æsthetic appreciation which may function either independently of the other two modes, or in conjunction with them. It is a mode which cares for everything in a work of art, whether formal or expressive, that by immediate presentation conveys to our faculties the material and spiritual reality of things. A work of art, a statue, or a novel, may be artistically winning or ravishing, or morally uplifting, but unless it is also directly life-enhancing, as music, for example, is immediately life-enhancing, its charm shall cease the moment its 'beauty' has been felt or its 'ideas' comprehended. These modes of æsthetic appreciation may be called, for purposes of treatment or identification, respectively the artistic, the moral, and the vitalistic. To escape abstractness in exposition, nothing can be better than simple illustration of the artistic, the moral, and the vitalistic modes of æsthetic appreciation, from sculpture, painting, music, and literature.

Standing before Myron's statue of the 'Discobolos,' one may take the æsthetic attitude either of the formalist or of the moralist; one may look in this statue either for a direct presentation of the structural (formal) beauty of the human body, or for some representation of the dignity (moral idea) of the human body as 'the temple of the soul.' As a formalist, one cares for the intrinsic beauty of grace of line in the poise of head and trunk and limb, or for the exquisite modeling which brings to the eye all the beauties of tone and texture, or for dexterous display of art in the treatment of theme. All these, however, the moralist will tell one are not final goods. One must care for the idea which these do but body forth, the idea of the dignity of the human body, or of the glory of manhood in its day of strength and vigor. The appeal in this case is not to the sensibility but to the moral imagination: the preference in this case is not for what is intrinsically beautiful, but for what is extrinsic to the work of art itself, for what is valuable to the heart, or good in the conduct of life. But the vitalistic mode of appreciation gives one in this case an immediate realization of the material and spiritual significance of the human body—the utmost sense in one's own body and soul, of form

and movement. A Greek youth is preparing, *as we actually feel in our own bodies*, to throw to the farthest distance a quoit. In a moment one is in his place, *actually realizing in sensation, organic, muscular, and peripheral*, his attitude, the tension of his whole being. One has an immediate sense of an increase of impulse, capacity, faculty of the will, to cope with life and things; one has an outflow of vital spirits. It is a moment directly life-communicating. If one feels at all according to the vitalistic mode in the presence of this statue, one feels in one's own body and person, immediately, inwardly—not reflectively—"our manhood's prime vigor." If Myron's 'Discobolos' ever fail us, it will not do so because it has lost its formal and expressive beauties, but because our own vital function—the inward sense of life itself—has failed. If that never fail us, the 'Discobolos' may lose its artistic and moral values, but it shall still remain permanently fresh and satisfying on the ten-thousandth look.

Again: The essential in painting as an art is not the intrinsic beauty of splendor, or of harmony of color, or of ideality in the manner of composition, but, as in sculpture, the direct communicating of the reality of form and movement. We must be sure of our problem. We are not concerned with what an individual or an age will prefer or love most in a painting, but with what shall remain permanently fresh and satisfying to all individuals and ages. This again is the vitalistic or tonic value in a painting. I take an extreme case. Botticelli will disappoint one immensely if one looks in his work for charming harmonies of color, for delicacy of feeling, for depth of conception, or for ideal types of humanity. He is not a formalist; he is not an expressionist. He is, however, a master in pure presentation of form by way of masses that convey the sense of resistance and of life, and of movement by way of lineal decoration. Realize how supremely, for example, his 'Birth of Venus' arouses one's vital functions to the keenest activity. The tossing of the goddess's tresses conveys to one directly, possibly by line only, the sense of body and of life; the fluttering of the draperies and the dancing of the waves cause in one's own body and soul the very sense of an outflow of vital spirits. It all comes to one as a gift from

the work of art itself ; so supreme is it in the immediate presentation of form and movement. In this connection, I am anxious to add just a word about Michelangelo. He has done in painting what the Greeks did so masterfully in sculpture ; he has given us the direct presentation of the life-enhancing values of form and movement in the nude. That old ideal of the highest moral energy in action or in repose (*mens pulchra in corpore pulchro*) is fulfilled in Michelangelo's frescoes in the Sistine Chapel. Where else indeed shall we realize—directly as we realize the invigorating breath of the salt sea and the serene beauty of the blue sky—where else shall we realize the energy of men and gods, the material and spiritual significance of the finite and the infinite ! Much in Michelangelo may fail to win us, much more in Botticelli will repel us ; and though Duccio, Perugino, and Raphael ever seem to be beloved, and though Giorgione, Titian, and Tintoretto ever charm the senses, yet so long as we do not become dehumanized, or lose our inward sense of material presence and of personality, we shall not only receive more from Michelangelo and Botticelli than from the Florentine and Venetians, but also return a thousand times to the former with the same joy. The delights they yield us are perennial.¹

Once more : the source of the permanently fresh and satisfying quality of music and literature is not their formal and technical beauties, but their power to stimulate directly the sensibility with concords of sweet sounds, and with fair images, or through thought and feeling to stimulate ideated sensations of form and movement. Life, as we say, is itself so much the nature of music that it is directly life-communicating, life-enhancing. This fact is too obvious to need further elaboration. But what shall we say of literature ? In what instance has it supreme vitalistic values as distinguished from simple artistic and from moral values ? Certainly not in the drama ; certainly not in the novel ; certainly not in reflective or in romantic poetry. Where then ? Only, as I conceive it, in lyric poetry—in the poetry, for instance, of

¹ A convincing putting of this mode of criticism may be found in Van Dyke's *Art for Art's Sake*, Chap. VI, and in Berenson's *Florentine Painters of the Renaissance*, from both of which, in the matter of painting, I have borrowed much.

Burns, of Shelly, or of Browning. I do not say that vitalistic values are not present in the other species of literature. I do say, however, that in the drama, the novel, in reflective and romantic poetry, vitalistic values do not exist in a supreme degree ; whereas in lyric poetry of the highest order they do thus exist. As far as Shakespeare's drama, for example, is valued for its 'ethos,' as far as his embodiment of conscience and his representation of an inexorable order are concerned, it is conceivable that the art of Shakespeare may fail. When our preferences in art are identical with our preferences in the conduct of life, the drama as embodying only these will fail the moment our ideals or intellectual interests change. For the same reason the novel of whatever kind may fail ; so too, reflective and romantic poetry. But lyric poetry, if true to its genius, shall never fail. For in its supremest moments, it is the Genius of Song affirming the good and joy of life. What is the real secret, for example, of Browning's 'power' in his Dramatic Lyrics, as compared with the more 'æsthetic charm' and 'sensuous beauty' of Tennyson's poetry—what, indeed, but the fact that, despite crabbed verse and moral ideas, Browning 'lilts' us into a lust of life, and into the sense of our infinite capacity for affirming life and coping with its demands? Men and women in all ages shall return to Browning, not because, as is said, he is "the subtlest assertor of the soul in song," nor because his ideals have high moral worth and warrant—not because he is "a great religious and philosophical teacher," but because he is a pure fount of inspiration to those who love life and who in the very storm and stress of life would love it more abundantly. The vitalistic values in poetry have in his Dramatic Lyrics their supremest realization.

It is not the business of the critic of the fine arts to supply him who would create with rules and recipes, or with methods of inspiration. It is the critic's business rather to discover all the excellences of art and literature, to reveal the sources of these excellences, and thus to save men and women in his own generation from the so vulgar sin of spiritual pride in their own work and joys,

by welcoming every work of art that is genuinely human and in its degree lovely or exalting. Excellent and necessary, then, as they are in a work of art, formal, technical, sensuous, and moral values in themselves cannot secure for art and literature the qualities of perennial charm. Only the masterful presentation of vitalistic values, by its causing us in our own bodies and souls to realize much more vividly and directly than does reality itself the material and spiritual significance of men and things, can render art fresh and satisfying to succeeding ages. Men and women of to-day are anxiously seeking for the secret of such supreme creative functioning, as if art were a lost craft and by diligent searching might be recovered. If art absolute indeed is lost, nothing that men may do can avail. They must wait for the bird of life again to begin his early morning song.

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METHODOLOGY AND TRUTH.¹

IN the history of thought, sceptical doubts regarding the objective validity of ideas made their appearance almost as soon as the distinction between the mind and external things had been clearly perceived. Since that time, the relativity of knowledge has been pretty constantly proclaimed; but the peculiar form which this doctrine takes in modern times seems to rest more or less directly upon Kant's view that knowledge is a construction of the mind. Inasmuch as the mind works over the matter immediately given to it, introducing order and system into what would otherwise be without form and void, it seems possible to ask how far this construction corresponds in any way to reality, or indeed whether any reality beyond the construction itself actually exists.

Whether or not we accept the theory that experience as a whole is a mental construction, no one can doubt that scientific knowledge is dependent in an especial sense upon the constructive activity of the mind. Whether or not we agree that 'the understanding makes nature,' we will all admit that the understanding makes science. For in the sciences we consciously and more or less deliberately decide regarding the conceptions, or ways of judging about things, which we shall adopt. We make the methodological assumptions which appear best fitted to enable us to proceed, and create the hypotheses which seem best suited to the work of systematizing the body of facts with which we propose to deal. Then, too, the choice of a starting-point and the subsequent direction of the inquiry, which influence at least the form of a science very greatly, introduce other elements of a subjective or methodological character. We are able to appreciate to some extent the amount and character of this constructive work, when we begin the study of any science or group of sciences which is entirely new to us. It takes us several weeks or months to gain the necessary point of view, to get the concep-

¹ Paper read before the New Haven meeting of the American Psychological Association, December, 1899.

tions defined, and to become accustomed to their exact employment in making judgments.

When we become conscious of these and other special limiting conditions attaching to the scientific form of knowing, it is not strange that questions should arise as to what value we ought to attach to the conclusions of science as an account of the nature of the real world. What value, that is, have these conclusions for philosophy, and what attitude should philosophers adopt towards them? When students of the physical sciences are questioned about the relation which they conceive to exist between the propositions which form their science, and the nature of reality, the result is usually unsatisfactory. They have either never thought about the subject, or are afraid that there is some metaphysical puzzle lurking about the term 'reality.' And so most frequently we are told that their science professes to deal only with certain facts of experience; its conceptions and hypotheses serve to describe and render coherent these facts. Further than that the science does not go: what matter is, or what ultimate reality is, lies entirely beyond the ken of their science.

Now if we abandon, as I think we must, all hope of having our difficulty solved by a direct appeal to the representatives of the special sciences, and attempt to find an answer for this question ourselves, there seems to be three possible positions which we may assume. We may, in the first place, accept without question the account which science gives of nature and of man, as the last word which can be spoken on these subjects. Or, secondly, we may point to the methodological nature of scientific knowledge, and, emphasizing this aspect, refuse to admit that science has any validity or significance whatsoever as an account of what really exists. Or, thirdly, it is possible to take a middle ground, and without either accepting the scientific account as final, or ignoring entirely its results, to maintain that it is in some way significant as an account of reality, though its real importance may be very different from that which at first sight seems to attach to it.

The first point of view, when consistently carried out, abolishes philosophy altogether, and gives us 'naturalism' and 'psychologism,' instead of a philosophy of nature and a philosophy of mind.

Although the contention that scientific results are significant for philosophy rests on a sound basis, as I hope to show later, yet 'naturalism' and 'psychologism' are so thoroughly uncritical, and so obviously ignore the special conditions under which the sciences work, that I may assume that they require no extended refutation. In our day, Mr. Spencer (in spite of his doctrine of the 'unknowable,' which really has a very loose connection with his 'synthetic' philosophy) is perhaps the best representative of this mode of thought; and his shortcomings have been so often pointed out that it would be a work of supererogation to refer to them again before a professional audience. At the present day, there is perhaps very little danger of any other writer explicitly maintaining as a general thesis the position which I have indicated. It is more likely, I fear, to be adopted unconsciously with regard to some special fact or group of facts which seems to support a favorite theory. It is not uncommon, even at the present day, for philosophers to be guilty of uncritically adopting what they term 'scientific results,' or 'scientific principles,' from this or that field of special investigation, without any examination of the assumptions and postulates of the department from which they have been taken, or of the new meaning which these facts or principles acquire when transferred to another field. Examples of this mode of procedure are not hard to find. In more than one recent work, we have a denial of the existence of any permanent self or ego based upon the psychological analysis of consciousness into a series of conscious processes. Many ethical writers of the present day, in their zeal to be 'scientific,' seem especially open to this temptation. For example, the uncritical transference of the biological principle of the 'survival of the fittest' into the domain of conduct, has perhaps done more to obscure than to illuminate a field where conscious emotion and intelligent will are the most important terms. Again, it is not uncommon to find writers on ethics assuming that the whole question regarding the relation of motive to desire and to choice, is once for all settled by the psychological doctrine of the affective life, as consisting in pleasantness and unpleasantness.¹ This whole mode of

¹ Cf. Professor Everett's article in this REVIEW on "The Evaluation of Life." Vol. VII (1898), pp. 382 ff.

procedure clearly ignores the essential difference between the standpoint which psychology necessarily adopts in viewing the mind as composed of conscious processes, and that which is essential for ethics in attempting to comprehend the life of moral judgments and evaluations.

To deny completely the significance of the construction of facts furnished by science, as the second view which I have enumerated does, may at first sight appear more reasonable. Moreover, this procedure has practical advantages ; for by separating science and philosophy, and adopting the doctrine of the twofold nature of truth, one is able to arrive at a settlement of long-standing controversies. Now, if this dualistic position is adopted, we have to maintain that ultimate reality with which we contrast our scientific knowledge is either (*a*) something lying beyond experience and forever unknowable ; or (*b*) an immediate subjective experience totally different in kind from the objective experience with which scientific thought deals. The first view, that of Kant, still survives in some quarters ; but it is especially the second form of this doctrine which has found defenders at the present day. According to this theory, there is complete difference in kind between experience as we *live* it, and the thoughts and theories which we have about it. The former alone possesses the warm breath of life and reality ; the latter is nothing but a cold logical construction, whose only test of truth is self-consistency and coherence. Along with this distinction, we usually find it more or less explicitly maintained that the *true* reality can only be known by getting rid of the constructions and 'introjections' of thought, and harking back to immediate acts of will, or to some other form of *reine Erfahrung*.

Now—if I may be dogmatic for the sake of being brief—this theory seems to me mistaken both in what it affirms and in what it denies. For there is no such thing as an immediate experience, or a willing experience—at least that is known to human beings—which is not also a cognitive experience ; and no cognitive experience without thoughts. The 'given' element cannot be separated from the contribution of thought, but is continuous with it ; just as the present cannot be separated from the past or the past

from the future. An experience that is 'pure' in the sense of *reine Erfahrung*, something free from all introjections of thought, is not only practically, but logically an impossible ideal; for it contradicts itself by demanding that the mind shall know without using its own powers of cognition. The same difficulty confronts us, I think, if we make the reality of the immediate experience consist in will-acts instead of in feeling. It is only by running counter to experience that we can separate will from knowledge, or speak of a life which wills and realizes purposes, while knowledge remains to it something external and secondary.

But if it is impossible to discover a real experience outside of, or beyond thought—if there is no immediacy which has not been already mediated—we may ask whether thinking ever goes on in separation from reality. In particular, we have to inquire whether it is a possible view of thought which represents scientific judgments as purely conceptual or hypothetical constructions, which are entirely without validity or significance from the point of view of ultimate truth.

When we consider any body of scientific truth, we are compelled, I think, to say that it professes to describe some aspect of the real world. It will probably contain some conceptions or hypotheses whose main function is very evidently regulative or methodological. But it seems impossible to take this view of any complete science, and still more obviously impossible, of science as a whole. However, it will be granted that if any science may properly be considered to be purely hypothetical it is mathematics. For mathematical judgments do not appear to deal directly with sensible realities, nor with any other form of individual existence, but seem to be concerned with conceptions of number and space, whose reality is only ideal. Judgments about the properties of a triangle, or the relations of x and y , do not appear to refer to any concrete existence. It may seem, therefore, that their meaning is purely hypothetical, and that their true significance is merely, that *if* we assume certain conceptions to start with, *then* certain results necessarily follow. It is no doubt true that there is a certain sense in which not only mathematical judgments, but all universal judgments whatsoever are hypothetical. It is none the less true, however, that

even in mathematical judgments the categorical element never entirely disappears, though it is undoubtedly somewhat indirect. By this latter statement, I mean that the subject of the proposition does not correspond with the real subject of judgment (as indeed is perhaps rarely or never the case with any universal judgment). In making judgments about the properties of the triangle or the ellipse, what we assume is not the reality of the particular figure, but perhaps the reality of space ; or, at any rate, we may say that the truths of mathematics, like the truths of ethics, are in some way incorporate in the world. Again, it should be remembered that mathematical conceptions are neither *à priori* ideas, nor merely arbitrary conceptions ; but that they have been suggested by the observation of actually existing objects. The procedure of mathematical science, too, is not purely deductive and conceptual, but as Kant pointed out, it has frequently to appeal to perception in order to advance at all. Even the imaginary geometry of non-euclidean space, though on an entirely different plane from ordinary geometry, is, I suppose, only rendered possible by construction in analogy with what is already known of the tridimensional space of our experience.

If, then, mathematics is never *merely* hypothetical, but always deals more or less directly with the nature of reality, *a fortiori* this is also true of the other sciences. It can be shown, I think, that the reference to reality becomes more obvious and direct, as we pass from mathematics and physics to sciences like chemistry and biology. It may be difficult to state precisely what there is in reality which corresponds to the conception of physical atoms, or to that of masses. But it cannot be doubted that the judgments in which these and similar conceptions are employed, do refer to some characteristic in the nature of the real world. Although these conceptions are methodological, they are likewise functions of thought, and, like all thinking, aim at grasping the nature of a reality beyond themselves. We may say that it is only possible for them to be methodological—to systematize and extend our ideas—because they are at the same time constitutive in some degree of a reality beyond our ideas. When we assert that an hypothesis is true because it works, or that an assumption justifies

itself by enabling us to systematize our experience, or to predict what is going to happen, we are not proposing a purely subjective test of truth.

It is often assumed, indeed, that there are two quite distinct criteria of truth: first, the subjective criterion of consistency of ideas; and secondly, the objective, though perhaps unattainable, standard of correspondence with reality. In maintaining that these criteria cannot be separated, I may appear to be adopting the discredited assumption of the pre-Kantian rationalists—that the order and connection of ideas correspond to the order and connection of things. The weakness which caused the downfall of rationalism did not, however, consist in the doctrine that thinking is able to transcend its purely subjective existence and come into connection with reality, but in its wholly *uncritical* character. It failed, that is, to furnish an adequate analysis of the nature of knowledge, and so had no standard for evaluating ideas except that of their clearness and distinctness, and no principle of procedure except the law of identity. The Kantian Criticism supplied, to some extent at least, what was lacking; but in doing so it lost, or almost lost, the connection between thought and reality which had characterized the dogmatic theories. Of course, it is true that this connection was held on a very precarious tenure by the rationalists, and was thoroughly inadequate in its dogmatic form. It seems to me, however, that although a breath of criticism suffices to overthrow the naïve dogmatic faith, that an analysis of the nature of knowledge which is free from Kant's unfortunate presuppositions, allows us to see the essential element of truth which it contained. Indeed, it is true universally, I think, that a one-sided view regarding the relation of knowledge and reality is always the result of an imperfect analysis of the nature of intelligence.

This statement may obtain confirmation, if we consider the theory of knowledge which underlies the methodological view of science as it is held by Karl Pearson, and by others of the same school. The conclusions which that theory adopts seem to follow immediately and inevitably, so long as we assume the Lockian doctrine that knowledge consists in the perception of agree-

ment or disagreement of our ideas. That is, for the methodological view which we are examining, scientific knowledge is purely a matter of ideas or concepts. Thought is thus nothing but a function of unity among ideas, not the unity of ideas with anything beyond themselves. Modern theories of judgment, however, have shown very clearly the inadequacy of this view. We do not deal merely with our own ideas in judgment—if by our own ideas we mean purely subjective existences which can be described in terms of conscious content. In fact, if we think of an idea as a mental function, rather than as a mental thing, it is quite impossible to overlook its objective reference—or, perhaps, better, its real objectivity. This is not something which an idea comes to have through any accidental convention, or in any secondary and external way, but is as much a part of its real nature as what we call its subjectivity. The truth which lies at the basis of parallelism consists just in this fact—that the relation between idea and object is not a relation which can be adequately expressed in terms of external interaction, but one which is essential and organic. It is of course true that the upholders of the doctrine of parallelism sometimes suppose that they are emphasizing the disparateness, rather than the identity of the physical and psychical. Nothing, however, is more striking in recent discussions than to note how thinkers who uphold parallelism have come to emphasize the necessary correlation—and we can almost say, the organic unity—of the physical and mental, rather than their separateness and isolation, which seemed to be the aspect most prominent in the minds of the earlier representatives of this doctrine.

Even the figure of the symbol and the thing symbolized does not adequately express the relation between the idea and its object; for this mode of representing it still leaves the connection external and accidental. We shall have to say that the idea, in so far as it is an element of knowledge, is not merely a symbol of reality, but essentially one with the reality known through it. This is not to deny the *distinction* between idea and thing, but merely to insist that the two are necessary correlatives, and not irreducible opposites. The idea as a mere subjective ex-

istence extends beyond itself, and has necessary relations with the larger world of objects ; just as the individual involves an organic connection with the society of which he is a member.

The bearing of this discussion upon our main problem is, I think, sufficiently evident. We are now able to see that both of the attitudes towards scientific truth which have occupied us so far have a certain justification. The uncritical adoption of the results of science as a final philosophy is at least right in assuming that knowledge and reality are not divorced. On the other hand, what we have called the methodological view has gained a critical consciousness of the conditions and limitations under which science necessarily works, though, like the critical standpoint of Kant, it is open to the charge of subjectivity. It recognizes that many scientific conceptions do not profess to be directly descriptive of actually existing objects, but can only be regarded as provisional *hilfsbegriffe*, whose function consists in coördinating for the time being some group of facts. Again, to dwell further on the justification of the methodological view, it might be urged that it is largely a matter of choice what conceptions we shall apply in any particular field ; and, more especially, that to a large extent the methodological procedure which any science adopts is determined largely by custom, or by the individual bent of the special investigator. We may speak of many of our scientific conceptions as merely instrumental—as a scaffolding by means of which we climb towards the truth. It is also essential, in order to state the case fairly, to call attention to the necessary abstractions which science is compelled to make in order to get under way at all. Not only does it go beyond experience by forming conceptions, as *e. g.*, of a perfect triangle or a perfectly rigid or a perfectly inert body, but it is obliged to consider certain facts or aspects of facts in isolation from the concrete surroundings in which they are known in actual experience.

All this it is essential to clearly recognize. And against the uncritical attitude which mistakes a science for a philosophy, a method of investigation for a system of truth, it is well that the methodological character of science should be frequently pointed out. But, on the other hand, the whole duty of the philosopher is

not fulfilled when he has shown that there is no absolute finality about scientific truth. One cannot simply bless scientific results and let them go. They are methodological, and false, and hypothetical, to be sure, in that they are abstract, and incomplete, and loaded with limitations and conditions which make them really quite different from what at first sight they appear to be. But, as we have seen, they are not arbitrary or capricious; and, therefore, they possess a real objective value which must be reckoned with in our philosophy.

It is much easier to pass general criticisms on the propositions of science, or even to ignore them entirely, than to evaluate them by understanding what they really say, as distinguished from what they only seem to say. In attempting to understand the significance of any scientific fact or law, the all-important thing is to recognize clearly under what conditions, and with what assumptions, the judgments in question have been made, in order that we may know precisely what is asserted and what is not. Error arises when we fail to understand what a judgment really asserts, and consequently take it for what it is not. To properly estimate the importance of the propositions of any science from the standpoint of philosophy, then, it is necessary to comprehend the limitations and conditions which the postulates of the field in which they were first formulated impose upon these propositions. Otherwise we shall fail altogether to see what is really asserted. An excellent illustration of the violation of this principle is afforded by the popular interpretation of the law of the conservation of energy. This law is a methodological principle of physical science, and simply states the fact, which in certain fields has been inductively proved, that in any particular case the cause is quantitatively identical with the effect. It is not, however, unusual to find this proposition stripped of its limitations, and transformed into the ontological and absolute statement that the world is a constant sum of energy from which nothing can be taken and to which nothing can be added.¹

I have sought to maintain throughout this paper that every judgment has some reference to reality, and that, therefore, in so

¹ Cf. Ward, *Naturalism and Agnosticism*, Vol. I., pp. 170 ff.

far as it is true it must have a genuine significance as a determination of the real world. In the universal propositions of science, the real subject of the judgment rarely (or perhaps never) corresponds with the grammatical subject of the proposition.¹ The task then which philosophy has to perform in this connection is to make clear the real implications of these propositions, and thus to become aware of their true import and significance. To put the matter in another way, we may say that each special science necessarily considers some group of facts in isolation from other realms of facts. Its conclusions are therefore valid only under the supposition which it makes—namely, that its group of facts is thus isolated. What philosophy must seek to do is to remove these abstractions, and to evaluate the scientific conclusions from the standpoint of the concrete whole. Thus all the physical sciences consider the world *as it would be* if it existed out of relation to mind. It is evident at once, that the results of these sciences can not be carried over, directly and without modification, into our philosophy of nature. To do this would be to affirm absolutely what the physical sciences assert only under (a more or less conscious) limitation. When we come to psychology, with which philosophy is still more closely connected, we must distinguish, I think, degrees of abstractness in its methods of treating its subject matter. On the one hand, the point of view of the older works, as well as of many of the standard treatises of the present day, are abstract only in so far as all thinking is inevitably abstract, in virtue of its nature as selective activity. These systems of psychology describe mind, that is, as a system of functions of a self, and thus

¹ In this connection I may refer to Professor Royce's interesting treatment of universal judgments, *The World and the Individual*, pp. 270 ff. For him, the function of the universal judgment is always primarily exclusive and negative. "In the exact sciences, or, again, in case of those practically important realms of Being which we view as subject to our choice, whenever we win control over a system of ideas and assert a truth, or decide upon a course of action, and whenever we do this upon the basis of general principles, our insight is always *destructive of merely abstract possibilities*, and, where our knowledge takes the form of universal judgments, they are always primarily such destructive judgments, so far as they relate to external objects. They tell us, indirectly, what *is*, in the realm of external meanings, but only by first telling us what *is not*" (p. 277).

afford what at least approaches to a philosophy of mind. On the other hand, however, an influential and somewhat numerous group of scholars at present insist on making psychology a 'natural' science. By that they mean, if I understand the position correctly, that the same logical demand which requires that the physical world should be described and explained as it would be if it were independent of consciousness, also obliges us to consider the content of consciousness, as it would exist if it were independent of any central principle of intelligence. Which of these methods of procedure is the more profitable for psychology will doubtless be settled in time inside of the science itself. The philosopher, however, if he is to avoid confusion, will find it necessary to distinguish between these two psychological standpoints, and to proceed differently in seeking to give to each set of results its proper value in his final account of the nature of mind.

J. E. CREIGHTON.

REVIEWS OF BOOKS.

Foundations of Knowledge. By ALEXANDER THOMAS ORMOND.
London and New York, The Macmillan Co., 1900.—pp. xxvii,
528.

This treatise, which combines epistemology with considerable material of a metaphysical nature, is in its general method of procedure less polemic and more positively constructive than other recent essays along similar lines. Discussion of opposing theories is subordinate, and does not display that keen zest which is evinced in the 'dialectic for dialectic's sake'—one is tempted to call it—of some epistemological writings. I am far from saying that the polemics of earlier essays may not have been necessary, but it is cheering to the patient reader to discover that he need not fight over the rather tiresome battle of idealism versus realism with the heavy artillery on each side aimed at an imaginary position, nor be instructed too thoroughly in the fallacies of materialism and agnosticism.

Whatever one may think of the author's results, there is likely to be general agreement that the most hopeful line for progress is in following the spirit of Kant's *Critique* rather than in arguing his work. This means, first, an analysis of the science of to-day, especially of psychology, biology, and the historical and social sciences. It may be that none of these sciences is yet sufficiently advanced to yield the results which the work of Newton presented to the insight of Kant; but there is certainly some material ready, and Professor Ormond has attempted to utilize portions of it. The influence of the past is nevertheless still dominant in the relative prominence accorded to the mathematical and physical categories of space, time, quantity, substance, and cause, as compared with the biological category of evolution, the psychological categories of individuality and personal identity, and the social category of community.

In the second place, to follow the spirit of Kant's *Critique* means a reconstruction of the meaning of experience and the self on the basis of the analysis outlined above; and, correlative to this reconstruction, a revision of the conception and scope of knowledge and its function in the work of life. This too has been attempted by the work before us, but, in my judgment, the reconstruction of the meaning of experience would better have followed than preceded the detailed analysis.

The book comprises three parts. Part I., "The Ground Concepts o

Knowledge," is occupied chiefly with the notions of experience and the relations of experience to reality and to knowledge. Part II., "Evolution of the Categories of Knowledge," covers the general ground of Kant's *Æsthetic* and *Analytic*, with additional chapters on *æsthetic* categories, categories of the subject consciousness, the world of individuals, and the consciousness of community. Part III., "The Transcendent Factor in Knowledge," deals partly with questions falling within the province of a theory of knowledge, such as knowledge and belief, judgments of truth, and judgments of value, the mystic element in knowledge, but a large part of its material, might well be called metaphysics, dealing with various aspects of 'The Transcendent.'

In its standpoint, the work may be not unfairly characterized as an attempt to incorporate elements of intuitionism and mysticism into a critical theory of experience, or possibly some would reverse the emphasis, and say an attempt to support the results of intuitionism and mysticism by a critical theory of experience. At any rate, the reader will detect various traces of heterogeneous lines of thought, and his judgment of the value of the result will depend in part on his judgment as to the success of the attempted union.

Among the more superficial evidences of the two lines of thought, on the one hand, are the chapters devoted to the categories of the object and the subject, and on the other, the chapter on the mystic element in knowledge, in which it is maintained that "it is in the higher forms of emotional experiences—those which belong to the stage of the higher immediacy—that self-consciousness attains its highest level and most complete realization."

The two-fold nature of the system appears in the statements regarding experience and knowledge. "The notion of knowledge is that of the internal rationality of experience." There are two fundamental modes of reducing experience to intelligible form, the one mechanical, the other teleological. "Both modes are to be conceived as rational, and therefore as included modes of experience, and both are subject to the canons of rational necessity, but in a somewhat different way." The phrases, "rationality of experience," and "canons of rational necessity," would at first blush suggest either principles of a logical, mathematical, or causal nature, or of the principle of sufficient reason in its aspect of purpose. But in Part II, chapter IX, we are taught that the principle of unity is an *æsthetic* category. "The demand for unity in our world is the voice of the *æsthetic* consciousness." In the chapter on judgments of truth and value, the attempt

is made to assign an epistemological worth to judgments of value. The affirmation of certain beliefs as true is said to rest on the conviction that they are implicated in the rationality of the world. "And this conviction rests in the last analysis on our intuition of the truth that the ultimate harmony of the good and the true . . . is involved in the essence of that idea of rationality the denial of which means the wreck of all knowledge" (p. 354). Now it is to be presumed that this "intuition," which discovers that the unity of true and good is necessary to rationality, is what has been previously described as "rational intuition," and declared to be the third and highest stage in the relation of the knowing activity to experience. The three stages are defined as follows: (1) that of the "lower immediacy in which simple sensation dominates"; here the important factors are feeling or pleasure-pain, and volition; (2) that of mediacy, that point in experience where feeling and action are in a sense forced asunder and a mediating term, reflection or deliberation, makes its appearance; (3) that of the 'higher immediacy' which "is to be regarded as dominantly emotional" (pp. 80-87). It would appear, therefore, that the phrases 'irrational' and 'absurd,' are or may be translated into 'emotionally unsatisfactory' when we are dealing with the ultimate and more metaphysical problems. A similar superiority of feeling over knowledge and volition is suggested in the statement as to the final purpose of consciousness. "What consciousness seeks in its world as its very last end is a state of feeling, a satisfaction in which it can rest."

The question as to the validity of the author's conclusions so far as they concern ultimate metaphysical problems, will then hinge on the acceptance of the above criterion of truth. It is in perfect accord with the logical outcome of the Kantian critical method to maintain, as the author maintains with much force and clarity of view, that the test of truth must be found in the self, not outside the self; and, further, that we must regard as the highest unification and organization of the world of experience, that which corresponds to the highest unification of self—to the highest expression of self-consciousness. But it is a proposition which will be slower to find acceptance that "it is in the higher forms of emotional experiences that self-consciousness attains its highest level and most complete realization." And the same hesitation will be likely to arise over the author's treatment of the judgment. "In judging the essential act is one in which the self either accepts or rejects proffered content." "The function of judgment is an affair of the æsthetic consciousness, inasmuch as the essence of the relation of true and false is constituted by the æsthetic category of

unity" (pp. 238-241). In the higher immediacy of rational intuition referred to above, we are to "conceive this judgment-function, which is explicitly a self-relating activity, and in that form essentially emotional, as becoming implicit as the unifying core of an emotional state" (p. 84). Is it reasonable to place a higher normative value upon an implicit than upon an explicit self-relating activity?

There is once more a suggestion of two not wholly harmonized lines of thought in the attitude toward 'experience,' the crux of modern theories of knowledge and reality. Unusual attention is given to the concept of experience and its relation to the concepts, consciousness and reality. The world is affirmed to be "through and through experience." Experience is "inclusive of all reality as its content." We may not think of any things-in-themselves outside experience, or of anything which transcends experience. We may and must suppose a possible as well as an actual experience, and it is the possible rather than the actual which encompasses all reality, but it is still experience (pp. 89-92, 356 ff.). So far critical idealism. The other tendency seems to me to inhere in the doctrine of the transcendent. The author will certainly refuse to admit any dualism here, for he has taken especial pains to speak of the "transcendent as experience," and to give to it all the attributes of finite experience raised to the power of infinity; but nevertheless the lines by which this 'transcendent' is reached seem to be rather methods of inferring some absolute, which is metaphysically separate, than those of discovering a universal within. For instance, the argument on pp. 356 ff., is almost precisely that of Descartes, viz., that a notion of the perfect or the infinite implies an objective cause for it, since the finite could not produce such an idea of itself. Here the reply of Descartes's critic is still in point: The mind is greater than any of its ideas. Professor Ormond goes on to assert a point in connection with each of the categories where the transcendent manifests itself. In the first place, from the standpoint of presentation he maintains that the fact of 'coerciveness,' of our 'receptive' relation, of the 'consciousness of resistance' testifies to the existence of the transcendent. Now this argument either has some such implication as that which underlies Kant's doctrine of sensations as 'given,' or else it asserts merely that one content of experience, viz., a stone, acts on another content of experience, viz., my hand, but in this case there is nothing transcendent involved. Again on page 358 we read: "The genesis of dimension involves a point of dimensionless initiative. The significance of this is, surely, that at the point where our experiences touches and defines the objective under the form of space and

time, being asserts itself as transcendent to these operations." I must confess that while this fact does unquestionably indicate the conceptual, *i. e.*, the constructive character of the mathematician's space, it does not disclose to me anything more transcendent than my consciousness.

I do not mean to imply that the author has not aimed to give a critical statement and solution. The chapter on the transcendent subject grapples with the problem again, under its ontological aspects, and an attempt is made to mediate between pantheism and theism, an inclusive, and an exclusive or transcendent absolute. But it is difficult to avoid the impression of a combination of standpoints in which complete consistency has not been attained.

Turning to some of the psychological aspects of the work, there are several interesting features, some of which were referred to at the outset. In the treatment of the categories, the separate consideration accorded to the presentative and the conceptual aspects of space and time is desirable. It would have been a gain in the logical clearness and vigor of the treatment of the other categories, *e. g.*, substance, cause, etc., if a similar distinction were made. Cause, for instance, is said to derive from volitional experience. "The will-element is, however, soon abstracted from, while the notion of agency persists." This might be regarded as the imagery of the idea of cause, but the function and value of cause as concept cannot be thus determined.

The category of community or interaction is derived from social relations. Lotze's treatment of the category is accepted as partial, but it is contended by the author that the notion of interaction requires us to conceive interacting things as social units in mutual intercourse. He admits that to conceive social units which at the same time are not conscious units is "full of difficulties," but is convinced that it offers fewer intrinsic difficulties than any other scheme. Is it not possible, one is prompted to ask, that the difficulty of explaining interaction on any other than a social analogy is due in part at least to the previous individualistic conception of substances? Are substances so highly individualized, or is that a distinction reserved for persons?

The chapter in this series upon the categories, which is likely to challenge most attention and criticism, is that on "The Æsthetic Categories." This treats the principle of unity, which is the ground of the organization of our world, first through time and space, then through dynamic categories of interdependence. Professor Ormond holds that this principle is fundamentally a demand of the æsthetic, rather than of the cognitive or volitional consciousness. It is certainly desirable to call renewed attention to the fact that the categories are but the 'modes of a growing experience,' and that 'experience' is

not to be conceived solely in terms of cognitive elements. But is it true that unity is peculiarly the outcome of the æsthetic consciousness? Have not the practical needs—the economic, social, and ethical requirements—been at least as important a factor in bringing about the organization and unification of experience? The successful unification of experience, and the correlative expression or assertion of the self, have undoubtedly an æsthetic value, but this does not necessarily involve the position that this æsthetic value is the determining factor. The question involved is allied to that raised by the statement as to the end of consciousness. Is ‘what consciousness seeks in its world as its very last end’ a ‘state of feeling’?

The chapters on the subject and community consciousness with their categories of individuality, self-identity, personality, personal identity, and social interaction, contain much that invites mention. Of especial interest are the efforts to relate the subject categories to those of objective experience, and to show the significance for law and ethics of the development of the social consciousness. Collision and conflict as well as imitation, are recognized as factors in developing the social consciousness. If these factors were considered more carefully, it would appear I think, that their functions are quite distinct. Imitation has its effects in the phenomena of custom, and in general in those of the primitive naïve solidarity of tribe or family. It does not explain the phenomena of conscious unity involved in full moral life. This demands unity of interest as well as similarity of functioning.

The third part of the work, as already noted, deals largely with ultimate metaphysical and theological questions. The author interests himself particularly in the questions as to the nature of the absolute, and its relation to the finite. The question as to the validity of the method on which the author’s conclusions are based has already been stated, and space will not permit any detailed mention of the results.

To sum up, Professor Ormond is to be congratulated for having presented the results of such widely extended investigations on ultimate problems with such eminent fairness of spirit and in well-digested form. It is not necessary to endorse his ultimate standard in order to find stimulus and suggestion in his discussions. His style (barring his unfortunate boycott of the word ‘shall,’ *e. g.*, “we will find,” which irritates the reader on nearly every page) is clear, and philosophic discussion should welcome the presentation of the claims of feeling along with those of intellect and will, in the effort to gain a more adequate interpretation of the world and the individual.

JAMES H. TUFTS.

Introduction to Ethics. By FRANK THILLY, Professor of Philosophy in the University of Missouri. New York, Charles Scribner's Sons, 1900.—pp. xi, 339.

Professor Thilly's endeavor in this volume has been to provide an introduction to the general study of ethics, and in this he has succeeded admirably. The subject is treated in such a manner that one who is unfamiliar with the various problems to which it gives rise, is naturally and gradually led into the deepening perplexities which in the sphere of ethics must confront an inquiring and thoughtful mind. In this respect especially the book is well adapted to class-room purposes, and will prove most satisfactory as a text-book. There is a comprehensive outline of the different ethical schools and their characteristic doctrines, also a clear statement and critical estimate of the points at issue, together with an attempt in a constructive way to establish and maintain a consistent ethical position.

In this undertaking Professor Thilly is to be commended, not only for the satisfactory completion of the task regarded as a whole, but also for certain particular qualities which give to his work special merit and value. One of these features is his successful attempt to present a historical summary of the development of ethical thought, not as an appendix, but as an integral part of the discussion: In this statement of the historical views which go to make up the body of ethical doctrine, and which underly its development, he has in all cases given the thought in the exact language of the author. The passages quoted are selected with care, and in such a way as to give a fair and clear idea of the salient features of the different systems. Moreover, an excellent bibliography is given in connection with the several schools of ethics, and the main topics of ethical controversy. Another characteristic feature of the author's method is the psychological analysis to which he rigorously subjects all the elements of our ethical consciousness. He lays special stress upon the necessity of understanding clearly the fundamental psychological distinctions which lie at the root of all ethical judgments and feelings, and therefore he passes in review the usual ethical phenomena which are forthcoming in the individual and the race, in order that by a thorough appreciation of their nature and origin, he may be better prepared to render a just criticism and a proper evaluation of conflicting theories. His method in this particular will recommend itself especially to all students of psychology as thoroughly in the spirit of the modern point of view, which demands accurate observation and careful interpretation as the groundwork of speculative reflection and theory.

Still another characteristic feature of Professor Thilly's general treatment of the subject is his attempt to discover the common elements which underly the surface differences of opposed ethical doctrines. From one point of view, for instance, he shows that Kant and Spencer may be regarded as occupying common ground, inasmuch as the latter concedes the intuitional character of morality as regards the individual, while maintaining a gradual evolution of the moral judgment and feeling as regards the race. Again, Professor Thilly endeavors to show that the teleological point of view which holds that the ultimate ground of moral distinctions lies in the effects which acts tend to produce, may also be regarded as tantamount to an intuitional basis of morality in the sense that the highest end that can be realized by morality is one absolutely desired by human beings. Further, he shows that Mill's utilitarianism approaches an intuitional standard at the point in Mill's system where he insists upon the differentiation of pleasures according to *quality*, and thus introduces the idea of higher and lower in pleasures, which in turn suggests some absolute standard of value. Finally, a similar endeavor is to be noted in his attempt to reconcile the opposed theories of free will and determinism. It may be urged that these are attempts to solve indeterminate problems, and must necessarily prove unsatisfactory. However that may be, the author's endeavor in this respect, is at least worthy of especial mention inasmuch as it indicates the general temper and fairness of mind which characterize his critical estimates.

The subject matter of this volume is treated in the main under two general heads: first, as to the origin of our ethical judgments, and second, as to the ultimate ground of moral distinctions. In the discussions of these two questions, Professor Thilly has presented the different points of view accurately and fairly, with an historical survey both of ancient and of modern thought. In addition to the general statement and criticism of the various theories, he has outlined his own position, which is substantially that of Energism, a term which he uses in preference to Eudæmonism, inasmuch as the latter has given rise to much confusion of thought, owing to the different senses in which it is used by different writers. In answer to the first of these two questions, Professor Thilly contends that the feeling of obligation is a derived one, that "the feelings aroused by the disapproval and authoritative tones of others, the feeling of pain, the fear of punishment, human and divine, the fear of losing the good opinion of others, the fear of causing injury directly or indirectly to himself and the

beings he loves, form the beginning in the child's consciousness of that peculiar complexus of sentiments which we call moral" (p. 95).

This view is in a certain sense qualified by the concession that there are also innate instincts such as the sympathetic regard for others' welfare, as well as those of fear and the dread of pain (p. 100). And also that there are natures in which the feeling of compulsion is supplanted by a natural love of duty for duty's sake (p. 97). These instances, however, are given as concessions, and do not seriously enter into the author's system to the extent of modifying his conclusions as to the derivative character of our moral sentiments.

As to the ultimate ground of moral distinctions, he holds the strictly teleological view, that the effects which acts tend to produce determine their moral value, and that the Kantian categorical imperative in the last analysis is really hypothetical in character, inasmuch as that which seems to be commanded categorically is in reality urged upon us because of the very effects themselves which it tends to produce. In the discussion of this question, Professor Thilly reviews the various theories of the highest Good. His criticism of Hedonism is most thorough and satisfactory, especially in his insistence upon a proper recognition of the psychological facts of human nature which clearly make against Hedonism. The *summum bonum*, he himself holds to be "the preservation and unfolding of individual and social, physical and spiritual life, in adaptation to the surroundings. Whatever rules are developed by mankind for the realization of the highest good, and produce the moral sentiments referred to before, are called moral rules." (p. 284).

Professor Thilly may be said to have treated the ethical judgment from the point of view of the content rather than that of form. There is a tendency among the adherents of a purely formal ethic to overlook this matter of content—that is, to emphasize the feeling of oughtness as the essential moment of our ethical consciousness, and to have little or no concern as to the inquiry regarding the nature of those acts with which there is inseparably associated the feeling of obligation. By the emphasis which he has placed upon the necessity of such an inquiry, Professor Thilly has rendered an excellent service. In his zeal, however, to prosecute such an inquiry it may be felt that he has not given full recognition to the claims of the formal ethic. For in tracing the development of conscience from the primitive feelings of fear, and the compulsion of authority, there still seems to many to be a remainder which perdures in consciousness as an irreducible element, which as regards its form, appears as a law of obligation, and as regards its content, the positing of that which for the individual possesses an

absolute value in and for itself. It may be urged that the goal is the same whether we reach it by the way of intuitionism, or by the way of energism, and in a certain sense this is true. And yet, on the other hand, such emphasis may be placed upon a teleological evaluation of conduct as to shift the ethical center of gravity to the extent that judgments of expediency and of prudence may come insensibly to rank as veritable ethical judgments.

The integrity of the latter can be preserved only by realizing the fact that while the ultimate ground of moral distinctions may lie in the effects which acts tend to produce, nevertheless, even from the teleological standpoint, there is a distinction to be marked as regards the nature of these effects. The latter may be of two kinds, those which can be evaluated in terms of the general welfare either of the individual or of society, and those on the other hand which have worth because the individual in pursuing them is realizing his own personality. The acts themselves may often have no special value for society, or for the individual except as fulfilling his ideas of duty. Their value is then to be estimated in terms of their worth in preserving the integrity of one's personality. Regarded as an end, this is so different from other ends that it possesses an absolute and unique value. Certain acts, moreover, may produce beneficial results, and yet meet with my disapproval because actually undertaken through the incentive of an unworthy motive. The effect of acts upon me, upon my personality, upon my character, with the accompanying feelings of approbation or disapprobation can find a satisfactory explanation only in the constitution of human nature as such. I would not be misunderstood as saying that Professor Thilly has overlooked these considerations. Indeed, he says most emphatically that "the end realized by morality is one *absolutely* desired by human beings. An act is right because it produces a certain effect upon human nature, because in the last analysis, humanity approves of that effect" (p. 152).

It could be wished, however, that he had developed this phase of the subject more at length, and had given it a larger place in his system. In conclusion, attention should be again drawn to the fact that Professor Thilly has not only maintained a consistent position throughout his treatment of the subject, but also has been most open-minded in his recognition of the elements of truth contained in the other ethical systems. The present work will not only be valuable as a text-book, but will prove of interest and of profit to all who may have the opportunity of reading it.

JOHN GRIER HIBBEN.

PRINCETON UNIVERSITY.

Mein Recht auf Leben. Von DR. HEINRICH SPITTA, a. o. Professor of Philosophy in the University of Tübingen. Tübingen, J. C. B. Mohr (Paul Siebeck), 1900.—pp. xi, 468.

This work falls within the class of books (and their number is evidently on the increase in Germany), whose avowed purpose is the discovery of an adequate philosophy of life as a whole—a *Lebensanschauung* or *Weltanschauung* that seems to afford at least a partial explanation of many of the anomalies of human existence, and a satisfactory theory of the relation of human life to the physical universe. It disclaims any intention to give metaphysic in the narrower sense of the word; and the reader to whom it primarily appeals is not so much the professional student of philosophy as the general seeker after truth, or the serious-minded person who can hardly find an adequate basis for noble living, either in science or in the current (and traditional) metaphysical monism. One of the best things that can be said about it from the standpoint of philosophy, is perhaps the fact that it is of value in affording us an insight into many of the intellectual and moral tendencies of our time. It also falls in line with a philosophical tendency of the present that has the merit if no other, of extricating metaphysic from the closed circle of an all-sufficient dialectic—the tendency to discuss fruitful hypotheses. Even in spite of the two chief drawbacks that will doubtless militate against it, viz., (1) its having the intrepidity to discuss an hypothesis that to many minds is but a species of animism or primitive mythology, viz., Reincarnation (and the Pre-existence of the soul), and (2) the extreme discursiveness of its style, it is a book that is full of suggestion and that ought to afford new conceptions of duty, both to the plain man and the philosopher. *Wer vieles bringt wird manchen etwas bringen*, and Professor Spitta has certainly brought together a multiplicity of interesting practical questions, that ought all to be included in the scope and the unity of a true philosophical attitude to life.

Some of the phenomena in the life of to-day that seem to Professor Spitta to be most reprehensible from the philosophical standpoint are the general level of mediocrity in the intellectual realm, the disgust at, or the indifference towards social conditions that we find on the part of different people, the fact that philosophers have (in his eyes) forgotten that philosophy is not merely an intellectual matter, but something of the nature of a mission (to make men conscious of the spiritual meaning of life as such), the general state of nervous tension in which the daily struggle of life is conducted by many people with little explicit thought of anything beyond the mere struggle itself, the rough-

and-ready acceptance of the doctrine that might is right, the apparent opposition between the natural sciences with their statements of 'fact,' and the moral sciences with their statements of 'value' and their judgments upon mere matters of history, and above all things the unsatisfactoriness of the present state of psychology. By the latter he means that the 'statistical mania,' or the craze for measurement in the terms of quantity, has left out, or is leaving out of mental science all that is distinctively spiritual, or that the mental states that are examined by psychology are only those that stand in most immediate connection with bodily conditions, and that the disagreement of specialists as to any one science of mental phenomena has gone so far that criminologists, pathologists, sociologists, jurists, students of comparative religion, are all feeling obliged to construct their own psychology. We may certainly agree that there does seem reason for believing that there will be in the future, as there has been in the past, a place for the philosophical psychologist, for the psychologist who will put together for us in some coherent system all the actual facts that different investigators seem to regard as essential to the soul of man—a thing that we are not likely to get for some time, owing to the present contempt for metaphysic that exists in many quarters, and to the fact that metaphysical monism seems to have reduced the soul to merely a mode of infinite substance, or the reflex of some ultimate attribute of reality. In spite of the generalizations of science, and also of the philosophy of nature, Professor Spitta contends, we cannot be said either to control nature or to completely understand her; we know neither how to conquer her nor how to avoid her.

The one thing that can save us from all this intellectual confusion, and the consequent attitude of indifference to the events of life, or the consequent absence of a true ethical temper, is a renewed belief in *personality*, in the reality of man as a being in and for himself with the inalienable right of this self-existence, in the reality of man's life as something more than a link in an endless chain of phenomenal causes and effects, or than a mere reflex of infinite thought or infinite will. Man must *be* something before he can be studied as the object of philosophy. Man's personality cannot, as it were, be looked upon merely in the light of contemporary sociology as the outcome of environment and heredity, nor can man's freedom be merely his power to think or reflect upon a universe of tendencies and aptitudes that are merely 'given' to him, or made for him and not by him. Man as he is must be clearly seen to be his own work, and his life to be a problem that he has, in consequence of his moral success or his moral failure, set for himself.

This brings us to the central line of consideration of the book, which is the search for an axiom or postulate which makes the imperative of duty a grounded and intelligible reality. "A reasonable ethical belief is something quite different from a scientific metaphysic." Beneath the conception of duty the author finds the conception of the *right to live*: "I have the duty to live only in so far as I have the *right* to live. The Ego is not merely a mirror in which the world reflects itself; it is a center of force from which the mere concept of life gets reality and significance." There is a personal or spiritual realm in which all ordinary, all earthly values are *transformed*, and in which man's life is determined by something that is above it—by a new life that transforms the rational life. "I believe in this new life because I believe in the moral and social task; I must, therefore, live until I have rendered the moral ideal." In other words, I am eternal; I shall be born again after my death into a new body, a new earthly life; my soul will receive a new earthly body which it will be my duty to control until it is reduced to the elements of which it is composed, and again my soul shall receive a new body until at last everything in the nature of my duty is accomplished. My soul is the eternal, the spiritual, the eternal *in time*, that is not of this world and that cannot (its doing so would be contrary to elemental right and justice) go to pieces in the world. I believe in my duty until I have fulfilled it. I believe in God until I have attained to him and entered into His kingdom. Even if I must come back to earth a thousand times, that is a matter of small consequence. . . . "I have an eternity behind me and before me. . . . I work out of an infinite fullness. With the right hand I work without ceasing, and with the left I hold fast to God who helps me. When I shall be in God and God in me then will God's kingdom be; and we are members of that kingdom."

I have reproduced the words and the manner of Professor Spitta, not merely to give definiteness to his contention, but to illustrate his method of arriving at his central position. What he gives us is an hypothetical and phenomenological presentation of the philosophy of Reincarnation, on the distinct presupposition of the principle that the philosophy that gives the truest account of personality and of the moral life is the true philosophy. A similar presupposition of Professor Spitta's is that the truth of a religious hypothesis can be tested only by living it: I hold this belief not because it is true; it is true because I hold it and live upon it. He is also extremely careful to state that he puts forward the hypothesis of Reincarnation as his own personal choice—as for him a vital personal hypothesis. The portions of

his book wherein he expounds Reincarnation in this spirit undoubtedly read like a personal confession of faith. In saying this, however, we must remember that he regards it as the personal duty of the philosopher of to-day to come forward, irrespective of the criticism it may entail, with the courage of a belief in personality as a *res æterna*, and also with the courage of expressed personal dissatisfaction with both scientific and metaphysical monism.

The defect of the book is that Professor Spitta does not offer us a philosophy of the fact that personality is implied in the very constitution and nature of reality, unless it be considered perfectly competent for a philosopher to set out with the consciousness of the moral law as an ultimate and immediate fact. If it is possible to do so, then it is doubtless true with him as it is with Fichte that philosophy begins in a free act. (It is Professor Spitta's highest hope for his work that it may accomplish in its spirit and its substance something comparable to the effect of Fichte's *Address to the German People*, or of Schleiermacher's *Dialogues upon Religion*.) But what has he to say to the fact of Nature and her apparent indifference to our personal moral conceptions and ideals? What he lacks, in other words, in order to be convincing to the average reader, is a spiritual philosophy of nature. This Fichte, to be sure, found ready-made in Kant's *Critique of Pure Reason*, but Professor Spitta evidently does not find very much to accept in contemporary idealistic philosophy. In this very connection, the wisdom of dwelling so much, in a semi-popular book, upon the unsatisfactoriness of contemporary science and philosophy without at the same time indicating its substantial service in reducing nature to *law*, and to the categories of *end* and purpose and *organism* and the *internal* (v. *external*) *connexion* that exists and must exist among different beings (I am thinking of Lotze), seems to be perhaps questionable. If there is one thing that the common man needs, it is a faith in the continuity and harmony of all specialized knowledge, and of all attempts at philosophical generalization or criticism and construction.

Of course Professor Spitta has a strong faith in God—a faith strong enough to 'overcome' the world and its apparent indifference to us. God is to him at least personal as the stay and support of the moral order of the world. Fichte's identification of God and the moral order of the world is to him both metaphorical and illogical—how can an order be a person? Moral order without God is indeed impossible, but then God must be substantial as the immanent cause of the world of things and persons; things express Him under the attribute of extension and persons under the attribute of thought. This step from

Nature to God, or from man's free personality to God is however also apt to seem unintelligible, unless we are willing to accept the underlying pragmatic or phenomenological philosophy of the author. This seems to repose on the contention, which is not altogether unintelligible, and is quite susceptible of direct proof or disproof, that the practical philosophy of both the average man and the philosopher reveals on their part a practical consciousness or recognition of the existence and working of God—a consciousness whose closer determination would fall as a task to metaphysic in the strict sense.

Professor Spitta's Theism again, will naturally encounter criticism on the ground of the imperfect philosophy (whether Creationism or Emanation or what not) with which it is associated. If the spirit of each human being is to work out its own destiny through endless reincarnations, what is the use of believing (as he does) in the help of God or of Christ (for Christ is God, he says, to those who need His help) throughout the whole process of living? And if the whole universe be an expression of God's free energizing, how can it be said that each man's body, and each man's character, and each man's environment, may be regarded as his own work or his own selection? Doubtless we know that there are difficulties for any philosophy of human freedom, and that some men like Henry More, the Cambridge Platonist, combined a belief in reincarnation with a form of theism and creationism, while others like Plato seem simply to believe in the soul's eternity. Professor Spitta's theodicy, too, suffers from the fact that he seems to talk more about reincarnation than preëxistence. That is, he does not make so much of the concept of justice as is generally made by believers in the preëxistence of the soul, through their association of present suffering and imperfections with preceding sin or imperfection. He cannot, in consequence of this very fact, do justice to the pessimistic aspects of Buddhism, or to the solution of problems of evil offered by Christianity. Enough has, perhaps, however, been said to show that this book attempts to deal with many problems that are not generally faced in metaphysical treatises of the ordinary kind, or in sociological works which too often wrongly presuppose that the individual is quite willing to sink himself and all his unsolved moral problems in devotion to an imaginary humanity of the future—which Professor Spitta rightly contends, as does Lotze, to be an abstraction.

W. CALDWELL.

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Psychologie des Willens, zur Grundlegung der Ethik. VON HERMANN SCHWARZ. Leipzig, Wilhelm Engelmann, 1900.—pp. viii, 391.

This work, as its title indicates, is a psychology of the will viewed as the basis for ethics. The author thinks that a true ethics has still to be written, because "the realm of the will is as yet essentially unknown." His hope is that readers of his work may conclude that "a sure theory of ethics will be possible upon the foundation laid down in the present work" (preface). In the course of his work he mentions Greek ethics (p. 334), only to say that it was concerned mainly with one branch of the subject, the theory of self-affirmation (*Selbstbejahung*), while it ignored the higher side, the teaching of self-denial (*Selbstverneinung*) revealed by Christ (p. 335). He does not mention, much less consider, Hegel's theory of the will, a theory in sharp contrast with his own, and held in a modified form by many thinkers of the present time. It would therefore seem that the enthusiasm of the pioneer had prevented him from taking a calm and wide survey of the actual problem. Of German philosophers, he quotes Kant most freely, although he objects to the principle that every motive should apply universally on the ground that it is introduced from the alien sphere of the theoretical reason, and cannot therefore be valid for the will. He is in most direct sympathy with Martineau, among English writers, saying that *Types of Ethical Theory* is a work too little known in Germany (p. 66, note). It would seem, indeed, that his doctrines bear a closer resemblance to Martineau's idiopsychological theory than to that of any other philosopher.

The book is divided into two parts, the first of which, covering two hundred pages, expounds the will on its lower or natural side (*die Naturgesetze des Willens*), and deals with the faculty of appetite (*Begehrungsvermögen*) and the principle of liking and dislike (*Gefallen* and *Missfallen*). The second and briefer part expounds the regulative standards or norms (*Normgesetze*) of the will, and explains the faculty of choice or preference (*Vorziehen*).

In the sphere of knowledge, says Schwarz, the natural sciences are limited by the law of cause and effect, while logic alone escapes into the free region in which it, asking if the contents of thought are true or false, is bound by no laws except those of its own making (*die Gesetzlichkeit der innern Normen*, p. 11). Thus, in the practical sphere the author seeks to show that moral volition (*sittliches Wollen*) is the analogue of the logical judgment. This doctrine that the will is original, self-dependent, and autonomous he at once pro-

ceeds to outline, and to make clear by means of a contrast (*a*) with Schopenhauer's and Nietzsche's view (*nativistische Trieblehre*) that the will is controlled by innate impulses, and (*b*) with hedonism. Eudæmonism, utilitarianism, and intuitionism are dealt with in the second part.

The theory which ascribes our action to innate impulses, brings forward as proof, such instincts as those of self-preservation or the will to live, the love for power, and desire for the perpetuation of one's kind.¹ Against this theory, the author adduces the "naked facts of physiology." The so-called 'will to live,' specialized as the will for food, is not directed to the requirements of the body immediately, but is mediated by a special artifice (*List*). The complete process is as follows: "When the body needs replenishment, certain sensory nerves of the stomach and intestines are by unknown causes excited. This excitement, when it reaches the brain, gives rise to the sense of hunger and the accompanying feeling of discomfort or pain. The sting of this discomfort is the means by which nature compels our will into its service" (p. 27). Thus we come upon the primary fact in the psychology of will, namely the avoidance of pain. There is no such thing as the will to live; we merely seek pleasure or avoid pain. Between the physical condition and the act of will intervenes the feeling of pleasure or pain, and in all such cases this is the real motive of the will.

But the author is far from holding that sensuous pleasure is the sole motive of action. In this lower region our will, as he says, "does in the end follow upon physical causality" (p. 33). But there are other motives which work causally upon the will. These are more spiritual (*geistiger*), and arise out of a deeper part of our being, and their causality is the compulsion of a non-sensible (*unsinnlich*) factor. We are still in the region of mechanism, it is true, but it is a mechanism of a higher kind (p. 34). But the terms 'spiritual' and 'higher' imply a distinction, which does not flow directly out of the search for pleasure or avoidance of pain. These terms involve gradations of value (*Wert*). Value is to be defined, not as some hidden essence of an object, but simply as all mediated or immediated designs or objects (*Willensziele*), and to these objects degrees of value are assigned by means of the rules or norms of will (*Willensnormen*), parallel in the realm of conduct to the logical norms, by means of which error is detected in our perceptions and ideas. In order to understand the operation of these norms, a distinction must be drawn between the perma-

¹ Even the sentiment of self-sacrifice (*Selbstlosigkeit*) Nietzsche explains as the innate instinct of degenerates (note to p. 26).

nent and the changing elements in man. The permanent element is the person, and the changing element is his condition or situation (*Zustand*). 'Condition' might be interpreted in a wide sense as all psychical events, perception, representation, judgment, volition, and feeling. But it will be better and safer to confine it to 'feeling' alone; and in this sphere value will be limited to pleasure and pain.

The distinction between 'condition' interpreted as 'feeling' and person is not obvious, especially when it is noticed that fear, astonishment, wonder, reverence, and sympathy are all feelings, although the author seeks to escape a difficulty by calling wonder and reverence 'neutral' feelings. He means that these feelings are neither pleasurable nor painful, and do not therefore fall under the general class of feelings attached to what is called 'condition.' Nevertheless, the author, while admitting that reverence and wonder are feelings, limits feeling to 'condition,' and in that way makes room for the next higher stage of value, namely personal value (*Personwert*). Value of condition concerns merely the outside of one's being; personal value has to do with its kernel. Power, honor, beauty are examples of personal worths. Here the control exercised by the body over the will ceases, and other factors take their rise from a realm that is purely spiritual (p. 38).

But, still further, certain activities of will are employed with values neither of condition nor of person, but with those which extend beyond the person (*Fremdwerte*). Such values are sought in the pursuit of art or science, not for reward or fame, but for the sake of truth or rightness of expression; they are found, too, in the well-being of humanity. This third class of values is again divided into altruistic, as when the end is human welfare, and in altruistic-ideal, as when the end is truth, beauty, or morality.

This classification is the central feature of Schwarz's work. 'Appetite,' for example, is understood, when it is seen to be confined to the lowest class of values; 'willing' (*Wollen*) is found in the other two. If it be asked how these values come to form a scale, how, that is to say, the idea of right, ought, obligation creeps in, the answer of the author is, it would appear, an appeal to something akin to intuition or to general intelligence. He says (p. 331): "We know that 'willing' (*Wollen*) is higher than 'appetite' (*Begehren*). We know it by an immediate preference or choice (*Vorziehen*). By an inner compulsion this choice forces us to ascribe value to the will itself, which renounces worth of condition in order to win personal worth." Again (p. 339) he writes: "We are forced by an inner compulsion to set

the willing of impersonal worth above the willing of personal worth. We cannot help holding one as morally better than the other. A man is sure that his selfless-willing is far beyond his self-willing in worth." Thus the foundation is laid of a true ethics, which places self-denial above self-affirmation, and self-affirmation above the pursuit of pleasure.

It is impossible to give any more extended outline of the author's work, or to consider his acute criticisms of different ethical theories. One or two objections to his own theory may be briefly stated.

1. Apart from the fact that Schopenhauer might claim him for a follower, since according to Schwarz himself all volitions are determined in the last resort by the body, it may be observed that the author makes no attempt to justify his grading of worth. He criticises Kant's standard of moral obligation on the ground that it issues from the theoretical reason; how can he repel the charge that his standard has its seat in caprice or prejudice? A justification of a scale of values can be found only in a systematic conception of the self as will, a conception in which the superficial will is seen to be superficial only because it is an element in a will which is more complete.

2. Under the general heading of 'feeling,' the author does not wish to include the so-called 'neutral,' feelings of wonder and reverence, for the very manifest reason that these 'neutral' feelings are generally supposed to be higher than the feelings associated with what is known as bodily want. But these higher feelings are not 'neutral' in the sense that they are neither pleasurable nor painful, but on the very contrary the exaltation characteristic of them is pleasurable in a peculiar degree. It is not consistent to limit 'condition' to feeling, and then to make exceptions so soon as this limitation involves a difficulty. These exceptions create of themselves a doubt of the truth of the author's classification of values. To avoid his difficulties it would be necessary not to group feelings in a mass, but to grade them in sympathy with the general conception of the graded self.

3. Let it be admitted that values are higher and lower, the admission does not yield forthwith a principle of conduct. The higher, says our author, must always be preferred, the lower must be renounced. How, then, can anyone morally appease his hunger, which according to the scale is an appetite and belongs to the lowest kind of worth? When values are pitted against each other in this way, the so-called lower sides of will cannot be justified at all. When President Lincoln, at a time of great anxiety during the War of Rebellion said to a friend, "I cannot see any more visitors; I must have some sleep," was he

realizing a mere worth of condition, or a personal worth, or an impersonal and altruistic worth? No answer can be given to this question, until we see that the higher worth, however defined, cannot exclude the lower, and that the worth which is absolute and complete is a unity of all values.

4. Schwarz's ethical postulates are not sound, since utter self-abnegation is not only inconceivable in the abstract, but is not illustrated by those moral acts to which he applies the term. The desire to advance a science cannot rightly be separated from the scientist's desire to be recognized as having faithfully served his generation. Devotion to humanity cannot logically lead to the extinction of the devotees. But into such conclusions we are forced, when we place in distinct compartments values which are found united in a single act.

5. The ego, or mind, or self, by whatever name it be known, is not a mere aggregation of faculties. It is a unity of thinking, feeling, and willing, and, when thinking or feeling or willing, of necessity brings to pass in some way its total self. Otherwise the reality of the self is lost in the process of dissection, a process which may be said to be carried in this book almost to its limit.

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SUMMARIES OF ARTICLES.

[ABBREVIATIONS.—*Am. J. Ps.* = *American Journal of Psychology*; *Ar. f. G. Ph.* = *Archiv für Geschichte der Philosophie*; *Int. J. E.* = *International Journal of Ethics*; *Phil. Stud.* = *Philosophische Studien*; *Rev. Ph.* = *Revue Philosophique*; *R. I. d. Fil.* = *Rivista Italiana di Filosofia*; *V. f. w. Ph.* = *Vierteljahrsschrift für wissenschaftliche Philosophie*; *Z. f. Ph.* = *Zeitschrift für Philosophie und philosophische Kritik*; *Z. f. Ps. u. Phys. d. Sinn.* = *Zeitschrift für Psychologie und Physiologie der Sinnesorgane*; *Phil. Jahr.* = *Philosophisches Jahrbuch*; *Rev. de Mét.* = *Revue de Métaphysique et de Morale*; *Ar. f. sys. Ph.* = *Archiv für systematische Philosophie*.—Other titles are self-explanatory.]

LOGICAL AND METAPHYSICAL.

The Fallacy of Extreme Idealism. STEPHEN SHELDON COLVIN. *Am. J. Ps.*, XI, 4, pp. 511-526.

Idealism the author defines as "the assertion that the ideational process is the ultimate and determining reality, that all other reality is secondary to this, and in the last analysis reduces itself to idea." Thus defined, it is opposed to realism, which claims that beyond the idea there is a reality to which the idea refers, and of which the idea is at least in no sense the cause or essence. There are three types of idealism, the logical, the psychological, and the ethico-religious; and in one or other of these types it is almost as old as philosophy itself. The Eleatics and Sophists, among the Greeks, belong to the logical type, in that they denied reality of all that did not conform to the logical law of excluded middle. Protagoras, who made the individual state of consciousness the measure of all things, illustrates the psychological type, and Socrates, too, in so far as he made the psychological concept the ultimate reality, must be classed with Protagoras. Plato, on the other hand, in giving the Socratic concept an eternal existence, shows a leaning towards realism. Among the moderns, Locke, and the whole host of epistemologists who followed him, are decidedly of the psychological type. For them, the idea is at least the only knowable reality. As an example of a modern Eleatic or Sophist, the author selects Mr. Bradley, who, he says, uses the law of contradiction in overthrowing common-sense views of the world, with an expertness and thoroughness even rivaling that of Zeno. But this weapon is just as effective against Mr. Bradley's reconstructed idealism as against common sense. In *The World and the Individual*, by Professor Royce, we have a fusion of the logical and the psychological types of idealism. The real, for Professor Royce, is the purpose which the idea serves, a purpose which we consciously entertain in the selection of the idea. So far as this purpose is ideal it is a logical construct, so far as it is consciously entertained it is psychological. But Professor Royce departs from pure idealism in thus giving undue

prominence to the teleological and volitional elements in reality. Moreover, he is ultimately forced to reconstruct reality, not as ideal but as actual, under the title of the absolute consciousness. In concluding, the author of this article states his own theory of reality: Reality is neither inert matter nor thing-in-itself, as most realistic systems of philosophy imply, nor is it merely ideal, but it is best defined as activity. "Being is that which acts, and ultimate reality is a system of ordered activity, in which every part is related to every other part."

IRA MACKAY.

Naturalism and its Results. C. C. EVERETT. New World, IX, 35, pp. 486-503.

Naturalism originated in the humanism of the Renaissance. At first man and his interests were recognized, but, as the system developed, so much attention was given to nature that there was little chance for mental and spiritual faculties. The ideal of the naturalistic philosophy is to reduce everything to mechanical process. The human mind, the human will, and the unity of the spiritual life are cast aside. Naturalism as a system has failed. Agnosticism is a confession of failure. But though Naturalism has failed as a system, its influence is felt in all forms of life and thought. It has promoted the physical well-being and the political freedom of man. One must say, however, that evil comes with the good. The ideal elements of human life have been obscured. Art has been destroyed. One of the great results of naturalism is to be seen in the religion of the present time. As the monarch and the priest are now seen to be men like other men, so the tendency is to see in the Bible a book like other books. As these views become common, the Bible will lose in popular regard. Naturalism, by means of great discoveries, has forced us to think of God as Divine Immanence, instead of being a God apart from the world. In former times the Church was regarded as the ark of safety, now it represents the culmination of life only as it lifts the ordinary relations of life to a higher plane. "However helpful these results may be in many ways, they have been procured at a great cost. Henceforth, Christianity will stand without the explicit supernatural authority by which it has compelled the allegiance of the world, without the external God to whom has appealed, and must be content to take a humbler place in relation to the affairs of life."

G. W. T. WHITNEY.

What is Agnosticism? ALFRED W. BENN. New World, IX, 35, pp. 466-485.

This article aims at an explanation of agnosticism. The writer thinks that such an explanation will be useful, since the originator of the term, Professor Huxley, never adequately nor consistently defined it. The definition of agnosticism in the *Oxford Dictionary* would exclude Herbert

Spencer, who is the chief of the agnostic school. Elsewhere Huxley defines agnosticism in such a way that it has almost nothing in common with the definition indirectly attributed to him in the *Oxford Dictionary*. "In matters of the intellect follow your reason as far as it will take you without any other consideration, and do not pretend that conclusions are certain which are not demonstrated or demonstrable." The author thinks that Mr. Stephen put the agnostic case in a nut-shell when he said: "There are limits to the human intelligence, and theology lies outside those limits." Agnostics contend that something exists independently of phenomena, but a something that cannot be known. In regard to the material world, even supposing force and matter to exist independently of our conceptions, we cannot know what they are in themselves, nor the reasons for their behavior. It is impossible to know how consciousness originated. We can never know what the ultimate reality is, whose presence we feel in all phenomena. The writer, at the close of his article, summarizes in these words his own conception of agnosticism: "It is the philosophy of those who hold that knowledge is acquired only by reasoning on the facts of experience; that among these facts supernatural events have no place; that facts, if any, lying beyond experience, are inconceivable; and that no theory, theological or otherwise, professing to give an account of such a fact, has any legitimate claim on our belief."

G. W. T. WHITNEY.

Les sciences naturelles et l'histoire. A. D. XÉNOPOL. Rev. Ph., XXV, 10, pp. 374-387.

This essay is a statement of M. Xénopol's own views upon the relation between the natural sciences and history, but it takes the form of a review of a book by Dr. Heinrich Rickert, published in 1896. With most of this author's conclusions M. Xénopol heartily agrees. Only the first part of his work—a "logical introduction to the historical sciences"—has yet appeared, however. "The thesis which Herr Rickert purposes to demonstrate is, that the tendency to apply the method of the natural sciences to history, rests on a confusion having its origin in the lack of a precise distinction between the objects of these two disciplines of the mind; and, also, that the attempt to treat historical investigation as a natural science is an unsolvable problem, a true logical contradiction." The mind can gain a knowledge of things only in two fashions, by means of (1) general notions, and (2) individual perceptions. The first of these gives rise to the sciences of law (the natural sciences in the widest sense of the term), and the second to the historical sciences. "It is not the mind which introduces the idea of generality into the phenomena which it studies; that element exists, and the mind only states it. Neither is it the mind which conceives of the individual; the individual likewise is imposed upon it by the formation of reality." But here the author differs from Herr Rickert. History does not differ from the natural sciences because it deals with individuals as such,

but because it deals with individuals "produced by the transformations of time." A unique fact—so long as it is continuous—may be brought under a law. Historical facts, as such, cannot, because each occurs but once, and that only for a short period. "The natural sciences are then, for us," says M. Xénopol, "those which treat of phenomena of repetition which do not depend upon the element of time, so becoming eternal and general; the historical sciences those which treat of phenomena which alter under the action of time, and which, therefore, are individual." Sociology, for instance, is a science of the former class, since it deals with selected, generalized facts, and in so doing it is separated from history, which, indeed, selects its facts because, being finite, it must, but takes these facts in their entirety. "The laws of development tell us nothing of the development itself," adds M. Xénopol. That is the task of history.

GEORGIA BENEDICT.

Truth-Seeking in Matters of Religion. ELIZA RITCHIE. Int. J. E., XI, 1, pp. 71-82.

A critical examination of the religious doctrines learned in childhood is the task of every intelligent person. While the nature and scope of such investigation remains a problem, its object must be the attainment of truth. That the undertaking should be justified, truth must be shown to be a good in itself, or in its consequences. Besides being instrumental to happiness, knowledge is the required food of the intellect. A new truth is not merely an addition, but it reacts beneficially upon knowledge already gained. New truth is then necessary to mental development. It is objected, however, that man has an emotional as well as a rational nature, and that while religion comforts the heart with faith and hope, reason would destroy happiness by substituting cheerless facts. Hence prudence wisely shields belief from rational criticism. We may reply that religious doctrines timidly protected from critical scrutiny afford no permanent consolation. Moreover, a correct psychology does not permit reason and emotion to be thus opposed. Truth loses none of its worth if criticism proves its historical setting mythological. Neither will emotions prompting to altruistic action lose their efficacy, if confined to the natural world and deprived of supernatural sanctions. Much of the disinclination to submit religious doctrine to rational criticism is due to a wrong conception of truth, which is thought of as a barren abstraction divorced from living experience. On the contrary, truth is an apprehension of concrete reality. As intelligent beings, truth is our ideal, and consequently our standard of worth. Conscience and imagination depend upon reason, and theology could ill afford to stifle this faculty which makes idealization possible.

H. W. WRIGHT.

PSYCHOLOGICAL.

Beiträge zur Analyse der Gesichtswahrnehmungen. F. SCHUMANN.
Erster Abhandlung. Einige Beobachtungen ueber die Zusammenfassung von Gesichtseindrücken zu Einheiten. Z. f. Ps. u. Phys. d. Sinn., XXIII, 1 and 2, pp. 1-32.

Schumann has undertaken here an excursus into the more obscure regions of visual psychophysics—an investigation of the puzzling conditions which underlie the apperception of a complex of visual elements as a unity. The problem is analogous in many respects to that of tonal fusion, and it is evidently Schumann's desire to do for the psychology of vision what Stumpf has already done for the psychology of tone. Numerous groups of lines and geometrical figures were examined to determine the various combinations in which different observers cognized them. In a complex of visual elements—a series of lines or crosses or dots—the attentive consciousness picks out certain figures or patterns about which the remaining elements are systematically arranged. In many cases these patterns or figures seem to follow the lines of least resistance for visual accommodation; that is, the resulting pattern is really delimited by that part of the complex which lies in the field of clearest vision. But the author's experiments show that this is not always the case, and that the determining lines of a particular pattern may not necessarily be the lines which are most easily accommodated. He is therefore forced to the conclusion that the "ultimate cause is to be looked for in the central conditions," undoubtedly in the general conditions of attention and inattention, or, rather, in the differentia which are involved in this dichotomy between kinds of consciousness. The concept of unity is then analyzed in some detail, especial reference being made to Ehrenfel's doctrine of "Gestaltsqualität."

W. C. BAGLEY.

Religion et folie. DR. SANTENOISE. Rev. Phil., XXV, 8, pp. 142-164.

The purpose of this article is to prove the close connection of religion and insanity. From the scientific point of view, there is no more distinction between normal religion and religious mania, than between normal and pathological physiology. We must consider whether the psychical phenomena of religion are not identical with some of the phenomena of mental disease. Belief is the fundamental characteristic of all religion, and to consider it we will adopt the standpoint of a philosopher incredulous of all positive creeds. For him belief is an error, or a collection of errors. Now the alienist defines a delirious conception as a false idea, *i. e.*, an error. Errors may be classed as purely intellectual, or as both intellectual and affective. The second class is that of the errors of delirium. The usual classification of these may, for the consideration of 'normal' religion, be abridged to the following three groups: (1) ideas of grandeur; (2) ideas of humility and despair; (3) ideas of persecution; and to these may be added (4) ideas of pro

tection. More briefly, we have (*a*) ideas exalting personality, *i. e.*, classes (1) and (4); (*b*) ideas depressing personality, *i. e.*, classes (2) and (3). In Christianity, we find examples of (*a*) in the beliefs in priestly power, and in those of divine and saintly protection, intervention by miracles, etc., all as the result of prayer, which involves a peculiar mental attitude. The ideas which depress personality are still more prominent in the fear of judgment and of invisible enemies. These two classes of ideas are accompanied in some instances by appropriate hallucinations, the first by visions, the second by sensory illusions ascribed to the devil. Negative psychic phenomena are also evoked by religion as by any systematic delirium; such are the extinction of the senses in ecstasy, and the abolition of natural affections among the saints. As consequences of all these morbid psychic states, we find morbid actions of ascetic character. All believers are not madmen because most are not *real* believers, their faith being an intellectual, not an affective, error; and besides, religion is a mold which forms but does not create morbid characters and ideas. The strange affinity of religion and insanity may be explained from the fact that religion had its origin in part in a morbid mind, which may be illustrated by the examples of Christ, and of the prophets who preceded Him, and the saints who followed. Some insist that, on the contrary, irreligion is the cause of insanity; and the immense influence for good of all religions, and of Christianity in particular, must be admitted.

EDMUND H. HOLLANDS.

Les "esprits animaux." A. GOFFART. Rev. Néo-Scolastique, VII, 2, pp. 153-172.

Although many scientific theories of the mediæval period have fallen into desuetude, some of them, for example the theory of "*Esprits animaux*," are still interesting to the student. The present work is a study of the theory as it has been professed by Bacon, Descartes, and St. Thomas Aquinas. The theory of Bacon is discussed under the three headings of corporal spirits, vital spirits, and animal spirits, and is put down as purely chimerical, contradictory to the notion of life. The subtle animal spirits of the philosophy of Descartes are discussed as to origin, nature, and function; and are resolved into a simple mechanical element. The author hopes that the discussion may give useful information regarding the strange conceptions in anthropology, and that it may throw a ray of light upon ancient psychophysiology.

F. M. WINGER.

Judgments of Magnitude by Comparison with a Mental Standard. R. S. WOODWORTH and EDWARD THORNDIKE. Psych. Rev., VII, 4, pp. 344-355.

The special aim of the paper is to show that accuracy of judgments of magnitude depends upon more than mere quantum of sensation, that judgments of difference may be based upon a feeling of tension felt in passing

from one stimulus to another, or felt in passing from the associates called up by one to the associates called up by another. The work is a study of the relation between the accuracy of judgments of magnitude, and the actual magnitude when the basis of judgment is a mental standard. The method was to guess at the length, size, or weight of certain lines, areas, or weights, then to note the magnitude and record the error. Eleven figures are given plotting the curves which show the relation between such estimates, and estimates as they are according to Weber's law. From the results obtained it is concluded that magnitude may play a very small part in the final judgment; the absence of correspondence with Weber's law observed by Fullerton and Cattell holds true of judgments of comparison with a mental standard. Also, since the forms of the curves vary with different subjects, it is concluded that ordinarily there are many factors besides the magnitude judged which affect the accuracy of the judgment. F. M. WINGER.

La psychologie objective. L. GERARD-VARET. Rev. Ph., V, pp. 492-514.

Objective psychology distinguishes itself from subjective, or direct, or introspective psychology, in that it is indirect and studies the facts of mind by means of outward manifestations. The two forms always supplement each other, although they have neither the same limits nor the same domains. Knowledge of self is gained in great part from knowledge of the imperceptible fraction of humanity which most resembles us; whereas objective psychology prefers to study men of different countries, other races, and other times. It has its roots in the philosophy of evolution. History is the material of sociology, and sociology is the material of objective psychology. Mental evolution is continuous; tendencies are universal and permanent. Customs may disappear from civilization, tendencies remain. Objective psychology studies the always permanent and visible sentiments of religion and justice, and the more unconscious and hidden sentiments. Like experimental psychology, it is an instrument of revelation and penetration. It begins where introspection leaves off. It is neither a simple result of sociology nor a collection of the results of introspection; it is an indivisible compound, and a unique observation of the external and the internal, of sociology and of subjective psychology, and its methods include the method of each. Objective psychology includes a study of the 'seven ages' of the life of the individual, and of the different periods of development of mankind. It begins with the beginning of sensation, and follows all the steps consequent upon sensation. Evolution has founded objective psychology, and objective psychology, at least in the world of mind, can complete evolution. F. M. WINGER.

A New Explanation for the Illusory Movements seen by Helmholtz on the Zöllner Diagram. H. A. PIERCE. Psych. Rev., VII, 4, pp. 356-376.

After a brief description of the Zöllner illusion the author proceeds to the

explanation—for the existence of the illusion is incontestable—it is only as regards explanation that there may be discussion. Helmholtz, Thiéry, Filehne, and Judd, have offered explanations along the line of geometrical optical illusions, but this new explanation is in terms of peculiarities of retinal stimulation. The author attaches importance to the fact that one's attention is directed to the heavy-line diagram. "Horizontal movement of the eyes across lines lying oblique to their direction, is equivalent in retinal terms to an ascending movement of the entire set of obliques over a resting retina." The illusion is then caused by the peculiar manner in which stimulations travel upon the retina. From this conclusion result corollaries as to rate of illusory movement, smoothness of its progress, slope of the oblique, and direction of column-movement as a consequence of direction of oblique; all of which support the proposed explanation. The basis for the old explanations is swept away and a new one is given, which satisfactorily accounts for all the peculiarities connected with the Zöllner pattern.

F. M. WINGER.

Die Identifizierung von Persönlichkeiten. C. M. GIESSLER. V. f. w. Ph., XXIV, 3, pp. 299-312.

This article is a psychological analysis of the process of identification as applied to personality. The author—as a basis for his discussion—proposes to distinguish three kinds of reproduction: (1) of sense impressions, unaccompanied by an affective tone, (2) emotional, and (3) 'ingeniöse,' involving an intellectual mood. These he treats as part processes in our memory for personality, which he next proceeds to derive. (1) Personal characteristics are repeatedly the objects of sense perception. The capacity for reviving these as a unitary experience is dependent upon the 'degree of our acquaintance,' *i. e.*, upon the number of repetitions of these impressions together in consciousness. (2) The 'feeling of self' reacts upon meeting another person. The impressions received are connected in consciousness with the emotions of love, hate, etc., the characteristic inhibitions and organic sensations. The degree of liability of emotional reproduction is dependent upon the number and strength of these reactions. (3) Memory of a person is also modified by the situation. The self reacts upon the complex of ideas which go to form the situation, and an intellectual mood results. Meeting in a new situation calls up the complex of ideas attaching to the old situation with their attendant mood. The liability of the 'ingeniöse' reproduction is dependent, then, upon the number and character of the situations involved. In describing the process of identification, the author introduces the physicist's formula for 'equal potentials,' which, as he uses it, is equivalent to the psychological concept of equal effectiveness for reproduction. The process of identification has three moments. There is first a localization in space. Secondly, among the possible situations, those are sought out that possess an equal effectiveness for reproduction with the impressions received from the individual to be identified. The number of

these is further limited by the selection of those in which the 'feeling of self' has reacted in a manner similar to the present. Lastly, the 'ingeniöse memory' functions. Should, however, the person to be identified be familiar, the process of identification is completed before the 'ingeniöse' reproduction is called into play. When the person to be identified was associated with an earlier period, the process is further complicated by a localization in time. In this case, emotional memory is the first to function.

C. R. SQUIRE.

ETHICAL.

The Ethics of Tolstoy and Nietzsche. MAURICE ADAMS. Int. J. E., XI, 1, pp. 82-106.

In their ethical systems Tolstoy and Nietzsche are the antithesis of each other. But this opposition points to a shortcoming fundamental to both. This common defect may be traced to the reaction against the rationalism of the enlightenment, expressed most forcibly in Schopenhauer who has exerted great influence upon these two men. In agreement with Schopenhauer, Tolstoy and Nietzsche deny to reason any participation in the moral life and make feeling the basis of their ethics. But with Tolstoy it is the feeling of sympathy and love, while with Nietzsche it is the feeling of pride and self-sufficiency. Tolstoy believes man to be awakened to moral reflection by an internal conflict. An animal nature with impulses directed to self-gratification struggles with a spiritual nature whose essence is infinite love. Experience teaches that individual welfare is unattainable, and that its pursuit yields only misery and sorrow. To make life endurable, then, man must develop his true self, that spiritual element which manifests itself in deeds of love and sympathy. The animal impulses are essentially sinful, because they are obstacles to the manifestation of love. Moral development requires complete asceticism and the suppression of all the natural instincts. In the ethics of Nietzsche, good is identified with fulness of physical life, feeling of power, and entire self-sufficiency; bad with weakness and diminution of life. His ideal is the conqueror, perfect in endowment, and egoistic even to harshness and cruelty. Love and sympathy indicate weakness and dependence, the negation of life. Indulgence of the animal instincts shows strength, repression of them weakness. Christianity with its disciplinary and altruistic morality is a conspiracy against life itself. These two systems in their opposition complement each other, and demonstrate conclusively the impossibility of founding an ethics upon feeling alone, to the neglect of reason.

H. W. WRIGHT.

The Relation of Ethics to Evolution. A. W. BENN. Int. J., XI, 1, pp. 60-70.

The theory of biological evolution is an outgrowth of the idea of universal history as a process toward the realization of the supreme good—an exten-

sion of the idea to the development of the human species and of all lower species. But many now hold that evolution leaves no room for such a position ; that mechanical causation excludes teleology ; that vital development need not follow the direction of ethical progress. Suppose, then, that evil is destined to triumph, will this affect our ethical system ? No, for success is not a criticism of moral values. Neither does the assumption that the good will triumph add to its authority. It can only add the non-moral inspiration of being on the winning side—a natural sanction which may be as derogatory to the purity of moral motives as a supernatural sanction has ever been. Evolution as a transition from one state of equilibrium to another cannot be eternally prolonged. Even now human evolution seems almost entirely restricted to social lines ; and we may expect individuals to be modified, if at all, in the direction of better adaptation to the social state, *i. e.*, of higher morality as we now conceive it—a process that cannot affect the science of ethics. Nor can the fact of evolution in ethics itself detract from the certitude of the developed views. Evolution has thrown no new light upon ethics. It has suggested arguments on both sides of many ethical questions—afterthoughts that leave the real motives of conviction to work as before.

THEODORE DE LAGUNA.

The Normal Self: A Suggested Formula for Evolutionary Ethics. R. R. MARETT. *Mind*, N. S., No. 36, pp. 496–511.

The method of definition which comes from Plato and Aristotle implies static views of phenomena ; it is supplemented by the method of discovery, implying a dynamic view. Evolutionary ethics must have its definition ; its methodology must recognize a formal part whose function is to give stability to its material part. Ethics is evolutionary because it embodies the effort to synthesize inner and outer character and conduct, psychological condition and environment. Hence, the norm studied by ethical science must always be a complex of more or less transitory features. The actual best for us, instead of being unqualified, is in its very essence composed of qualifications. Since by the external test, normal moral action is composed of action primarily self-regarding and primarily other-regarding, the normal self is not a product of a single group of instincts, but is a complex of instincts welded into relative harmony by habit, tradition, and reasoned choice. The abnormal self is the product of every kind of unfortunate variation. In spite of the partial contradictions which it contains, the normal self is *the* fact which ethical science needs to posit in the forefront of its general definitions, and, like any other experimental formula, it is entitled to prevail until it succumbs to a doughtier rival.

F. M. WINGER.

Morale et psychologie. E. DE ROBERTY. *Rev. Ph.*, XXV, 10, pp. 329–345.

Under this title is published one of the lectures in the course upon the constitution of ethics recently given by M. de Roberty at the new University

of Brussels, and at the École de morale at Paris. In it, ethics is treated as a branch of sociology—"the world of ideas has two distinct sources, (1) the laws or conditions of organic life, and (2) the laws or conditions of social existence; biology is the science of the first, sociology of the second,"—but ethics is considered by far the more important branch of the latter science. The tendency to subordinate the second set of laws to the first has been the great fault of modern philosophers, especially those of the positivist school. Even among these, however, sociality is admitted to be a profound natural instinct. From this would necessarily arise, in certain exceptionally endowed individuals, a 'social consciousness,' the workings of which form the proper subject matter of ethics. But the very difference of intellectual endowment ultimately gives rise to a differentiation or specialization of social functions, and hence the author supposes "that the psychical differentiation of social individuals constitutes the first condition for the strength, stability, and duration of the ties uniting them." Morality is not, however, the product of intellectual progress, rather, intellectual progress is, if anything, conditioned by it. "Without moral consciousness there is no science," *i. e.*, exact knowledge, though without science the moral consciousness can never thoroughly develop itself. A pessimistic theory asserts the existence of an unknowable moral law. "I shall not stop to criticise its profoundly illusory character," says M. de Roberty, "but I may permit myself to observe that the old theory of the indetermination of moral phenomena was at once more frank and more logical."

GEORGIA BENEDICT.

Cause et origine du mal. L. BOURDEAU. Rev. Phil., XXV, 8, pp. 113-141.

Reason seeks a common explanation for the goods and evils of life; the explanations of theology and of metaphysics are inadequate; in place of hypotheses, science demands an explanation from natural and verifiable causes. Every finite being is composed of more simple beings coördinated in a whole, and is itself a part of a larger aggregate. Thus each contains a principle of harmony, due to the coördination, and one of strife, due to the fact that each part retains its egoistic individuality and has its own needs and tendencies as against those of the whole; and the same is true of the whole as against the part. Every being has a keen notion of its own personality and interests, but a less keen notion of those of the simpler or more complex beings of which it is either an aggregate or a part. This inevitable discord extends from the lowest cell to the limits of the universe, and is the cause of evil. In *man*, the psychical and physical are at strife, and within them their parts again. In *society*, is the same strife: in the family as the conflict of sexes, of parent and child; in the nation as conflict between the transient interest of the citizen and the permanent interests of the state; the strife between nations and races is incessant, and

even they are sacrificed to the progress of civilization. In *nature*, man has gained a foothold by a long conflict ; in turn the *reaction* of her laws upon man is pitiless. The last and most insupportable evil is death, which is yet the fundamental law of universal life, and sums up in itself the conflict of the universal and its parts.

EDMUND H. HOLLANDS.

HISTORICAL.

'*Ενέργεια* 'Ακινήσις. F. C. S. SCHILLER. Mind, No. 36, pp. 457-468.

In determining the relation of Aristotle's ideal of being to earlier conceptions of reality, one can trace the usual antithetical movement of thought. The rigid monism of the Eleatics was followed by the Heraclitean theory of becoming. Plato again emphasized *οὐσία*. For although he recognized a partial reality in experience, the only true reality was in the timeless idea. 'Function' (*ἐνέργεια*) is more adequate than *οὐσία* because substance apart from activity is an abstraction. But we have difficulty in differentiating 'function' from 'process' (*γένεσις*), owing to our habit of regarding it as a 'motion' (*κίνησις*). Aristotle, on the contrary, subsumes *κίνησις* under *ἐνέργεια* ; it is an imperfect *ἐνέργεια*. The perfection of *ἐνέργεια* involves the disappearance of time, and is possible only in the case of pure form. It seems paradoxical to say that there can be motion, life, and consciousness, without change. But one can regard an equilibrium, not as rest, but as a perfecting of motion until it is regular and frictionless. In the case of life (adjustment of organism to environment), the conception of changeless activity is easier. There is no reason why life should cease when adjustment becomes perfect. In the case of consciousness, fluctuation of attention is due to unsatisfactoriness of the object. If one could eliminate the last source of unrest, consciousness would go on, not out. Becoming and rest are inadequate ; '*Ενέργεια* 'Ακινήσις alone is conceivable as an ideal of being. It involves a positive conception of eternity, and it leaves no place for the unknown 'substrat view' of substance.

N. E. TRUMAN.

Le pari de Pascal. L. DUGAS and CH. RIQUIER. Rev. Phil., XXV, 9, pp. 225-245.

We cannot know that God exists, but we must believe that he exists—such is the conclusion of Pascal's celebrated *argument of the wager*. The argument was not wholly new with Pascal. The general theory of necessary practical risk was formulated by Descartes. But Pascal's application to the existence of God was peculiar, premising first, that we cannot know by reason whether God exists or not ; second, that we are interested in resolving the question, and that in a certain way. According to Pascal, there are two modes of knowledge, intuition and discursive reason. To the unaided natural man, God can be known in neither way ; but God by his grace, may reveal his existence to intuition. All scientific first principles

are incomprehensible, known nevertheless to be true by the manifest falsity of their contradictories; but God's existence cannot be known even thus. Hence revelation is necessary—*i. e.*, Christian revelation; for heathenism, atheism, and natural religion are equally ineffectual. Even Christian revelation, in this life, shows but the existence of God; his nature will appear in his glory hereafter. Moreover, God reveals his existence to those only who have already *turned toward him*—conversion is prior to knowledge. Man must first comprehend his true interest and conform his conduct thereto. And since this cannot be done upon knowledge, it must be done at hazard. Hence the forced wager.

The authors give Pascal's text with a parallel interpretation, filling out several ellipses and lacunæ. The hazard is whether to renounce the pleasures of this life for the chance of an eternal life, which is dependent on God's existence. The first section supposes the chances even; the second, that the chances against God's existence are infinite, the third criticises those who attach undue value to the certitude of this life. The first two premise that in the player's eyes the stake is of no value as compared with the possible gain—a judgment which springs from a very questionable mathematical analogy—and is formally valid; the third vainly attempts to show the opposite hypothesis untenable. The argument is professedly negative; not edifying the faith, but combating prejudices which reason may entertain against the faith.

THEODORE DE LAGUNA.

Kant und der Pessimismus. EDWARD VON HARTMANN. *Kant-Studien*, V., 1, pp. 21-29.

This article is a defence of the theory set forth in the author's *Kant als Vater des modernen Pessimismus* against criticisms made by Dr. Wentscher in an earlier number of *Kant-Studien*. *Eudæmonological* should be carefully distinguished from *eudæmonistic* pessimism. The latter, taking happiness as the standard of evaluation, declares that the not-being of the world would be better than its being, and thus becomes *absolute* pessimism; the former simply says that moral activity is attended with more pain than pleasure. The author attempted to show that Kant is a *eudæmonological* pessimist, but that since he takes morality as his standard and thinks that the passive value of the world, as measured by this standard, outweighs its negative value when it is measured by the standard of happiness, his pessimism is only *relative*. Wentscher, not admitting the distinction between absolute and relative pessimism, charges the author with having sought to prove that Kant is an absolute pessimist.

Wentscher also tries to show that by his conception of the self-approval which attends virtuous action, Kant saves even his *eudæmonological* pessimism from being thorough-going. But this attempt to show that Kant held a refined sort of *eudæmonism* is unsuccessful. Although in his desire to appeal to the popular understanding, he sometimes uses expressions

which seem to justify the interpretation, we must reject it because it contradicts his 'express declarations' and the spirit of his whole teaching. We interpret him more correctly when we say that eudæmonological pessimism is "a postulate of the moral consciousness," because it is "an indisputable presupposition of an ethical idealism which is free from all admixture of eudæmonism."

ELLEN BLISS TALBOT.

Der Zweckbegriff bei Kant. A. PFANNKUCHE. Kant-Studien, V, 1, pp. 51-72.

With Kant the concept of purpose enters upon a new stage of development. Previous philosophers had made it a metaphysical principle: Kant abandons the metaphysical point of view and develops the concept in two directions. The starting point of his teleology is the principle of the formal purposiveness of nature; and this principle is applied (1) to the concepts of nature, and (2) to the concepts of freedom. (1) Under this heading, three points should be noted. (a) The principle of formal purposiveness is at bottom nothing more than a philosophical way of putting the hypothesis of the intelligibility of nature. (b) If we attempt to find the metaphysical grounds of nature as a whole, we cannot help thinking of it as a purposive system; but this does not necessarily involve a collision with the principles of a pure mechanism. Our explanation of this purposive system can rest only upon grounds of probability, and among these Kant gives the preference to the theistic explanation; but none of these attempts at explanation constitutes objective knowledge. (c) The concept of purpose is indispensable for the discovery of causal connections. As so used, it is simply a logical method; and the investigation of nature by means of it is simply an attempt to comprehend natural objects through the laws of mechanical causality. (2) We have seen that the principle of formal purposiveness, viewed in relation to the concepts of nature, means that nature is capable of being comprehended by the understanding. As viewed in relation to the concepts of freedom, the principle means that nature is capable of being useful to man. But nature is useful to man, not in the sense that its laws subserve the particular end of man's happiness, but in the sense that, by subserving all sorts of ends, they afford a means of moral culture.

ELLEN BLISS TALBOT.

NOTICES OF NEW BOOKS.

La France au point de vue moral. Par ALFRED FOUILLÉE. Bibliothèque de philosophie contemporaine. Paris, F. Alcan, 1900.—pp. vi, 412.

M. Fouillée's work has interest and value as well for foreigners as for his own countrymen. The analysis he offers of the present moral condition of France, his examination into the causes which have produced what is unsatisfactory in it, and his suggestions as to the remedies which are needed, are worth the attention of the sociologist, the educationist, and the student of ethics. So often has the character of the French, and of the so-called 'Latin races' generally, been made the subject of Pharisaical and often ignorant condemnation on the part of other peoples, that we can forgive the author a little over-anxiety to prove that his country is not at heart less morally sound than are other nations. But he does not deny the existence of grave evils. He considers at length the increase in juvenile criminality, the venality, indecency, and scurrility of the press, and the insufficiency of the existing school system as an agent for the moralization of the nation; and the whole discussion displays that thoughtfulness, candor, and lofty ethical tone with which readers of M. Fouillée's previous works are familiar. Idealist though he is, the author is thoroughly practical in the curative measures he proposes. Among these are the establishment of a complete responsibility before the law on the part of the press, as the condition which alone can render safe its equally complete liberty, an adequate teaching of moral principles both to school children and to those who have left school, the more certain and effective punishment of crimes, especially of such as are due to passion, which often at present are considered excusable and go unpunished, and the reorganization of the educational curriculum, which now in the attempt to give to each and all an instruction that shall be *intégrale*, leads too often to the acquisition of a superficial smattering of many sciences; in place of which the effort should be to produce "a culture rather intensive than extensive, to particularize instruction rather than to universalize it." We recognize that his strictures might be applied to other countries than France when we read: "*Nos programmes encyclopediques sont le chef d'oeuvre de l'ignorance pedagogique.*"

True to his belief in the efficacy of the *idées-forces*, M. Fouillée looks mainly to the direct education of the moral nature for the ethical reformation of his country. Strenuously opposed as he is to the pretensions of that materialistic socialism which regards right economic conditions as the all-essential factor in human welfare, he perhaps, in his turn, undervalues the influence for good and evil of the material *milieu*, even while admitting that the tendency of the population to flow into the great industrial centers has an important bearing on social and moral problems. It may be, also,

that he is not in full accord with modern psychological science, in attaching little or no importance to the physical education and recreation of the young. Without regarding the foot-ball or the bicycle as a never-failing means of grace, it may at least be admitted that healthy out-door amusements, especially such as make a demand on the social virtues of mutual helpfulness, forbearance, and fair play, have an educative and moralizing value not far inferior to that of direct ethical admonition. If there is a not unnatural willingness to follow in this respect the lead of 'the Anglo-Saxon,' and we detect traces of such a feeling in M. Fouillée himself, surely France might here accept as her model the higher example of ancient Greece. But even if one thinks that the author's plan for the moral development of the young might advantageously have some additions made to it, it is none the less excellent in its main points. His scheme for the thorough teaching in schools of a morality which shall be idealistic, and in the best sense philosophical, while yet practical and wholly unencumbered with theological doctrine, is worthy of the careful study of those interested in one of the most important and difficult problems of modern education.

E. RITCHIE.

Die Theorie des Milieu. Von Dr. EUGÉNIE DUTOIT. Bern, C. Sturzenegger, 1899.—pp. 136.

This book is mainly occupied with a critical discussion of Taine's brilliant, if not altogether trustworthy explanation of personality by means of environment. The account given of Taine's literary career is interesting, and the objections offered to his theory are, in the main, sound in principle, and fair in tone. It is now generally recognized that Taine's real merit lies not so much in the specific explanation he gave of particular movements and men, which were certainly often forced and over-confident, as in his insistence on the importance, for any right understanding of events and persons, of an investigation into preëxisting and coëxisting psychical, social, and physical facts—in short, in his faith in scientific methods as applicable to history in all its branches.

E. RITCHIE.

Elemente der empirischen Teleologie. Von PAUL NIKOLAUS COSSMANN. Stuttgart, A. Zimmer's Verlag (Ernst Mohrmann), 1899.—pp. 132.

This book is a protest against the present tendency to regard all natural law as comprehended under the category of causation. The author disclaims any desire to minimize the advances made in the sciences as a result of this point of view; moreover, he admits without reserve the universal validity of the law of causation; but he thinks that an impartial investigation of the biological sciences will disclose another law of no less importance. The members of the causal nexus are bound together by more than causal relations. All organic life displays the operation of the law of teleology. An implicit acceptance of such a view, even if it has not yet met with adequate expression, is made evident by the frequent use of teleological concepts in recent biological literature. The writer explains that he uses the term biology to comprehend all the sciences that concern living organisms,

including psychology ; and he gives a well-selected set of instances taken from standard books upon these subjects, where teleology is not only used as a mode of explanation, but where it could hardly be replaced by causality. An analysis of typical examples shows a special form of connection (1) in the structure and (2) in the functions of living beings. This biological connection or law may be called teleology, although it by no means implies all that has been understood under that name. If it is contrasted with causation, the difference between the two is evident. Causation asks : Why does *A* coexist with *B*? Teleology asks : Why does *C* coexist with *D*, so as to make possible the function *E*?

So far the writer seems to have made his point, for the law of causality does not furnish a satisfactory explanation for everything. As Herr Cossmann says, it is *allgiltig* but not *alleingiltig*. Great care has been taken to avoid unnecessary metaphysical implications, and any special form of teleology, particularly that which affirms present or future perfect adaptation, is cautiously set aside. That there is some such connection, some law, seems to be proven. The formulation of the law, however, is less convincing. The author regards it as the necessary connection between three conditions or factors, called the antecedent, the medium, and the succedent. The second succeeds the first in time, but there is no such temporal connection between the second and the third. The medium is a condition of the organism, determined, on the one hand, by environment and the nature of the organism, on the other, by the function for which it is adapted, by the final cause. The former of these determinants is the antecedent, the latter, the succedent, which is a condition either of the organism itself or of its immediate posterity. Sometimes it may be absent altogether, sometimes it is identified with the preservation of the species. Obviously, there is no necessity for the succedent to be present to anyone's thought ; to make it analogous to a conscious end is hardly justifiable. None of the terms can be regarded as in any way fixed. They are all a part of a larger synthesis, and in it may often change their names ; just as in causation, *B* may be cause or effect, according as one connects it with *C* or with *A*. In the teleological nexus, however, each successive member is more universal than the preceding one.

Leaving the question of the general law of teleology, the author passes to a consideration of the problems presented to the different sciences in the study of the special laws. He advocates the adoption of the methods used in causal investigations, inasmuch as these have met with such satisfactory results, but regards induction, from the nature of the case, as much more valuable than deduction. All investigation of the laws of teleology must begin with the individual ; and no deduction is possible until there has been wide use of the inductive methods of description, comparison, and experiment. Even when this has been done, and deduction has been made possible, it is still dangerous, because it admits of too much generalization. In conclusion, a table is given of the various teleological problems.

GRACE NEAL DOLSON.

Der Leibnizsche Substanzbegriff mit besonderer Beziehung auf seine Entstehung und sein Verhältnis zur Körperlehre. Inaugural Dissertation.
 Von H. FRANK RALL. Halle, a. S., Druck von Ehrhardt Karras,
 1899.—pp. iv, 70.

The title indicates the main aim of this monograph. There have been many expositions of Leibniz's doctrine of substance, but either they have been of a one-sided character, or they have failed, or been unable to make use of the wealth of material recently rendered accessible. Dr. Rall insists that, in spite of a certain preference for the *a priori* method, Leibniz neither attained to his fundamental conceptions, nor from them developed his system by employing that method. He finds that Leibniz was in full sympathy with the scientific movement of his time, and that starting from observations and experience, and ever returning to them for confirmation, Leibniz's conception of substance was put forth by him as a hypothesis which would explain and harmonize all that is given in outer and inner experience. Attention is called to Leibniz's rather free use of the terminology of past systems, and to the misinterpretations of his system which have arisen from fastening upon the terminology, to the neglect of the underlying, and often decidedly original, thought. Attempts, also, to present the system as a development in the mind of its author, have led to erroneous historical constructions of it. Dr. Rall does not believe that any such historical construction of Leibniz's philosophy is now possible. He holds that the fundamental ideas of the system are contained in the *Discours de métaphysique* and the letters to Arnauld, both of the year 1686. In these, Leibniz presents his fundamental conceptions at once in substantially their final form, although the terminology is later considerably changed. Dr. Rall's contention here (pp. 81 ff. and *note*), as against Erdmann and Stein, seems to us well made out. The needed qualifications are made (p. 25) later. An able criticism and refutation follows (pp. 9–13) of Stein's contention, in his *Leibniz u. Spinoza*, Berlin, 1890, that during the years 1676–1681, Leibniz was a Spinozist, and owed to Spinoza his escape from Cartesianism, and even the method which he later employed in attacking the philosophy of Descartes.

The subject of the *Erster Abschnitt* (pp. 15–22), is *Die Entstehung des Substanzbegriffes*. Starting from the actual observation and experience of 'body' as resisting, moving, and divisible, Leibniz was led, through the criticism of Descartes's conception, to his own notion of substance, and to the position that this substance must explain the actual world. The two objections which Leibniz urges against Descartes's conception of 'body,' and through which he reached his own conception of substance, were: 1. That extension alone does not suffice to explain the nature of body, as it fails utterly to account for resistance (impenetrability) and motion; to explain which we must have recourse to *force*. ("The general principles of corporeal nature and of mechanics itself are metaphysical rather than geo-

metrical.'') 2. That extension gives us no *unity*. The extended is always divisible ; while unity and true substantiality are inseparable.

The subject of the *Zweiter Abschnitt* (pp. 23-50), is *Die entwickelte Lehre von der Monade*. We can only allude to a few of the interesting points made in this part of the Dissertation. It is shown that Leibniz, according to his own repeated declarations, was led to his view of substance primarily by empirical considerations, and not speculatively. As regards Leibniz's method in general, attention is again called to its empirical side, a side which has been too much neglected. Due recognition is given to the *a priori* and speculative side, with its principle of contradiction and sufficient reason. We are here told that Leibniz did not distinguish (?) between the logical ground (*ratio*) and the ontological ground. The discussion of the nature of the monad (pp. 31-37) is full and able. In this exposition, Dr. Rall takes issue (pp. 34, 35, 61) with Kuno Fischer, Erdmann, and Hartenstein. According to these writers, *vis passiva* is the principle of individuality in the monad, and *materia prima* constitutes the *body* of the monad ; both of which declarations are incorrect. The monad, Dr. Rall makes clear, consists of force at once active and resistant ; accordingly, we may distinguish in the monad, *vis activa* (the principle of activity and of individuality, *vis primitiva*) and *vis passiva* (the principle of resistance). Now *vis passiva* is the principle of matter, and as such is called *materia prima*. This *materia prima* is not to be regarded, however, as material in the ordinary sense ; it has nothing of the nature of 'stuff' about it, but is pure *force*—an original and essential characteristic of the immaterial and non-spatial monad. It is the principle of materiality, but not the constituent of matter. *Materia secunda*, on the other hand, is mass as such, or extension. An excellent handling of the relation of the monad to the world system (pp. 37-40) is followed by a discussion of the doctrine of 'Preëstablished Harmony.' It is shown that the Preëstablished Harmony is in no sense to be conceived as due to an arbitrary ordinance of God ; and that at no time did Leibniz regard the doctrine as confined to the relation between the mind and the body. The doctrine, it is shown, follows in the very closest way from the nature of substance, that is, from the very nature of the monad. "*L'hypothese de la concomitance est une suite de la notion que j'ay de la substance*" (Cf. refr., p. 42). The discussion of the monad as *representative* (pp. 43-50), handles some interesting questions, such as : How do the notions of activity and of suffering stand related to that of representation in the conception of the monad ? And are confused perceptions (representations) to be accounted for by a principle in the monad itself ? The customary answers to these questions Dr. Rall finds unsatisfactory. He discovers no evidence that Leibniz held that confused representations arise from the *vis passiva* ; nor that Leibniz regarded suffering as following from this principle. The confused perceptions are nothing but clear ones, which on account of their number and minuteness, and the finite capacity of the monad, fail to rise to the

region of clear consciousness. As for activity and suffering, these terms are relative. The being of the monad consists in its activity, hence there can be, in strictness, no suffering, since whatever it experiences comes from within itself. Where the monad has clear perceptions we speak of activity, where confused of suffering (p. 48).

In the *Dritter Abschnitt* (pp. 51-66)—*Die Körperlehre, leblose Körper und lebende Wesen*—Dr. Rall shows how the given empirical world, the world of living beings and of apparently lifeless things, is explicable from Leibniz's notion of substance. After treating of the reality of body, and distinguishing between body as phenomenon (appearance in us), and body as reality (phenomena of a reality outside of us), and further discussing the origin of the extended from the unextended monads, Dr. Rall turns to the phenomenon of extension, and contraverts the interpretation of Zeller and of Erdmann that the appearance of corporeality arises from the confused representations (*Materie ist nur verworrene Vorstellung*—Erdmann, *Gesch.*, II. B, S. 50). He shows that Leibniz's doctrine is the direct opposite, namely, that the confused ideas arise from the fact that in material phenomena an endless number are given to be represented (mirrored). A few suggestive remarks are made (pp. 58-60) on Leibniz's theory of sense-perception. In the closing pages (60-66), on body and mind as organic unity, among other matters of interest, Dr. Rall shows that both Erdmann and Ueberweg Heinze are in error in regarding the notion of a *unio realis* and *vinculum substantiale* as an essential part of Leibniz's system. He shows that they are foreign conceptions, terms used as concessions to his Catholic correspondent Des Bosses, and when strictly taken, are in contradiction to essential features of his own doctrine. In a brief appendix, Dr. Rall criticises Dillmann's *Neue Darstellung*. According to Leibniz, the world is a phenomenon in us, while at the same time it is phenomenal of a reality outside of us. Dillmann holds the first (the subjective) view to be the true and only Leibnizian view, and opposes the customary interpretation, which emphasizes the other (or objective) view. His *Exposition* is, therefore, as Dr. Rall points out, one-sided and radically defective. Dr. Rall is to be congratulated on having given us, both as regards substance and form, an admirable piece of critical work. As regards substance, his Dissertation is a real addition to the correct understanding of the Leibnizian philosophy, which no student of Leibniz's system can afford to overlook. As regards form, it is written from abundant knowledge thoroughly digested, in a spirit eminently fair, while at the same time fearless; and the treatment is always both clear and concise.

GEORGE M. DUNCAN.

Les philosophies négatives. Par ERNEST NAVILLE, Associé étranger de l'Institut de France. Bibliothèque de philosophie contemporaine. Paris, Alcan, 1900.—pp. 263.

The inquiry regarding the nature and problems of philosophy which M.

Naville presented in his volume, *La définition de la philosophie*, is followed up here by an account of various systems of thought which are essentially negative, or, in other words, which deny that the philosophic search for ultimate rational unity can attain its end. Our attention is directed successively to the systems of scepticism, traditionalism, positivism, dualism, criticism, mysticism, and eclecticism : however much these types of thought differ among themselves, they are united in the common denial. Several chapters in the volume have already appeared in the *Bibliothèque universelle*.

It is unquestionably valuable to use this principle as a means of classifying and comparing philosophical systems. The mode of treatment is attractive and sympathetic ; the author's strong convictions of the necessity of a positive synthetic metaphysic are not allowed to interfere with the tolerant and fair statement of other views, and with the earnest desire to recognize contributions to a true philosophy in whatever form they may appear. In general, however, owing partly, it may be, to the limitations of space, the exposition and criticism are somewhat slight and lacking in thoroughness. It is difficult to understand in several cases, the author's reasons for the choice of points to be dealt with more fully. The chapter on Scepticism, after making a distinction between absolute and philosophical scepticism, points out the sources and the practical consequences of sceptical reflection. The chapter on Positivism, after stating Comte's main views, shows that positivistic ideas were common at the beginning of the century, develops the contention that mere coördination of phenomena cannot account for scientific causal law, and finally uses Comte's mental history as an illustration of the untenability of a rigid positivism. There is not in either chapter a sufficiently rigorous discussion of the meaning and ground of the refusal to go beyond the world of phenomena. The part devoted to Traditionalism is mainly explanatory of the actual relations between revelation and rational inquiry, as these have been adjusted by the Christian churches. In dealing with Dualism, the author points out the sources of this type of thought, gives various examples from the history of philosophy, and dwells on the inevitable tendency to pass onward to some form of monism. It is in the chapter on Criticism, that we find the most detailed and the most critical treatment, but the discussion is concerned almost entirely with Kant's moral beliefs, and their relation to his conceptions of science and metaphysics. The phenomena of Mystical Ecstasy are given with some detail, and its interesting and dangerous aspects are emphasized. The chief attention in the treatment of Eclecticism, is given to the development of Cousin's views, and their place in the history of French philosophy. At the same time the inadequacy and danger of this type of thought are shown, though the author does not explain how the difficulties lying in the way of choosing a supreme guiding principle are to be adequately met. Two statements may be referred to, as showing in what direction M. Naville's hopes of philosophical construction lie. The greatest

need, we are told, of contemporary philosophy is a true spiritualism as distinguished from idealism. The central fact of our moral nature is a will free to obey an obligatory law.

W. G. SMITH.

Le problème de la mémoire : essai de psycho-mécanique. Par PAUL SOLLIER. Paris, Félix Alcan ; New York, The Macmillan Co., 1900.—pp. 218.

The problem of memory presents itself to Sollier as a physical problem, a matter of cerebral mechanics, of the physical processes underlying retention, reproduction, and recognition. His materials for solving the problem (better, for outlining a solution, since a complete theory is not attempted) the author draws from the Flechsig scheme of localization, and from mental pathology—chiefly aphasia and hysteria. The logic of the book is an argument from analogy. Hypothetical processes, analogous to the conduction, accumulation, and discharge of electricity are posited by way of explanation of various aspects of memory. An hypothetical force plays between receptive centers and a perceptive, intellectual, memorial center. The common perceptive center lies in the frontal lobes. If the force is directed toward this 'higher' center, perception arises, if away from it, memory.

The conception is a bold one and it is ingeniously carried out. One may well ask, however, whether its success is possible without more adequate physiological knowledge. We are just beginning to know the fine anatomy of the brain. Surely an attempt at its physiology is much more likely to bring results, than is speculation concerning physical forces of whose existence we are ignorant. Again, something more than Flechsig's associational psychology is needed as a basis for a psychophysics of memory. Until we come to know, by way of rigid analysis, what the contents of the normal, memorial consciousness are, it is useless to bother about the underlying physiological processes. The psychology of memory is plainly undervalued in the work before us. In fact, the book is written from the alienist's standpoint rather than from that of the psychologist. The author's real misapprehension of things mental comes out in the very last paragraph, where he declares that "at bottom, the problem of the mind is probably one of physics and mechanics."

I. M. BENTLEY.

Socrate. Par CLODIUS PIAT. Paris, Félix Alcan, 1900.—pp. 270.

This is the first of a series of handbooks on the *Great Philosophers*, prepared under the general direction of M. Piat, and planned to include similar volumes on the epoch-makers in philosophy, *Kant, Saint Anselme, Saint Augustine, Descartes, Avicenna, Malebranche, Saint Thomas d'Aquin, Spinoza*, and a number of other philosophers of lesser importance. It is a point worth noting that the editor-in-chief is a Catholic, an abbé, and professor in the École des Carmes, and that the thinkers who assist him in this

work are also Catholics, occupying various positions in the church and its schools. This fact is indicative of the growth of liberalism among the churchmen of the Continent. It is the old story of Athens which M. Piat tells—a story which is ever new in power to interest, and so important in the making of the western world that it cannot be told too often. Here it is told with all the subtle charm of French prose, and with no trace of prejudice. It is the purpose of each of the volumes of this series to present the thought and influence of the thinker which it treats, rather than the man himself, and the editor has requested his co-laborers, so the announcement tells us, to avoid technicalities of language, and in so far as possible to humanize this most human science. A work on Socrates must of necessity follow the beaten path. It is a well-known country through which our guide would lead us, and there is little which he can do but put the old familiar facts in new and more dramatic form. For students this is the chief value of M. Piat's book. He gives careful attention to the social situation out of which Socrates grew; he describes, in so far as it can be described, the youth of the world-forming sage; he pictures the labors of the preceptor of Athens, and then he turns to a discussion of the Socratic doctrine. M. Piat's discussion of the aim of Socrates, and of the methods by which he sought to realize this aim, are particularly full and satisfactory. I find nothing to criticise in them and much to commend. Full attention is given, in the discussion of the Socratic ethics, to the fact that Socrates wrought a revolution by generalizing the practice of 'the common man.' The religious character of the master, possibly the most commonly neglected aspect of his life, is here carefully treated. The book closes with a brief discussion of the influence of Socrates. Into the pedantry of Socrates, of Xenophon, or of Plato, M. Piat does not go. His aim is not to criticise, but merely to present in outline the well-established facts of the master's life and mission. This task he has performed acceptably. The volumes of this series will be of service rather by extending philosophic knowledge than by increasing it, and to this end they are designed. Yet certain volumes of the series will be eagerly awaited by scholars, especially those on Malebranche and the other French philosophers, while the Avicenna of Baron Carra de Vaux will be most welcome.

ERNEST CARROLL MOORE.

UNIVERSITY OF CALIFORNIA.

The Spiritual Life; Studies in the Science of Religion. By GEORGE A. COE. New York, Eaton and Mains, 1900.—pp. 260.

This volume contains both a contribution to the psychology of religion, and an attempt to apply these psychological results to the normative problems which arise in the study of religion. Since the burden of the book is the valuation of certain current concepts of spirituality, it has a philosophical as well as a psychological interest. Unfortunately, criticism is made somewhat difficult by the decidedly practical tone of the book, and one is uncertain

whether the pedagogical earnestness of the author, and his special pleading for a reform of religious opinion, should be made the subject of the same sort of judgment that is passed upon purely scientific effort. Since, however, the incorporation of the results of the so-called psychology of religion into the philosophy of religion promises to be a problem of the near future, it would seem that the first effort in that direction should receive serious consideration. As to the psychological portions of the book, there can be no doubt that Professor Coe has made an original and probably valuable contribution in his chapter on "Religious Dynamics," which is a restatement of a recent contribution to the *Psychological Review*. Probably every one who examines his studies carefully, will agree with Starbuck that both methods and results are valuable. In his explanation of religious transformation, by referring them to the phenomena of expectation, suggestibility, and temperamental differences, Professor Coe has developed a side of the study which is of considerable importance. Hitherto the problem has been largely the determination of the *ideal* content of consciousness preceding and during conversion, with a study of environmental conditions. In bringing forward the functional side, and in so doing, supplementing the questionnaire method by an introduction of experiment upon the subjects themselves, one of the chief difficulties of previous investigations has been avoided. For the mere descriptions of the content of the subject's experience, as gotten through the questionnaire method, includes a valuation of that experience in terms of the prevailing notions of what that experience should be. This the recurrence of certain catch-words in the answers to questions clearly indicates.

Professor Coe's results are certainly striking. As a result of his examination of seventeen subjects for temperamental indications, for evidences of suggestibility, and for the presence of striking mental and motor automatism, he finds convincing percentages in favor of the theory that religious transformation is conditioned by expectation, by the predominance of sensibility over intellect and will, by the possession of the sanguine and melancholic temperament (as determined by Wundt's principle of classification), and by a high degree of suggestibility. One unsatisfactory feature of his results, however, as they appear in publication, cannot be denied. While the union of the two principles of classification of temperament, the qualitative and quantitative, commends itself, still, realizing the difficulty of the most rudimentary temperamental classification, we do not feel that the author's assurance that his classification of the subjects was determined by a consideration of "a wide range of facts" quoted from the answers to questions and from personal observation, is sufficient to satisfy us entirely as to the correctness of his classification, especially since it becomes fundamental in his later conclusions.

The closing chapter of the book is entitled "A Study in Spirituality." Genetic and social psychology have long since contributed their quota of material for the valuation of religious experience, and now the experimental method proposes to use its data in the determination of a norm of spiritu-

ality. Taking his studies of relation of temperament and religious experience in conversion as a starting point, Professor Coe comes to the conclusion that the tendency of present-day religious experience is to identify the concept of spirituality with a type of experience which is possible to but two temperaments, the sanguine and the melancholic. This position he finds further substantiated by a study of the qualities of sainthood, as understood by the church throughout its history, and by an analysis of the Methodist hymnal, wherein he finds a large percentage subjective and emotional, and of the sort of hymns that make their appeal to these temperaments alone. With these facts he connects the predominance of the feminine element in the church, and the failure of the church to reach the stronger temperaments among the men.

Interesting as this theory certainly is, and valuable as it may be as a suggestion for practical religious activity, it may well be questioned whether the facts it records are sufficiently inclusive to warrant these generalizations, and whether the analysis of spirituality upon which he bases his negative criticism, does justice to either the present or historic concept of spirituality in its fullest significance. It may well be doubted whether the examples of sainthood (St. Augustine, St. Francis, and St. Anthony being taken as types) is really typical, whether St. Chrysostom and St. Athanasius would not show another side if subjected to examination, and even whether St. Augustine and the modern Newman (with their marvelous union of intellect and will) are not nearer the general notions of spirituality than the 'man of straw' which is subjected to criticism. Again, would not a study of the great historic hymns of the church, to say nothing of the Episcopal hymnal, have disclosed another concept of the spiritual? The point which I wish to make is that Professor Coe's generalizations and criticisms are based upon a very limited view of religious experience, and are essentially of the nature of special pleading to a special group of minds.

Above all, there is essentially an *argumentum in circulo* in the attempt to pass from the psychological to the normative point of view. The psychological starting point is essentially a well-defined concept of religious experience in conversion, and if the facts themselves are to be subjected to statistical methods, only such can be examined as can be gathered under the norm of investigation. To use the variations from that norm to criticise the norm itself, is like using the psychology of space to criticise the notion of object and space itself. Besides, the determination of a norm of value is a product of the analysis of a historic struggle toward an ideal, and not of the interpretation of a few facts gathered together for the purpose of a restricted and special investigation. If Professor Coe's volume is a practical manual of the spiritual life in one of its most striking phases, for the use of practical men, we believe that it will be found of value to such as have need for it. From the standpoint of the philosophical student, it contains one valuable contribution to psychology and many suggestive and interesting reflections.

W. M. URBAN.

The Relation of Berkeley's Later to His Earlier Idealism. By CARL V. TOWER, Ann Arbor, 1899.—pp. 71.

This study of Berkeley is Dr. Tower's thesis, which was presented to the faculty of Cornell University for the degree of Ph.D. It is a thoroughly sympathetic piece of interpretation, whose evident intention is to break down the common rendering of Berkeley's writings, and to substitute for it such a statement as the author himself would give were he among us to-day. In this attempt, Dr. Tower seems to have been remarkably successful; his attack upon the historical interpretation is strong; his tracing of the transitions in thought or statement as we pass from earlier to later writings is careful and subtle; and his appreciation of the various 'points of view' is so delicate as at times to transform the interpretation into an apology—such an apology, however, as Berkeley himself might have made had he been able to look back upon his work in its entirety.

The contention of the thesis is that the earlier and the later writings of Berkeley are not, as commonly represented, directly antithetical, but that from beginning to end there is development in thought or in statement, which is not only continuous, but also consistent with itself. In other words, though the theory of vision seems to be the work of one who is a sensationalist, nominalist, and even subjective idealist, while the *Siris* stands for rationalism, realism, and objectivity, these are not the writings of two men, nor the conflicting statements of a man who has abandoned one attitude for another; they are the different stages in the development of the expression of one thought, as Berkeley's theory is worked out bit by bit into clear consciousness. There are, Dr. Tower tells us, three circumstances which have led to the prevalent misinterpretation of Berkeley. First, he was not a system-maker; his results were never gathered together and viewed from a common standpoint. Second, the early writings were almost wholly polemical, so that in the enthusiasm of his new theory, which was to destroy abstract ideas and naturalism, Berkeley often left his statements unguarded and open to misconstruction. Finally, it is only the early writings which have influenced the course of philosophic thinking; hence they have been over-emphasized, and being taken to represent the antagonism to realism and rationalism, have been interpreted without reference to the author's own later statements. For all these influences, it is urged, we must allow in seeking for the author's meaning.

Chapter I., which deals with abstract ideas, attempts to save the earlier writings from the extreme nominalism which would render impossible a consistent transition to the later realism. Dr. Tower tells us that Berkeley never denied the existence of 'general ideas'; what he attacked were general or abstract 'images'; contents of the mind are all particular, since all are images; and yet these images may be representative, and so do service in the general thinking which Berkeley always assumes as actual. This representative image, particular in content but general in its representative meaning, is the forerunner of the notion which is the later universal.

Chapter II. follows the changes of the term 'idea' as Berkeley's thought progresses. In the *Theory of Vision*, 'idea' is mere sensation, it is the sense-datum which by association serves as the sign of other sensations which together with it give the object. In the *Principles*, the 'idea' is the object; and here it appears that objectivity implies not only passively received sensation, but also the activity of mind as constitutive. In the *Siris*, the perceived ideas or objects are found to be subject to law, and from this there develops the thought of a conceptual world in the Divine Mind as the reality upon which our sensuous knowledge depends. In this progress, Berkeley passes from the statement that all conscious content is resolvable into sensation, to the study of the objective reference of consciousness; and, with respect to this latter, he finds that it implies conceptual activity upon the part of the individual consciousness, and an objective Divine Mind upon which existence may rest. The taking of the latter statements does not evidently involve the giving up of the former. In Chapter III., the first sections, dealing with the constitution of experience, show how the universal sign-language loses its arbitrariness, and becomes an expression of the rational and necessary laws of Nature. This change is natural and inevitable as Berkeley sees more and more clearly the 'thought' aspect of all perception, which he had formerly disregarded, though he had never denied it. The later sections of the chapter, reaffirm the statement that Berkeley's nominalism and rationalism are not antagonistic. It is simply that the representative image gets more and more clearly its proper conceptual character, as the objectivity of perception demands an explanation. In the explanation of objectivity, Dr. Tower assures us, the conceptual activity of the mind and the universal ideas of the Divine Mind were necessary presuppositions.

In the last section of Chapter III., Dr. Tower points out the changes in Berkeley's views of the self and of God. In the *Theory of Vision*, our knowledge of the self is purely empirical: it is Locke's empirical consciousness of the passing states. But as the constitutive activity of thought is recognized, the self becomes an active spirit, creative, and sharing in the nature of God. The theory of God also develops to meet this view of the self, God being the Divine Reason and Will to whose laws the human spirit conforms. It is interesting to note that Dr. Tower seems to interpret Berkeley as finally going beyond Kant, in his emphasis upon the constitutive activity of mind.

In his conclusion, Dr. Tower sharply condemns Green's attempt to interpret Berkeley as a subjective idealist. Green has entirely neglected the *concipi*; the object is not *my* perception at any rate, for it can exist independent of me; but it is not even mere *percipi*, for in all perception there is a thought element which Berkeley found to be quite consistent with his analysis of all conscious content into particular sensation.

The discussion is a very interesting one, and though somewhat involved, it always centers itself about two points well worthy of consideration: (1)

the analysis of conscious content into sensation does not commit us to a denial of the conceptional or thought value of the content ; (2) the explanation of objectivity in consciousness depends directly upon the conceptual character of our thinking. This latter seems to be the Kantian thought that objectivity implies universality and necessity. In this connection, one may perhaps venture the suspicion that it is scarcely possible historically for Berkeley to stand so close to Kant as Dr. Tower represents him. The author has made his case very strong, however, and certainly his study has thrown much new light on the general nature of Berkeley's standpoint.

ALEX. MEIKLEJOHN.

BROWN UNIVERSITY.

Brain in Relation to Mind. By J. SANDERSON CHRISTISON. Second edition. Chicago, The Meng Publishing Co.—pp. 143.

The object of this book is to present in brief form the actual state of knowledge on the subject of which it treats. It is intended for ordinary readers, and not for special students, whether physiologists or psychologists. The author devotes one chapter to the subject of brain cells, and then goes on to consider the attempts that have been made to localize the various sensory and mental functions in special regions of the brain, attempts which he regards as unsuccessful. He then considers the form and size of the brain in relation to mental power, and shows that such power bears no definite relation to the complexity of the brain, and is only slightly connected with size of brain. Dr. Christison's views are anti-materialistic, and he shows that the materialistic doctrine has no basis except the well-known fact that there is some sort of connection between the mind and the brain.

JAMES B. PETERSON.

Gemeinschaft und Persönlichkeit im Zusammenhange mit den Grundzügen geistigen Lebens : Ethische und psychologische Studien. Von DR. ALFRED WENZEL. Berlin, R. Gaertner, 1899.—pp. 141.

This work consists of three parts : (1) Individualism and Collectivism in a moral Light ; (2) General Structure of the Spiritual Life, Thinking, Knowing, Understanding ; (3) Community, Society, Personality. The first part is ethical, the second psychological, the third sociological. The fundamental thought of which the book may be said to be an exceedingly able exposition in outline, is that individuality and social community are the two inseparable poles of moral personality. These two factors have been present from the very beginning of moral history. "Man is member of a community, long before his spiritual nature is awakened to freedom and self-consciousness" (p. 111). Part i formulates this view and justifies it by historical illustrations, part ii gives it a psychological foundation, and part iii develops it further and applies it to current problems of social life. With no disparagement to the conscientious thoroughness and independence of the author's thought, the book may be said to be written from the

point of view of Wundt, both in its psychological and in its ethical doctrines. In the preface, Dr. Wenzel speaks of this volume as a preliminary study to a more comprehensive work on the same subject which he has in mind. It is sincerely to be hoped that he will succeed in carrying out his larger purpose.

F. C. FRENCH.

Free Will and Determinism in Relation to Progress: A cul de sac. By C. J. MELROSE. London, The New Century Press, 1899.—pp. 53.

This little brochure consists for the most part, of a vigorous statement of the doctrine of motive determinism on the basis of the usual arguments and assumptions. The argument for freedom from the affirmation of consciousness is easily brushed aside, by identifying 'the affirmation of consciousness' with the inconceivability of the contrary. Causation alone is conceivable, and consciousness therefore pronounces against freedom rather than for it, as popularly supposed. The exposition and defense of determinism is only preliminary to the author's main purpose, which is to show that the hope of progress depends upon the truth of determinism. Whether one subscribe to free-will or determinism, one must inevitably end in a *cul de sac* of fatalism, in the former case a fatalism of inscrutable caprice, in the latter a fatalism of inexorable necessity. These two fatalisms are as far apart, however, as optimism and pessimism.

"Instead of determinism being destructive of responsibility, it is, on the contrary, the doctrine of free-will which utterly annihilates all that can be really meant by the term. We call a man irresponsible for his actions when we hold that he does not act from rational motives. But, if free-will be true, action does not result from motives, rational or otherwise. . . . The doctrine is an outrage on humanity and common sense. That human conduct has gradually but surely become more altruistic is patent to any one not wilfully blind. But the doctrine of free-will is a doctrine of despair pure and simple. Progress is utterly out of the question while an irrational despot has the ruling voice. . . . From the point of view, then, of human progress, free will leads into a complete *cul de sac*. . . . You have a consciousness that you are not merely a cog on the gigantic wheel of causation; . . . that you are making a spontaneous effort to help humanity along. . . . All this is a mere delusion. You are doing exactly what, in the given conditions, you could not help doing. . . . Progress will go on, but our part in it is merely that of automata—puppets worked by invisible wires. All is causation—inevitable sequence. . . . And so we get back to fatalism—truly not the fatalism of utter despair involved in the doctrine of free will, but fatalism all the same. Free will *excludes progress*; causation *postulates it*, but it is the progress of necessity." The only proof offered for the identification of necessity with progress is a reference to the progressive tendency of evolution. Evolution, however, is a rather uncertain witness. Parasites and degenerates are as necessary products of the evolutionary

process as the higher types of life. Even granting the progressive character of biological and social evolution, this is but a brief phase in the cosmic process, and can hardly serve to prove the eternal process, as a whole, progressive. Indeed, we are assured by the very apostle of evolution that dissolution is its necessary complement. Not until it is shown that necessity is the working out of the plan of a beneficent intelligence, can we be certain that it must involve progress. It should not be forgotten that progress is not merely an orderly process, but an orderly process from the lower to the higher.

F. C. FRENCH.

Saggi sulla teoria della conoscenza. Saggio primo: Sui limiti e l'oggetto della conoscenza a priori. Per COSMO GUASTELLA. Palermo, Remo Sandron, 1898.—pp. 571.

This is the first of a series of three essays that the author promises us on epistemology. It deals with the question of the *a priori* elements in knowledge, attempting to justify their existence, and to point out the limits in their application. The author starts from the point at which Kant had arrived, on the one hand, and from Mill, Spencer, and Bain on the other. The result is to a large extent a compromise between the opposing schools with a few advances upon each. The first chapter is devoted to a discussion of the judgment and the concept. The result attained is that reasoning deals with concrete objects rather than with concepts, and that with the rejection of the concept there goes hand in hand the abandonment of the analytic judgment that has been dependent upon it. The predicate of a proposition is never derived from the subject—both are but words applied to a common object. From this, the argument progresses to the conclusion that all reasoning is with particulars, and deduction is merely the interpretation of the results obtained by induction. The second chapter attacks the problem of the metaphysical ultimates: substance, space, time, and causation, and reduces all to groups of phenomena and to connections between phenomena. The thing-in-itself is but a psychological fiction to explain the uniformity of the connection of phenomena, causation a term to indicate the constancy in the temporal sequence of phenomena. Upon the basis of this destructive criticism, it is asserted that there are two kinds of judgments, judgments of existence, that affirm the existence of objects in the external world, and judgments of comparison, that affirm the identity or difference between objects. It is this distinction that furnishes the basis for the succeeding arguments of the book, and that gives Signore Guastella's theory whatever originality that it may possess. The third chapter asserts that the distinction between judgments of existence and of comparison runs parallel to the distinction between *a priori* and *a posteriori*. All judgments of existence are empirical, and derive their validity from frequency of association. They have, therefore, a psychological warrant, but cannot be metaphysically necessary. Judgments of comparison, on the contrary, are purely subjective in their origin, and give

a necessity that is based upon the fundamental laws of mind and independent of any experience. The two succeeding chapters are given to an examination of the theories of Taine, Condillac, Kant, Hegel, and others in the light of the preceding conclusions. The discussion of Kant's theory brings out in more detail some phases of the author's position. In the main, our author reduces Kant's doctrine of the *a priori* to a series of inconsistencies. In the first place, the assertion that experience can never give universally valid truth is questioned. It is affirmed that this proposition can itself only be derived from experience and so is inherently uncertain. The doctrine of the noumenon is also an unwarranted extension of the category of causality beyond any possible experience. Even the conclusion of the *Æsthetic*, that space is a form of the mind, is affirmed to be rendered untenable by the advances of metageometry. All this is taken to prove that no judgment of existence is *a priori*. On the other hand, it is not possible to give up the universal necessity of mathematical truths, and the sixth chapter solves the difficulty by proving that all mathematical propositions are judgments of comparison, and so need not be dependent upon subjective forms for their validity. The comparison may be universally true whether any general truth may be ascribed to the existences compared or not. The next chapter shows the inadequacy of the attempts made by the empiricists to account for mathematical judgments, while the eighth chapter insists that the feeling of necessity is not due to frequency of association, but results from the fundamental nature of our thought. That our feeling of necessity can be justified, is due to the fact that there are no connections between things except as they are given in our consciousness. The necessity of mental laws is therefore mirrored in the connections of things. The final chapter is devoted to proving that the doctrine of the inconceivability of the opposite, as stated by Spencer and Bain, can be applied to the author's purposes.

Signore Guastella's system, then, so far as it has been developed, is an empiricism that lays claim to universality for its conclusions from its very narrowness. It recognizes nothing but phenomena, but since it recognizes only phenomena, its results obtained from experience must be universally valid. The defects of the system are evident at a glance. Many of them would have been remedied if the author had been familiar with the writings of the more modern logicians, and others would have been impossible in the light of a knowledge of recent psychology. The chief imperfections are due to the retention of the old psychological atomism that can find no explanation for mental connections, except in the elements juxtaposed. The distinction between judgments of comparison and of existence rests rather upon repeated assertion than upon proof. Nowhere in the book do we find a specific differentia between the two, and certainly an examination of mind does not reveal comparisons without things compared. The arguments that deny necessity to one kind of judgment, would deny it to the other also. The distinction seems all the more unnecessary in the light of

the fact that even things are merely phenomena, and so as subjective as their connections. The style of the author seems over-prolix. The argument could have been stated in a third of the space, and have been increased in cogency by the condensation. The proof-reading of the volume was deplorably inaccurate. Misprints are to be found on nearly every page.

W. B. PILLSBURY.

UNIVERSITY OF MICHIGAN.

The following books also have been received :

- The Individual : A Study of Life and Death.* By NATHANIEL SOUTHGATE SHALER. New York, D. Appleton & Company, 1900.—pp. xi, 351.
- Social Justice : A Critical Essay.* By WESTEL WOODBURY WILLOUGHBY. New York, The Macmillan Company ; London, Macmillan & Co., 1900.—pp. ix, 385.
- The Life, Unpublished Letters, and the Philosophical Regimen of Anthony, Earl of Shaftesbury.* Edited by BENJAMIN RAND. London and New York, Swan, Sonnenschein & Co., Limited, 1900.—pp. xxxi, 535.
- A Critical Exposition of the Philosophy of Leibniz, with an Appendix of Leading Passages.* By BERTRAND RUSSELL. Cambridge, The University Press, 1900.—pp. ix, 311.
- The Peace Conference at the Hague, and its Bearings on International Law and Policy.* By FREDERICK W. HOLLS. New York, The Macmillan Company ; London, Macmillan & Co., 1900.—pp. xxiv, 572.
- The Soul of a Christian : A Study in the Religious Experience.* By FRANK GRANGER. London, Methuen & Co., 1900.—pp. xi, 303.
- Spencer and Spencerism.* By HECTOR MACPHERSON. New York, Doubleday, Page & Co., 1900.—pp. vii, 241.
- The New Psychology.* By J. P. GORDY. New York, Hinds & Noble, 1898.—pp. x, 402.
- Brain in Relation to Mind.* By J. SANDERSON CHRISTISON. Chicago, The Meng Publishing Co., 1900.—pp. 143.
- An Essay on Personality as a Philosophical Principle.* By WILFRID RICHMOND. London, Edward Arnold, 1900.—pp. xix, 219.
- Whence and Whither : An Inquiry into the Nature of the Soul, its Origin and its Destiny.* By PAUL CARUS. Chicago, The Open Court Publishing Co., 1900.—pp. vi, 188.
- The Scientific Evidences of Revealed Religion* (The Bishop Paddock Lectures for 1900). By CHARLES WOODRUFF SHIELDS. New York, Charles Scribner's Sons, 1900.—pp. xiv, 259.
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- Kant's Cosmogony.* Edited and translated by W. HASTIE. Glasgow, James Maclehose and Sons, 1900.—pp. cix, 205.
- Psychology: Empirical and Rational.* By MICHAEL MAHER. London, New York, and Bombay, Longmans, Green & Co., 1900.—pp. xvi, 602.
- Studies Scientific and Social.* By ALFRED RUSSELL WALLACE. London, Macmillan & Co.; New York, The Macmillan Company, 1900. Vol. I, pp. xv, 532; Vol. II, pp. viii, 535.
- An Outline of Locke's Essay Concerning Human Understanding.* By SANJIBAN GANGULI. Jeypore, Singh and Brothers, 1896.—pp. 35.
- Descartes: An Outline of His Philosophy.* By SANJIBAN GANGULI. Bombay, E. Seymour Hale, 1900.—pp. 58.
- The Origins of Art: A Psychological and Sociological Inquiry.* By YRJÖ HIRN. London, Macmillan & Co.; New York, The Macmillan Company, 1900.—pp. xi, 331.
- Fact and Fable in Psychology.* By JOSEPH JASTROW. Boston and New York, Houghton, Mifflin & Co., 1900.—pp. xvii, 375.
- Grundzüge der Psychologie.* Band I, Allgemeiner Teil, Die Prinzipien der Psychologie. Von HUGO MÜNSTERBERG. Leipzig, Johann Ambrosius Barth, 1900.—pp. xii, 565.
- Kant's Lehre vom innern Sinn und seine Theorie der Erfahrung.* Von ROBERT REININGER. Wien und Leipzig, Wilhelm Braumüller, 1900.—pp. 154.
- Zur Psychologischen Analyse der Welt. Projektionsphilosophie.* Von KR. BIRCH-REICHENWALD AARS. Leipzig, Johann Ambrosius Barth, 1900.—pp. vi, 295.
- Schopenhauers Philosophie in seinen Briefen.* Von ROBERT SCHLÜTER. Leipzig, Johann Ambrosius Barth, 1900.—pp. 125.
- Grazie und Grazien in der deutschen Litteratur des 18 Jahrhunderts.* Von Franz Pomenzy. Herausgegeben von BERNARD SEUFFERT. Hamburg und Leipzig, Leopold Voss, 1900.—pp. vi, 247.
- Die transszendentale und die psychologische Methode.* Von MAX F. SCHELER. Leipzig, Der Dürr'schen Buchhandlung, 1900.—pp. 181.
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- Die Zahl im Grundlegenden Rechenunterricht.* Von GEORG SCHNEIDER. Berlin, Reuther & Reichard, 1900.—pp. 86.
- Kritische Untersuchungen über Denken, Sprechen, und Sprachunterricht.* Von AUGUST MESSER. Berlin, Reuther & Reichard, 1900.—pp. 51.
- Der Aufsatz in der Muttersprache.* Von H. SCHILLER. Berlin, Reuther & Reichard, 1900.—pp. 68.
- Questions de morale.* Leçons professées au collège libre des sciences sociales par MM. Paris, Félix Alcan, Ancienne Librairie Germer Baillière et Cie, 1900.—pp. vii, 331.
- Essai sur l'imagination créatrice.* Par TH. RIBOT. Paris, Félix Alcan, 1900.—pp. vii, 304.
- Variétés philosophiques.* Par J.-P. DURAND (De Gros). Deuxième édition, revue et augmentée. Paris, Félix Alcan, 1900.—pp. xxxii, 333.
- L'imagination et les mathématiques selon Descartes.* Par PIERRE BOUTROUX. Paris, Félix Alcan, 1900.—pp. 45.
- La philosophie de H. Taine.* Par GIACOMO BAZZELLOTTI, traduit de L'Italien par AUGUSTE DIETRICH. Paris, Félix Alcan, 1900.—pp. xxvii, 448.
- David Hume: Moraliste et Sociologue.* Par G. LECHARTIER. Paris, Félix Alcan, 1900.—pp. 275.
- Les approximations de la vérité.* Par HERVÉ BLONDEL. Paris, Félix Alcan, 1900.—pp. xii, 239.
- La fédération de l'Europe.* Par J. NOVICOW. Paris, Félix Alcan, 1901.—pp. 807.
- Shakespeare, Voltaire e Alfieri e la tragedia di Cesare: Saggio di critica psicologica.* Per LUIGI DE ROSA. Camernio, Tipografia Savini, 1900.—pp. xiv, 389.
- Prolegomeni la "filosofia scientifica."* Per FRANCESCO DE SARLO. Roma, Ermanno Loescher & Co., 1901.—pp. viii, 241.
- Meditationes philosophicae de nonnullis ad poema pertinentibus.* Per A. G. BAUMGARTEN. Ristampa Dell'Unica Edizione Del 1735. A Cura Di BENDETTO CROCE. Napoli, 1900.—pp. viii, 46.
- Storia della evoluzione, con un breve saggio di bibliografia evoluzionistica.* Per CARLO FENIZIA. Milano, Ulrico Hoepli, 1901.—pp. xiv, 399.
- Corso elementare di filosofia.* Per CARLO CANTONI. Volume Primo Psicologia Percettiva, Logica, 12ª Edizione, Corretta dall'Autore. Milano, Ulrico Hoepli, 1901.—pp. xvi, 278.
- Figli della gloria.* Per ADOLFO PADOVAN. Milano, Ulrico Hoepli, 1901.—pp. 463.

NOTES.

The ninth annual meeting of the American Psychological Association is in session at Johns Hopkins University, Baltimore, as this number of the REVIEW goes to press. The sessions of the Association extend over three days (December 27-29), and parallel sections are being carried on for the reading and discussion of experimental and philosophical papers.

The Western Philosophical Association, which was organized a year ago, is holding its first regular meeting at Lincoln, Nebraska, on January 1st and 2d. The secretary, Professor A. R. Hill, of the University of Nebraska, reports that a large number of papers have been promised, and that indications seem to point to a large and successful meeting.

H. Heath Bawden (Ph.D., Chicago, 1900) has been appointed to a teaching fellowship in Philosophy in the State University of Iowa.

The position of Dean of Women and Instructor in Pedagogy in Southwest Kansas College, Winthrop, Kansas, has been filled by the appointment of Miss Pearl Hunter, Fellow in Pedagogy at the University of Chicago.

W. B. Lane (Ph.D., Wisconsin, and last year honorary fellow at Cornell) has been appointed Professor of Philosophy at Mount Union College, Ohio.

W. C. Bagley (Ph.D., Cornell) has been appointed an assistant in psychology at Cornell University.

We give below a list of articles, etc., in the current philosophical journals :

MIND, No. 36 : *W. Caldwell*, Pragmatism ; *F. C. S. Schiller*, On the Conception of 'Ενέργεια 'Ακινησίας ; *W. R. B. Gibson*, the Principle of Least Action as a Psychological Principle ; *R. R. Marett*, the Normal Self : a Suggested Formula for Evolutionary Ethics ; *Y. Hirn*, The Psychological and Sociological Study of Art. Discussions, Critical Notices, New Books, Philosophical Periodicals, Notes and News.

THE PSYCHOLOGICAL REVIEW, VII, 6 : *Howard C. Warren*, The Fourth International Congress of Psychology ; *Edward Thorndike*, Mental Fatigue II. ; *Mary Whiton Calkins*, An Attempted Experiment in Psychological Aesthetics ; *C. E. Seashore* and *Mabel C. Williams*, An Illusion of Length. Discussion and Reports, Psychological Literature, New Books, Notes.

AMERICAN JOURNAL OF PSYCHOLOGY, XII, 1 : *August W. Trettien*, Creeping and Walking ; *F. Angell*, Discrimination of Clangs for Different Intervals of Time ; *William Chandler Bagley*, The Apperception of the Spoken Sentence : A Study in the Psychology of Language ; *Grace A. Andrews*, Studies of the Dream Consciousness ; *F. E. Barrell*, The Relation of Stimulus to Sensation : A Reply to Max Meyer's Criticism on Prof. C. Lloyd Morgan's paper. Psychological Literature, Communications, Books Received.

ARCHIV FÜR SYSTEMATISCHE PHILOSOPHIE, VI, 4: *Julius Bergmanu*, Die Grundsätze des reinen Verstandes; *Hans Kleinpeter*, Zur Formulierung des Trägheitsgesetzes; *Max Dessoir*, Beiträge zur Ästhetik, IV; *Ferdinand Tönnies*, Jahresbericht über Erscheinungen aus den Jahren 1897 und 1898 (Erster Artikel); *B. Bosanquet*, Systematic Philosophy in the United Kingdom in 1899; Bibliographie der gesamten philosophischen Literatur (1899); Alphabetisches Namenregister zur Bibliographie.

ARCHIV FÜR GESCHICHTE DER PHILOSOPHIE, XIV, 1: *Georg Misch*, Zur Entstehung des französischen Positivismus; *Rudolf Adam*, Ueber die Echtheit und Abfassungszeit des platonischen Alcibiades I; *Lorenzo Michelangelo Billia*, Sulle dottrine psicofisiche di Niccolò Malebranche; *E. Thouvenez*, La famille Descartes; *Adolf Dyroff*, Jahresbericht über die deutsche Literatur zur nacharistotelischen Philosophie (1891–1896); Neueste Erscheinungen auf dem Gebiete der Geschichte der Philosophie.

KANTSTUDIEN, V, 3: *F. Heman*, Kant und Spinoza; *E. Adickes*, Kant contra Haeckel: Erkenntnistheorie gegen naturwissenschaftlichen Dogmatismus; Ultramontane Stimmen über Kant.

REVUE PHILOSOPHIQUE, XXV, 10: *E. de Roberty*, Morale et psychologie; *G. Milhaud*, Les lois du mouvement et la philosophie de Leibniz; *Novicow*, Les castes et la sociologie biologique; *Xénopol*, Les sciences naturelles et l'histoire.—NOTES ET DISCUSSIONS, *P. Tannery*, La droite transfinie; *L. Dauriac*, L'hypnotisme et la psychologie musicale:—Revue Critique.—Analyses et Comptes Rendus.—Revue des Périodiques Étrangers. XXV, 11: *H. Taine*, De la volonté; Fragments inédits; LES CONGRÈS INTERNATIONAUX DE 1900; Congrès international de philosophie, par A. Lalande; IV^e Congrès international de psychologie, par L. Marillier; Congrès international d'histoire des Sciences (A. L.).—Correspondance.—Revue des Périodiques Étrangers.

REVUE DE MÉTAPHYSIQUE ET DE MORALE, VIII, 5; Congrès International de Philosophie: Séance d'ouverture; discours de M. E. Boutroux; Séances de jeudi; Séances du vendredi; Séances du samedi; Séances du dimanche, et allocation finale de M. E. Boutroux.—Supplément: Nécrologie.—La philosophie dans les Universités (1900–1901). Livres nouveaux.—Revue et Périodiques.

VIII, 6: *É. Boutroux*, La philosophie de Félix Ravaisson; *W. N. Kozłowski*, Les propositions fondamentales de la science moderne à l'aube de la philosophie grecque; *Ch. Riquier*, De la distinction entre les sciences déductives et les sciences expérimentales; *E. Chartier*, Le problème de la perception.—Études Critiques. Les Congrès: *Dick May*, Le Congrès international de l'Enseignement des sciences sociales; *N. Vaschide*, Le IV^e Congrès international de Psychologie; *A. Darlu*, Le Congrès d'Éducation sociale.—Tables des Matières.—Supplément: Livres nouveaux, Revues et Périodiques, La philosophie dans les Universités (1900–1901).

THE PHILOSOPHICAL REVIEW.

THE DOCTRINE OF SPACE AND TIME.

I. THE KANTIAN DOCTRINE OF SPACE.¹

THE plain man is apt to think of space as a real something beyond consciousness, in which the material things which he sees and feels exist and move. A little questioning reveals clearly that, concerning the nature of this something, he has the vaguest ideas. It is not matter, and it is not like matter; but it undoubtedly exists, and it is plainly indispensable to the existence of material things. He hesitates to affirm that it may properly be called a 'thing' at all; but, 'thing' or not, he is sure that it exists, and believes that it would continue to exist even if every material thing were annihilated.

Touching some of the properties of this perplexing something, however, he regards himself as having very definite bits of information. Space is three-dimensional; it is homogeneous in all its parts; it is infinite in extent; every portion of it is infinitely divisible. It is, in other words, an infinite *continuum*, which must be granted real existence if the world of matter is to be allowed any reality at all, and is not to be reduced to a mere semblance of a world, an unreal dream.

We shall see later that there is much truth, as well as some misconception, in the plain man's views touching the nature of space. One thing we may object to at the outset, and that is the

¹ A portion of this paper was read at the meeting of the American Psychological Association held in Baltimore in December, 1900.

assumption that space is a something quite beyond consciousness, and, hence, quite cut off, as reflection shows that all such things must be, from the sphere of our knowledge. We would do the geometer little good by granting him, as the sphere in which he is to exercise his activity, an unknowable, unredeemed by even the gleams of meaning which are usually involuntarily allotted to unknowables. The plain man stands, as I have in earlier papers pointed out, upon the psychological standpoint, assuming an external world wholly cut off from his knowledge, and yet somehow known to him. He has grasped dimly the distinction of subjective and objective, and he expresses himself inconsistently. He must not be taken wholly at his word. But so much has been said on the absurdity of assuming a world wholly beyond consciousness and not made of 'consciousness-stuff,' that I shall assume that there are a considerable number of those interested in philosophy who are agreed upon this point at least. It is to these that I shall speak in this series of papers on space and time.

I propose to examine as briefly as I may, the two leading forms of doctrine which have been advanced in modern times touching the nature of space and time, and which to this day dispute the field between them. These I shall call the Kantian and the Berkeleian, using these appellations in rather a broad sense to indicate types of doctrine, and without meaning to make either philosopher responsible for later additions to, or alterations in the structure which he reared upon the foundations that he himself laid down. Neither doctrine quite falls into the vulgar error of making space and time 'things,' and neither regards them as 'external' in the peculiar sense of the word to which I have alluded above. In both doctrines space and time are treated as 'form' and not as 'matter,' *i. e.*, as the arrangement, the system of relations, which obtains between certain contents of consciousness, and not as those contents themselves. The two doctrines have a good deal in common, but they are, nevertheless, marked by differences of no small importance; and the one which has had the more general acceptance precipitates its adherents into difficulties so great and so hopeless that it seems surprising that they

have not incited to a more wide-spread disaffection and a final revolt. This doctrine is the Kantian, and to it we will now turn our attention.

We will first take up Space. According to the Kantian doctrine, our knowledge of space is not a something at which we arrive as the result of an elaboration of our experiences. Space is not a construct for which our original experiences merely furnish the data. It is the necessary 'form' of the intuitions of the external sense, and is given complete in every such intuition. Kant held that: (1) Space is a *necessary* 'form' of thought, and, hence, we cannot conceive the possibility of the non-existence of space, although we can easily conceive of the non-existence of objects in space; (2) we can represent to ourselves but one space, of which all spaces are parts; from which it follows that space cannot be conceived as limited; (3) all space is composed of spaces, that is, space is infinitely divisible, and that which fills space, the 'thing' given in sense-intuition, must be infinitely divisible too.¹

In criticising the Kantian doctrine, it is necessary to distinguish clearly between what may be implied in regarding space simply as the 'form' of certain intuitive experiences—as the 'formal' element which, in union with the 'material' element, constitutes these experiences—and what may be supposed to follow from the assumption that space is a *necessary* 'form' of thought, of such a nature that we are compelled to think space as infinite, infinitely divisible, and incapable of being thought as non-existent. To make this distinction clear, I will take a concrete instance. In looking at the table before me, I am conscious of a complex of color-sensations. This Kant would have called a 'manifold of sense.' In this complex I can distinguish between 'form' and 'matter,' *i. e.*, between sensational elements and their arrangement. I may regard the 'form' in my complex as something equally original with the 'matter,' and, if I choose, may attempt to account for it by saying that it is due to the nature of the mind—that in this way and in no other must the mind arrange its

¹ *Critique of Pure Reason*, Transcendental Æsthetic, §§ 2, 3, and 4; Antinomies I and II, and Observations.

sensations of color. Bearing in mind what psychologists tell us about the importance of sensations of touch and movement, and the way in which other sensations come to stand as signs of these, we may amend the above by remarking that we are really concerned with a tactual thing for which the visual complex under discussion stands as a sign ; but that will not affect the distinction which has been drawn between 'form' and 'matter.' We still have to do with a complex in which the two elements are distinguishable, and we should not forget just what we mean by 'form' when we are drawing the distinction. It is nothing occult or mysterious. It is a certain element in a given experienced content, and nothing else. In the given instance, it is the arrangement of the tactual sensations which we have in mind when we say that we see the table.¹

But the space given us in such an *intuition* is limited. It is coextensive with the 'matter' of which it is the 'form,' and is not a something which extends beyond it. It is limited because the whole complex is limited, and, judging from this experience alone, there appears to be no more reason for assuming the formal element to be infinitely extended than for assuming the material to be so. If I were intuitively conscious of an infinite extent of color (or tactual) sensation, I should have an *intuition* of infinite space (the formal element in this experience), for both 'form' and 'matter' would be limitless. Or if, failing this, I were conscious of a certain limited amount of color sensation, and were, further, immediately conscious of a boundless space extending from the limits of the bit of space filled by the sensation (assuming that one may be conscious of pure space), then, too, I should have an intuition of infinite space. But to extract an intuition of infinite space from the patch of sensation with which I started out is an impossibility. I can succeed in doing so only by

¹ It will be seen that I treat 'form' and 'matter' as irreducible elements, as does the Kantian. The best argument for the opposite view that I know is contained in Professor James's *Psychology* (Chap. XX, pp. 149-152), but I do not find it wholly convincing. I wish, however, to point out that the argument contained in these papers in no wise hinges upon the decision given to this question. Whether 'form' be ultimately distinct from, or identical with sensation, is something one may leave undecided while following my argument.

juggling with the word 'intuition.' The statement that infinite space is given in intuition is palpably absurd, when the word intuition is taken in its strict sense. It does not mean that we have reason to believe that space is infinite, nor that we are forced to think that space is infinite. It means that we are immediately conscious of every part of space, as I am conscious of the bit of space within the limits of this patch of sensation. Can anyone seriously maintain so absurd a doctrine?

It may, however, be maintained that we have an intuitive knowledge of infinite space in a somewhat different sense of the word 'intuitive.' That is, it may be held that we *know intuitively* that space is infinite. This does not mean that we are immediately conscious of infinite space, but merely that we know space to be infinite, and know it without being compelled to prove it in any way. It is a 'necessity of thought.' An interesting chapter might be written on what have commended themselves to the philosophers of past ages as necessities of thought, revelations of the inner light, etc., etc. But I leave this tempting subject, and content myself with pointing out that it is a counsel of prudence to be oracular regarding necessities of thought, and to advance them without attempting to prove that they must be accepted as such. Those who have attempted to prove that we must accept the infinity of space as a necessity of thought, or as an intuition in the second sense of the word, have offered highly defective evidence of the fact. "We are," says Hamilton, "altogether unable to conceive space as bounded—as finite: that is, as a whole beyond which there is no further space."¹ "We find ourselves," echoes Mr. Herbert Spencer, "totally unable to imagine bounds beyond which there is no space."² It is inferred from this that we *must* think of space as infinite.

But what is it that these philosophers have invited us to attempt? When scrutinized, Hamilton's argument is seen to be nothing more nor less than this: We are altogether unable to conceive space as bounded—as finite; that is, as a whole *in the*

¹ *Lectures on Metaphysics*, XXXVIII.

² *First Principles*, III, § 15.

space beyond which there is no further space. The word *beyond* in his argument has no meaning whatever except as it refers to space beyond, and Hamilton has simply set up a contradiction for us to tilt at. He asks us to imagine a limit, with a space beyond it, and at the same time no space beyond it. When we have had a 'go' at this, and feel low-spirited over the result, he tells us with an air of mystery that we are in the clutches of a 'necessity of thought.' Whatever may be said for or against the necessity of thinking space as infinite, it is clear that this demonstration is a mere quibble. It has been, however, a very popular quibble.

The doctrine that space is a necessity of thought in such a sense that, although we can annihilate in thought all objects in space, we cannot conceive the non-existence of space itself—this doctrine rests upon a similar misconception. There seems no reason at all why, if by space given in intuition we mean only the formal element in a given sensational experience, we should not be able to think away the space with the 'matter' of which it is the 'form.' But we must not set ourselves a contradictory task, and erect a theory over our failure to accomplish it. "We can never represent to ourselves the non-existence of space," says Kant, "although we can easily conceive that there are no objects in space."¹ But what does one do when one tries to imagine the non-existence of space? One first clears space of objects, and then one tries to clear space of space in somewhat the same way. We try to 'think space away' as we express it, which does not mean that we turn all thought of space out of our mind, but that we try to think it away as we have thought objects away, by clearing it away from something, and having that something left. The attempt must, of course, fail; but then it is foolish to make the attempt. That this is what is commonly attempted I think certain. It is what I did, with a good deal of satisfaction to myself, during the years when Kant's position seemed to me well taken, and it is what I have an impulse to do

¹ *Critique of Pure Reason*, Transcendental Æsthetic, § 2: "Man kann sich niemals eine Vorstellung davon machen, dass kein Raum sei, ob man sich gleich ganz wohl denken kann, dass keine Gegenstände darin angetroffen werden."

now when I read the above-cited sentence from the *Critique*. So far as I can learn from their own accounts of their experience, it is what others try to do when they find it impossible to think space as non-existent. They try to annihilate space, and yet keep in mind, so to speak, the place where it was. They try to make a *Vorstellung* of the non-existence of space, *i. e.*, to keep before the mind some intuition of the external sense, and yet annihilate its 'form,' which is manifestly self-contradictory. We have here one of the countless instances of what may be called 'the philosophic fallacy' *par excellence*. It is the especial weakness of the philosopher to say "I go," and then not go; to set about abstracting from something, and then not abstract from it; to offer to clear the ground, and then to leave an array of stumps which must trip up the feet of the unwary.

The deductions which have been made from these supposed necessities of thought are rather startling, and should in themselves, I think, be sufficient to arouse a suspicion of the foundations upon which they rest. In the proof of the Antithesis of his famous First Antinomy, Kant offers an *a priori* demonstration that the sensible world must be conceived of as unlimited in extent. To be sure, he also offers what he regards as an equally satisfactory proof of the contradictory proposition; but as readers of Kant know, this does not mean that he believes his argument to be defective. The argument for the infinitude of the sensible world, which he brings forward as logically unexceptionable, is as follows:—

Space is infinite; hence the sensible world, if it be limited, must lie in the infinite void. But space is not an object; it is only the 'form' of possible objects. Hence space may be limited by phenomena, but phenomena can not be limited by an empty space beyond them. It is, therefore, impossible that a void space should project beyond the limits of a finite world of sense. The space beyond any given limit must, then, be *filled* space, and we must conceive of the sensible world as infinite in extent.

It is clear that in this argument Kant plays fast and loose with the reality of space. He seems to make it a thing, or something like a thing, and yet not precisely a thing. We have seen that

he regards it as real enough to persist in remaining when we think away all objects in it. Here we see that he regards it as real enough to be limited by phenomena, if it be a space within the world of sense, but not as real enough to limit phenomena by extending beyond. His argument is, in effect : Space is infinite (assumed as an intuition in the second sense of the word); it is not enough of a thing to exist by itself ; it must, then, be filled in with something ; this something must be infinite as space is ; *ergo*, the world is unlimited. These are scholastic subtleties, and it seems odd to me, at least, that they should have been advanced by so acute a thinker as Kant ; and yet these reasonings seem to appeal to some vigorous minds even in our day.

It is always safe to be on one's guard against so-called necessities of thought and the deductions which are drawn from them. Those who have elected to regard space as a 'necessary form' of external intuition, or as a 'necessity of thought,' may easily be misled by these phrases into accepting as self-evident what is not merely not self-evident, but is even founded upon very questionable reasonings. There is, to be sure, no doubt that the statement that space is infinite seems to be a reasonable one even to the man who regards it as by no means certain that the universe of matter is infinite. What we mean by the statement that space is infinite, and why it commends itself as a reasonable one, I shall try to make clear later. We shall see that, to explain this general readiness to regard space as infinite, we are not forced to fall back upon such quibbles as the impossibility of thinking a space beyond which there is no space, or the impossibility of imagining the non-existence of space.

So much for our intuitive knowledge of space as infinite and 'indestructible.' Intuitions of this kind are no better than the fateful horse which brought ruin to Troy. They may be had as a gift, and they are big with disaster to those who receive them. But if we confine ourselves to intuitions in the first sense of the word, may we not escape such difficulties ? In the table which I perceive before me, I distinguish 'matter' and 'form.' The 'form'—the system of relations—is as immediately given as the 'matter.' In holding that some space, at least, is directly given

in intuition we do not, hence, seem to be juggling with the word or using it in an ambiguous sense.

But when we examine more narrowly what is implied in such an intuition of space, we are at once confronted with certain venerable difficulties that have exercised the ingenuity of mankind almost from the beginning of reflective thought. Space we regard as infinitely divisible. Every space, however small, must, then, be made up of spaces, never of points. It follows that what fills space must also be infinitely divisible. Thus every 'intuition of the external sense' must be infinitely divisible. It cannot be denied that when we divide up into its parts any given sense-experience, we speedily come to what appears to be no longer composite. A line perceived by sight, for example, does not appear to be composed of an infinite number of line-portions. Subdivision *seems* to result in visual points not composed of parts. The *minimum sensible*, as it has been called, is not directly perceived to have part out of part.

So much is admitted even by those who maintain that we have an intuition of space as infinitely divisible. The *minimum sensible* does not present itself in consciousness as "a manifold with its parts external to each other." But, says Kant, "since we cannot reason from the non-consciousness of such a manifold to the absolute impossibility of its existence in any intuition of an object, and since it is the latter that is necessary to absolute simplicity, it follows that this cannot be inferred from any perception whatever."¹ Here Kant has evidently fallen back upon the second sense of the word intuition, even while discussing intuition in the first sense. We are not directly conscious of an experience as infinitely divisible, but it is assumed that we have an *intuition* of the fact that it is so. As in the case of the infinite extent of space, so in the case of its infinite divisibility, the statement that something is given in intuition amounts only to saying that we *know this or that about* something. We may well pause before accepting as an indubitable deliverance of consciousness such a supposed bit of knowledge; we certainly seem justified in asking *how* we know that our experiences of extension are thus infinitely

¹ *Op cit.*, Second Antinomy, Antithesis.

divisible. If we do not immediately perceive them to be infinitely divisible, does not our conviction rest upon an inference of some sort? How shall such an inference be justified?

Of course, something may be said for Kant's statement that we cannot reason from the non-consciousness of a 'manifold' to the impossibility of its existence in a given intuition, provided that his words be understood with a certain limitation. Some things exist in consciousness clearly and definitely, and of some we are very indefinitely conscious. It is quite conceivable that a given content of consciousness may be composite, and yet may not be recognized as such. But it is one thing to affirm that an experience in which we do not seem to be able to perceive part out of part may really consist of parts; and it is quite another thing to affirm that it *must* consist of such parts, and that the parts of which it consists must in their turn be composite, and so on, *ad infinitum*. The last statement is an exceedingly bold one, and should not be allowed to pass without a demand for proof of some sort. Shall we accept it as true merely because we are told that it is a 'necessity of thought'?

That Kant did not appeal to intuition, in the first sense of the word, he has himself made evident. "Against the principle of the infinite divisibility of matter," he writes,¹ "whose ground of proof is purely mathematical, the monadists bring objections, which lay themselves open to suspicion from the mere fact that they do not admit the clearest mathematical proofs as giving an insight into the constitution of space, in so far as this is really the formal condition of the possibility of all matter. . . . If we listen to them we shall have to conceive, not merely the mathematical point—which, though simple, is not a part but only the limit of a space—but also physical points, which are likewise simple, but have the advantage, as parts of space, of filling space by their mere aggregation. I shall not here repeat the common and clear refutations of this absurdity, which exist in plenty; for it is wholly in vain to try to quibble away the evidence of mathematics by means of merely discursive conceptions. I will only remark, that if philosophy here falls into chicanery in dealing with mathe-

¹ *Op cit.*, Second Antinomy, Observations on the Antithesis.

matics, it is because it forgets that in this question one is concerned only with *phenomena* and their conditions. It is not enough to find for the pure *conception* of the composite the conception of the simple; for the *intuition* of the composite (matter) one must find the intuition of the simple. This is by the laws of our sensibility, and, hence, in the case of objects of our senses, wholly impossible."

Here Kant takes a double position, if I may so express it. In the closing words of the extract he falls back upon the assertion that the "laws of our sensibility" make it impossible that the absolutely simple should be given in intuition. That is, he simply invokes the magic of an 'intuition' in the second sense of the word. But he has admitted, as we have seen, that the simple may *apparently* be given in intuition. He accepts the *minimum sensible* recognized by Berkeley and Hume before him, merely arguing that mathematics furnishes proof that this is a false and deceitful *minimum*, a composite masquerading in the attire of simplicity. Kant thus maintains: (1) That what is given in intuition *must* be composite, for, by the law of our sensibility, nothing can be given in intuition that is not composite—which statement, if we accept it as true, ought to close the whole question; and (2) he argues that it is subversive of mathematics to deny the infinite divisibility of what is given in intuition. These positions may be met by maintaining: (1) That the statement that it is a law of our sensibility that the simple cannot be given in intuition is either a baseless assumption, or it is based upon the mathematical reasonings to which Kant refers; and (2) that the opposing doctrine is seen to be by no means subversive of mathematical reasonings, when their significance is clearly understood. What may be said upon these points will be considered later. Before passing on to this I wish to make clear the difficulties above alluded to, which attach to the Kantian doctrine, and which should be honestly faced by those who elect to become its adherents. It will not do to give them a perfunctory glance, call them logical puzzles, and straightway forget them. As we shall see, they are deserving of most serious consideration.

GEORGE STUART FULLERTON.

THE THEORY OF INTERACTION.¹

THE question concerning the relation between mind and body has occupied the center of philosophical interest since the days of Descartes. Of recent years the drift of opinion has been largely in the direction of parallelism, the theory which denies that there can be a causal relation between the mental and physical realms. Leading authorities, men like Lange, Wundt, Riehl, Bain, Höffding, Paulsen, Münsterberg, and Jodl have accepted parallelism, and accuse their opponents of contradicting the fundamental principles of natural science. But the weight of these names has not been able to silence all opposition. The controversy is breaking out anew in Germany, and the theory of interaction is gaining a large number of supporters.² In view of these facts it will not be out of place to bring up this subject again, and to consider how the problem stands at present.

The theory of interaction, which is really the common-sense theory, maintains that states of consciousness are causes of changes in the physical world, and physical occurrences the causes of changes in consciousness. This assertion the parallelists deny on various grounds. Some reason as follows :³

The fundamental law of mind is the principle of identity, ac-

¹ Paper read at Western Philosophical Association, Lincoln, Neb., Jan. 1, 1901.

² I refer the reader to the following works : Sigwart, *Logic*, 2d ed., Vol. II ; Erhardt, *Mechanismus und Teleologie*, 1890, *Die Wechselwirkung zwischen Leib und Seele*, 1897, *Psychophysischer Parallelismus und erkenntnistheoretischer Idealismus*, *Zeitschrift für Philosophie und philosophische Kritik*, Vol. 116, No. 2 ; Rehmke, *Allgemeine Psychologie*, 1894, pp. 86-115, *Aussenwelt und Innenwelt*, 1898 ; Külpe, *Einleitung in die Philosophie*, 1895, § 18 ; Stumpf, Opening Address delivered at the Psychological Congress at Munich, 1896 ; Wentscher, *Über physische und psychische Kausalität*, 1896, *Der psychophysische Parallelismus der Gegenwart*, *Zeitschrift für Philos.*, etc., Vol. 116, No. 2, Vol. 117, No. 1 ; Busse, *Wechselwirkung oder Parallelismus*, in the same journal. *Die Wechselwirkung zwischen Leib und Seele*, in *Philosophische Abhandlungen*, dedicated to Sigwart, 1900 ; Rickert, *Psychophysische Kausalität und psychophysischer Parallelismus*, in the same volume. Lotze, James, and Ladd also maintain the same position.

³ See Riehl, *Philosophischer Kriticismus*, Vol. II, Part I, pp. 219-292 ; Vol. II, Part II, pp. 176 ff.

cording to which whatever is is, and nothing can both be and not be. From this principle the principle of sufficient reason necessarily follows: nothing can happen without a sufficient reason for its happening. Applied to the phenomena of nature, this axiom becomes the law of causality, the fundamental principle of science. This law holds that every effect must have its cause, that nothing can happen without a ground. Nothing in nature can therefore be created out of nothing, for if it could we should have an effect without a cause. Nor can anything be lost or disappear, for if it could we should have a cause without an effect. The axiom, that nothing can come out of nothing or go into nothing, is a self-evident principle which is really included in the law of causality, and ultimately in the law of identity. Accordingly, no form of energy in nature can be lost; when it changes, it changes into some other form of itself which is equal to the original form. The effect must contain as much as the cause contained, otherwise we have a loss. This principle is called the principle of the conservation of energy, which is regarded by some as a logical law, as an axiom.¹ The sum of energy in the world is constant, no energy can be added or taken away. This law is verified by experience, but it can also be logically deduced from the fundamental laws of thought. Moreover, the effect must be of the same nature as the cause, for it is after all identical with the cause. The effect is the cause in a new form, qualitatively and quantitatively equal to the cause.

Now nature reveals to us two kinds of existence, mental and material, which are diametrically opposed to each other. Hence, if the foregoing laws are correct, a mental state cannot cause a physical state, nor a physical state a mental state. If the effect must be homogeneous with the cause, then mind cannot be the cause of motion, nor *vice versa*. If motion can be transformed into mind, and mind into motion, then energy is lost and energy is created, which is contrary to the law of the conservation of energy.

Other parallelists reach the same results without, however, regarding the law of the conservation of energy as an application

¹ See Mayer, *Die Mechanik der Wärme*, quoted by Riehl, *op. cit.*

and consequence of the principle of identity. Thus, according to Jodl, to say that mind can produce motion is to fly in the face of the law of causality and the principles following from it, that is, the law of the conservation of energy and the law of inertia. It is true these principles are not absolutely provable, they are hypothetical, heuristical principles, but we are surely not ready to give them up.¹ In the words of Paulsen: "The natural scientist would regard it as a presumptuous and impracticable demand to assume that motion is transformed, not into another form of motion, not into potential physical energy, but into something that does not exist at all physically. Transformation of motion or force into thought, into pure states of consciousness, would, for the natural-scientific view, be nothing but the destruction of energy. Similarly, the origination of motion from a purely mental element, for example from the idea of a wish, would in physics be equivalent to creation out of nothing. Consequently, he would be forced to accept the parallelistic theory instead of the other which assumes a causal relation."²

The preceding line of argument is based upon an interpretation of the principle of the conservation of energy which is rejected by interactionists as well as by many natural scientists.³ Even supporters of parallelism confess that the law correctly understood does not contradict the theory of interaction.⁴ The principle of the conservation of energy declares simply that when one form of energy seems to disappear we have in its place another form of energy (heat, for example), and that there is a constant relation between the amounts of these forms.⁵ As

¹ *Lehrbuch der Psychologie*, Chap. II.

² *Introduction to Philosophy* (Eng. trans.), p. 86; *Noch ein Wort zur Theorie des Parallelismus*, *Zeitschrift für Phil.*, Vol. 115, No. 1.

³ See particularly: Lotze, *Metaphysik*; Sigwart, *Logic*, Vol. II, p. 97, a; Erhardt, *Leib und Seele*, Chap. II, p. 5; Stumpf, *Op. cit.*; Busse, *Op. cit.*; Mach, *Die Mechanik in ihrer Entwicklung*; Planck, *Das Princip der Erhaltung der Energie*; Ostwald, *Die Ueberwindung des wissenschaftlichen Materialismus*. Short quotations from some of these writers in Erhardt, p. 70, note 1.

⁴ See König, *Die Lehre vom psychophysischen Parallelismus und ihre Gegner*, *Zeitschrift für Philosophie und philos. Kritik* Vol. 115, No. 2.

⁵ It has therefore been suggested that the law of the *equivalence of forces* would be a better name for the principle.

Sigwart says: "The principle . . . tells us nothing as to what effects depend upon what causes, and what the conditions are under which particular causes act; it does not tell us that motion under certain conditions produces warmth, it refers only to quantitative relations, it says that where efficient action takes place this quantitative equality exists between the amount of the capacity for work represented by the effect, and the amount of the capacity for work from which the effect has proceeded, between the capacity for work which one body gains and that which the other loses. By itself it tells us nothing as to the conditions under which active energy passes into potential energy, and *vice versa*; it tells us only that when a certain motion or other change actually occurs it has been produced by active or potential energy, which must have disappeared itself in the process."¹ The law is not a self-evident axiom, one following necessarily from certain laws of thought, but the product of experience.² It states only what experience teaches us; namely, that whenever we have a form of motion and this disappears, it is followed by an equivalent amount of energy in another form.

Interpreted in this sense, the law does not make interaction impossible. It says nothing concerning the nature of the energy conserved, nor the source of the motion, but simply declares that when one form of energy is, so to speak, converted into another, the amount of the new form is equivalent to that of the old. If the matter rested here, there could be no objection to the theory of interaction. The interactionist might reason as follows: When a state of consciousness produces a physical change, no energy is created, for a change of consciousness is as much energy as physical energy. For the same reason no energy is lost when a physical state produces a state of consciousness.³

But a new law is introduced at this point, and that is this: No physical cause, it is said, can have anything but a physical effect, no physical effect can have anything but a physical cause.

¹ *Logic* (Eng. trans.), Vol. II., p. 382.

² See Kroman, *Unsere Naturerkenntniss*, p. 316.

³ Stumpf, Külpe.

Hence no psychical cause can produce a physical effect, nor can a physical cause produce a psychical effect. The two fields of existence are closed against each other; each by itself forms an unbroken causal nexus with which nothing outside of it can interfere.¹ This law of the unbroken causal nexus is said to be a generalization from experience. Experience teaches us that wherever we have a physical occurrence this is invariably preceded by another physical occurrence as its cause, hence we conclude that no physical change can take place without the action of some other physical phenomenon. There are cases, of course, in which we cannot discover all the causes and effects and measure them—as in the brain—but we assume that the same relation obtains here as in the cases where this can be done. We say that the external stimulus striking the sense organ produces some form of motion in the brain, and that this cannot be converted into anything else. Hence the sensation cannot be the product of the excitation in the brain; to say so would mean a break in the physical causal nexus and a violation of the law mentioned above. The same reasoning prevents us from assuming that a psychical state produces a physical effect.

This law, however, the opponents of the parallelistic theory refuse to accept. The law that no physical occurrence can have anything but a physical cause is not borne out by the facts, they say²—as is shown by the relation existing between mind and body. It is not true that physical effects can have only physical causes. States of consciousness are not physical facts, and yet they produce changes in the physical world. The so-called axiom of the unbroken physical causal nexus is an imperfect generalization from the facts of nature. It takes account only of a part of nature, the physical realm, and ignores the mental realm entirely.

With this statement of the case the opponent of interaction does not agree. He will not admit that he ignores the facts of mind in his generalization, but insists that mental states are neither causes nor effects of physical states. But, rejoins the interactionist, that is the very point at issue; you are simply

¹ Riehl, Wundt, Paulsen, Münsterberg, Jodl, König, and others.

² Sigwart, Erhardt, Rehmke, Busse, Stumpf. See also Mach, and Ostwald.

begging the question here, you are assuming the very thing to be proved. You say, physical occurrences must have physical causes; I deny this and refer you to the case of the relation between mind and body. You answer that psychical states cannot produce physical states and appeal to your hypothesis according to which a physical state can have nothing but a physical state for its cause, which simply amounts to saying that psychical states cannot produce physical effects because they cannot do it.¹

Not exactly, the parallelist replies. My axiom is not a mere *ipse dixit*, but, as I said before, a generalization from experience. I say that all physical effects must have physical causes because in all cases which are open to observation I find that physical causes can be pointed out. I therefore have the right to assume that the same law holds for the movements made by conscious beings which we cannot analyze and measure on account of their complexity and minuteness. If we had eyes to see we should find the same processes taking place in the brain as we discover in coarser forms of matter. As long as you can offer no negative instance against the law that physical causes have physical effects and physical effects only, and *vice versa*, we are justified in inferring that the law is universal in its application. The relation existing between mind and body is not a negative instance against the law, but simply assumed to be such. Hence *you* are begging the question, not we. We do not know by direct observation what is the relation between mind and body, hence we have no right to refer to it in disproof of the law. In all cases that can be examined we know that no physical occurrence takes place without being caused by another of its kind, hence we have the right to infer that the same relation obtains in the brain.²

Some interactionists hold that even if we accept the law that no physical effect can have anything but a physical cause, interaction would still be possible. When potential energy is converted into kinetic energy, they contend, or when kinetic energy is converted into potential energy, a physical phenomenon has a physical cause or effect. Now no expenditure of physical energy

¹ Erhardt, Rehmke, Busse.

² König.

is required to convert potential energy into kinetic energy or the reverse. The potential energy will not be transformed into kinetic, nor the kinetic into potential, without a cause, for nothing happens without a cause. But there is no reason why this cause should not be extra-physical. The kinetic energy could not be created out of nothing nor go into nothing; there must be a physical ground from which it comes and into which it goes. All these demands are satisfied here. The state of consciousness does not *create* the kinetic energy; the potential energy is released by a state of consciousness, and we have for the amount of potential energy in the brain an equivalent amount of kinetic energy released by consciousness.¹

This reasoning is rejected by the opponent of interaction who holds that it requires force to convert potential energy into kinetic, according to the law that no movement can be released except by another movement. A state of consciousness is not a movement, hence it cannot cause a movement. It requires physical work to set the potential energy in motion (even if we assume it to be molecular motion). To assume that mind can do this is to assume either that mind is a form of energy like motion, or that it can create motion, which is equivalent to creating something out of nothing.²

Well, say some of the supporters of the criticised theory,³ the whole trouble lies in this, that you apply the law of the conservation of energy universally, whereas it does not hold for the action of souls upon things and of things upon souls. Mind can create motion, and motion can be lost when the body affects the mind. The maxim that out of nothing nothing comes, holds for physical bodies among themselves, not for the relation existing between soul and body. Every day we experience cases in which something comes from nothing; every new sensation is a creation out of nothing.

Now what conclusion shall we reach with respect to this entire question? The whole matter seems to me to hinge upon the

¹ See especially Wentscher and Rehmke.

² Paulsen, König.

³ See Rehmke.

alleged law that no physical occurrence can take place without being caused by another physical occurrence. Interpreted in the exact scientific sense, the principle of the conservation of energy does not make interaction impossible. The principle does not follow necessarily from the logical law of identity, nor is it an application of the law of causality. As a generalization from experience, it simply declares that when one form of energy disappears, another form appears, and that there is a constant mathematical relation between the two forms, so that when a certain amount of one form is transformed into another and then back again, the original amount of the first form reappears.¹ The law as such does not say that the total amount of energy in the universe must remain constant, nor does it say anything concerning the nature of the forces acting in it. To quote again from Sigwart: "Even in the physical universe from which it was obtained, and within which it is empirically proved, it states only that within a certain complex of material causes, which we assume to be a closed circle, and not influenced from without, the sum of active and potential energy remains constant; and it depends essentially upon the presupposition that within this circle we are dealing only with elements of constant forces, and with conditions of their action which are contained in the external relations of position and reciprocal motion. This principle is not violated if we assume that such a system of material masses may also enter into causal relation with elements of other kinds of force, and that the effects which issue from the forces present in it may appear also outside of its limits, or that it may be determined in particular parts by forces of a different nature. The principle states only that if, and in *so far as*, material masses act upon each other, an equation will exist between the power of work of the preceding state and that of the succeeding state. In no sense, however, that can be empirically confirmed, does it demand that every material change should have only material

¹ We cannot, strictly speaking, say that the one form is converted into the other. All we know, for example, is that when the motion of one body ceases, the other body begins to move or becomes hot. To say that the motion has been converted into motion or heat is to make entities of these things.

effects, or proceed only from material causes; the truth of a principle within a closed circle of constant material causes does not justify us in the inference that material things must, under all circumstances, form a circle closed on all sides." ¹ "So long as it is not proved," says Erhardt, "that the exchange of effects which takes place between body and soul contradicts the *quantitative* relations which the law of energy establishes for the causal connections prevailing in nature, so long we have a perfect right not to let the objections based upon the doctrine of the conservation of energy shake our faith in the popular conception of the relation between body and soul." ²

Hence interaction is reconcilable with the law of the conservation of energy so long as that law is not loaded down with propositions which may in themselves be true, but do not follow from the principle itself. Let us next consider one of these propositions—the so-called axiom of the unbroken causal nexus. Nothing can happen in the physical world without being caused by a physical occurrence, it is held. The attempt is made to prove this axiom both deductively and inductively. If the cause must be equal to the effect, and if mind and matter are absolutely different, then every physical effect must have a physical cause, and every psychical effect a psychical cause. But we have no right to interpret the law of causality in this way. By cause we mean an occurrence without which another change or occurrence cannot take place, one that is necessarily connected with another occurrence called the effect. The notion of causality does not demand that the effect be identical with the cause. Of course, if

¹ *Logic* (Eng. trans.), Vol. II, pp. 387 ff. Erhardt, *Wechselwirkung zwischen Leib und Seele*, p. 69: "The law of energy does not tell us what forces exist in nature, nor does it give us any information concerning the elements and phenomena between which there can be reciprocal action; and the principle does not say anything about the forms into which the living energy of motion may be transformed." —Stumpf, *op. cit.*, p. 9: "When kinetic energy (living force of visible motion) is transformed into other forms of energy, and these are finally reconverted into kinetic energy, the same amount appears which was expended. The law has absolutely nothing to say of what the other forms of energy consist. And hence the psychical might easily be regarded as an accumulation of energies of a peculiar kind which have their exact mechanical equivalent."

² *Leib und Seele*, p. 75.

we place this interpretation upon causality, we practically settle the question of interaction before we approach it. For if the like can produce the like only, and states of consciousness are not like physical states, there can be no interaction between the two fields. If however we admit the possibility of effects being produced by causes unlike them, then there is no reason on this score why a physical effect should always have a physical cause. There is another way of interpreting the causal law which makes against interaction. It is a popular notion that in order to cause anything, the cause must somehow touch the object upon which it acts. This notion is the result of our everyday experience. We produce changes in things by touching them, by pushing and pulling them around. We therefore conclude that in order to produce changes, things must touch each other, move each other, push and pull each other around. And, we go on reasoning, since mind is immaterial and cannot touch, push, and pull anything, it cannot *cause* anything. This is of course an erroneous conception of causality, one not in accordance with the facts. Acceptance of it would make impossible psychical causality and *actio in distans* in the physical world.¹

It is impossible to deduce this axiom from the law of causality. The question therefore reduces itself to a question of fact. Does experience show that no physical occurrence can take place without being caused by another physical occurrence? If we mean by the expression 'physical occurrence,' movement, then we must answer the question in the negative. Experience does not show that every movement in nature has a movement as its cause, and a movement as its effect. Experience shows, for example, that motion causes heat and electricity, and that heat and electricity cause motion. But experience does not show that heat and electricity *are* motion. We observe that when a moving body is suddenly stopped heat is produced. We are then apt to reason as follows: Motion is changed into heat; nothing can be changed into something unlike it; hence heat must be motion. Or we say: The mathematical formula expressing the action of elec-

¹ See Stallo, *Modern Physical Concepts*, p. 65; Kroman, *Unsere Naturerkenntnis*, pp. 305 ff.

tricity is the same as the formula for a certain mode of motion ; hence electricity must be motion. But, as was noticed before, we have no scientific warrant for saying that the like must produce the like. There is no reason why the like should not produce the unlike, why heat and electricity should not be something different from motion. We do not know what heat and electricity are in their essence. Heat is a sensation, and motion is an entirely different sensation. Perhaps they are both caused by the same thing, but we have no right to assert it dogmatically. At any rate experience does not reveal it to us. Nor does it at all follow that because two modes of action may be expressed by the same mathematical formula, they are identical in essence. The mathematical formula simply expresses the temporal and spatial relations existing between things, nothing more.

We do not therefore observe that every motion in inorganic nature is caused by another motion. We cannot construct an unbroken chain of mechanical causes and effects. The chain is frequently broken, and when this is the case we infer that some form of motion is present which escapes observation. We imagine that if we had suitable sense-organs, we should *see* what we see in other cases. For the same reason we assume that potential energy is molecular motion, that when mass motion disappears it continues to exist in a slightly different form. All this may be true, but we cannot say that experience teaches us that it is true.

If it is impossible to prove the mechanical theory for the inorganic world, it is still more impossible to prove it for organic processes. So far as I know no empirical proof is even attempted here. It is simply asserted that because inorganic nature is a mechanism, organic nature must be the same. The physicist applies his concepts to the whole universe, believing that what is true of his realm must be true of everything. "The majority of natural inquirers" says Mach,¹ "ascribe to the intellectual implements of physics, to the concepts mass, force, atom, and so forth, whose sole office is to revive economically arranged experiences, a reality beyond and independent of thought. Not

¹*The Science of Mechanics*, (Eng. trans.), p. 505.

only so, but it has even been held that these forces and masses are the real objects of inquiry, and, if once they were fully explored, all the rest would follow from the equilibrium and motion of these masses. A person who knew the world only through the theatre, if brought behind the scenes and permitted to view the mechanism of the stage's action, might possibly believe that the real world also was in need of a machine-room, and that if this were once thoroughly explored, we should know all. Similarly, we, too, should beware lest the *intellectual* machinery, employed in the representation of the world on *the stage of thought*, be regarded as the basis of the real world."

Hence if the law means that no movement can take place without a movement as its cause, it is not proved, and it is not possible to base the denial of the interaction of mind and body upon it. Under these circumstances, nothing can hinder us from assuming that states of consciousness are the causes of movements. The objection to this view is based upon the notion that it takes a movement to produce a movement, and it falls to the ground as soon as this notion is given up.

But perhaps the statement that every physical effect must have a physical cause does not mean that it takes a movement to produce a movement; perhaps all we can say is that no physical change, whatever we may mean by the term, can be produced except by a physical change. This would mean that wherever we have a physical fact, that fact is conditioned by some other physical fact or facts, and that no extra-physical fact can influence a physical fact. The states in the brain, for example, which initiate muscular movements, have, as their causes, other physical states, heat, electricity, chemical processes, potential energy, etc., and no psychical state interferes with this physical causal nexus.

Even if we interpret the law in this sense we can say that experience does not prove it. For all that experience can possibly show is that there is a correlation between physical changes in the inorganic world. Experience does not show that the law is applicable to the organic world. But even if we extend the induction to embrace the organic world, what right have we to add

to it the clause that no psychical element can interfere with the physical sphere? It does not necessarily follow from the fact that all physical changes have physical changes as their antecedents, that they can have *only such* changes as their antecedents. Why should not a state of consciousness be able to effect a change in the brain? Because it is unlike a brain-state? But how do we know that it is unlike a brain state? Besides, even if it were unlike a brain-state, why should it not be able to produce a change in the brain? If a physical change which is not motion can produce motion, why should not a state of consciousness produce a physical change?

We cannot, therefore, disprove interaction either on the score of the law of the conservation of energy, or on the ground that nothing but a physical change can produce a physical change. Interaction is possible; it does not contradict any really established scientific laws. Let us now turn to experience and see whether or not a causal relation between mind and body actually exists. We notice a difference in movements, even in the movements of our own body. We find that sometimes changes occur in our bodies without being preceded by our states of consciousness; at other times we find that changes occur only when preceded or accompanied by states of consciousness. Now a cause is that phenomenon without which another phenomenon cannot occur. Every change must have a cause without which it cannot take place. Since my experience teaches me that certain changes do not take place without the presence of this conscious factor of which we have just spoken, I assume that this conscious factor is a necessary element in the process, and call it a cause of the physical change. If it be said that perhaps this state of consciousness is only a helpless accompaniment of the physical change, that the physical change would have taken place without it, I answer: Since the physical change occurs only when the mental factor is present, and does not occur when the mental factor is absent, it is but fair to suppose that the physical change could not occur without the mental element.

This does not mean that a state of consciousness *creates* a state of movement, or that a movement *creates* a state of con-

consciousness. The state of consciousness does not create a movement out of nothing, any more than a movement creates another movement out of nothing; without a physical apparatus no movement would take place. The state of consciousness is not a cause in the sense of producing or creating anything out of itself. It is a cause in the sense of being an element without which another element called a physical occurrence cannot take place. The movement cannot take place without the presence of other physical states—Shakespeare could not have written his plays without hands—and in so far as this is true these states also form a part of the cause. But we have the right to fix our attention upon one of the factors in this process which we regard as the most important, and to call this the cause.¹ It is no argument against this fact to say that we do not know *how* a state of consciousness can be the cause of a physical change. We do not know *how* one physical change produces another physical change, *why* or *how* a moving body causes another body to move; all we know is that when one body moves and strikes the other, the other also moves, and so we say and have a perfect right to say that the first body moves the second. The question we have to settle here is a question of fact; for example, what happens when I make up my mind to move my arm, and would my arm have moved without my having made up my mind to move it? and this question I can safely answer by declaring that my volition is the cause of the movement of my arm in the sense of being the necessary antecedent of the movement. Experience teaches me that my states of consciousness cause movements, just as much as experience teaches me that movements cause other movements. Of course, it is possible that states of consciousness are not the causes of movements after all, that they only *seem* to be, that an unknown element pushes itself in between the state of consciousness and the movement, and that this element is the real cause of the movement, and that the state of consciousness is merely a helpless concomitant of this unknown element, as parallelism would have it. But it is also possible that a conscious element is the real

¹ See Mill, *Logic*, Bk. III, Ch. V, 3.

cause of all movements in the inorganic world, that when one movement seems to cause another movement here, this is only because we do not observe the real cause, a psychical element which pushes itself in between the first movement and the second movement. We have no right to doubt what seems to be an observed fact unless that fact contradicts some firmly established law. Parallelists deny interaction because they believe it contradicts the law of the conservation of energy, the causal law, and the alleged law that no physical occurrence can have anything but a physical occurrence as its cause. But interaction does not contradict the first two laws properly understood, and the last law is not true. The old-fashioned thinker reasoned by analogy that, because his consciousness caused movements, consciousness was the sole cause of movements in the world. The new-fashioned thinker reasons by analogy that, because physical changes cause movements in the inorganic world, physical changes must be the sole causes of movements in the organic world.

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THE NEO-HEGELIAN 'SELF' AND SUBJECTIVE IDEALISM.

THE present paper is intended to be preliminary to an examination of the question what, on the showing of writers of the school of Professor Green, the relation is supposed to be between the so-called Absolute Self, and the self of human experience. Before attempting to show—what I conceive to be the fact—that no clear answer to this problem has been given, I have thought it advisable to give some reasons for thinking that there *is* such a problem ; and I shall try to do this by pointing out in some detail the elements in the neo-Hegelian argument which have made it possible to ignore the question, and which, as it seems to me, commit the theory to what ultimately is not distinguishable from subjective idealism.

I do not think it is necessary to reproduce at any length the idealistic argument. It depends essentially upon an analysis of knowledge. Nothing can be real—the very word has no meaning for us, except as it is a knowable real, is set in certain relations which constitute its reality. If we try to make relations merely subjective, we find that we have removed all meaning from the world of things ; they collapse into nothingness the moment we take away the support of those categories of substance, causality, and the like, which thus must go to make up objective existence itself, and not be simply the work of the individual mind.¹ Beyond all the manifold elements which present themselves to us as the objects of knowledge, there exists, and must exist, the constitutive activity of an all-inclusive thought, binding them together into a single world. The existence of isolated realities has no meaning, except as we have already passed beyond their isolation, have thought them, and so brought them into relation. Above all distinctions there is already postulated a unity, apart from which the distinctions would not exist, and this unity is Thought. In trying to set up anything as an exist-

¹ Green, *Works*, Vol. I, p. 27.

ent apart from thought, the philosopher is only stultifying his own procedure.

Now, there cannot of course be any doubt that what is meant by thought is not any mere thinking on the part of a finite individual, but the thought of a so-called Absolute Self.¹ The former alternative is repudiated so often and so violently by the Hegelian,² that it would seem that, on this point at any rate, no misapprehension ought to exist. However, when one comes to examine the arguments more closely, it becomes apparent that this constant note of warning is not uncalled for. Indeed, the doubt begins to suggest itself whether the denial does not apply rather to the intention of the writers than to their actual performance. I will subscribe a number of passages which I have taken from several sources: "Certain theories have," says Professor Watson, "the defect that they assume knowable objects to exist quite independently of *our* intelligence."³ "Although I distinguish in consciousness objects as external from perceptions as internal, the objects and the perceptions alike exist only *for me* as a conscious being."⁴ "The ordinary view that determinate things are independent of *our consciousness* turns out to be a mistake"; and again, the writer speaks of those who "are still unable to rid themselves of the preconception that determinate things exist beyond consciousness, or independently of *our faculty of perception*."⁵ "When we have denied that external objects are independent of consciousness, there can no longer be any reason for opposing perceptions to objects perceived."⁶ "I have an apprehension of a brilliant object, but the apprehension is not separate from the object; it is in fact simply the object viewed from the side of the subject."⁷ "The philosophical theory that the existence of

¹ There is a third alternative: namely, that thought belongs to no one, since the distinctions of absolute and finite are distinctions which arise only *within* thought.

² Cf. Watson, *Jour. of Spec. Philos.*, Vol. XV, p. 338. I hope I may be excused the use of the very ambiguous term 'Hegelian,' in the absence of any other title which stands clearly for this particular development of idealistic thought.

³ Watson, *Kant and his English Critics*, p. 17.

⁴ *Ibid.*, p. 48.

⁵ *Ibid.*, p. 51.

⁶ *Ibid.*, p. 356.

⁷ *Ibid.*, p. 359.

concrete objects, apart from the activity of intelligence by which they are constituted *for us*, is an absurdity, does not throw any doubt on scientific truth."¹ "Supposing known objects to exist only in relation to *our faculties of knowledge*, intelligence must have certain functions of synthesis, which at once combine into unity the detached differences supplied by the special senses, and enable us to explain how *we* can have a knowledge of objects other than our own subjective conceptions. For if nature exhibits everywhere a system and unity of objects, which have been actively constructed by thought acting upon the manifold of sense, we no longer are perplexed with the essentially unmeaning riddle: How can we pass from conceptions in the mind to objects without the mind? for objects as known have no existence except in relation to the intelligence by which they are made real."² "The known world develops *pari passu* with the knowing subject."³ "The whole fact is the perception by the self-active subject of an object which exists *only for that subject*."⁴ "The thing 'tree' is *my* various experiences of it in presence of it and in thinking of it, and every word that I use in describing this thing expresses, and must express, *my* consciousness or experience."⁵ "This world is not out of *our consciousness*."⁶ "It shows that external things as we know them, and we are not concerned in any others, are to a very great extent the product of *our* thinking activities."⁷ "To me it seems that this stream (of changes and states) is built up along with, and mostly out of, the experiences of the everyday world. Stream and world are equally *psychological constructions*, built up by psychological processes."⁸ "Misled by the phrase 'idea of a thing,' we fancy that idea and thing have each a separate reality."⁹ "I am not merely

¹ *Mind*, Vol. V, p. 531.

² *Ibid.*, p. 546.

³ Watson, *An Outline of Philosophy*, p. 446.

⁴ *Ibid.*, p. 471.

⁵ Nettleship, *Phil. Lectures and Reviews*, Vol. I, p. 191.

⁶ *Ibid.*, p. 208.

⁷ Jones, *Browning*, p. 185.

⁸ Dewey, *Mind*, Vol. XII, p. 86.

⁹ Green, *Works*, Vol. I, p. 141.

one object among many other objects in the world of which I am conscious ; I am the conscious self without which there would be no world of objects at all.”¹

I do not think that an impartial reader can deny that the natural meaning, almost the necessary meaning, which such passages bear, is that the objective world has no existence beyond its existence in our knowledge or perception—a position which is only verbally to be distinguished from the subjective idealism against which Hegelianism is a continual protest. Since, therefore, it appears that this is the last thing intended, there must be some ambiguity latent in the argument which requires to be pointed out before we can advance.

What, therefore, are the admitted facts of experience on which the argument is based ? For the philosopher possesses no data which he does not have to justify to ordinary experience. There is no doubt, on the one hand, that I distinguish between the objective world, which is not me, and my own personal, private experience—a succession of conscious acts in time, bound together somehow as the unity of my life. It is hardly worth while to dwell upon the *fact* of this—its interpretation is of course our whole task—since the idealist must admit it as truly as the most hardened dualist. Now knowledge seems in a way to connect these two worlds. From one point of view, any act of knowledge on my part is a particular act, which has its place in the temporal series of acts which constitutes my life. On the other hand, knowledge seems to take me beyond myself, as a momentary state, or succession of states of consciousness, and to identify me with the known world, since, it would appear, I cannot know myself as an individual in the world, without at the same time being more than a mere individual ; I must both be confined to, and transcend, my own individuality.² There must be somewhere a reconciliation of these two aspects, but still as aspects they are distinct, and we have carefully to avoid confusing them. I shall, therefore, designate them respectively as knowledge, and the content of knowledge.

¹ Caird, *Hegel*, p. 117.

² Cf. *Philos. of Religion*, p. 157.

Now it is, I think, apart from certain metaphysical refinements which will occupy us later, only the second of these, the thought content, of which it can naturally be said that it is coincident with reality as a whole, and more than the individual self. Any act or state of knowledge is always some particular act or state, which cannot, without reducing the world to an absurdly narrow compass, be identified with an absolute reality. Absolute reality may, indeed, form the content of a thought (though here another ambiguity enters whose consideration may also be postponed), but this is not the same thing as the knowing itself. Admitting this distinction, then, what are we to say of the idealistic argument in the light of it? And my thesis is, that really there are two conclusions which the Hegelian sets about to prove—conclusions which he fails to observe are by no means identical. One is that reality is rational; and the other is that reality is a single all-inclusive consciousness. In dealing with the first of these, one can safely neglect considerations of epistemology in the narrow sense, *i. e.*, of the relation of *our* thought, as an experience, to the objective existence which it knows, and can confine oneself to the content of knowledge, irrespective of how this enters into our act of knowing. Since it is the rationality of the material universe which needs specially to be proved, and not of human lives, these latter may be taken for granted, and it is enough if we can show that the truth of an object, on its objective side, must consist in its relation to some conscious unity. But when we try to make the same argument do duty for the much more definite proposition, that all reality falls within a single self-conscious experience, we have to remember that this human experience, of which the act of knowing forms a part, does apparently exist, and forms a portion of the whole content of knowledge; and, furthermore, that the doubling of thought, or consciousness, which this involves, the positing of an absolute *and* a finite knowledge, at least introduces a complication. If now we refuse to distinguish the two carefully, if we slur over the problem of their relationship, and talk of thought, or experience, without any qualification, we inevitably run the risk of playing into the hands of subjective idealism; since the one thought, the one consciousness, which to

all of us is nearest and most indisputable, is undoubtedly our own. I shall attempt to show that the Hegelian is guilty of this confusion, and that when he passes from the general position that the universe is rational, to the precise designation of reality as a self-conscious thought, he must, unless he is ready to embrace definitely the attitude of subjectivism which his words often imply, give up his opposition to epistemology, alter the form at least, if not the substance, of certain of his reasonings, and rely in the end upon an argument whose nature is at once more limited and more closely defined.

I will go on, therefore, at more length, to examine the difference in these two positions as I conceive it. We may, in the first place, abstract entirely from the individual conscious experience in which an object is thought or known, and have regard to the content of this knowledge taken as an objective existence. Now it is, I should say, pretty nearly a self-evident proposition that such an object has no meaning except as it is conceived of as thinkable, *i. e.*, as knowable. An unknown reality, a so-called thing-in-itself, is an impossible and contradictory conception. So far we have an argument against agnosticism. But we can go farther than this. A thinkable world is a rational world, and the only meaning of rational is that which has existence for a conscious experience, such as we know directly in our own lives. If the elements which our thought weaves, enter into the constitution of the objects themselves, how can we conceive them as existing there in a totally different form from their existence in our consciousness? Selfhood, then, gives our key for the explanation of the universe, and anything other than selfhood we cannot think as an ultimate fact in the world, without falling into all sorts of contradictions. Granting the fact that we know a reality beyond our individual lives, and our problem being to think this reality consistently, we are unable so to think it except as we regard it as of essentially the same type as the individual experience within which the thought of it occurs.

Now, it will be noticed that so far we have been dealing with objects in the external world, and the problem has been how, granting that what we commonly call material things somehow

exist, that material existence can be conceived. The answer is, that objects show the presence of constitutive thought relations, and so have their reality as falling within a conscious experience. The question thus is of the nature of *material* existence. But we have not thereby solved the nature of existence as a whole, or determined the relation between what we call external objects and the individual self. We are, it is true, in a position to affirm that some connection there must be ; for the fact that we can know the existence of the world necessarily involves a relationship. But the *nature* of the connection does not as yet appear. Hegelianism, however, goes a step beyond this. It is a theory, not of material things, but of reality as a whole ; and its essential point is, not that things have an existence such that they can be truly known by us, but that nothing exists at all except as it is for a universal thought, or knowledge. "Every phase of the world," says Professor Watson, "must ultimately be viewed as a manifestation of one self-conscious intelligence,"¹ and similar declarations are frequent. It is here that the recent critics separate from Hegelianism ; and it is the confusion between rationality and thought which explains how they can assent to many of the Hegelian's general statements, while they object to the implied meaning. If, for example, I say that reality consists of self-conscious beings in relation to one another, then for me reality throughout is rational, since its whole meaning is capable of being understood and reproduced in thought, and there is no opaque residuum. But it is another thing to say that reality comes within a single inclusive thought, or experience, and it is with this latter statement that Hegelianism as such must stand or fall. I wish, therefore, to have it understood that I am arguing for no unintelligible reality, material or otherwise. I agree that objects are spiritual, and exist only within consciousness ; and, therefore, that they can be known by us as truly as we can know our own selves. Not infrequently the Hegelian himself seems to assert no more than this. "The world," says Mr. Bosanquet, "is not a set of my ideas, but it is a set of objects and relations of which I frame an idea, and the existence of which has no

¹ *Comte, Mill, and Spencer*, p. 190. Cf. especially Royce, *Conception of God*.

meaning for me except as presented in the idea which I frame.”¹ But I insist that, if we stop here, we have merely a statement of the general condition which our theory must fulfill, and have still to determine the special form which this rational existence takes.

What I shall assume, therefore, to be the valid element in the Hegelian position, is this reduction of objects to factors within a rational conscious whole. And so far, the self which I call *myself* enters only as a fact which gives us our clue to the quite different fact which we are investigating. Now this implicitly recognizes a distinction between the object as it exists in itself—*i. e.*, not as it exists for itself as a *mere* object, but its existence within an experience not our own—and the object as it enters into *our* experience and knowledge. And, consequently, the problem still remains how our experience can know a reality which is not our experience. If, then, we accept this, which certainly seems to be the common sense view of the matter, any further step in the line of Hegelianism will consist, not in denying the twofold existence of the object—in our thought, and in the universal thought—but in the proof that our thought itself exists, though as a distinct element, only within an ultimate unitary consciousness. Whether such a proof is valid or not I cannot now consider, but at any rate the result which we are attempting to arrive at is comprehensible. It is that the universal and perfect thought, and our imperfect approximations to this, both equally existent, are yet not separate, but within the unity of a single self-conscious life. And the general nature of the proof which along the line of an analysis of knowledge such a result will require, is also pretty clear. It will consist in showing that the fact that the entire universe can be thought together, makes it necessary to conclude that its existence also falls, similarly, within the unity of a single comprehensive thought. Since all things are knowable, and therefore related, and since relations have no existence outside of consciousness, every possible fact must get its reality from an all-embracing mind. The validity of knowledge has no meaning except as our judgments are

¹ *Essentials of Logic*, p. 12. Cf. Watson, *PHIL. REV.*, Vol. IV, p. 358; *Christianity and Idealism*, pp. 137, 138, 147.

brought within a larger system of judgment, by reference to which they are tested. Everything that we can say articulately, therefore, in the way of assertion, or even of doubt or denial, implies an all-embracing system of relations; and not merely the truth of an assertion, but its very intelligibility, depends upon this system of thought being in some way real. This is, indeed, all that knowledge stands for. But a system of thought is nothing except as all the threads of relationship focus in a unity; and so the ultimate fact of the world is a unity of self-consciousness, within which every particular fact has its place as an element in a thought content. And since our lives can be thought along with other things, they also enter into the same unity.

Now this argument, which is present more or less explicitly throughout the idealistic literature, but which Professor Royce has perhaps brought forward most consciously, in its separation from ambiguous connections, is at any rate deserving of careful examination. But the considerations which are most characteristic and familiar in the pages of Hegelian speculation are of a different complexion from this. In the position just outlined there is implied, as I have noticed, a distinction between my thought, and the perfect thought which exists for the Absolute. It is true that my whole life, and so my thinking, enters also into the all-embracing life of the Absolute; but since my thought is essentially imperfect, and since the perfect reality about which I think also exists, there must be a distinction—still within the Absolute—between the imperfect copy and its archetype. The sort of statement which is most common in the mouth of the Hegelian, is, on the contrary, that there is *no* sense in which the object has an existence apart from the subject, and that the problem of how *we* can know the object is, therefore, essentially meaningless, existing as it—the object—does only for knowledge (*i. e.*, for *our* knowledge, supposedly, since it is a question of *our* knowing). In the one case, the self is only an element, indeed, in the whole life of the Absolute; but it is an element which is distinct from the world, as one content of consciousness is distinct from another, and which can be thought apart from it. In the other case, however, the self and the world are not elements, but mere abstract

distinctions, neither of which has any meaning apart from its correlate.¹ It is this latter form of the argument which has now to be examined more in detail.

As I have already suggested, there are two things which we may mean to imply in the statement that the object has no existence outside of consciousness. We may be thinking only of the object itself, and intend to say, simply, that it can have no existence outside of *some* consciousness, without specifying whose. We are thus upholding the rationality of the object in the abstract, are making a general statement about the conditions of its existence, without having any special and concrete reality at all in view. Or we may have it in mind to prove the very different proposition, that subject and object, *i. e.*, ourselves and the world, are mere distinctions in a given unity, and not in any sense separate, so that the apparent breach between our consciousness and the material world is only a fiction of our own creating, which need not trouble the philosopher further. It is the fault of the Hegelian that he does not distinguish clearly enough these two very different things.

The passage from one of these positions to the other is effected by means of an ambiguity in the concept of the self, and since this runs through the most of the Hegelian arguments, it needs to be kept constantly in mind. The word 'self' is used, in the first place, of the unity of consciousness, as opposed to the multiplicity of its content.² It is used, again, of the actual concrete self of finite experience. In the first sense, the statement that subject and object are indivisible means simply that an object cannot be conceived except as existing within a unity of consciousness. But this, which I grant, says nothing whatever as to the nature of the consciousness concerned; and it does not prevent there being more unities of thought than one, a finite and a universal

¹ There is the alternative that the perfect thought is nothing but the sum, or product, of all finite thoughts. This will need consideration, but it is not, obviously, I think, what is intended by Green, who expressly speaks of a reproduction, not of a constituent element.

² Cf. Green, *Works*, Vol. I, p. 112; Jones, *Lotze*, p. 61; Watson, *Mind*, Vol. V, p. 546; *Christianity and Idealism*, p. 258; Caird, *The Critical Philosophy of Kant*, Vol. I, pp. 406, 585, 602; Mackenzie, *Mind*, Vol. III, p. 316.

thought, we will say, whose connection furnishes a further problem. On the other hand, if the Hegelian is referring to the concrete human self at all, I do not see how he can escape from this dilemma : If, as the statement often seems to mean, and is understood by its opponents as meaning, the object is declared to have no existence apart from the finite subject who knows it, he is shut up within subjective idealism. If this interpretation is repudiated, as it undoubtedly will be, and if he still is making any serious attempt to prove, as he appears to be, that the most obstinate of the divisions of the universe, the self and the world, consciousness and matter, are, in truth, a unity, he is doing this only by silently shifting his argument, so as to make apply to the concrete self and world a consideration which has nothing whatever to do with them, but only with the abstract phases of unity and multiplicity which knowledge in the abstract, no matter whose, must always reveal. Apart from this shifting, to repeat once more, he is merely proving the rationality of objects, not the reduction of the universe to a single consciousness which includes human selves. And if he should decide, after all, that he has no reference to the concrete self, he must at least submit to the accusation, on the one hand, of entirely missing the point in his answers to opponents who do understand by the self just the concrete human self, and, on the other, of leaving the ultimate question of philosophy entirely untouched.

Now I am perfectly aware that, so far as his ultimate intentions go, the Hegelian means by the self a 'so-called Absolute Self ; but I shall try to show, nevertheless, that in his desire to include human life within his scheme, he sometimes uses words that imply a purely subjective standpoint, and that this part of his argument, which I assume needs no refutation, will have to be eliminated before we are in a position to estimate his reasoning fairly. Let us, therefore, consider once more the apparent nature of the facts to be explained. Take any concrete perception, or thought ; that perception or thought, as a stage in my individual history and experience, has a certain content, which, indeed, quickly passes, but which possesses its own definite constitution. My experience, *i. e.*, merely as a passing experience,

is not chaotic and amorphous, but is definitely articulated. On the other hand, we may, and do, think of the content of our thought as an abiding reality, and separate it entirely from its momentary embodiment in my passing state of knowledge. But if we admit the two at all, the content as existent, and the content as a momentary knowing experience, I should suppose it was by all means the most natural description of the fact to say that one was a fleeting representation of an eternal reality, in some measure to be distinguished from it; and that consequently I, as the series of such passing states, can know a real world which has its own existence in comparative independence of my finite consciousness which knows it.

Now whatever may be said of the rest of this analysis, the point which I am particularly concerned with can hardly be denied without going against the plain dictates of common sense, and of most philosophical theory alike. This is the fact that, whatever its ultimate interpretation, and whatever else may or may not exist, at least there somehow exists for each man his own private experience—a series of conscious states, or acts, connected by memory, and having its content fashioned in the form of objective things, which exist thus within the unity of the consciousness of which they are elements. If, now, we find some one assuming a certain unity of consciousness, or self, taken for granted without further definition, if he insists that objects, contrary to the received view, have existence only within this consciousness, and that for this reason there is no sense in asking how we come to know objects, seeing that objects are real only for knowledge, then it may be, indeed, that what he really means is that an object outside all consciousness is unintelligible; but what the statement certainly appears to mean to one who is not an Hegelian, is that the object of knowledge has no existence beyond its existence in the act by which I, as an individual, perceive or know it. The interpretation is a natural one because, in the first place, this perception has a content which is objectively constituted, and so the object in this sense, as a constituent of human experience, certainly exists, and would presumably be referred to, in any commonly accepted use of language, when we speak of the

object as entering into experience, or consciousness. The case is still stronger when we notice that a large part of the Hegelian writings is a direct polemic against a certain widespread and common sense belief, which is held up as the infallible touchstone of an incompetent philosophy. People have supposed the universe to be divided into an external world of matter, and an inner world of consciousness, or human life, and it has been a great question with philosophers how a union was to be effected between these two. The Hegelian solves this by insisting that the problem is entirely artificial; that there is no world beyond consciousness, but only the world as a distinction within consciousness;¹ and so that the problem of how we can know the world is meaningless, since we and the world are given in conjunction, and knowledge is the ultimate, apart from which either would be a mere blank.

Now there are two things, at any rate, that the Hegelian means by this, which I venture to think are quite beside the mark. One is the argument already mentioned, that the bare object, as a thing-in-itself, is unreal, and that an object exists only in consciousness. The pertinency of this for the matter in hand is seen to vanish when we notice, as the Hegelian always fails to do, that the phrase 'existence for consciousness' is used in the abstract,² and we cannot, without further argument at least, assume that there is only a single unity of consciousness, in view of the fact that the experience from which we get the concept obviously postulates an indefinite number of such conscious selves. The other meaning is, that if we start from purely subjective states, *i. e.*, from mere feelings, aware only of themselves, we cannot as an afterthought, and by a secondary operation, get beyond this to a knowledge of other realities. There is no such thing as objective knowledge possible, if, to start with, we are "shut up within our separate consciousness, and directly know only our own sensations."³ Now this, I believe, is perfectly sound; we never

¹ Green, *Works*, Vol. I, p. 112.

² Cf. Green, *Works*, Vol. I, pp. 70, 83, 84, 111; Watson, *Jour. Spec. Phil.*, Vol. XV, p. 338.

³ Watson, *Jour. of Spec. Phil.*, Vol. XV, p. 346; Cf. also *PHIL. REV.*, Vol. II, p. 516; *Kant and his English Critics*, p. 30; Caird, *The Critical Philosophy of Kant*, Vol. I, p. 643.

should get to knowledge, if knowledge were not given to begin with. It is true that, for knowledge, the self and its sensations are a construction just as truly as the object is, and that they stand on the same basis with it. But it also is true, apparently, that, abstracting from the ideal content of the thought, all my acts of thinking are real facts, and that they form part of a series of psychical acts which I call my life, and which alone are present to me as a direct experience, while the objects of thought—many of them—exist beyond this series of direct psychical experiences. It may still be true, therefore, that my experience when I see an object is not to be described first as a bare sensation, conscious of itself, and then as an inference to an object which causes the sensation, but rather as from the very start the knowledge of an object; and yet after all it is only the perception of the object which is present to me as an actual experience; the object which I perceive is known to me, but experienced never. This at least is the ordinary view of the matter, and the burden of proof lies with whoever shall deny it; the opposite cannot be assumed as a datum. The fact of its being possible to show that an object is as good as nothing apart from certain intellectual categories under which, implicitly at least, it is known, may indeed be a strong argument against the purely unspiritual existence of the object, its existence apart from all consciousness; but, if the presence of such a categorized object in my passing state of knowledge is admitted, there is, in so far as we confine ourselves simply to this one consideration, no reason why we should not stop with my state of knowledge, instead of going on to an eternal thought; and if it is expressly argued, in opposition to the common view which makes a distinction between my idea and the thing itself, that there is no such reproduction of an existent object in my private experience, then, since the object in my experience certainly exists, and since it is a copy of nothing beyond, an eternally existent self is practically denied. Or, to put it in a slightly different way, since we are accustomed to use the words knowledge and thought in their relation to the system of individual experience of which they are parts, and to distinguish from thought the reality, as that which is thought about, if the Hegelian goes on to ob-

literate this distinction, and to deny—apparently—that there is in *any* sense a difference between reality and thought, even, at times, *our* thought, the subjective interpretation is forced upon us.

On this showing, therefore, what the Hegelian has proved is only the fact that, in opposition to sensationalism, human experience is no compound of unrelated feelings, but is objective from the start, *i. e.*, is constituted by thought relations. The result is a valuable one, but that is no reason why we should always be coming back to it in season and out. If we wish now to go on and question whether this apparent knowledge of ours tells us truth of a reality abiding beyond its transitory existence as an experience, we require other considerations. Because knowledge of objective reality is not built up of unrelated sensations, it does not follow that it may not be knowledge of what exists for itself beyond any conscious experience of mine; and if it does so exist, it is by no means proved that this objective thing, and the subject 'I' who knows it, or, to use Hegelian terms, the eternal complete thought, and its reproduction in me, exist in a unity of consciousness. So far as we have yet been shown, that which enters into such a unity is only the objective framework of my experience. But this at present is quite irrelevant. Neither the plain man nor the philosopher, when he insists upon a reality beyond our thought or knowledge, means, or need necessarily mean, either that this reality is unknowable, or that it is an inference from an original bare sensation. He may admit without hesitation that the reality is itself spiritual, as our knowledge of it is, and that our knowledge is something that cannot be built up as a secondary product from mere feeling. But he still persists in asking: Is there, then, any reality at all beyond my act of thought or knowledge? And if so, how can my thought, and the temporary experience which serves as the bearer of this thought, reveal to me reality which is more than itself? In other words, what, is involved in the fact of its doing this? The question is not: How does it, coming as a private experience first, and known as such, afterwards lead us to suspect that it stands for something beyond?

Now, it may be there is a fatal difficulty concealed in this,

which renders it philosophically untenable, and if so, no one would object to having it pointed out. But the trouble is that the Hegelian resolutely refuses to catch sight of the problem. I suppose the most stubborn sensationalist would admit, if he were driven to it, that our experience does not *seem* to be made up of sensations, that we *seem* to see the world as an objective panorama, and so, that in one sense, experience is actually objective. But when he denies the existence of external objects, if he does deny it, or when another man affirms their existence, what is meant is something entirely different. Again, I admit that the critic of Hegelianism may be in the wrong; but it will be impossible to show this without at least putting oneself at his point of view, and getting hold of the same problem that he is concerned with, not a totally different one. And what the objector really has in mind when he speaks of subject and object, corresponds, once more, not to the Hegelian subject and object, about which the whole gist of the Hegelian argument turns—the distinction, *i. e.*, of unity and multiplicity in consciousness¹—but rather to the Hegelian conception of the Absolute thought, and its reproduction in connection with an animal organism.² But this the Hegelian seems to be unable to grasp, and consequently he ignores what is the central point of his opponent's contention. What is the essential thing that is meant by the statement that reality exists beyond consciousness? The Hegelian professes to find only three intelligible meanings to the phrase—outside the organism, outside other things in space, or the blank of utter unknowability.³ But surely the idealist at least can speak of objects, including the organism itself, as existing beyond consciousness, and convey an intelligible meaning, without either

¹ Cf. Nettleship, *Lectures and Remains*, Vol. I, pp. 203, 204.

² Green, *Works*, Vol. I, p. 131.

³ "I call a thing external, either because I perceive it to stand apart from another thing, or to stand apart from my organism." Watson, *Jour. of Spec. Phil.*, Vol. XV, p. 348. "Unless the world of my consciousness be identified with the bodily organism, to say that a thing is outside the world of my consciousness can only be a metaphorical way of saying that I am not conscious of a thing." Ritchie, *PHIL. REV.*, Vol. II, p. 195. See also Nettleship, *Lectures*, Vol. I, p. 20; Ritchie, *PHIL. REV.*, Vol. III, pp. 11, 12.

making consciousness one object among others in a spatial world, or denying it any relation to intelligence; he can mean, namely, that the object as existing for an eternal consciousness, and spatially related to other objects in that consciousness, is in some measure distinct, as a fact of existence, from the object as existing for any human consciousness that we can call ours. And this very obvious meaning is, so far as I am aware, always ignored by the Hegelian in his criticism of the phrase. I do not say that it is tenable, but the Hegelian surely cannot hope to understand his critic unless he takes it into account.

From the same standpoint we may explain, even if we cannot altogether justify, an expression which Professor Ritchie finds quite meaningless. "I am unable," he says, "to see how a knowledge of my own mental states can be described as a knowledge of realities which exist beyond the consciousness of the individual knowing them."¹ The statement simply means that, in every definite act of knowledge of which we can have experience, and which is not a transcendental assumption, there is involved the unity of the knowing consciousness, *and* the reality known,

¹ Ritchie, *PHIL. REV.*, Vol. III, p. 17. The continuation of this article seems to me to illustrate so well the disability on the part of the Hegelian which I complain of, that I quote from it: "On the other hand, the moment I have put down these words on paper, are the visible written words excluded from the world of my consciousness? Again, in which sphere is my body? I do not see how I can describe various bodily sensations of which I am very distinctly conscious as outside the world of my consciousness. If anything I know or think is excluded from my consciousness because I know it, the sphere of my consciousness must be completely empty. If the sphere of my consciousness is not empty, I cannot see on what principle anything that I know is excluded from it," p. 19.

It also is difficult to see how to argue about the matter, if one refuses to recognize the most ordinary distinctions. Once state clearly what the common sense notion is, and all these puzzles disappear. Yes, the visible written words, the ink and paper, *are* outside my consciousness, so common sense thinks; they would exist still, if my consciousness were wholly obliterated. But the *knowledge* of them is not outside my consciousness, and so this latter is by no means a blank. To be sure, 'to be conscious of' often means 'to know'; but if we insist upon this identification of meaning, to the exclusion of the equally common distinction, we shall be trying to answer the problem by ignoring it. As to the reduction of my body to "various bodily sensations of which I am very distinctly conscious," I hardly know how to argue with one who supposes that, in the ordinarily accepted meaning, one of these is equivalent to the other.

which, as an existence, is not found within this particular knowing experience. This is as true of our own conscious lives in the past as of external objects; only in the case of our own past experience, there is a certain connection which binds it together with our present knowing experience into the unity of a single life history, and this is wanting in the case of material things; and so we can only say, in strictness, that past experiences exist beyond the present consciousness, not beyond our consciousness as a whole.

The fact, therefore, that the real point at issue is so studiously avoided, cannot but add to the suspicion that there are elements, at any rate, in the Hegelian argument which would fail to do service if carried outside the realm of the individual experience. If the fact of the unity of subject and object in knowledge is meant to refer to an infinite self-consciousness, then it ignores the problem how we human beings are connected with the world.¹ But it evidently is supposed to solve this latter question also, and so a reference to human knowledge must perforce be introduced, if we are to get the human self at all within the scope of the argument. What I have undertaken to show is, that this reference is not legitimate. It is true, indeed, that our knowledge of the world would be impossible were there not some connection between the two, but, taken as it stands, this only establishes the fact of such a connection, not its nature. I could not know an object unless I stood in some relationship to it, but if the object has some existence beyond the unity of *my* knowledge, then my unity of knowledge does not, apart from further argument, prove anything about that which exists independently of it. Accordingly, unless we break entirely the connection with the human

¹ When he speaks of the subject-object form as belonging to the divine consciousness, what the Hegelian means, of course, is only that this consciousness has a definite content, and is not simply a blank unity. But the *real* difficulty for other thinkers—which this does not touch—is concerned with the way in which the object seems, for *our* consciousness, to have an existence which does not depend upon our knowledge at all, but continues whether we are thinking of it or not. Does the Hegelian mean that God experiences the same illusion as regards the independence of objective things? If he does not, an appeal to God's consciousness will not settle the question about our knowledge.

self, the statement that subject and object are both alike present in knowledge can only mean that they are both represented in *our* experience ; and this excludes the independent existence of the object *only* in case our experience constitutes the universe. And I will add two or three further considerations tending to show that this really is the form which the argument oftentimes is made to take, whatever the ultimate intention may be. It is, in the first place, quite necessary for the Hegelian to maintain that the self and the world are not merely two parts of a single universe, and so as a matter of fact related—any philosophy would have to admit that—but that they literally are mere abstractions, neither of them thinkable without the other. “Remove,” says Professor Watson, “from the conception of the subject all relations to an object, and what remains is not the pure subject, but a pure blank. If the subject is not conscious of an object, it cannot be conscious at all.”¹ And again, “A subject assumed to exist apart from the object must be regarded as a pure blank so far as knowledge is concerned. . . . If the subject not only exists in a series of affections, but is conscious of affections as coming from the object, it must distinguish them as its own, and yet relate them to the object. But so far as it does so, the object is within knowledge, not a thing existing by itself. Thus the object has no existence for the subject except as the subject distinguishes it from, and yet relates it to itself.”²

Now, this is only true as regards the factors of unity and multiplicity in consciousness, *i. e.*, *our* consciousness, if any reference to the human subject is intended at all ; and the whole contention would be abandoned if we had in mind the unity of what we ordinarily think of as the world, with our actual concrete conscious lives. Unity apart from plurality, plurality apart from unity, are strictly unthinkable ; but a world which has no finite selves in it, or finite selves which, as the subjective idealist

¹ *Comte, Mill, and Spencer*, p. 161.

² *Christianity and Idealism*, p. 129 ; Cf. also Caird, *Evol. of Religion*, Vol. I, p. 66 ; Nettleship, *Remains*, Vol. I, p. 204 ; Green, *Works*, Vol. I, pp. 141, 387, 388 ; Caird, *Phil. of Religion*, p. 157 ; Watson, *PHIL. REV.*, Vol. IV, p. 356.

would hold, form the entire world, are not unthinkable in the same sense,¹ though they may turn out to be untenable conceptions. But they each supply a definite content which can be thought apart from the other; the world conceived as existing in a perfect intelligence, and our own lives taken concretely, both alike supply the unity *in* difference which is required. Of course, granting the existence of the universe as we know it, we cannot, consistently with the integrity of this particular reality, think any of its parts missing; but that is not the Hegelian's argument. All that common sense demands is this: that the self and the objective world have an existence such that either can be made an object of thought, concretely, without the other, as the roots of a tree can be thought without the trunk; and this, unless self is identified with the mere unity of knowledge, the Hegelian, it would seem, must admit. To say that the unity of this self cannot exist apart from its distinction of content, or that an absolute unity cannot exist apart from distinction of content, is quite beside the mark. That there is a more ultimate unity within which both the self and the object come, is by common sense neither affirmed nor denied. So, again, when the Hegelian expressly discards the relation of consciousness to the world beyond it as the problem of philosophy, for the relation of inner to outer experience,² it is not easy to forget that Kant, at least, who is commended for this very change, means very definitely human experience; and there is some excuse, accordingly, if philosophy seems to be reduced to psychology. And, indeed, this is exactly what Professor Dewey insists is the case.³ There may be some way of taking the sting from this conclusion, but at least, if

¹ Cf. Caird, *Philosophy of Religion*, p. 157: "The individual mind which thinks the necessary priority of thought can also think the non-necessity of its own thought."

² "The problem of the relation of inner to outer experience takes for Kant the place which in previous philosophy had been given to the problem of the relation of consciousness to things outside of consciousness," Caird, *Mind*, Vol. IV, p. 558; cf. Green, *Works*, Vol. I, p. 153, and Caird, *Literature and Phil.*, Vol. II, p. 435; *The Critical Philosophy of Kant*, Vol. II, p. 122, where the distinction of God and the self is made equivalent to the distinction of thought and feeling, and the negation of any absolute opposition between existence and thought is effected by the discovery of the relativity of the distinction between perception and conception.

³ *Mind*, Vol. XI.

words are used in their accustomed meaning, the strong presumption is that the consciousness or knowledge, of which the Hegelian continually is speaking, is just the consciousness of the individual man.

I have already quoted passages where this seems to be implied. It is implied, also, in the constant contention that knowledge and reality are in every way identical, and that in so far as I know a thing, I actually *am* that thing. "If our knowledge were absolutely complete," says Professor Watson, "we should be absolutely identified with the object."¹ So also Professor Ritchie: "If I knew another individual person through and through, I should *be* that person."² Since my knowledge is an undoubted fact, the existence, beyond this very knowledge of *mine*, of the object, thus seems to be rendered unnecessary, as regards any reality of which we can speak at all. The same thing is implied in the refusal to recognize any middle term between experience as bare feeling, and as exhausting the universe.³ There is palpably an experience which we ordinarily call ours, and which is not a chain of unrelated feelings, but an objectively ordered whole, in which the world is represented; and as it is quite impossible to overlook this wholly, the inference must be that it is this which is identified with the universe. And, indeed, this is a necessity, if we are not to modify the form of the argument essentially. If we admit that consciousness, or mind, as my mind, is a unity of subjective and objective elements, then the world, in distinction from my mind, is a third factor, and cannot be brought together with mind in the same way in which the two elements in mind form a unity; and consequently, if the Hegelian argument is still to hold, we are bound to deny that this so-called objective experience is really my experience, and must confine the latter designation to what remains from experience after the

¹ *Comte, Mill and Spencer*, p. 187.

² *Mind*, Vol. XIII, p. 261.

³ "Limit our experience to the succession of our feelings, and there is no world of experience. Extend it so as to mean that which determines our feelings, and it must include conditions antecedent to the appearance of sentient life," Green, *Works*, Vol. II, p. 74.

objective elements have been abstracted, *i. e.*, to bare feeling.¹ The fact remains, however, that what we now call an experience *including* ourselves and the world, common sense continues stubbornly to call an experience of ours. And when we find it denied in so many words that by the external world is meant, even by the plain man, anything beyond his own experience, and asserted that the perception of an object—which is certainly my experience—and the object perceived, are practically identical,² the evidence for the essential subjectivity of the object seems fairly strong.

I repeat once more that I do not suppose that this is what the Hegelian really intends; I only maintain that, in his desire to bring man and the world into harmony, he has strained an argument, legitimate in its place, to an application which is not legitimate, unless he means to confine himself to the private experience of the individual; and that, accordingly, his unqualified rejection of the independent existence of the world, and of the problem of epistemology, is mistaken. And as the testimony of an Hegelian himself will probably carry more weight than anything that I can say, I will call attention to the following passages, which, unless I misunderstand their meaning, practically admit all that is asked for. "Nature, as a determinate order of

¹ "The essence of subjective idealism is that the subject consciousness, or mind, which remains after the object world has been subtracted, is that for which all this object world exists. Were this not so, were it admitted that the subject mind and the object matter are both but *elements within*, and both exist only *for* consciousness, we should be in the sphere of an eternal absolute consciousness." Dewey, *Mind*, Vol. XI, p. 13. Cf. what precedes.

² "The assumption with which the ingenuous consciousness sets forth, that things and ideas are the same," Jones, *Lotze*, p. 43. "Matter either means (1) sensations and mental images referred in thought to past or future sensations—and this is what matter means to the ordinary person; or (2) it means the metaphysical hypothesis of an unknown and unknowable matter in itself," Ritchie, *Darwin and Hegel*, p. 90. "I feel certain that the 'crude' realism of the plain man is nothing more than his belief that the real world is the world of his sensations, and of the mental constructs by which he has got into the habit of interpreting them to himself, *i. e.*, the real world of the plain man's belief consists in sensations, *plus* images and ideas suggested by them." Ritchie, *Phil. Rev.*, Vol. III, p. 18. "When we have denied that external objects are independent of consciousness, there can no longer be any reason for opposing perceptions to objects perceived. . . . In the relation of subject and object, perception and percept are two aspects of the same concrete unity." Watson, *Kant and his English Critics*, p. 356. Cf. also p. 359, and Green, *Works*, Vol. I, p. 13.

phenomena, exists independently of the conception of nature as gradually formed by any of us."¹ "Our conception, so far as adequate, is a repetition of the act of such (a perfect) intelligence."² "Thought indeed is limited in this sense, that the knowable world exists independently of our knowledge of it."³ "If taken as belonging to an individual man, to make nature must mean to cause there to be a nature for that individual man."⁴ And finally, after going over the customary Hegelian arguments, Professor Ritchie proceeds to say: "If we stop here, we might fairly be charged with solipsism."⁵ In other words, in spite of the indignant protests which have been heaped upon the critic for confusing the Hegelian argument with subjective idealism, it appears that after all he was right, and that the real point of the matter is still to come. And yet it is just those considerations which Professor Ritchie admits may be characterized as subjective, which have always formed the staple of the Hegelian reasoning.

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¹ Green, *Works*, Vol. II, p. 93.

² *Ibid.*, p. 190.

³ Caird, *Spinoza*, p. 313.

⁴ Green, *Works*, Vol. II, p. 93. See also Vol. I, p. 281; *Prolegomena to Ethics*, p. 12; Watson, *An Outline of Philosophy*, p. 439; *Compte, Mill, and Spencer*, p. 174.

⁵ *Phil. Rev.*, Vol. III, p. 27.

PROCEEDINGS OF THE FIRST ANNUAL MEETING
OF THE WESTERN PHILOSOPHICAL ASSO-
CIATION, HELD AT LINCOLN, NE-
BRASKA, JANUARY, 1901.

REPORT OF THE SECRETARY FOR 1900.

THE first annual meeting of the Western Philosophical Association took place at the University of Nebraska, Lincoln, Nebraska, January 1 and 2, 1901. The President of the Association, Professor Frank Thilly, of the University of Missouri, presided at the four sessions held. Members were present from the states of Minnesota, Iowa, Missouri, Kansas, Nebraska, and South Dakota. Owing to the illness of some, and duties connected with the State Teachers' Association on the part of others, the Colorado members of the Association were unable to be present. Two business meetings were held and the following business transacted.

It was decided to hold the next meeting of the Association at the University of Iowa, Iowa City, at such date as the Executive Committee may determine. The following officers were elected for the ensuing year: President, Frank Thilly, University of Missouri; Vice-President, G. T. W. Patrick, University of Iowa; Secretary-Treasurer, A. Ross Hill, University of Nebraska. Frederick J. E. Woodbridge, University of Minnesota, and Olin Templin, University of Kansas, were made members of the Executive Committee.

The constitution, which had served as working basis for the first year, was adopted by the association, with an additional clause providing for changes by a two-thirds vote of the members present at any annual meeting.

The secretary was authorized to publish proceedings of the meeting, and to distribute copies among the members. The report of the treasurer showed a balance of over \$20 for the year 1900.

A. ROSS HILL,

Secretary-Treasurer.

ABSTRACTS OF PAPERS.

The Theory of Interaction. (President's address.)¹ By FRANK THILLY.

It is generally assumed by parallelists that the theory of interaction contradicts the law of the conservation of energy. According to some parallelists, this law is a necessary consequence of the laws of thought, according to others, it is the product of experience, but still an inevitable postulate of science. It is not true, however, that the principle of the conservation of energy, rightly understood, violates the interaction-hypothesis. It simply asserts that when one form of energy disappears we have in its place another form, and that there is a constant relation between the amounts of these forms. Interpreted in this sense, the law does not contradict our theory. Some parallelists admit this and declare that the theory violates another law: the law that no physical cause can have anything but a physical effect. But this law cannot be proved. We cannot prove it by saying that every cause must be identical with its effect, or that the like can produce the like only, and hence that no psychical state can produce a physical state, because that would be begging the question. Nor can we prove it by experience; for experience does not show that physical occurrences are produced only by other physical occurrences. If by physical occurrences we mean motion, we cannot say that every physical occurrence causes or is caused by motion. Motion produces heat and electricity, but it is a gratuitous assumption to say that heat and electricity *are* motion. If by physical occurrences we do not mean motion merely, but also heat, electricity, chemical changes, potential energy, etc., we are no better off than before; for experience does not prove that psychical states do not interfere with physical states. Indeed, experience shows that states of consciousness cause physical states, and physical states cause states of consciousness. This does not mean that a state of consciousness *creates* a physical state, or *vice versa*. The state of consciousness is a *cause* in the sense of being an element without which another element, say a movement, does not and cannot take place.

¹ This paper is published in full in this number of the REVIEW.

The Dominant Conception of the Earliest Greek Philosophy. By
FREDERICK J. E. WOODBRIDGE.

The fragments of the philosophies of Heraclitus and Parmenides are both constructive and destructive. On their destructive side, they reveal a criticism and rejection of a well-defined philosophy, which it is natural to refer to their predecessors, and to regard as the dominant philosophy of the earliest Greek thinkers. Both Heraclitus and Parmenides appear to be in agreement in their determination of this philosophy, which, according to them, seems to have based all explanation on the phenomena of sense, and to have regarded these phenomena as in a process of absolute generation and destruction, of birth and death, and to have explained this process through the activity of some material element. Over against this philosophy, they assert, the one, the guiding principle of an unseen harmony, veiled from the senses, but revealed to reason as an intelligent principle, the other, the persistence of an indestructible reality whose absolute nature makes seeming birth and death a real impossibility for thought.

Empedocles and Anaxagoras accept the criticisms of Heraclitus and Parmenides, and in repeating them substitute for the earlier conception of generation and destruction, the mechanical mixing and unmixing of changeless material elements. Thus the significance of Heraclitus and Parmenides for the development of Greek thought seems to have been that they forced the natural philosophy of Greece from a crude physiology, to the beginnings of a mechanical explanation of nature.

That the earliest Greek philosophy conceived of nature as a process of physiological generation is evident also from an examination of the meaning of the term *φύσις* in the fragments, the term which traditionally embodies the aim and scope of this philosophy. In every case where the term occurs free from ambiguity, it can mean only 'origin' and is a synonym of *γένεσις*; while in all other cases the same or a related meaning is consistent with the context, often making it clearer than any other rendering. As referred back to the earliest times, the term seems to have meant 'coming into being through a process of physiological generation,' the conception of natural processes which Hera-

clitus, Parmenides, Empedocles, and Anaxagoras oppose and seek to supplant.

The dominant conception of the earliest Greek philosophy as thus developed is not in harmony with the Aristotelian tradition, which regards this philosophy as an inquiry into the 'material cause' of things. Aristotle seems to have been led into this interpretation by the fact that with him the elements water, air, and fire, which seem to have been important factors in the early philosophy, are to be thought of as material causes alone. On the other hand, it is an anachronism to interpret the philosophy of Thales in terms of the Aristotelian causes. The part played by water, air, and fire, in the early systems seems to have been rather that of principles of generation.

Aristotle places Thales in juxtaposition with the theologians who made mythological parents the causes of generation. In the light of this suggestion, it appears that the significance of the earliest Greek philosophy lies in the fact that it substituted for generation through mythological forces, the conception of generation through a natural, material principle. This conclusion is in accord with what anthropology reveals as the general trend of primitive thought.

Thus the dominant conception of the earliest Greek philosophy seems to be, not a permanent, material, substance out of which all things are made, but that nature is a process of physiological generation, a succession of births and deaths, of coming into existence and passing out of existence, mediated by some natural, material principle as water, or a nameless, inexhaustible substance, or air, or fire.

Martineau's Heredity and Philosophy. By JOHN R. BROWN.

Recalling Martineau's own view that a man's heredity is the only true clue to the manner of growth of his opinions, this paper first traced the history of the Martineau family from their Huguenot ancestors in Brittany, and showed how the traditional morality of the family was voiced in the ethics of this son. Martineau's fundamental position in psychology, ethics, and philosophy of religion, were briefly reviewed, and a high tribute

paid to his charms of thought and expression, his candor and appreciation in his estimates of other men's views, his many-sided interests, and his earnestness in seeking for the truth.

The Psychology of Profanity.¹ By G. T. W. Patrick.

The psychology of profanity, when finally written, will throw considerable light upon two unsolved but much-discussed problems: first, the origin of language, and second, the relation between emotion and expression. This paper considers the psychology of ejaculatory swearing only, and not that of legal or popular asseverations. Words and phrases used in profane swearing may be divided roughly into seven classes: 1. Names of deities, angels, and devils. 2. Names connected with the sacred matters of religion. 3. Names of saints, holy persons, and biblical characters. 4. Names of sacred places. 5. Words relating to the future life. 6. Vulgar words. 7. Expletives. The history of profanity is closely connected with the history of religion, since profanity prevailed at those times and among those people where great sacredness attached to the names of the gods, or to matters of religion. In England, for instance, in the thirteenth and fourteenth centuries, after the monkish teaching had implanted a vivid consciousness of the suprasanctity of the body of Christ, and of every scene connected with His death, there burst upon the country a wave of imprecation in which profane use was made of the body and members and wounds of Christ, and of many things connected with His sufferings. Fossil remains of these oaths have come down to us in such expressions as 'zounds,' 's'death,' 'bodikins,' 'odsbodikins,' etc. The significance of this historical circumstance will be seen when we discover that the psychological value of an oath depends upon the force of the 'shock' which it is capable of giving. The occasion of profanity in general is a situation in which there is a high degree of emotion, usually of the aggressive type, accompanied by a certain feeling of helplessness. In cases of great fear, where action is impossible, as in impending shipwreck, men pray; in great anger, unless they can act, they swear. The

¹ This paper will appear in full in the *Psychological Review*, March, 1901.

subjective effects of profanity are characteristic and peculiar. The most striking effect is that of a pleasant feeling of relief from a painful stress. It has a pacifying or purifying effect, reminding us of the Aristotelian *κάθαρσις*. Phenomena of abnormal psychology, such as progressive aphasia, automatic writing, trance utterances, etc., show that profanity is ancient and deep-seated, and probably one of the oldest forms of language.

Profanity cannot be explained as an expression of emotion according to the Darwinian laws of expression. The central stress, surplus energy, safety-valve theories of expression, do not satisfy the conditions of genetic psychology. The James-Lange theory is equally insufficient here. Likewise the Sutherland theory. The modification and restatement of the James theory made by Professor Dewey best explains all the phenomena in the present case.

In animal life, anger is the psychical accompaniment of a failure to coördinate the usual sensory and motor elements connected with combat. Any modifications of the usual reactions of combat of such a character as to induce in the opponent reactions of flight, will be useful and therefore preserved. Terrifying forms of phonation, such as the growl or the roar, are of this character. As vocal language develops, this vocalization will always select the most terrifying, the most 'shocking' words. All the words actually used in profanity are found to possess this common quality. Profanity is to be understood as originally not an expression of emotion, but as a life-serving form of activity. It does not generate emotion. Indirectly it allays it.

The Primacy of Will. By E. L. HINMAN.

It is an old teaching that Reality is an absolute Reason. But is it not more? Life seems to involve the feelings and the will more than the intellect; and just as in man we must not lose sight of these factors, so it would seem that we must recognize their existence in the divine life. But this proposed correction is not easily maintained, because metaphysical thought finds that if science is to be defended, absolute science must be at the heart of things. It seeks the ideal of the intellect, and must inevitably

find this ideal to be Perfect Intellect. From the very nature of the problem, then, the rationalistic result will naturally issue. If it is objected that this result is obviously one-sided, and ought readily to yield to correction in the interests of the feelings and will, the answer is that in metaphysics, and in all questions of truth, the intellect claims primacy over the will. Feeling and will may desire a result, but reason proves or disproves it. And yet philosophy has found cogent grounds for believing that rationalism in its extreme form is a mistake. Against the pretensions of reason has been raised the doctrine of the primacy of the will. This asserts that there are principles involved in willing, in our active and moral consciousness, which when followed out give deeper insights into the truth and meaning of the world than we could ever gain from mere objective science, read in abstraction from the will. But this points, not to a faith that wanders recklessly beyond the bounds of reason, but rather to a faith that forms the very life of thought and reason itself, and can force thought to acknowledge the validity of its ideals. This doctrine was introduced by Kant. But there are certain defects in Kant's theory of ethics, and indeed in his entire philosophy, which modify injuriously his view of this principle. Kant seems to regard the scientific consciousness as so distinct from the moral consciousness that no genuine reconciliation can be reached. This must be reconsidered. Again, Kant opposes the moral consciousness sharply and absolutely to feeling. Here a revision is necessary; but it should endeavor to retain in some form the thought of reason as practical, that is, of an absolute rational ideal involved in willing. These and other changes lead to a concrete synthesis of reason and will. Schopenhauer's interpretation of the relation of intellect and will must be rejected. The further advance of the doctrine of the primacy of will depends upon the success of our effort to unify the theoretical and the practical reason. Will and intellect may be regarded as two poles of one process, neither a function complete in itself. The speculative significance of the doctrine lies in its effort to avoid the unacceptable results of extreme pantheism and panlogism, without giving up a monistic view of the absolute, or the conviction that reality is rational.

It does not necessarily mean that will is more important than reason.

The Postulates of the Psychology of Style. By J. D. LOGAN.

In the nineteenth century there has been one noteworthy attempt at a psychology of prose style. Despite Mr. Spencer's leading in this direction, all reforms in the method of deriving the principles of prose style, whether for purposes of literary criticism, or for teaching the theory and practice of rhetoric, have proceeded as if psychological derivation were not a chief interest, at least of the last half of the nineteenth century. This criticism is well founded. For treatises of rhetoric from Aristotle to Professor Wendell are in method purely philosophical and pragmatic. The Aristotelian method of rhetoric is nothing but the discovery by analysis of all the 'devices' of language for applying an elaborate formal logic—so elaborate as to be indeed cumbersome and inefficient. The demand for "a brief but sufficient theory of the general laws of expression by means of written words" was readily met, especially in America. But the method of discovering the principles of style remained as before objective, analytic, and dogmatic. Professor Wendell, *e. g.*, derives his principle of mass—that the chief part of a composition should be so placed as readily to catch the eye, namely, at the beginning and the end—from the accidental configuration of the English sentence or paragraph. This is to confound accident with necessity, a trick with a principle.

For one who would derive psychologically the structural principles of prose style there are two postulates. First: such an one must search for structural, *i. e.*, universal principles—principles good for both inflexional and unflexional languages. Mr. Spencer has but a very special psychology, based upon the exigencies of a particular mode of speech. His law of economy—to say nothing of its being a negative and derivative law—would, if it were really operative, transform English, structurally taken, into Latin, and conversely. Secondly: One who would derive the principles of style must view the mind in its functional unity. Such psychological (*quasi*) derivation of the principles of style as

we have to-day, begins either with an effete associationism, or with an hypostetizing of the method of structural psychology. Such teachers of rhetoric have derived, *e. g.*, the principle of coherence thus: 'To determine the proper position of a word in a sentence, look into your mind and see what position the idea corresponding to the word has there. Then, transcribe its position on the written page.' Only a bold associationism could submit that the thought of a sentence which contains the single ideas *a, b, c, d, e*, ('He shot only a bear') in the order given is the *sum* of these ideas—the idea of *a* + the idea of *b* + and so on. Style itself is more than parts and physical structure. Thought expresses in any 'thing' it constructs, not as it were physical structure, but its essential nature—the functional 'unity' of the mind itself.

The Psychology of Imitation. By THADDEUS L. BOLTON.

The problem to be solved in imitation is essentially the problem of determining how learning from experience may be possible. Learning by experience is generally, though not always, accomplished by imitation. Writers upon animal psychology have taken it for granted that an animal of one species on seeing another of his own species perform some act that is characteristic, and at the same time not instinctive, must know how to perform that act.

Popularly, imitation is looked upon as the act of doing over again by one, what another has done in the former's presence. Professor Baldwin describes imitation as an act that nominally repeats its own stimulus. This description needs further limitation. Not all acts that are popularly held to be imitative can be described in Professor Baldwin's language. Consideration must be given whether the description is made from the point of view of an on-looker or of the imitator. Acts that can be described from the point of view of the imitator as repeating their own stimuli are much fewer than those that can be so described from the point of view of the on-looker.

Imitations differ enormously in degree of complexity. The *actus purus* of imitation is to be found in the immediate reproduction of a totally unfamiliar sound by the child learning to speak. The infant repeats for himself the stimulus that has pro-

voked him to activity. Ontogenetically and philogenetically imitation succeeds in time of appearance other forms of activity. Children do not imitate with unmistakable clearness much before the age of one year; and only the higher animals display imitative acts, and it is doubtful if many of those commonly so regarded are to be interpreted in this way.

Children begin to imitate only after they have long been active reflexively, instinctively, and spontaneously, and have gained a considerable mastery over their muscular mechanisms. Thus they are familiar with most of the acts and utterances that will enter most frequently into their imitative plays. Imitation makes its appearance as an impulse to act, which impulse is satisfied only when the imitation is successfully accomplished. New acts and unfamiliar utterances provoke the child to random movements, among which one by chance may reproduce the stimulus that has provoked the actions.

From the psychological point of view, imitative acts divide themselves into three classes: first, those that are provoked by totally unfamiliar stimuli; second, those in which an unfamiliar element appears associated with familiar ones; and third, those in which all the elements are familiar but the combination is new.

The Theory of Imitation in Social Psychology.¹ By CHARLES A. ELWOOD.

Most prominent among the results of the attempt to apply psychology in the interpretation of social phenomena, is the theory of imitation, formulated first by M. Gabriel Tarde in France, and later, but independently, by Professor J. Mark Baldwin in this country. A theory which has gained so wide an acceptance in a brief time deserves the careful examination and candid criticism of every social thinker; and such this paper will endeavor to give it.

The first and most obvious criticism of the theory is that we do not imitate everybody indiscriminately. Professor Giddings thinks that "consciousness of kind" comes in to limit and control the process of imitation, and that therefore the principle of

¹ This paper is published in full in the *American Journal of Sociology* for March, 1901.

"consciousness of kind" should be recognized as another factor in the social process, a factor which limits and modifies the action of the principle of imitation. But why stop with admitting a single other factor?

The second criticism of the imitation theory is that it is impossible to understand how a single instinct, 'the instinct to imitate,' has come to dominate the whole process of human society, and alone to constitute the method of all personal and social growth, while many other instincts are plainly discernible, determining the associations of animals below man. The theory violates the 'doctrine of development.'

The third criticism is that the theory makes no allowance for the influence of various forms of natural selection, psychically manifested in determining the direction of social development.

The whole drift of our argument against the imitation theory must now be apparent. The theory divorces the social process from the life process as a whole. It takes no sufficient account of those deeper characteristics of race and species which come to light in the psychical life of the individual, and in the psychical processes of society. It matters not whether we name these race characteristics 'instincts,' 'impulses,' or what not. The process of imitation is at every turn limited, controlled, and modified, by a series of instinctive impulses which have become relatively fixed in the individual through a process of evolution by natural selection. If it be admitted that the process of imitation is limited, controlled, and guided, by numerous innate impulses, or instincts, then it must also be admitted that the unfolding of these is a part of the method of growth, both personal and social. Imitation, then, is *but one aspect* of the method of personal progress, and of social organization. The social philosopher, in viewing society objectively, sees that nearly all the activities of men are imitative *in their outcome*, and he therefore falls easily into the fallacy of believing that they are imitative *in their process*.

To sum up : The criticisms of the theory that imitation is the method of social organization and progress are, in detail : (1) It cannot sufficiently explain the manifest limitations in the process of imitation without introducing other factors in the method of

development ; (2) it creates a gulf between human society and the societies of the animal world which are organized upon a basis of instinct ; (3) it makes no allowance for the process of natural selection to bring about gradual changes in human society ; (4) it rests upon no sufficient basis of ascertained facts, but has apparently been built up by a fallacious method of reasoning. In general, our criticism of the theory is that it makes the social process something apart from the life process. It does not link in any definite way the forces which are moulding human society to-day with the forces which have shaped evolution in the past.

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REVIEWS OF BOOKS.

L'année philosophique. Publiée sous la direction de F. Pillon, ancien rédacteur de la *Critique philosophique*. Dixième année, 1899, Paris, Félix Alcan, 1900.—pp. 315.

The last number of the *Année philosophique* contains four articles: "Personality: the Thing, the Idea, the Person," by Renouvier, pp. 1-37; "On Induction," by O. Hamelin, pp. 39-53; "The Evolution of Idealism in the XVIIth. Century: Bayle's Critical Remarks on Spinozism," by F. Pillon, pp. 55-145; "The Method and Doctrine of Mr. Shadworth Hodgson," by Lionel Dauriac, pp. 147-173; and eighty-five book reviews by François Pillon, pp. 175-312, arranged under the following heads: Metaphysics, Psychology, and Philosophy of the Sciences; Ethics, History and Philosophy of Religion; Philosophy of History, Sociology, and Pedagogy; History of Philosophy, Criticism, and Æsthetics. This volume is, like its predecessors, a valuable contribution to philosophy, and a great credit to Monsieur Pillon, its able editor.

In his article on "Personality," Renouvier shows how what he calls the realistic method has dominated the history of philosophy and of religion, and how it has hindered the development of a true doctrine of personality. From the very beginning there has been a tendency to make entities or things of abstractions of thought, and to ignore the element of personality. Ionic pantheism is physical realism, and teaches the immanence of motion, for which latter principle Empedocles and Anaxagoras substitute hypostasized ideas. Atomism, Stoicism, and Epicureanism are other kinds of physical realism. Pythagoras makes an entity of number, Plato hypostasizes the idea, Aristotle the form. Either the physical or the psychical is substantialized, but in neither case is the ego, the personality, the fundamental nature of consciousness, recognized.

The 'hypostases' in theology are essentially realistic fictions, and in the metaphysics of Christianity they are united with God's personality, whereby that notion is rendered unintelligible; for how can one person be the seat of several other persons? The Middle Ages merely continue Platonic and Aristotelian realism.

Modern philosophy takes God as the seat of ideas, and makes entities of these ideas, thereby ignoring the element of personality. Spinoza's system, according to which the ideas are the modes of God, is the

most realistic and impersonal of all systems. Leibniz is farthest removed from realism, but his doctrine of infinity and determinism suppresses all real individuality and freedom in the personality. According to Malebranche and Berkeley, the ideas and natural objects which they represent are visions or perceptions which God causes spirits to have. Hume restores the ideas to individual consciousness, but this consciousness is represented as an aggregate of ideas without unity, without the ego or subject. Kantian criticism really restores the substantial entities, and enthrones the noumenon. The negation of personality is the main point of agreement between Spinozism and post-Kantianism, where the concept of evolution is substituted for the eternal actuality of God and the world.

The evolutionistic doctrines of to-day reduce metaphysics to a kind of antique cosmogony, using different images merely, or other kinds of abstractions. Idealism fails to refer its ideas to the individual consciousness which they imply, but treats them as simple data of experience, divides them, and separates them, only to associate them again. We have here a kind of psychical atomism without a unifying element, a theory which cannot explain mind.

The theory opposed to realism takes as its starting point consciousness, and not a principle of the external world; not the empirical consciousness which is a *fact* absolutely undeniable, nor the substance, *the thing which thinks*, but the idea of personality. Every thought is related to a consciousness. The idea of the person, extended to other similar consciousnesses, becomes the general idea of the conscious being, a concept which has nothing in common, however, with Fichte's doctrine of the Ego, that universal absolute of realistic idealism. The ego is an individual intuition, a unique act. It is the idea of a present, past, and future, united and forming a whole in the present thought; it is the extension given to this whole by memory and prevision, and it is the spontaneous belief in the prolongation of this living synthesis with various modes of perception. We have here the entire substance of what philosophy designates by the abstract terms, 'the identity and permanence of the subject.' The human imagination associates this natural induction with the idea of a material support of the sum-total of the facts of consciousness, but the analyses of immaterialistic psychology oblige the thinker to limit the notion of substance to that of logical subject of qualities.

The world can be comprehended as a totality of coördinated consciousnesses, and the unity of the latter is clearly conceivable as a consciousness which embraces all their constitutive relations. But the

peculiar notions of infinity and perfection introduced by the schoolmen have rendered unintelligible the ideas of personality, perfection, and God. There is no contradiction in the idea of God, provided the world is supposed to be finite, and the Creator is conceived in correlation with the creation and its laws. The metaphysics of infinity banishes the formal concepts of commencement and cause, and defines the universe as a *thing* into which consciousness does not enter. It is thereby placed in the predicament of having to deduce from an unconscious principle the consciousness without which we can have no representation of the world, its existence, and its principle.

Renouvier's criticism of philosophy is just, in the main. The realistic tendency which he mentions is common to almost all systems: abstractions of thought are regarded as real entities, and the attempt is made to deduce the concrete things from them. And it seems to be as difficult to derive a personal being from another personal being, as it is to derive it from an impersonal being. But does that make the assumption inevitable that personality is an eternal and immortal being? Because we cannot explain or understand *how* personality came to be, must we declare that it always was and that it always will be? And does it necessarily follow that personality has not evolved from a less conscious state? Surely the babe's consciousness does not contain all that Renouvier embraces under the term personality, and yet we must say either that it develops into the personality, or that this is a later addition, something that is introduced, like Aristotle's active $\nu\omicron\upsilon\varsigma$, from without. Moreover does not Renouvier fall into the very error against which he warns us when he speaks of God's personality as constituting the unity of all the consciousnesses in the world? If God's consciousness cannot be the seat of three persons, how can it be the seat of all persons?

In the second article, the attempt is made to give a more accurate description of the nature and foundation of induction than logicians have hitherto furnished. Induction is a passage from the knowledge of facts to that of laws, from superficial and external knowledge to more profound knowledge, from the external to the internal relations of things. We may also define it as a passage from the particular to the general, if we mean by this the passage from the accidental to the necessary. But this is not the sense in which most logicians use the expression. Mill, for example, regards induction as the passage from one case to another; we infer that because a thing is true of one case it is true of another or of all like it. But what right have we to pass from the one to the other or others? Because things or qualities

are necessarily bound together so that where one is the other must be? This cannot be Mill's meaning, for according to him causality is simply uniformity of succession, hence it cannot explain uniform succession, for that would be explaining a thing by itself. We have therefore no guarantee in empiricism for universality, and the empirical conception of induction will not suffice. Nor does induction consist in generalization and prevision. We may discover a singular proposition by induction. The function of induction is performed when it has attained a single necessary relation. The question whether the same circumstances will be followed by the same results cannot be settled by simple analysis. Another distinct inductive act, of the same nature as the other, is required.

Now if induction consists in passing from observable facts to something more essential which we do not observe, it must be a mediate process, a process of reasoning. At the bottom of every induction there is a form of reasoning somewhat as follows: If our hypothesis is not true, then the agreement between the mind, which is independent of nature, and nature, must be due to chance: but that is morally impossible; hence our hypothesis is true. Since the mind of the thinker is free, and therefore independent of nature, it is not probable that the consequences which he deduces from his hypothesis will agree with the facts unless the hypothesis itself be true. We have the conviction that the truth can be deduced only from the truth.

The question how the laws can have generality, since induction does not aim at general laws, is a separate problem. It amounts to asking why genera and species exist in this world, and how they are preserved. Now that undoubtedly depends upon a certain arrangement of causes by virtue of which this arrangement repeats itself, and the reason for such an arrangement can only be sought in the law of final causes. We may even find in this fact a finality relative to us; for a world in which phenomena are repeated can be comprehended by thought more easily than one in which there is no uniformity, and the constant conjunction of two facts assists us in reaching hypotheses.

Hamelin here evidently identifies induction with scientific method in general. He seems to reason as follows: The method of science is inductive; now in science we do not merely pass from the particular to the general, but from external to internal relations; hence induction is more than what the logicians usually define it to be. His definition of induction applies to scientific method in general, to the method which includes induction, deduction, and verification. The object of science is to discover relations—the more internal, the better—and to do this

it must employ all possible methods and all possible intellectual functions. It is no definition of induction to say that it is a passage from external knowledge to more profound knowledge, from the external and accidental to the internal and necessary relations of things, unless we are willing to use the term induction as embracing all scientific methods. The difference between Hamelin and the logicians whom he criticises is that he extends the meaning of the term to embrace a collection of processes employed by science, while they restrict it to one particular process among these.

In consequence of his interpretation of induction, the author's attempt to find a basis for it simply becomes an attempt to verify a scientific hypothesis. We prove the truth of an hypothesis by deducing the consequences which necessarily follow from it, and comparing these with the facts. If our conclusions agree with the facts, we regard the hypothesis as true. I do not believe that the hypothesis is made more certain by Hamelin's appeal to free-will in support of it. Since the mind of the thinker is free, he argues, and therefore independent of nature, it is not probable that the consequences which the thinker deduces from his hypothesis will agree with the facts, unless the hypothesis itself be true. That is, in order to prove the hypothesis we must assume free-will, and even then we do not get beyond the stage of probability !

Pillon's article is able and interesting, not only to students of the history of philosophy, but to metaphysicians as well. It contains a great deal more than the title would indicate. The author takes up Bayle's criticism of Spinozism, showing in what respects it is just, and in what respects it misses the mark. Bayle sets up the following propositions with reference to Spinozism : (1) extension cannot be the attribute of a unitary substance ; (2) a single substance endowed with the attributes of thought cannot contain a plurality of spirits ; (3) the idea of unity of substance is incompatible with the idea of divine perfection ; (4) in this system the necessity of the different modifications produced by the one substance destroys the distinctions between good and evil, truth and error ; (5) the system is based on equivocations.

If extension is an attribute of the substance, Bayle holds, this substance cannot be one and indivisible, for extension is divisible, and if the substance does not differ essentially from the attribute, the substance must be divisible. Spinoza denies this by assuming the substantial reality and continuity of infinite space. There can be no empty space, hence space cannot be divided. Bayle however rejects this definition of division. He might also have attacked this doc-

trine by assuming the existence of empty space, but the difficulties involved in this conception hindered him from doing so. If empty space, he reasoned, is an attribute, of what is it an attribute? If it is not an attribute, what is it? If it is nothing, how can this nothing have the three dimensions? We must either say that extension is God himself, which is impious; or that it is nothing, which is absurd; or that it is an uncreated being, distinct from God and from the body and spirit, which is both impious and absurd. Bayle also appreciated the difficulties arising from the other conception, that of infinite full space. If space is conceived as infinite, and if space is matter, the theologians reasoned, then matter is necessarily infinite; then God cannot be infinite and a creator of matter. There was a way of escape, and it was pointed out by Malebranche in his doctrine of intelligible space, but strange to say, Bayle did not take it. Kant has taught us the answer to this problem: space is a form of the mind. The ideality of space destroys the Spinozistic conception of extension, and consequently the whole of Spinozism. We cannot deny the force of Bayle's argument against Spinozism, but from the critical point of view it has a historical rather than a philosophical interest; for it rests, like the system which it refutes, upon a realistic conception of extension.

Pillon rejects Bayle's view, which is also held by Lequier, Renouvier, and Secrétan, that determinism (Spinozism) destroys the distinction between the true and the false, and that this distinction can have meaning only in a libertarian system. The entire argument is based on a confusion of the meaning of the fundamental terms employed. It is held that in a deterministic system all judgments are the necessary products of the substance, and therefore all equally necessary, hence equally uncertain. They are also all equally necessary to the perfection of the universe, hence they cannot be qualified as true or false. The word 'necessary' is here used in different senses. In the first place, *logical* necessity is confused with *causal* or *psychological* necessity. By saying that all judgments are *psychologically* necessary, the determinist does not mean that they are all *logically* necessary, and that one has as much logical validity as the other. In the second place, the word necessity is also used in a finalistic or teleological sense, and then the causal and teleological meanings of the term are confused. An event is *causally* necessary in the sense of being inevitable; it is *teleologically* necessary in the sense of being essential to the realization of certain ends.

Nor is it correct to say that the terms *good* and *bad* have no mean-

ing unless there be free will. Acts supposed to be necessary may be called good and bad, either in the sense of *beautiful* and *ugly*, or in the sense of *useful* and *harmful*. If, however, we accept the Kantian interpretation of good—as the author does—a belief in free will is necessary.

Many of Spinoza's paradoxes have their origin in his conception of the attribute of thought. He is right in saying that the different psychical faculties are merely abstractions, but he errs in deducing from this the conclusion that these are therefore fictions, that there are not different classes of psychic phenomena corresponding to these universals. Thought, one of the attributes of the single substance, is the idea of extension, another one of these attributes. But extension has no limits, hence the thought which perceives it, represents it, contains it within itself, cannot have any. The two attributes exactly correspond, are equally infinite. Moreover, thought being exclusively representative, is bound to extension, we may even say, is subordinate to it. Thought being the representative attribute, is a relative attribute, *i. e.*, it cannot be conceived by itself without the help of extension. In the Spinozistic doctrine, extension alone exists in itself and is conceived by itself. Now this is the exact reverse of the truth: extension is not an attribute at all, it is only a mode of thought, and thought alone exists in itself and is conceived by itself. Another point: Thought as an attribute is infinite and indivisible. This makes of it a second extension, which exactly reproduces the first without adding anything to it; it is extension repeated—the shadow of a shadow. All this is equivalent to depriving thought of its manifold content (ideas and judgments, feelings, and volitions). Nothing is left that we can call thought. The substance is not conscious of itself, it is not an ego; the idea of substance is incompatible with the idea of a person. Detached from a conscious ego, there can be no such thing as an idea. Now if thought is inseparable from consciousness, consciousness becomes the attribute of substance, or rather, substance and consciousness are but one, and there are as many substances as there are consciousnesses. In this way we pass from Spinozistic pantheism to neo-critical idealism. Spinoza's conception of thought permitted him to place all existing persons in the one substance. In doing this he makes the same mistake which Christian theology makes with its doctrine of the Trinity, a dogma which is hostile to the spirit of monotheism. In the Trinity we have a plurality of divine persons (polytheism), and a unity of substance (pantheism).

The notion of the unity of substance is also based upon equivocations, as Bayle points out. First take the term substance. The word has two meanings, as Descartes had pointed out : a metaphysical meaning, which is applied only to God ; and a logical meaning, which is applied to substance to distinguish it from the mode. Spinoza ignores this necessary distinction. Logically considered, substance is something which can be conceived by itself, which does not need the idea of any other thing. The attribute is inseparable from the substance, it is the essence of the substance. The mode cannot be conceived by itself, but requires the thought of another thing of which it is the mode. Nothing is said here concerning the possibility or impossibility of a causal relation between one substance and another. Spinoza, however, confuses the logical and the metaphysical senses of the term. From the fact that substance exists by itself while the mode exists in another thing, *i. e.*, in a substance, from the fact that the idea of a substance has no need of the idea of anything else, while the idea of a mode cannot be formed independently of the idea of substance, Spinoza concludes that substance has no need of a cause for existing, consequently that no substance can produce out of it another, nor be produced from another, hence that every substance is uncreated and eternal. In proof of this, he also appeals to the proposition that the knowledge of the effect depends upon the knowledge of the cause and implies it. Now the concept of substance does not depend upon the knowledge of any other thing, hence the knowledge of substance cannot depend upon the knowledge of its cause. But it must depend upon it if it has a cause, hence it has no cause.

Spinoza also uses the terms *same*, *identical*, *identity*, ambiguously as Bayle shows. He confuses numerical identity with specific or generic identity. He concludes that because two substances have the same attributes (meaning *same in kind*, *similar* attributes), they must be the same substance (meaning *same in number*). This does not follow, for substances may have the same attributes and yet be numerically distinct.

Spinoza also concludes that because we can think of the substance without thinking of the modes, the substance is anterior to its modes and separable from them. But it is as impossible for a substance to exist without modes as for it to exist without attributes. We cannot think of the attributes of thought and extension by themselves, but only through their modes. The general idea of extension is formed by abstraction from ideas of particular figures, and the general idea of thought from ideas of particular psychical phenomena. Spinoza's

substance and attributes are empty abstractions. Modes are the true realities. And these different modes do not form two irreducible species, but the modes of extension are reduced to those of thought, and modes of thought are inseparable from the law which combines them, and this necessary law of synthetic unity is expressed by the word 'consciousness.' There is no other substance than this law.

Pillon's article is on the whole sound and fair in its judgment of Spinoza's system. There are only a few points on which one might disagree with him. I shall say nothing of the idealistic standards by which he measures Spinozism. Of course, if space is only a mode of thought, that part of Spinoza's system which assumes the reality of extension as an attribute of substance becomes void. Still, Spinoza might deny the idealistic hypothesis as dogmatically and with as much right as his opponents reject his realism. And he might also add that the concept of ideal space is as much of an abstraction as the concept of real space.

It is true, as Pillon says, that Spinoza lays great stress upon the attribute of extension, and speaks of thought as representative. But it must not be forgotten that thought has as much reality for him as extension, and is coequal with it. There can be no extension without thought, and there can be no thought without extension.

Pillon does not seem to do Spinoza justice in the matter of modes. If the substance can exist without its modes, but not without its attributes, and if the particular objects and particular states of consciousness are modes, then apparently the substance is nothing but empty extension and empty thought. But Spinoza does not deny either the existence or the necessity of modes. He would agree with Pillon that no substance can exist without modes, that the modes are as necessary to the substance as the substance is to the modes. Spinoza's thought here is that no particular mode is necessary, that the particular modes come and go, that our thoughts are constantly changing and that the forms in nature are constantly changing, but that the substance manifests and must manifest itself in modes, in infinite and necessary modes—*necessarii et infiniti modi*—by which he means the endless connection of all finite things, the totality of all modes—*facies totius mundi, motus et quies, intellectus absolute infinitus*. Accordingly, infinite extension does not mean a barren stretch of space, and infinite thought does not mean an idea of such a barren waste of extension. These attributes are powers or forces which act in the things and form the permanent essence behind the ever-changing phenomena.

The last article is a long review of Shadworth Hodgson's book on

the *Metaphysics of Experience*, by M. Dauriac. The reviewer shows that Hodgson, after pretending to suppress the categories and to start consciousness out without them, really smuggles them in again under the name of *forms*. He is not as far removed from Kant and Renouvier as he believes. He is a materialist in psychology, but not in metaphysics. Consciousness has a material substratum, the nervous system, and is therefore a function of the brain. But matter is the work of an extra-material cause, hence mind really has as its cause that from which matter is derived. Dauriac regards this as a highly original hypothesis, and looks upon Hodgson as a metaphysician of the first rank, as one of the most vigorous thinkers of England.

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Knowledge, Belief, and Certitude; an Inquiry with Conclusions. By FREDERICK STORRS TURNER, B.A. London, Swan Sonnenschein & Co.; New York, The Macmillan Co., 1900.—8vo, pp. viii, 484.

“An Inquiry with Conclusions” (title-page). “I wish the reader to know that he has in his hands the record, as well as the results, of a genuine inquiry. . . . If the conclusions surprise the reader, they will not surprise him more than they surprised the writer. . . . For the discovery of the conclusions reached by this inquiry, I am abundantly glad and thankful. So far as they are true—and I have no doubt that they are true in the main—they come from the only Source of all truth; I am but the instrument through which they have been revealed” (preface, p. v.). “Whatever defects and errors may be detected in this book, I believe that its main conclusions and its conception of real knowledge will stand, and I hope it will prove to be a germ which in other minds will take root and bear fruit. There are wide fields of human thought and human life, barely glanced at in our restricted inquiry, to which this new conception is applicable, and in which it may prove helpful. Meantime what it has been given me to do, I have accomplished as I could; and, keenly sensible of the imperfection of my performance, I end, not with a feeling of self-complacency, but with joyful confidence in the truth that has been revealed to me; with wonder and thankfulness that I have been used as the instrument to set it forth” (pp. 478-9).

“A Daniel come to judgment! Yea, a Daniel!

O wise young judge, how I do honour thee!”

Reading these quotations, many may feel inclined, on the spur of the moment, to take quick refuge in Shylock's salutation. But here, as so

often, second thoughts prove best. For, in Mr. Turner's chapter on "Appearance and Reality," we are met by the following declaration, which happens to characterize his standpoint with sufficient accuracy: "The standpoint of the preceding chapter, and of our inquiry throughout, is that of reflective common sense, aware of its limitations, striving for such comprehension of science and metaphysics as it can achieve as it goes along, but often obliged to lament its deficiencies" (p. 294). Taken as a whole, *Knowledge, Belief, and Certitude* bears the earmarks of the typical English production. Unburdened by profound scholarship in history of philosophy, little swayed by the traditions or current skirmishes of the schools, not pervaded deeply by a sense of the contemporary situation in metaphysics, ministering to a personal need more than to the solution of a problem widespread in its pressure, our author contrives, nevertheless, to say numerous striking things, and, by his very lack of presuppositions, to set familiar questions in a peculiar, if not new, light. Moreover, the subjects discussed assume frequently, *more Anglicano*, a practical or average rather than a theoretical or systematic aspect. Not truth for its own sake, but *a* truth sufficient to assuage *my* present difficulty, seems to be the object sought. For these and similar reasons Mr. Turner's book deserves a hearty welcome; it administers a 'jolt'; the same reasons, too, explain and palliate the inevitable defects of its qualities.

The plan of the work is novel enough to demand attention. Mr. Turner desires to arrive at a solution of the problem: What is knowledge? Pursuant to this wish, he divides his discussion into two Books. The First is entitled "Abstract Knowledge," and fills 353 of the 479 pages; the Second, entitled "Real Knowledge," runs to 126 pages. In a word, criticism is to construction in the proportion of nearly three to one. Each of these 'Books' is subdivided further into several 'Parts.' Thus, the First Book consists of five 'Parts,' as follows: (1) Preliminary Survey of the Facts; (2) The Nature and Grounds of Knowledge; (3) Science; (4) Psychology; (5) Philosophy. The Second Book contains two 'Parts' only; they are (1) Teleology; (2) Conclusions. Some appreciation of Mr. Turner's position and difficulties may be obtained by looking at his procedure more closely.

He begins by drawing a distinction between consciousness and knowledge. "Consciousness is the general name for being alive and awake, for seeing, hearing, tasting, smelling, feeling; for thinking, knowing, doubting; for wishing, hoping, fearing; for the whole extent and whole variety of our perceptions, feelings, and activities.

This consciousness is an individual personal awareness of these ever-changing states. For myself, I have never once had a consciousness of another person's consciousness" (pp. 8-9). Although he does not profess to be in a position to define knowledge at this stage, he commits himself to these statements. "The test of knowledge is verification; that is, the fulfilment of expectation. Knowledge seems to be the result of a completed process. The starting point is some felt need; some desire to be gratified or some pain to be avoided. . . . Knowledge, then, is an interpretation of the data of consciousness, based on the belief that the future will be like the past. But how—seeing that all experience is of the past, and we have no experience of the future—can we justify this belief? This is one of the problems of knowledge: perhaps an unsoluble one. Meantime we must accept the belief or abandon our inquiry; for without this assumption there is no knowledge to inquire about" (p. 25). "Belief, then, does not appear to be essentially different from knowledge. On the contrary, it seems that the impression of their difference arises from the first unreflecting acceptance of knowledge, which regards it as complete, self-sufficient, and final. A little consideration of knowledge, and how we came by it, leads us in most cases to a discovery that our knowledge is, or involves, belief" (p. 35). "Normally, consciousness is certitude, knowledge is certitude, belief is certitude" (p. 37). Then the "search for a method" leads to an analysis of the "nature and grounds of knowledge." A "method cannot be mapped out in advance." But knowledge contains three "given certitudes"—"the self, other selves, and the external world." These are mutually dependent upon one another and form a single unity. Further, these certitudes "are not included in knowledge," for, "knowledge is of particulars, or of general rules, but not of the whole" (p. 97). Moreover, "from this point of view all the three certitudes are data of consciousness and real things or parts of reality. It is one thing to know that we have a datum of consciousness, and another thing to know what the datum *is*" (p. 101). Having arrived at this point, our author goes on to review the knowledge acquired by aid of the several disciplines, or groups of investigation, called respectively, Science, Psychology, and Philosophy. He finds that "these two marks distinguish a science: (1) its selection of a particular class of objects for its subject-matter; (2) the objective way in which it regards this class of things" (p. 116). Next, he shows that "mathematics is the science, and the only science, of demonstrative agency" (p. 120). But "the mathematician ignores the subjective nature of his concepts; their relation to the thinking

mind has no place within his science. He arbitrarily treats his own concepts as objects before the mind, neglecting altogether the fact that they are concepts within the mind, or rather, belonging to the mind" (p. 121). Similarly, the "sciences of inorganic matter" are abstract, because in them "knowing, through the activity of the mind, is dependent upon what is not the mind, upon objects, upon the given, or what, in a word, we call reality. . . . In mathematics we learned that something *in* the mind, in its own nature, compels it to know, *i. e.*, to think the truth. From physics we learn that a somewhat external to the mind, a somewhat not of the nature of mind, compels us to know, *i. e.*, to think in conformity to it" (pp. 135, 136). So, too, biology, especially in its physiological phase, "is a mixture of hypotheses and knowledge" (p. 143). It arrives at a point where the object cannot be longer treated merely as an object; for, "sensation is subjective, a quality of mind, of the self; it is a new kind of being, unrecognized in the inorganic sciences, unrecognized in biology, until this point is reached. When once it is recognized, science undergoes a change; it is not what it was before; it has ceased to be purely objective. . . . We see, then, that in biology we have reached a point of transition. Here we must quit the region of physical science and enter a region which has been called by various names; let us, for the present, speak of the group of the mental sciences" (pp. 143, 144).

Mr. Turner finds it difficult to define mental science. "History, literature, art, poetry, belong to this region. Knowledge is possible, and is actually possessed in all these fields of thought; but *science* is not at home there" (p. 148). Nevertheless, he holds that "we must consider briefly the two mental sciences, logic, and ethics, which, if there are any mental *sciences*, undoubtedly belong to the list" (p. 148). Logic turns out to be too general for science; it "is mixed up with all knowledge" (p. 158). Ethics, on the other hand, may be treated scientifically and, therefore, *abstractly*, and so must be dismissed, seeing that *real* knowledge is the quest. For, "all science is particular, departmental, fragmentary" (p. 169), and "in science we have knowledge at two removes from reality" (p. 170). Thus, "at present we do not seem to have made much progress towards our goal" (p. 175). In this quandary, Mr. Turner devotes 67 pages to psychology, hoping to find a way out. Psychology is a science "so unlike the physical sciences that it must be put into a new class of sciences" (p. 179), and "be it what it may, is not an objective science" (p. 180). Besides, "our special inquiry [knowledge] is hardly so much as mentioned. If it is mentioned, the psychologist generally hands it over to the phi-

losopher as a subject-matter belonging to his province. This being done, the distinction between psychology and philosophy seems hardly worth maintaining" (p. 187). Yet psychology has a subject-matter and uses the method of analysis. "The two methods of psychologizing which we have been engaged in contrasting are (1) the real or concrete way, in which the common-sense observer *contemplates* mental phenomena as they come and exist, and (2) the abstract objective way in which the scientific observer *analyzes*, as he says, the same mental phenomena into elements and compounds" (p. 207). "However, the main point is that the analysis itself is unreal; it is an analysis of fictitious elements, of imaginary *objects*" (p. 209). Discussions of physiological psychology, of Locke's psychology, and of Wundt's theory of experience follow, with the result "that in the present state of psychology we cannot obtain from it much help towards the solution of the philosophical problem; to which we must next turn our attention" (p. 243).

The treatment of philosophy involves several inquiries. (1) The philosopher cannot proceed "without employing these five conceptions, *being, unity, change, end, causality*, or some modifications of them" (p. 247): (2) Is philosophy knowledge? (3) Does it contain some knowledge of a kind different from that of the sciences? (p. 247). The diverse philosophies are reviewed next—sceptical philosophy, dogmatic philosophy, logic as philosophy, appearance and reality—the net result being that philosophy is found to be non-consistent when skepticism obtains, etc., and to be dogmatic in other cases, thus offering no clear agreement as to what knowledge is. Finally, philosophy is shown not to give knowledge different from that obtained by the sciences. Science and philosophy can furnish abstract knowledge, nothing more. And "abstract knowledge is true and useful so long as we do not try to make it the standard of reality, so long as we do not attempt to explain *everything* by it, so long as we leave it resting upon its real basis, the three fundamental certitudes, and employ it only for the interpretation of special appearances and for the gaining of special ends" (p. 350). In this crisis Mr. Turner is evidently ripe for construction.

When in doubt, appeal to teleology. To the three fundamental certitudes, accordingly, we are conducted forthwith. Human teleology is real knowledge (p. 359), for the self is more than its own expression (p. 361). Action for an end, or "knowing how to do it," is real knowledge (p. 373). A true and faithful description of human nature is real knowledge (p. 412). And "real knowledge is inseparably

bound up with our real existence, and with the real existence of the world to which we belong" (p. 416). Thus abstract knowledge is not knowledge, and abstract knowledge is—abstract. Science ends with the relative, and philosophy cannot give a theory of the universe (p. 439). "Human knowledge *never reaches the bottom*. . . . The ultimate concepts upon which knowledge is built up are not themselves *knowings*" (p. 450). Thus, the "conclusion is that *all knowledge is belief*" (p. 453), and "belief is always true and right *except when it pretends to be exact and adequate knowledge*. Knowledge, however, is not superior to belief, because it is exact and adequate. On the contrary, knowledge is always wrong *when it claims to be exact and adequate*" (p. 467). If we ask, finally, whether we know reality, the answer must be, "Yes; we know that the Reality exists; we know that the Reality is trustworthy; because it actually is the foundation of all our knowledge and belief" (p. 477).¹

I have let Mr. Turner thus speak at length for himself, because his own presentation of his views furnishes the aptest criticism upon them. Everyone who has competence in matters scientific and philosophical can see at a glance that what is new here is not true, and what is true is not new. In a word, our author has completed a most interesting voyage of discovery, and has printed his account of 'things seen,' unaware that libraries exist describing the same route. Nevertheless, the intelligence, not to say *naïveté*, of his tale renders it of a certain quaint interest. The change of intellectual climate undergone has demanded many forms of treatment, and, still suffering from nostalgia, our voyager has been led at length to satisfy himself with an open letter of introduction to chance. The capital 'S' in Self, and the capital 'R' in Reality, tell as much. The very fact that Mr. Turner has still to learn the lesson of impersonality, that alphabet of science (and he thinks of philosophy as a kind of science), serves to account for the fresh points he raises, and also for the lapses as frequent as they are curious.

The truth is that our author has undertaken to write a book on "Knowledge, Belief, and Certitude," in the hope of discovering the metaphysical principles with which it might have been wise in him to have begun. Having knocked in vain at the door of certain problems, he tries to reach them by the window, unaware that the door is only on the latch. No doubt he manages to cut an interesting figure in this way. But he has yet to learn that 'real knowledge,' if it can be reached, has its place on the solid ground of experience, not in the

¹ Throughout, the italics are Mr. Turner's.

mid-air of verbal abstractions, like 'Self,' 'other selves' and 'the external world,' with the phantasmagoric antimonies that follow in their train. And, in view of several sayings, such as those quoted at the outset, he cannot be reminded too often that he is but the latest in a long line of failures to take the house of philosophy by storm and unawares.

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Fact and Fable in Psychology. By JOSEPH JASTROW. Boston, and New York, Houghton, Mifflin, and Company, 1900.—pp. xvii, 375.

Psychologists have realized for some time that it was only a question of a few months or years when such a book as the one before us should appear. Psychological orthodoxy has been threatened from various sides, and, although no suggestion of scandal has appeared within the science itself, a host of misunderstandings and misrepresentations have arisen without, and have done a vast amount of harm. Professor Jastrow is to be sincerely thanked for clearing up many of those dubious matters in his *Fact and Fable*. A new science, like a new commonwealth, is much concerned to set and survey its boundaries. If it fails to set them, its neighbors are sure to assume the task. Psychology has near neighbors and a good many of them. With most it has made amicable and permanent arrangements; with many it has established mutually beneficial commerce; from some it stands in friendly aloofness; toward all it has assumed, either as the result of fierce war, or of arbitrate tribunal, the attitude of a coördinate power.

With the settlement of boundaries comes the task of distributing territory. In this matter, psychology has proceeded without any great embarrassment. It is true that experiment has been reproved for its greed; but its loyal and lusty zeal has gained it a large fief, and the privilege of extending its limits through diligence and industry. From the first, the claims of the immigrant and of the squatter have vexed the state. Mysticism and charlatanism have brought their hosts of aliens, and popular tradition and belief have insisted that possession is nine points of the law. But assimilation and expulsion have both together solved the problem which these factors present. The story of expurgation is told in a delightful series of studies in *Fact and Fable in Psychology*.

The substitution of emotion, prejudice, and tradition, for logic, open-mindedness, and truth, is not an operation peculiar to any single field of knowledge. It has occurred in all times and places in which the human mind has attempted to grasp the import of even the sim-

plest occurrences of everyday life. Every branch of science, and every form of philosophy (which has not been a mere retreat to the shades of mysticism and ambiguity) has furnished a protest to such a substitution; a plea for logicity—"the ability," as the author puts it, "to distinguish between the plausible and the true, the firmness to support principle in the face of paradox and seeming non-conformity, to think clearly and consistently in the absence of the practical reproof of nature." The constant need of this protest, decade after decade, even century after century, is something disheartening. We find it in the Socratic dialectic; physics and mathematics have long voiced it; every new branch of learning has lisped it while still in its infancy, and even the youngest of the sciences must make it almost her first business to cry out against error. It simply shows that to be born into the kingdom of science is to learn to think and believe from principles, as to be born into the kingdom of righteousness is to learn to act from principles. "It is only as the result of a prolonged and conscientious training, aided by an extensive experience, and by a knowledge of the historical experience of the race, that the inherent rational tendencies develop into established logical habits and principles of belief."

Since popular belief rests mainly on tradition, or at best on particular demonstration, it is easy to see why the battle against error has to be waged so many times and in so many places. Fortunately, however, it is no longer necessary for the defenders of 'logicity' to be apologists; although the propagandists of untruth try continually to set them upon the defensive by bringing forward a host of mysteries which 'science is unable to explain.' One of the charms of the book under discussion is its freedom from apology. The author writes with a clear, historical perspective, and hence lightly and freely. He deals with the occult rather as an interesting psychological phenomenon, than as a serious claimant for distinction in the ranks of knowledge.

A general introduction to the subject is given in the opening chapter on "The Modern Occult." The occult is characterized as a "mixed aggregate" of "aberrant beliefs" which show a "marked divergence . . . from the recognized standards and achievements of human thought"; divergence in "attitude, and logic, and general perspective." It may show itself as an actual distortion of facts and truths, or simply as an "unconscious susceptibility for the unusual and eccentric, combined with an instability of conviction regarding established beliefs." Occult doctrines are "attracted to such themes as the ultimate nature of

mental action, the conception of life and death, the effect of cosmic conditions upon human events and endowment, the delineation of character, the nature and treatment of disease ; or indeed to any of the larger or smaller realms of knowledge that combine with a strong human, and at times a practical, interest, a considerable complexity of basal principles, and general relations."

The motives—theoretical and practical—to occultism do not belong to any particular time or people, but are as old as the race. They are operative at the present time in theosophy, spiritualism, phrenology, palmistry, Christian science, clairvoyance, metaphysical healing, and other like cults. None of these cults is new ; they are all revisions of older doctrines ; all remnants of the time when "pseudo-science [an ugly hybrid !] flourished in the absence of true knowledge ; and imaginative speculation and unfounded belief held the office intended for inductive reason." The type of individual that is attracted by the occult is skilfully drawn. "It is a weak though comprehensible nature," says the author, "that becomes bewildered in the presence of a few experiences that seem homeless among the generous provisions of modern science, and runs off panic-stricken to find shelter in a system that satisfies a narrow personal craving at the sacrifice of broadly established principles, nurtured and grown strong in the hardy and beneficent atmosphere of science." The believer in the occult possesses an "intensely personal temperament," one "that finds a paramount significance in the personal interpretation of experience, . . . that inwardly cherishes an intense belief in the personal purport of the order of events, and earnestly seeks for a precise explanation of individual happenings." Belief in the occult is fostered by the argument from analogy. A 'mystery' is named by an analogy—mesmerism becomes 'animal magnetism,' the transmission of thought a kind of sympathetic vibration, or a wireless telegraphy—and, once named, the mystery is supposed to be explained. "The safest and most efficient antidote to the spread of the pernicious tendencies inherent in the occult lies in the cultivation of a wholesome and whole-souled interest in the genuine and profitable problems of nature and of life, and in the cultivation with it of a steadfast adherence to common sense, that results in a right perspective of the significance and value of things."

It is not necessary to review in detail the various essays which make up the book. All have appeared in print before, although some have been entirely revised. It is natural that they should show some differences in temper, since their first appearance covers a period of some twelve years. And yet there is a remarkable unity running through

them all (except perhaps, the final chapter on Dreams of the Blind, which is not so obviously related to the other studies). The author is either making a statement of some phase of the occult, or tracing its development, or setting it off from science, or making a psychological analysis of belief. The most important chapters are those dealing with psychical research, spiritualism, hypnotism, and the natural history of analogy.

The treatment of psychical research is an excellent bit of methodology. The work and aims of the Society of Psychical Research are subjected to a critical survey. It is not a psychological organization, although much of the material with which it deals has a psychological bearing; but the interest of the members is more than a psychological one, it is 'explanatory,' 'investigative,' 'anthropological' and 'occult.' When the Society is tempted to the borderland between knowledge and mystery, in order to trace the dividing line between the natural and the transcendental, or to the region of the palpably occult, or when it attempts to explode some theory, it parts company with psychology. If, however, it is to deal successfully with psychological matters, it must approach them with the same methods, and in the same spirit that characterize psychology at large. While Professor Jastrow emphasises the fact that psychology and psychical research are entirely distinct, and while he censures the latter for giving a false idea of the business of psychology, he is very careful to acknowledge the important services which it has performed. "I am more than willing," he says, "to contribute whatever I can to the maintenance of a Coöperative Psychological Investigation Society which shall stand ready to take up the investigation of any phenomena which promise to yield data of psychological interest; which shall, however, keep far removed from any phase of the transcendental or the occult; which shall not feel itself under any obligation to *disprove* any improbable or absurd hypothesis which this or that seeker for notoriety may choose to put forward; which shall not be dominated merely by the spirit of finding out whether there is 'anything in' one movement or another, but will simply stand ready to supplement the work of the academic laboratories by undertaking, in the same spirit, a special form of investigation, which, under existing circumstances, such laboratories or their individual directors cannot expediently undertake." But, on the whole, he thinks that psychical research has done more harm than good. Among other things it has given a distorted conception of the purposes and methods of psychology. "The status of that science has suffered, its representatives have been misunderstood, its advancement has been ham-

pered, its appreciation by the public at large has been weakened and wrongly estimated, by reason of the popularity of the unfortunate aspects of psychical research, and of its confusion with them."

The chapter on "The Logic of Mental Telegraphy" is another clever study in methodology. The author proves himself a clear-headed pilot where there is a strong temptation to drift with the currents of shiftless logic. Mental telegraphy simply names a mystery instead of explaining the alleged facts. The phenomena in question "represent a complex conglomerate, in which imperfectly recognized modes of sense-action, hyperæsthesia and hysteria, fraud, conscious and unconscious, chance, collusion, similarity of mental processes, an expectant interest in presentiments and a belief in their significance, nervousness and ill health, illusions of memory, hallucinations, suggestion, contagion, and other elements enter into the composition; while defective observation, falsification of memory, forgetfulness of details, bias and prepossession, suggestion from others, lack of training, and of a proper investigative temperament, further invalidate and confuse the records of what is supposed to have been observed."

The subjective and objective conditions of the warping of belief are enumerated in the chapters on "The Psychology of Deception," "The Mind's Eye," and "Mental Prepossession"; and an apt illustration of deception is drawn from the phenomena of spiritualism. There is a trace of effort in some of the psychological analyses, which do not always quite succeed in being at the same time both popular and scientific.

The essay on hypnotism and its antecedents will be, perhaps, the most welcome chapter in the book. A brief history of hypnotism is given, special care being taken to separate the fantastic from the substantial. The sketch is a lucid portrayal of beliefs in the occult, and in the "conflict between the rational investigation of intelligible facts, and the unwarranted attempts at an explanation of alleged miracles—a phase of the conflict between science and mysticism. The imperfectly understood is apt," the author continues, "to be explained by the still more obscure; totally imaginary forms of energy are called upon to account for poorly observed effects; and so the mystery deepens, superstition spreads, and charlatanism finds a fertile field for its display." One is considerably disappointed to find no adequate account of the psychology of hypnotism, and of the close connection between the mental phenomena of hypnotic states and corresponding phenomena to be found in the normal consciousness; although it is distinctly pointed out that the explanation of the abnormal is to be

sought first and always in the normal. After all, the psychology of hypnotism is a far-reaching study in itself, and a proper account of it would have disturbed the proportions of the book.

Fact and Fable brings home a truth which has been well nigh forgotten by our time. It is not only the factual that instructs the human mind, but errant belief as well. Science is accustomed to point its moral with a *hoc verum docet*, but the *haec fabula docet* by which the race learned in the simplicity of its childhood is still able to instruct. As Browning's Mr. Sludge says of his own 'profession':

"Strictly, it's what good people style untruth;
But yet so far, not quite the fullgrown thing;
It's fancying, fable-making, nonsense work—
What never meant to be so very bad—
The knack of story-telling, brightening up
Each dull old bit of fact that drops its shine."

It is only when the two views are balanced against each other that they become most significant. Error and extravagance, when once recognized and dissected, not only illumine the truth by contrast, but also point out the flaws in the process by which the mind creates its universe, and hence warn the investigator from the dark corners in which deception lurks. It is for this separation of fact from fable, and the recognition of the sources and offices of both, that we are indebted to Professor Jastrow's entertaining book.

I. M. BENTLEY.

James Martineau: A Biography and Study. By A. W. JACKSON. Little, Brown & Co., Boston, Mass., 1901.—pp. x, 458.

This work gives an account (pp. 1-141) of the main facts in the life of Dr. Martineau. But this is the smallest portion of the book. It is followed by two sections, one (pp. 142-278) on the religious teaching and preaching of Dr. Martineau, and another (pp. 279-447) on his Philosophy of Religion, of which it gives a very sympathetic and intelligent exposition.

In its way, the work is well done. But I regret that the author had not adopted another method. The first division, as I have said, treats of Martineau the man. Undoubtedly the principal external events in the life are here recorded. But we miss the inner life and struggles, or, where they occasionally appear, it is too much from the mere ecclesiastical standpoint. James Martineau was the most impressive religious teacher, and the most strenuous religious thinker of the last two generations of Englishmen. His outer life was quiet and uneventful; but the inner eye was always alert, and the heart and mind

were always full. His letters, to judge from samples which the reviewer has seen, would have made intensely interesting reading, at least to the spiritually initiated, though they might have proved *caviare* to the general. Still no life of Martineau would appeal to the public; and it is a pity that the select few who read it should not have had their legitimate yearnings gratified by some contact with the self-revelations which the man made of himself in correspondence with his friends and acquaintances. It is this which gives such perennial freshness and abiding interest to Abbott and Campbell's *Life of Jowett*. Was Mr. Jackson's model the *Life of Tennyson*? At any rate the effect on the reader is equally disappointing.

Martineau's sermons and meditations have proved their quality by their persistent vitality. One welcomes, therefore, the description of the preacher. But too much space has been given to his New Testament criticisms, in which, from lack of the necessary historical and philological studies, Martineau could not be an authority. Here, as elsewhere, Mr. Jackson shows a lack of just discrimination.

What shall we say of the section on the Philosophy of Religion, the longest part of the book? First, it is a faithful and admiring account of Martineau's metaphysical, ethical, and religious philosophy. But the author's hero-worship, or some less pardonable circumstance, leads him to give Martineau greater prominence as an *original* thinker in the history of philosophy than the facts actually warrant. In his recent *History of the United Kingdom*, Goldwin Smith says that Burke was not a statesman, but a "superb pamphleteer." I think it would be a just adaptation of these words to say that Martineau's gifts were not those of an original philosopher, but they were those of a "superb pamphleteer" in philosophy. All his writings—even the most systematic of them—develop his own views by way of opposition to, or in criticism of other thinkers; and the exuberant magnificence of his style, and his keen personal interest in the issue, make of his several volumes a congeries of "superb pamphlets."

Mr. Jackson writes as though Martineau were the original author of the type of philosophy he champions. Nothing could be more misleading. In his metaphysics, Martineau continues the tradition of the Scottish school, and Reed was his master. In ethics, his standpoint and his fundamental principles are Bishop Butler's. To ignore these facts is to do Martineau injustice. For Martineau will be remembered with reverential gratitude for the ability, the skill, the insight, and the impressiveness with which he reasserted the spiritual philosophy of Intuitionism against the Materialism, Empiricism, and Agnosticism,

which, in seeming alliance with modern science, threatened in the last half of the nineteenth century to desecrate all the sanctities of human life, and to make of man himself a mere object of the natural universe. In those stormy days, Martineau was the champion and defender of spiritual faith. This was his distinctive service to the English-speaking world: this, and not the construction of a new philosophical theory. Readers of the volume before us, who have been students of Martineau's works, will feel that Mr. Jackson does not adequately apprehend that difference.

J. G. SCHURMAN.

Essai sur l'imagination créatrice. Par TH. RIBOT, Membre de l'Institut, Professeur au Collège de France. Paris, Alcan, 1900.—pp. iii, 304.

Though the author does not tell us so, we may presume that this monograph is a chapter in his larger work covering the entire field of psychology, another chapter of which is represented by his work on the *Evolution of General Ideas*. The present essay is characterized by all the lucidity and fluency of description that belong naturally to Professor Ribot's psychological writings; and if one occasionally suspects that the analysis underlying the graceful superstructure might go a little deeper, and be a little more adequate, one hardly knows at what points to adduce evidence justifying the suspicion.

An analysis of the process of creative imagination is the special problem of the first part of the essay. In the second part, the subject is treated genetically, while the third section of the book is devoted to a descriptive study of the various types of creative activity. At the outset, the motor character of the process is emphasized: we are told that creative imagination "has its origin and its principal source in the tendency of images to objectify themselves, or more simply, in the motor elements inherent in the image." This accords with the fashion in psychological science at present: 'motor elements' are peculiarly satisfactory things to appeal to in the way of explanation. But certainly their presence is not a mark that distinguishes the creative imagination from other mental processes. The essential character of creative imagination consists, as Professor Ribot himself shows in his admirable later analysis, in the fact that through the dominance of a single idea, new apperceptive systems are built up. Of course the ideas and images concerned tend to objectify themselves, as they do in passive imagination, in reasoning, in any kind of mental process; and equally of course the objectification involves motor elements. But these are no mark of creative as distinguished from other activity.

Similarly, when M. Ribot draws an analogy between creative imagination and will, saying that "the imagination is in the intellectual order what the will is in the order of movements," the analysis seems inadequate. Creative imagination *is* the will, as much as anything is will; it is not merely analogous to it.

The three factors involved in the process to be discussed are, according to our author, an intellectual, an emotional, and an unconscious factor. The treatment of these factors is of course equivalent to answering the question: How is it that new combinations of ideas can be formed? What are the agencies that break up and recombine? The intellectual factor M. Ribot finds in the two-fold process of dissociation and association, the latter being of course chiefly association by similarity, since contiguity would tend for the most part to reinstate the old combinations. The emotional factor reduces itself to association based on similarity of affective tone, which suggests the author's favorite doctrine of affective memory. Most of the objections that have been made to this doctrine have been from the point of view of the thorough-going analysis which recognizes only two affective qualities, and hence supposes that affective elements have in themselves too little variety to serve as associative links. But whether one finds more than two primitive feeling qualities or not, it is impossible to deny that associative processes fall into two great groups: one where the associative links are derived from the more intellectual senses, such as sight and touch, and are, therefore, weak in feeling tone; the other where the links consist in obscure and complicated groups of organic sensations, with strong affective coloring. This latter group may be called that of emotional associations, and no one can doubt that it is enormously influential in imaginative processes.

As regards the third factor, there are cases where neither intellectual nor emotional analogy suffices to explain the formation of new groups. Here Professor Ribot appeals to "the unconscious factor." Whether its nature is physiological or subpsychological he does not decide; but it functions chiefly in the process of mediate association, and in that "summation of tendencies to recall" termed by Ziehen "constellation." Touching the disputed fact of mediate association, the author suggests that a phenomenon so evident in ordinary normal experience cannot justly be rejected because it does not yield itself under the artificial conditions of laboratory experiment—a suggestion with which the present reviewer heartily concurs.

There remains to be discussed in the analytic part of the book, the 'principle of unity'; that is, the power that a single idea or group

of ideas possesses which enables it to dominate consciousness and effect a rearrangement there. This power resides, of course, largely in the affective tone which such an idea possesses; and the dominating force exerted by an idea may range from the minimum of unifying power displayed in reproductive imagination to the extreme of obsession.

It is unnecessary to dwell on Professor Ribot's study of the development of imagination in animals, in the child, and in the race. The most interesting point in his treatment of animal imagination is the statement that the motor combinations of play are the proper field in which to study the creative processes of the lower animals. The imagination of the child is traced through the four stages of illusion, animism, play, and romantic invention. After having reached its maximum, creative imagination both in the child and in the race undergoes a critical stage of transition, and a final stage of becoming rationalized.

In the third section of the book, the various types of imagination are grouped under the two general categories of plastic, and diffluent. Plastic imagination takes for its materials sharply defined images, visual, motor, and tactile; its forms of association are objective, and the feeling element is subordinate. The materials of diffluent imagination are "emotional abstracts"; its forms of association are subjective, depending on "remote analogies or accidental contiguities." Plastic imagination is used in painting and the allied arts, in science, in practical invention, and in certain forms of literary art; it is displayed in the mythology of Greece. The typical instance of diffluent imagination is of course musical composition; it is found also in literature of the mythical and symbolist type, and in the mythology of the Hindoos. The two forms never occur in the same individual. This distinction seems to be a very real one, and it is not invalidated by any difference of opinion as to the nature of emotional abstracts. Professor Ribot describes them as consisting of aspects, qualities, or attributes chosen "because they please or displease us in some way." The phrase undoubtedly implies that there exists a considerable number of affective qualities; but those who hold that objects cannot please or displease us in more than one way, may still admit the existence of emotional abstracts, based, not on the connection of objects with peculiar feeling tones, but on their connection with peculiar groups of organic sensations, *i. e.*, peculiar moods.

Finally, certain more special forms of these two general types are studied in the later chapters of the book. Imagination in its mythical, scientific, mechanical, commercial, and social or utopian applications,

is discussed and described in accordance with the principles previously established. And in the last chapter M. Ribot makes the existence of creative activity dependent on two factors: the force of human needs, appetites, and desires; and the possibility of a spontaneous revival of images grouped into new combinations. If one may make a rather insignificant criticism as a last word, the term 'spontaneous' does not seem to add any force to the above expression. The revival of images is never spontaneous, certainly not if one invokes the aid of an 'unconscious factor'; and the difference between ordinary recall and what takes place in creative imagination is rather that in the latter case the combinations, besides being new, are crystallized around a single idea, the 'principle of unity' so well discussed by M. Ribot in an earlier chapter.

MARGARET FLOY WASHBURN.

SUMMARIES OF ARTICLES.

[ABBREVIATIONS.—*Am. J. Ps.* = *American Journal of Psychology*; *Ar. f. G. Ph.* = *Archiv für Geschichte der Philosophie*; *Int. J. E.* = *International Journal of Ethics*; *Phil. Stud.* = *Philosophische Studien*; *Rev. Ph.* = *Revue Philosophique*; *R. I. d. Fil.* = *Rivista Italiana di Filosofia*; *V. f. w. Ph.* = *Vierteljahrsschrift für wissenschaftliche Philosophie*; *Z. f. Ph.* = *Zeitschrift für Philosophie und philosophische Kritik*; *Z. f. Ps. u. Phys. d. Sinn.* = *Zeitschrift für Psychologie und Physiologie der Sinnesorgane*; *Phil. Jahr.* = *Philosophisches Jahrbuch*; *Rev. de Mét.* = *Revue de Métaphysique et de Morale*; *Ar. f. sys. Ph.* = *Archiv für systematische Philosophie*.—Other titles are self-explanatory.]

LOGICAL AND METAPHYSICAL.

La finalité sans intelligence. EDMOND GOBLOT. *Rev. de Mét.*, VIII, 4, pp. 393-406.

Why have certain flowers honey-sacs, while others have none? The most probable answer is that of Darwin, viz.: That it is a case of complex adjustment for the sake of increased fecundation by means of the insects attracted. This is an example of the finalist theories, which to-day are numerous in biology also. Before Darwin, biologists excluded teleological ideas, physiology was mechanical, and the function was explained by its organ, not the organ by its function. Now the reverse method is employed as often. Teleology has ceased to be theological and metaphysical, and has become scientific. It is usually said that we have teleology when the result determines its antecedents. But really the name 'final cause' is an absurd contradiction in terms. The interest and difficulty in teleological discussion centers in the *initial* term, which has previously always been thought of as an *idea*. Evolution has shown by its factor of natural selection, an *unintelligent* choice, that the initial term in final processes is not necessarily intellectual. Individual variations within a species are originated by various efficient causes; one of them happens to be advantageous, and natural selection makes of it a specific character, *because* it is advantageous. Here we have finality without intelligence. Some may object that this confounds utility with finality, and that the initial term is only a happy accident. This last is true, but the initial term requires no teleological explanation, as it is the commencement, not the end, of the process. It happens to be useful; but the final term is teleological, as utility is its *raison d'être* as a specific character. All finality involves a choice between possibles, an apparent contingency. Natural selection is the putting all the possibilities to the test; intelligent finality makes its tests in idea before action; it involves a kind of 'selection' among ideas, as with the God of Leibnitz. Intelligence, then, only shortens the way for teleology, and intelligent finality is only one form of teleology in general.

EDMUND H. HOLLANDS.

Prolegomènes à l'esthétique. L. DIMIER. Rev. de Mét., VIII, 4, pp. 429-458.

The author proposes to himself three questions : (a) Can a definition of absolute beauty be given ? (b) can an æsthetic be formed without one ? (c) what is the relation of the æsthetic determined by the answers to (a) and (b) to other disciplines ? Beauty is found both in nature and in art, but especially for us in the *beaux-arts* and in poetry. Their objects arouse in us the feeling of the beautiful by means of two powers, one of simple inspection, the other of relation. The first is attached to the very sensations caused by the material of a work of art, *e. g.*, colors are joyous or sad, contours graceful or severe, etc. The beauty of relation, however, attaches to that of which the material is only the vehicle and interpreter, the object which the colors and lines represent, or the discourse reported by the sounds. Music, architecture, ornamentation, dancing, are arts of pure inspection ; poetry and eloquence of pure reference, while painting and sculpture are mixed arts, involving both. In the realm of these latter, the work is often beautiful by reference or inspection, while its model is one that is disagreeable in one respect or the other. This apparent contradiction is explainable. The materials with which any art works oppose a certain resistance which prevents a perfect imitation of nature in any case. They all compel a reduction of the heterogeneous to the homogeneous, involving a certain ordered relation ; this causes a third form of beauty, that of imitation, which on analysis is seen to comprise all beauty for man, whether of nature or of art, whether of inspection or of reference. A definition of absolute beauty is, therefore, as impossible as ontology in general ; but an æsthetic can nevertheless be founded on an analysis of the concrete order involved in beauty of imitation in the several arts. Such an æsthetic would be of great use to art ; and as a study of the abstraction of art—an abstraction which resembles that of science in seeking by an ordered use of our perceptions to master the infinite detail of nature, but differs from it in seeking a complete representation of reality, and in being an abstraction forced by its material instead of one sought for its own sake—such an æsthetic might yield as much to philosophy as has the study of scientific abstraction.

EDMUND H. HOLLANDS.

Théorie des beaux-arts. TH. DUBOSQ. Rev. de Phil., I, 1, pp. 28-47.

St. Thomas defines beauty as *resplendentia formæ super partes materia proportionatas*, a phrase which possibly includes every important conclusion of recent æsthetic. Two interpretations are possible. Either every form or essence is intrinsically 'resplendent,' and may only accidentally be hidden from our notice in the object, or only certain forms are such as to give beauty to their manifestations. The former interpretation has been erroneously derived from certain passages, where St. Thomas refers not to æsthetical, but to metaphysical beauty. In truth, the intrinsic splendor appertains only to such forms as offer to the affective as well as the cognitive

nature, a richer nourishment, a higher degree of goodness and of truth. The beautiful is not to be found in any abstract notion, however noble, but only as concrete and individual. To say that the beautiful is individual is not to deny that it must be peculiarly typical or universal; but even in this sense too great universality deprives a work of art of its effectiveness. Since we cannot easily form or retain in consciousness the idea of a perfect individual, the fine arts serve our need of permanent objects of beauty, giving an indirect vision of the ideal of which the direct vision is so difficult. How can the idea be presented in sensible form? Two explanatory principles are adduced. First, according to the well-established theory of the reversibility of emotional states, if an idea *A* causes an emotion *B* which issues in an organic adaptation *C*; then if an exterior cause puts the organism into the state *C*, the emotion *B* and the idea *A* follow. Secondly, the æsthetic effect of works of art is due not only to their meaning, but to the unconscious relation of harmony or dissonance between their intimate physical constitution and the constitution of the organism. The physical theory of beauty supplements, without contradicting, the theory of representative influences.

THEODORE DE LAGUNA.

Professor Ladd's Theory of Reality. WILLIAM ADAMS BROWN. New World, IX, 35, pp. 536-553.

This article is written to complement a review of Professor Ladd's *Theory of Reality* which appeared in *The New World* for September, 1899. Metaphysics, unlike the special sciences, is essentially concrete and practical. The reality with which the metaphysician deals is no recondite thing-in-itself, but the concrete familiar multi-qualified world of everyday life. The reality of even each individual thing is nothing less than all that is or can be truly known about it. The abstract essence which constitutes this world consists in the force with which it impresses itself upon our minds, even against our wills, and must, therefore, be conceived, after the analogy at least, of willing, acting, living spirit. But it is not mere *active* spirit: it is rational spirit, acts according to rule and law, and these rules and laws are the categories, the subject-matter of systematic metaphysics. Theory of knowledge is distinct from metaphysics: the former critically examines the processes of human knowledge; the latter constructively applies them to an interpretation of reality. Such is the real world of the metaphysician, manifold, rational, willing. Its unity, therefore, we must conceive, after the analogy of our individual selves, as an absolute self which constructs, comprehends and guides the whole. Such are some of Professor Ladd's philosophical tenets, to which the author of this article zealously subscribes. Such is the real world as we know it; but we know only in part. There is much yet unknown which only the future can reveal, and our attitude towards this as yet unknown part must be one of faith and 'better hope.' This is where the author demurs to Professor Ladd's philosophy, claiming that it violates

his former postulate of the essential unity of the world of reality, but adds, in conclusion, that "where so much is offered, criticism is a thankless task."

IRA MACKAY.

Recent Gifford Lectures. JAMES SETH. New World, IX, 35, pp. 401-419.

"The function of the Gifford lectureship is the investigation of truth, of the truth of the Christian religion among other things." The lecturer is free to discuss his subject, natural theology, from any point of view. The author thinks that the results of this lectureship are to be found rather in the disputation itself, than in any definite contribution made by an individual lecturer to its final settlement. The object is to understand the place and value of religion. "The center of interest is the correlation of the religious with the scientific view of the universe." Professor Seth quotes from Professor Campbell Fraser to show the exact nature of the problem. "Is our environment essentially physical and non-moral, or is it ultimately divine?" "Are we essentially physical and non-moral, or spiritual?" It is the old alternative between a materialistic interpretation on the one hand, and a spiritual interpretation on the other. "For naturalism is materialism." Professor Seth says that the greatest value of Professor Ward's work lies in the fact that he has shown us just what naturalism is. From this point on, the writer quotes extensively from Ward, who shows that the mechanical theory as a professed explanation of the world, receives its death blow from the progress of mechanical physics itself. Professor Ward points out many contradictions in the theory of naturalism. "The final outcome of naturalism would make all knowledge as well as activity illusory, would invalidate our intellectual as well as our moral life." "It reduces itself, by the course of its own logical development, to absurdity." Naturalism destroys itself. Professor Seth thinks that, while there are many arguments for idealism, the ultimate argument is to be found in our moral consciousness.

G. W. T. WHITNEY.

Pragmatism. W. CALDWELL. Mind, 36, pp. 433-456.

Pragmatism, as defined in Professor James's lecture entitled "Philosophical Conceptions and Practical Results," is the evaluation of a thought or of an object by its practical consequences. The method is useful in dealing with philosophical abstractions, but especially important because it leads to the concepts God, Freedom, and Immortality. There are at present many tendencies which lend a basis to Pragmatism. Psychology regards intellectual activities as the obverse of material activities. Biology goes farther, and regards thought as a means to action. Sociology rates systems of thought at their survival value, and scientists are coming to recognize the teleological significance of laws and hypotheses. But to become a working philosophy

Pragmatism must make some important assumptions; first, a certain unity of the self with the universe; second, a criticism of human needs; and third, a criterion of consequences. It is unfortunate that Professor James does not connect the principle with its theoretical basis. The certainty of the moral order is not assured by correlating it with the natural order. This lack of connection is due to a failure to generalize the results of scientific reflection and to utilize the conclusions of German philosophy. For psychology, reality is that which is in relation to our active life. For the evolutionary theory, teleological assumptions are necessary. Kant and Hegel have shown that the activity of the subject is essential to external reality. Schopenhauer has identified reality and will. From the very nature of reality one is led to study theories in the light of their consequences. Metaphysicians have been simply unable to keep purely theoretical inquiries apart from practical considerations. Pragmatism then can well be regarded as an attempt at ontology through teleology.

N. E. TRUMAN.

PSYCHOLOGICAL.

Some Currents and Undercurrents in Psychology. JOSEPH JASTROW.
Psych. Rev., VIII, 1, pp. 1-26.

This is the President's address before the Baltimore meeting of the American Psychological Association. The author expresses satisfaction with the status of psychology in America, namely, the pleasing lack of personal controversy, the alert spirit of investigation which keeps pace with needs and ability to direct them to ends, the reconciliation of the different schools. He then proceeds to speak of the place of psychology as a science among the sciences, after which he passes on to the fundamental conception of his survey, viz., psychology as the science of mental functions, an attitude which comes naturally in the wake of the evolutionary wave. He notes that although the functional aspect enters into modern psychological literature, it is more often as an undercurrent than as the central thought. For collegiate instruction, an introduction to the nature of psychology, its problems and thought, no aspect is more appropriate. A consideration of the more elementary processes in reference to their functional phase is fundamental, and is a prerequisite to their profitable consideration in other aspects. Keeping in mind the functional aspect, the author calls attention to one of the most valuable results of recent investigation, the threefold manner of approach to many significant problems of psychology—the genetic or comparative, the normal, and the abnormal. The study of intelligence is taken as an instance. From discussion of the first approach the most general conclusion is that processes as well as results must be regarded as criteria of the status of mental actions; from discussion of the last approach, besides a recognition of its value, comes a warning against catering to popular opinions of psychology, and misuse of psychical research. The value of

the current of functional complexes is brought out by a discussion of two prominent speech complexes, reading and writing. Last of all is taken up the discussion of the practical current, the aspect of psychology as a science of mental functions being the bond of connection between psychology and life. Although the writer agrees to some extent with Professor Münsterberg, their ways part when it comes to the more fundamental aspects of theory and practice as applied to psychology. Psychology brings appropriate messages to many sciences and theories, and the increased recognition of this function is a prominent and fortunate characteristic of the intellectual current of our time, even though it has its dangers. "Psychology and life are closely related, and we do not fulfill our whole function, if we leave uninterpreted for practical and public benefit the mental nature of man."

FLORENCE M. WINGER.

The Psychological and Sociological Study of Art. YRJÖ Hirn. *Mind*, 36, pp. 512-522.

In this introduction to his larger work, the author's main point is to make clear the discrimination between the psychological interpretation of the art-impulse, and the sociological interpretation of the work of art. For a scientific treatment of art some sort of definition is necessary, yet a study of the history of æsthetics will show how difficult the formation of a positive definition is; for in proportion to the advance of science, the metaphysical and philosophical importance of æsthetic feelings has been lost, and the subject has been scientifically divided into many branches. The definition most generally accepted is: True art has its one end in itself, and rejects every extraneous purpose. But it will probably be found that some form of interest—personal, political, ethical, religious—enters into every so-called æsthetic activity. The historical development of art also shows some foreign purpose not acknowledged in art theory. This truth shows the falsity of the 'self-purpose' position. It is truer to say that there is a tendency to make the work its own end; and whatever the genesis may be, we know that no non-æsthetic justification is necessary to call forth our appreciation. Thus the facts which would have to be disregarded in purely æsthetic activity, must be dwelt upon in the psychological and historical examinations; why works of art satisfy our æsthetic craving; what factors make them able to satisfy. This peculiar task of æsthetics can be undertaken only by constant reference to the psychological and sociological principles of art theory.

F. M. WINGER.

The Principle of Least Action as a Psychological Principle. W. R. BOYCE GIBSON. *Mind*, 36, pp. 469-495.

The author gives a short historical account of the 'Principle of Least Action,' including an outline of its use by a few of the most prominent

physicists. The general meaning of the principle is simply the expression of the fact that in moving from one point to another, a body will follow the path which involves the least sum total of action. The question of the paper is: Can some principle of 'Least Action' be found among psychological principles? Psychology has to deal with the activity of the individual consciousness, with the changes known as mental development, definite in continuity and direction; a vital unity, the unity of a conative and developing consciousness. Its most obvious condition is that attention is relatively constant, for it is in being related to one interest that the discriminations of attention find their meaning. Continuity in mental process is not of the same order as in mechanical work, but is a vital, conscious striving, a continuity proper to something that grows and grows by thinking. The 'Principle of Least Action' as applied to mental processes does not mean that there is inertia, but that there is continuous interest in one line, and lack of interest in unrelated lines. We are relatively inert because we object to abrupt transference of effort from one direction to another. Mental progress depends upon elimination of all interests alien to those interests which give unity to mental life, and this is a most fundamental and fruitful conception in psychology. First, there must be clearness as to one's starting point, then method, then economy in application of method. "What is fundamental in scientific consciousness is not a striving after economy, but a striving after clearness, method, and fidelity to fact. It is the effort to think clearly and deeply that yields the economical virtues of simplicity, relevancy, and precision."

F. M. WINGER.

Ueber Verallgemeinerung der Gefühle. THEODOR ELSENHANS. Z. f. Ps. u. Phys. d. Sinn., XXIV, 3 u. 4, pp. 194-218.

The author classifies complex feelings in terms of their origin. General or complex feelings may arise in either of two ways: through association with ideas feelings may share in the generalization of the intellectual elements to which they attach, or they may arise directly as the resultants of several partial feelings. To the first class belongs Wundt's 'conceptual feeling.' The author cannot agree with Wundt in making it qualitatively different from its components. On the contrary, introspection shows that the feelings attaching to the component ideas are present in the complex, and give it its qualitative coloring. The criteria of this class of complex feelings are (a) an intensity weaker than that of any of its components, and (b) qualitative indefiniteness. To the second class belongs 'common feeling'—Höfding's 'vital feeling.' It is not a summation; such a designation neglects its unitary character. It is more properly a fusion of partial feelings. The characteristics of the class to which 'common feeling' belongs are: (a) indefinite localization; (b) an intensity equal to that of its strongest component; (c) qualitative indefiniteness. When the feelings attaching to centrally excited sensations enter into the complex together with common

feeling, the resultant is a general feeling of the highest, *i. e.*, most inclusive order—a mood. The author finds the final differentia of these two classes in the character and the time order of their connection. The first is the result of successive association mediated by ideas; the second of a simultaneous connection into which the feelings enter directly without mediation.

C. R. SQUIRE.

ETHICAL.

The Social Individual. A.T. ORMOND. Psych. Rev., VIII, 1, pp. 27-41.

Modern psychology began in a period of individualism. Consequently it is necessary to reformulate the definition of the self in order to conform to the present tendency to merge the individual in the social organism. The concept of the self as a 'socius' can be achieved either analytically or genetically. If one analyze the consciousness of the common man, one finds the self made up of responses to a system of business or social relations. If it is viewed apart from these relations, the result is an unreal self. The family, political, and religious attitudes are specifications of an indeterminate self, which make it definite. By the genetic method a germinal self is posited. One first determines what is meant by social environment and heredity; second, the characteristic form of reaction in this field; and third, the kind of specification that the self obtains as a result. The environment includes the individuals and institutions of the community-life and conduct. Heredity is the super-organic tendency to conserve definite types. The method of reaction is first objective then subjective. The principle involved is that of imitation. The specification that results is that the self can represent the consciousness of others. One determines his own consciousness by means of imitative activity, and reaches the construct of another's consciousness by immediate analogical reference. It is through this construct that one can enter into the life of another and treat him as a 'socius.'

N. E. TRUMAN.

The Ethical Aspect of Religion. JAMES SETH. The Madras Christian College Magazine, Sept., 1900.

Religion is in its essential nature ethical, and the difference between the religious and the irreligious man is the difference between the good and the evil will. This is especially true of Christianity, which measures a man's religion by his character and conduct. This, however, has been obscured by a misconception of 'faith' which has been confused with mere 'belief.' Christian faith is not the assent of the intellect to a body of propositions, but the self-surrender to the divine will. Being a life, it does not depend upon a formulation of intellectual belief. Another misconception is that of making feeling rather than thought or action the essential element of religion, and regarding it as "a state of feeling, a mystic

union of the soul with God which is its own end and has no essential relation either to thought or conduct." But feeling which does not find expression in conduct is an abstraction.

There is, in some quarters, an effort to separate the good or religious will from intellect and feeling. This would separate morality and religion. Inside the Church this error takes the form of ritualism or ceremonialism, and separates religion from morality. Outside the Church it takes the form of 'moralism,' holding that the good will is not necessarily the religious will. This is the burden of the 'ethical movement,' and would separate morality from religion. Agnosticism is equally an error, for we cannot worship, neither can we be influenced by the altogether unknowable. Religion is not confined to the mysterious, but is rather "the consciousness of the infinite significance that resides in all finite relations of which science is the progressive discovery." Religious reverence is essentially intelligent, and will increase with widening knowledge. Morality and religion cannot then, be separated, but the divine side of life which religion shows, will find expression in conduct or the good life.

A. W. CRAWFORD.

HISTORICAL.

Sigwart's Theorie der Kausalität im Verhältnis zur Kantischen: eine Festgabe zum 28. März 1900. M. WARTENBERG. Kant-Studien, V, 1, pp. 1-20, and 2, pp. 182-206.

Kant's theory of causality cannot be understood unless we remember that it is an attempt to refute Hume's. Both thinkers make the causal relation a function of the knowing subject. But while Hume, regarding thought as merely analytic, denies the objective validity of the causal law, Kant, regarding thought as synthetic, seeks to prove this objective validity by showing that the possibility of experience depends upon its conforming to the law. Kant's attempt, however, is not successful. For in introducing causal relations into the manifold of sense, the understanding must get its due from the order of phenomena in perception; and if we grant this, the argument for objective validity falls.

Hume fails to distinguish between causality and the causal law. His problem is to determine whether our causal inferences are justifiable; hence he understands causality as necessary connection, as a law. In this he is followed by Kant. Sigwart is the first thinker to break with the traditional view. He distinguishes between causality and the causal law, and begins with the former. Further he distinguishes between causality as conceived by science and as conceived by the ordinary man, and with true insight takes the latter as his starting-point. In the simplest cases of causality the common consciousness sees a relation of concrete things. Activity in one thing is followed by change in another; but, besides this succession, causality involves an inner connection between the things—the entrance of the activity of one into the sphere of the other. Hume explains our belief

in this inner connection, by repetition. Sigwart's theory is more satisfactory. In the clearest cases of causality we find temporal and spatial continuity of the changes in the two things. This external connection, given in immediate perception, furnishes the motive for our going beyond perception to posit an internal relation for our regarding the activity of one thing as continued in the other. Thus Sigwart, like Kant, finds an *a priori* element in our causal concept. But unlike Kant he regards this element, not as a ready-made form, but simply as the synthesizing activity of thought. The time-order is a purely empirical *datum*; it is only the inner connection that is not empirical.

Sigwart's view enables him to explain the time-relation between cause and effect. The effect is the product of two factors: (1) The activity of the cause, and (2) the nature of the thing in which the effect appears. The cause simply *starts* a series of changes in the affected thing. The beginning of the effect, therefore, is simultaneous with the activity of the cause, while the series of changes succeeds this activity. From this conception of the effect as the product of two factors it follows further: (1) That all causality is reciprocity, and (2) that force is not a property of isolated substances, but a relation between substances.

This theory makes no attempt to prove the objective validity of the causal concept. Kant's deduction has no meaning if we maintain, with Sigwart, the existence of a world which is independent of consciousness and is ruled by its own laws. In this case the concept must be regarded simply as a postulate. Thought in its striving after knowledge, demands that actuality shall conform to the causal concept.

ELLEN BLISS TALBOT.

Hat Kant Hume's Treatise gelesen? KARL GROOS. Kant-Studien, V, 2, pp. 177-181.

This is a brief consideration of two grounds upon which Kant's knowledge of the *Treatise of Human Nature* has been denied. The evidence which is supposed to show that Kant did not read English, proves, at most, only that he was not proficient in it. Still weaker is Riehl's argument, based upon the fact that Kant ignores the Humian doctrine of substance. The doctrine is stated by Beattie, from whom, by hypothesis, Kant gained his knowledge of Hume. Since Kant must, therefore, have been acquainted with the Humian theory of substance, no argument can be drawn from those passages which in themselves might suggest that he was ignorant of it. It is possible, then, though not certain, that Kant was familiar with the *Treatise*. In view of this possibility, the author's discovery of a striking similarity between some passages in Kant's writings and one in Hume's is not without interest.

ELLEN BLISS TALBOT.

NOTICES OF NEW BOOKS.

Kant's Begründung der Religion : Ein kritischer Versuch. Von WILHELM MENGEL. Leipzig, Wilhelm Engelmann, 1900.—pp. xii, 82.

"Die Religionsphilosophie Kants hat . . . ihre eigentliche Wurzel in seinem gesammten philosophischen System ; eine Prüfung der Postulate in dieser Hinsicht ist, so viel ich sehe, noch nicht eigens angestellt worden." These words express the scope and purpose of this workmanlike, though brief essay. To give an outline of it would involve the repetition of points, most of which are familiar to students of Kant. The author's chief original contribution to the subject, consists in having organized a mass of separate criticisms so as to show their bearing upon the single question of the rational basis of religion offered in Kant's system. This has been done with both breadth and acuteness of insight.

The gist of the conclusions reached is as follows : first, Kant's phenomenalism, besides assuming knowledge which it declares impossible, logically excludes the ethical realities assumed in the *Kr. d. p. V.*, and therefore leaves both morality and religion in the position of mere *Bewusstseinsvorgänge* ; second, that the Kantian view of the autonomy of the will makes it impossible to relate religion to ethical principles in any fundamental way. Over against this destructive criticism, the author places his conviction that Kant's philosophy of religion, instead of being, as it appears to be, a mere annex of his practical philosophy, is, in fact, the center of his whole system. "The roots of his religion of reason lie not merely in the moral consciousness, but rather in the need of a satisfying and self-consistent world-view." In harmony with this, the inconsistent treatment of moral ends, whereby at one time morality appears to be entirely self-sufficient, and at another dependent upon religious assumptions, is explained by Dr. Mengel as due to Kant's silent and undeveloped presupposition of the real unity of human nature. Accordingly, the escape from the Kantian contradictions and deficiencies lies in a thoroughgoing development of the realistic implications of his system, or, in other words, what the author calls "a critical-realistic theory of knowledge."

GEORGE A. COE.

NORTHWESTERN UNIVERSITY.

The Soul of Man. An Investigation of the Facts of Physiological and Experimental Psychology. By PAUL CARUS. Second edition. Chicago, The Open Court Publishing Co., 1900.—pp. xviii, 482.

With the exception of a few additions and corrections, the present edition of this work reproduces the first edition, published in 1891. The aim of the author is the ambitious one of presenting in a single view the results of psychology, physiology, and anatomy, so far as these have any bearing

upon the ethical and religious problems connected with the human soul. Furthermore, frankly assuming that the psychological problem "must contain at least *in nuce* a philosophy," the book makes no effort to separate what are ordinarily called scientific matters from what is commonly relegated to the philosopher. Hence, theory of knowledge, metaphysics, ethics, religion, anatomy, physiology, biology, and psychology—all pass and repass through the pages with little differentiation.

The book should, perhaps, be judged by its probable effect upon the popular audience for which it was evidently intended. If so, one cannot help wondering whether the chosen field is not too broad, and whether the progress of the writer's mind toward his conclusions is not too rapid and summary. The technical reader, at least, is sure to be annoyed by the discontinuity of the discussion, and by the almost unrelieved dogmatism of method. The particular standpoint of the volume is psycho-physical parallelism carried out to the extent of making the entire universe psychical as well as physical. Its general philosophic standpoint may be gathered from the following passage: "The main error of metaphysicism is the vicious habit of metaphysical philosophers to start with postulates. They take a very broad abstract idea, such as the 'absolute,' or 'being,' or 'deity,' or 'God,' or 'the Infinite,' and consider it an actual reality. Upon this abstract idea they build with more or less ability and boldness a complete system of other abstract ideas, and when it is finished they call it a philosophy. As a matter of course, every philosopher builds a philosophy of his own. Why should he not? The building-material of castles-of-air is inexpensive—extremely inexpensive! . . . It is the rock of positive facts on which the proud galleys of metaphysicism strike before they sink into the realm of the unfathomable. The ship that there founders is irredeemably wrecked."

GEORGE A. COE.

NORTHWESTERN UNIVERSITY.

An Essay on Personality as a Philosophical Principle. By WILFRID RICHMOND. London, Edward Arnold, 1900.—pp. xix, 219.

The primary object of this book is to combat individualism, and to maintain the doctrine that the true life of man consists in social usefulness. "My enterprise," the author says, "is a kind of philosophical socialism. I wish to claim as the due of the social fellowship capacities which are usually treated as prerogatives of the individual" (Preface). He lays stress on the facts that morality is preëminently a social affair, that duty is a social relation, and that many of our strongest desires are of social origin. "This view of duty and the moral life of men as a social fact," he remarks, "has predominated of late. The moral life is viewed, not so much as an individual doing his duty, obeying his individual conscience, satisfying his social instincts and the like; the moral life is viewed rather as the social life" (p. 59). From these principles it necessarily follows that any attempt on the part of the individual to make his own welfare or advancement his

exclusive object in life is wrong, and therefore, individualism, as the ruling principle of life, must be rejected.

With nearly all that Mr. Richmond says on this subject I cordially agree, as I hold that the true aim of moral action is the universal good; but I cannot agree with his method of reaching and supporting this doctrine. The doctrine itself is familiar enough, for it was the life and soul of the best moral teaching and the best moral practice of the ancient Greeks, and has been adopted more or less completely in the modern world wherever the Greek spirit has prevailed. Yet there is always need of restating the doctrine, and reinforcing the practice, in opposition to the selfishness which is only too natural to all men. Mr. Richmond's defense of the doctrine, however, seems to me to be vitiated, not only by some philosophical vagaries of a general character, but also by a certain extravagance in his mode of stating the doctrine, and in the reasoning by which he seeks to prove it.

His book is professedly "an essay on personality as a philosophical principle." "The only legitimate principle of philosophy," he says, "is experience, of which philosophy professes to be the interpretation. But it is rash to assume that we know what we mean by experience without explicit statement and discussion. Some particular aspect of experience we are each of us sure to emphasize. It is well to describe clearly the aspect under which we are disposed to assert that experience should *prima facie* be viewed. This will be the philosophical principle" (Preface). In another place, he remarks that "in philosophy, as elsewhere, it is the first business of those who set themselves to the serious study of a subject, to deepen and define the vague and superficial meaning of terms borrowed by scientific and philosophical language from popular speech" (p. 13). These remarks about the need of definition in philosophy are eminently sound; but unfortunately Mr. Richmond's practice does not square very well with his theory; for he leaves us completely in the dark as to what he means by 'experience,' though he devotes a whole chapter to the subject, and repeats the word till we are tired of the sight and sound of it. He says, however, that the vital element in experience is personality, and declares that to define and expand the meaning of this word 'personality' is the purpose of this essay; and so we are brought to the essential part of the discussion.

"Personality in the individual," says Mr. Richmond, "is the capacity for society, fellowship, communion"; but he is obliged to add that this definition of personality is in broad contrast with the current philosophical view, which regards personality as essentially individual (p. 21). Now, that every person has the capacity for fellowship is too obvious to need pointing out, but to mistake this capacity for the whole of personality, or as its essence, is almost like turning it topsy-turvy. Fellowship is a relation between persons, and, therefore, without a number of separate persons to start with, fellowship and society could not exist. Fellowship, with all that it implies, is a result of bringing persons together, and after they are brought

together each personality remains as distinct and as individual as before. Mr. Richmond in his eagerness to emphasize the social side of life and the social character of duty, has mistaken a certain aspect of personality for its essence, and by his mode of treating the subject is, I fear, more likely to make opponents than converts. Moreover, his peculiar doctrine of personality has led him astray in his theory of knowledge and of reality. Thus he affirms that the reality of things consists, not in the things themselves, but in the connections and relations of things. This view, as he remarks, is like the Hegelian doctrine; yet Mr. Richmond is not an Hegelian. He maintains, too, that knowledge itself is a collective thing and not an individual possession. "The assurance of truth," he tells us, "is an appeal to a collective standard" (p. 103); and again, in treating of perception, he says: "When we perceive the fact, we perceive with the consciousness or, if you will, with the assumption, that it is a common perception of which our individual mind is the organ. . . . The idea of fact, *i. e.*, appears in ordinary experience as the creation of the collective mind: perception of fact, as an element in common experience, is perception of the individual as the organ of the collective mind" (pp. 25, 26). Mr. Richmond even brings in the Christian doctrine of the trinity as evidence that personality in its highest form is a fellowship, a communion of persons (p. 17).

The reader must not think, however, that there is nothing good in Mr. Richmond's book; on the contrary, it contains many acute and interesting remarks, particularly in the chapters on the will and on emotion. For the greater part of the book is occupied with an account of the faculties of personality, which are classified as feeling, will, intellect, and emotion. What Mr. Richmond means by feeling, which he sharply discriminates from emotion, I cannot quite make out; but his treatment of the emotions, though brief, has much psychological merit. His prime mistake was in framing his theory of personality for polemical purposes as an offset to the doctrine of individualism, instead of by an impartial study of the fact itself; and if, as he says, the assurance of truth can only be obtained by appeal to a collective standard, I fear that he will never obtain that assurance for his doctrine of personality.

JAMES B. PETERSON.

New Psychology. By J. P. GORDY. New York, Hinds & Noble, 1899.—pp. x, 402.

When, in 1898, Professor Gordy's unassuming little volume, *Lessons in Psychology*, appeared, it received a cordial welcome from the reading public. Although it was somewhat superficial in treatment, and not quite logical in arrangement, it possessed rare intrinsic merits, being untechnical, interesting, and practical. Within a year the book passed through four editions, and in due time was metamorphosed into a *New Psychology*. Why it should be called a "New Psychology," however, is not at once evident to

the ordinary observer. For while it still retains its original defects, its contents have not undergone any important change. In fact, it is not yet a psychology, according to the common meaning of that term. It is a curious, though pleasing, medley of psychology, physiology, logic, pedagogy, and metaphysics. Westward the path of empire has taken its way, and a new aspirant seems to have come forward to contend with Professor Scripture for the honors of 'prophet' of the 'New Psychology.' This book well illustrates the fact that the qualities of the brilliant oral expounder are not identical with those of the good writer; nor are the best methods in class-room work always the best in bookmaking. The author attempts to justify the defects in the arrangement of his work on the ground of lack of space. But surely more space could easily have been obtained by omitting some of the irrelevant matter. In a primer of psychology, a discussion on necessary truths, and a lengthy treatment of conception, judgment, and reasoning seem to be somewhat out of place. It may be questioned whether the discussion on the brain and nervous system should not have been brought into closer relation with the psychology of sensation. The treatment of apperception, in common with almost all the discussions that have yet appeared on this important subject, is essentially defective. And the passing criticisms on some of the Herbartian principles of pedagogy seem to be, in large measure, beside the mark. Thus, to take one instance, we fail to perceive any real distinction between the aim of education as defined by Professor Dewey, and the aim of education as defined by our author. At most, there is but a slight difference in emphasis. And in the present age, the observer who has an insight into social tendencies, and a knowledge of social needs, will be satisfied with Professor Dewey's view. The aim of education should be the socializing of the individual—the development, in the individual, of social insight, social sympathy, and social habits.

Notwithstanding the criticisms that I have ventured to make upon the *New Psychology*, I appreciate the many excellences of Professor Gordy's little book. It is clear, untechnical, ingenuous, and sympathetic. Occasionally the touch of a master hand is manifest. And, despite its title, the work may be unreservedly commended to those who wish to obtain, on easy terms, and in an interesting manner, an introduction to the study of psychology.

W. B. ELKIN.

HAMILTON COLLEGE.

Aristoteles. Von HERMANN SIEBECK. (Frommanns Klassiker der Philosophie herausgegeben von Richard Falckenberg, Vol. VIII.) Stuttgart, Fr. Frommanns Verlag (E. Hauff), 1899.—pp. 142.

Of the two monographs on Aristotle in English, that of Sir Alexander Grant is written from the standpoint of the historian of literature, and that of George Henry Lewes from the standpoint of the historian of science.

They are both inadequate, although they served a useful purpose in their day. Sir Alexander Grant's volume was translated into German (as was also that of Lewes) and enjoyed at one time considerable reputation. Neither writer was a thorough master of the Aristotelian system nor a competent critic of its content and significance. Lewes's book is much marred by exaggerated statement and anti-philosophical bias; besides, he cannot be said to have possessed a trained historical sense. Grote's posthumously published *Aristotle* is only a torso, though very valuable for its wonderfully painstaking analyses. Zeller's *Aristotle*, made accessible some three years ago to English readers in the translation of Costelloe and Muirhead, is now the completest and best work on this subject. It is at once the most just and most erudite account of the Aristotelian system of philosophy in all its branches hitherto written, and will doubtless long remain the work of final appeal in the interpretation of Peripateticism. We have in the book of Siebeck cited in the heading of this notice, another, though briefer, monographic account of Aristotle's philosophy from a well-trained hand. Siebeck has been long and favorably known as a writer on philosophy who combines with his philosophical equipment thorough training in philology, a training particularly characteristic of German scholarship. This was admirably evidenced in his *Untersuchungen zur Philosophie der Griechen*, and in his *Geschichte der Psychologie*. It is also an important element in his *Aristoteles*, although, owing to the somewhat general and non-technical character of the exposition, critical and philological considerations are not printed, however much the text may owe to such antecedent and unmentioned studies. The volume contains not over half a dozen footnotes, no appendix, no conventional vehicles for aside remarks in which the German professor loves to exhibit his recondite knowledge, and at the same time satisfy legitimate demands for authorities on the part of the distrustful and exacting reader. The book does not even have an index, a crime frequently committed by German writers, and for which there seems to be no adequate penalty.

Siebeck introduces his book with the traditional and useful chapters on pre-Aristotelian ideas, and on biographical and personal matters, and then proceeds at once to the discussion of the metaphysics, reserving the logic and methodology for a final chapter; in this particular making an innovation in the traditional order of the disciplines. I see no reason why the logic should be taken out of its conventional and natural place; it would have been better, it seems to me, to have printed it as Chap. III. The most satisfactory parts of the book are the two chapters on the metaphysics and the organic world, the latter covering mainly what Aristotle understood by psychology. The chapter on ethics and politics is not as full and clear an exposition of these subjects as their relative importance in Aristotle's system demands, and as would have been particularly useful in a volume of this type, which, although not what one generally understands by a popular book, is still non-technical and meant for a wide circle of readers. In a second edition it would be well worth reconstructing this chapter.

Scarcely any mention, *e. g.*, is made of justice, and the space given to the relation of Aristotle's theories to those of Socrates and Plato, occupying as it does nearly one-fourth of the chapter on ethics and politics, might better have been devoted to the Stagirite's ideas than to their genesis. The great importance of the latter is unquestionable, and will be ungrudgingly conceded by every latter-day historian of philosophy; but, after all, in a monograph where something must be sacrificed to the demand for brevity, it is a much weightier consideration to show what was Aristotle's doctrine than how he came to hold it. This is especially true of ethics, where the personality and temperament of the writer supposedly count for more than they do in other disciplines.

The book is in nowise meant to be a volume of research, and one should, therefore, not look for new or novel matter in it; but the salient and well-authenticated facts of Aristotle's system are interpreted, on the whole, with admirable skill and rare clearness. Many of the doctrines (as the conception of development in the organic world, the relation of dynamism to mechanism, the nature of sensation) are explained not merely with clearness, but in strikingly attractive forms of statement. The author is a master of exposition. Every page is interesting and there is scarcely an obscure or loosely connected passage in the book. The author concludes his work with a chapter containing a judicial estimate of the merits and faults of Aristotelianism and a narrative of the chief phases of its development down to its conflict with modern science. Its partial restoration through revived Thomism in the intellectual life of contemporary Catholicism receives no attention. The book is compressed within an exceedingly small compass, and within these narrow limits it would not be easy to conceive of a more adequate account of the matter here handled.

W. A. H.

The Philosophy of History based upon the works of Dr. Rocholl. A. E.

SCHADE. Cleveland, A. Schade, 1134 Pearl street, 1899.—pp. xxxvii. 437.

Dr. Schade, a pupil of Tholluck at Halle, has been an enthusiastic teacher of history for many years. In philosophy of history his thought runs along the lines of Rocholl and Dorner. The present work is based upon the celebrated volumes of the former, and may be considered as a reproduction rather than a translation. This manner of presenting Rocholl is for the purpose of bringing his thought more into touch with prevailing conditions in America. Dr. Schade's practical interests are indicated as follows: "In order to make the revelations of history applicable to ethics, sociology, and political economy, its contents must be digested by philosophical treatment."

The pedagogical arrangement of the book has some unique points of advantage. It is prefaced by a very complete synoptical index, and throughout there is an elaborate marginal analysis. It is also to be noted that the

analytical part of the text is put in small type while the synthetical part is in large type. The book is, on the whole, well adapted to supercede Guizot's *History of Civilization* by reason of greater depth of view, and better adaptation to the spirit of democracy.

Although it is difficult to give a brief characterization of so comprehensive a work, we may note a few leading thoughts. The logos doctrine is viewed historically as man becoming God and God becoming man, the two processes finding their synthesis in Jesus. In Him history becomes 'Christo-centric'; or, putting the thought more exactly, history leads us to anthropological monism. Here we discover both ourselves and reality, our dignity and our end. Christ is also the synthesis of *all* our thinking about God and the world. As with Trendelenberg and von Ihering, the principle of all interpretation is teleological, allowing no antithesis of efficient and final causes. These thoughts are worked out through an elaborate scheme of ethnology, and with copious references to modern philosophers and scientists. The work certainly deserves the careful attention of all who are interested in the philosophy of history.

MATTOON M. CURTIS.

ADELBERT COLLEGE.

Einleitung in die Philosophie. Von WILHELM JERUSALEM. Wien u. Leipzig, W. Braumüller, 1899.—pp. vi, 189.

This book is an attempt to clear the way for that new solution of the problems of philosophy which is demanded by the present age. In order to meet the needs of contemporary thought, philosophy must fulfill three requirements. First, it must take account of the results that have already been gained in the field of scientific investigation, and of the methods by which these results have been reached. The attempt "to construct a system of concepts after the manner of Hegel" does not appeal to the thought of to-day. We must build from below, not from above. This does not mean that we are to neglect inner experience; it means simply that our philosophy must rest upon facts—be they facts of inner or of outer experience. The attempt to reduce matter to mind, and the attempt to reduce mind to matter, are both hostile to the scientific empiricism which we demand of a strictly modern philosophy. The second requirement, leading to the same regard for facts, is that we shall return to the point of view of the healthy human understanding. Philosophy has learned the folly of striving for the unattainable in knowledge; but within the sphere of the attainable, it should cultivate a spirit of confidence in the powers of the human mind. The third requirement is that the various philosophical disciplines shall be studied from the genetic, biological, and social points of view. In psychology, ethics, æsthetics, and epistemology, much light will be thrown upon the various problems by the adoption of these new methods of investigation.

Using these three requirements as his guiding principles, Dr. Jerusalem takes up one by one the various philosophical disciplines, discusses their

problems, methods, and tendencies, and notes their relations to one another. His treatment of psychological, epistemological, and metaphysical questions recalls his earlier books. The discussions of ethics and æsthetics are new, and contain much that is suggestive and interesting. Dr. Jerusalem's readers will look with eagerness for the fuller treatment which he hopes to give these subjects at a future time.

The demand that philosophy shall be imbued with the scientific spirit and shall make use of scientific methods does not, in the author's opinion, involve the doctrine of the uselessness of metaphysical speculation. The interest in metaphysical inquiry is beginning to revive. Philosophy must return to its old task, must seek once more to become *Weltanschauungslehre*. But the metaphysics of the future, in searching for a satisfactory conception of the whole, must use those methods which science has employed in the investigation of particulars. Acting upon this belief, the author seeks to gain his *Weltanschauung* by the aid of his doctrine of judgment, "which is found true in the realm of experience." In this way he reaches the conception of the universe as the expression of a powerful will, which manifests itself both in physical and in psychical changes. God is the postulate, "not of the practical, but of the theoretical reason."

One cannot conclude even so brief a notice as this without pausing to comment upon the orderly arrangement of the book, and the great clearness and vigor of expression. Whatever may be one's attitude toward Dr. Jerusalem's theories, one cannot but admire his methods of exposition. The book is provided with two carefully compiled indexes, and at the close of each chapter a number of references for further reading is given.

ELLEN BLISS TALBOT.

Memory: an Inductive Study. By F. W. COLEGROVE. With an Introduction by G. STANLEY HALL. New York, Henry Holt & Co., 1900. —pp. vii, 369.

There is no doubt ample room at the present day, not merely for general works dealing with the whole range of psychology, but for special treatises which present exhaustively the facts of some limited field of mental phenomena. The subject of memory lends itself well to the latter mode of treatment, owing not merely to the comparative definiteness of the subject-matter, but also to the wealth of scientific observations which have been accumulated. It has been the aim of Dr. Colegrove to give in this volume a broad, many-sided study of the subject, including both the scientific and the practical aspects.

The work shows praiseworthy industry in the gathering of facts, whether observed by the author or by others, and in the citation of authorities, and there are valuable observations scattered throughout the volume. The plan of the work is conceived in a large and tolerant spirit. But as a whole, the study is not successful. It is wanting in clearness and in logical connection and system. The material presented, as well as the style of presenta-

tion, can hardly satisfy either the beginner or the specialist. The historical study at the beginning of the volume, which starts with Plato and ends with Professor Scripture, gives a somewhat disjointed collection of opinions and theories; in the section on Herbart it is distinctly erroneous. The "biological orientation" which follows, gives first, many instances of memory in the various parts of the animal kingdom, and then enumerates and discusses instincts, dealing, by the way, with the theories of Weismann and others. The author illustrates from his own observations various forms of the diseases of memory, in the chapter devoted to this subject. The chapter on brain and mind seems almost superfluous, in as much as it contributes practically nothing to the understanding of memory as distinct from any other of the higher mental processes. In the following chapter on memories, after an elaborate presentation with the help of diagrams, of the author's hypothesis that revival of ideas may be due either to psychical or physical initiation, we have an account of the various types of memory, muscular, visual, and so forth. The part which deals with individual memories, and gives the result of a careful statistical inquiry of the author, is the most valuable in the volume. On the other hand, the chapter which follows is decidedly unsatisfactory, since it mainly presents, with little connection, some of the usual observations on the general character of apperception, association, and attention. This chapter includes also the reprint of an experimental research by the author on the time required for recognition. The fact that this reprint occupies nine pages, while the work of Ebbinghaus is summarized elsewhere in two pages, seems to indicate a failure in the sense of proportion. The closing chapter deals with pedagogical applications. It may be noted that in the citation of German titles throughout the volume there are a number of errors, and that the references generally are rather unsystematic.

W. G. SMITH.

Studies, Scientific and Social. By ALFRED RUSSEL WALLACE. In two volumes. London, Macmillan & Co., Ltd.; New York, The Macmillan Co., 1900.—pp. xv, 532; viii, 535.

"The present work consists mainly of reprints of the more important articles I have contributed to reviews and other periodicals during the thirty-five years from 1865 to 1899. . . . In order to make the subjects discussed more interesting to the general reader, I have, wherever possible, introduced copious illustrations, and this has led me in many cases so to modify and enlarge the original article as to render it a new piece of work." The two volumes which thus result from Dr. Wallace's labors of collection and revision will appeal to a wide circle of readers. Their author is gifted—as Darwin was not—with a simple and attractive style, which, together with his range of topics and skill in marshalling arguments, holds the attention riveted throughout the fifty-two chapters of the work. Few men of science, whatever their special province, are unfamiliar with *Island*

Life and *The Malay Archipelago*. The characteristics of these earlier books are found again in the present series of essays.

Volume I. contains the seven groups of 'scientific' studies: earth studies, descriptive zoölogy, plant distribution, animal distribution, theory of evolution, anthropology, and 'special problems.' Under the last head we have two papers: "The Problem of Instinct," a review of C. L. Morgan's *Habit and Instinct*; and "Human Selection," a critique of Galton's eugenics and Grant Allen's theory of free contract. Volume II. comprises five sets of 'social' essays: educational, political, the land problem, ethical, and sociological. The subjects treated range from M. Reclus's giant earth-model to Ralahine and coöperative farming; and though some of the papers show the defects that marred the second half of *The Wonderful Century*, there is much in every one of them to interest and instruct the reader.

E. B. T.

The Biography of a Baby. By MILLICENT WASHBURN SHINN. Boston and New York, Houghton, Mifflin & Co., 1900.—pp. iii, 247.

Miss Shinn's *Notes on the Development of a Child* (1893 and 1899) gave her a high rank among child-psychologists. The present book is a popular sketch of the development of a child, mentally and bodily, during the first year of her life. Miss Shinn writes brightly and interestingly, and steers a safe middle course among psychological pitfalls. The book needs an index.

E. B. T.

Immanuel Kant's Kritik der reinen Vernunft. Fünfte, durchgängig revidierte Auflage. Herausgegeben von BENNO ERDMANN. Berlin, Reimer, 1900.—pp. ix, 609.

Beiträge zur Geschichte und Revision des Textes von Kant's Kritik der reinen Vernunft. Anhang zur fünften Auflage der Ausgabe. Von BENNO ERDMANN. Berlin, Reimer, 1900.—pp. 115.

Professor Erdmann has added to the obligations of all students of Kant by a revised edition of his issue of the *Critique of Pure Reason*, and by the accompanying account of the materials for the revision of the text, and the index of the corrections and other changes which have been made or considered. The text of the *Critique* is printed from new type and with a somewhat changed arrangement from that which was followed in the third and fourth editions. The principal change of arrangement consists in printing those parts of the first edition which were omitted in the second, at the foot of the page instead of in an appendix at the end of the book. The convenience of this arrangement, and the admirable typographical form in which the whole is now presented, make this edition the best for the student who wishes to have the opportunity of seeing what Kant actually said, or presumably meant to say. Although the edition of Adickes is extremely useful because of its marginal analysis and the suggestions in its notes, there are unfortunately many typographical errors, while the text of Erd-

mann is more reliable. The low price at which the edition is sold makes it available for any one, and the only regret which I have in connection with this edition is that the portrait which was bound up with the third edition has been omitted from this.

In the accompanying appendix which contains the contributions toward the history of the text and of the text revision, and an index of the changes and corrections, one new source has been utilized, namely, an index of corrections published in 1794 by G. S. A. Mellin. Most of the very numerous changes and corrections are of an obvious sort, and the judgment of the author upon more doubtful matters is always well considered, and often fortified by a reference to Kant's general usage, even if it does not seem to be absolutely convincing. It is, however, an illustration of the irony of text revision, that one finds evidences in Erdmann's own writing of the fallibility of even such an indefatigable editor and reviser. On page 8, Erdmann is made to refer to the *Critique* as analytic and the *Prolegomena* as synthetic, where, of course, these terms should be reversed; and on page 14, the word *starken* is used where *schwächen* is evidently in place. Unless the new edition of Kant, undertaken by the Berlin Academy, shall be able to produce a still more accurate and reliable text, the careful student of Kant will find Erdmann's edition and notes indispensable for his work.

J. H. TUFTS.

UNIVERSITY OF CHICAGO.

The History of the Devil and the Idea of Evil from the earliest times to the present day. By PAUL CARUS. Chicago, the Open Court Publishing Co., 1900.—pp. xvi, 496.

This is a handsome book—sumptuously printed and profusely illustrated. The author construes his title generously, including in its scope the religions and philosophies of Egypt, Chaldea, Persia, India, as well as of Judaism, and Christendom. The pictures, gathered from a wide range of source and well reproduced, are curious and interesting; and the weird effect of the volume is heightened by the head- and tail-pieces of the chapters, printed in color under the letter-press. The letter-press itself, clearly meant for the general reader rather than for the trained scholar, is compiled in the main from reputable authorities, though not always at first hand. The author's original contribution lies mainly in philosophical interpretation and moral reflection. Whatever it lacks in thoroughness and sometimes even in accuracy, the book will be found both entertaining and suggestive.

GEORGE L. BURR.

Das Grundgesetz alles neuro-psychischen Lebens. Von JULIUS PIKLER. Leipzig, Joh. Ambr. Barth, 1900.—pp. xiii, 254.

This is a book that one may read with pleasure when one feels inclined to give ear to speculative thought; but it is rather trying to read it when

one is looking for a really scientific treatment of a problem, a treatment that is based on clear definitions. The author recognizes this himself. His problem is to explain why certain stimuli produce certain muscular movements, and why certain states of consciousness call forth certain other states of consciousness. The common physiological explanation of the first fact is, that there are special nervous connections between motor and sensory nerves; the common psychological explanation of the second fact is, that certain ideas are associated with other ideas. Both explanations the author declares invalid, or at least insufficient. The evolutionist theory assumes that in the beginning of the evolution of the nervous system any stimulus brought about contractions of all muscles, and that later certain movements became differentiated. This theory the author rejects as it cannot explain why this differentiation took place. He further assumes that there is in every organism a certain 'vital motion' of a certain 'direction.' The cessation of this vital motion is death. The vital motion may be regarded as the resultant of a number of components. States of consciousness are, as it were, immediate perceptions of the 'antagonism' or 'coincidence' of these components. When a stimulus causes equal innervation of all parts of the organism, those movements actually occur whose retrograde action upon the nervous system is favorable to the direction of the vital motion at that time. The fundamental neuro-psychical fact is, that while a new motion in the nervous system takes place, the earlier ones do not simply cease, but with the new motion form a new resultant. Much emphasis is laid upon the connection between displeasure or pleasure and, on the other hand, antagonism or coincidence of the vital motion in general and a special vital motion caused by a peripheral stimulus. The book, from the indefiniteness of the terms used, is easily readable and certainly not uninteresting.

MAX MEYER.

UNIVERSITY OF MISSOURI.

The following books also have been received :

Ethics, Descriptive and Explanatory. By S. E. MEZES. New York, The Macmillan Company; London, Macmillan & Co., 1901.—pp. xxi, 435.

The Christian Doctrine of Justification and Reconciliation. By ALBRECHT RITSCHL. English translation edited by H. R. MACKINTOSH and A. B. MACAULAY. New York, Charles Scribner's Sons; Edinburgh, T. & T. Clark, 1900.—pp. xii, 673.

The Child: A Study in the Evolution of Man. By A. F. CHAMBERLAIN. London, Walter Scott; New York, Charles Scribner's Sons, 1900.—pp. xii, 498.

National Life from the Standpoint of Science. By KARL PEARSON. London, Adam & Charles Black, 1901.—pp. 62.

Völkerpsychologie. (Erster Band, Zweiter Theil, Die Sprache.) Von WILHELM WUNDT. Leipzig, Wilhelm Engelmann, 1900.—pp. x, 644.

Die Syllogistik des Aristoteles. (Zweiter Theil, Zweite Hälfte, Die Entstehung der Aristotelischen Logik.) Von HEINRICH MAIER. Tübingen, H. Laupp'schen Buchhandlung, 1900.—pp. vii, 408.

Soziale Pädagogik auf erfahrungswissenschaftlicher Grundlage und mit Hilfe der induktiven Methode als universalistische oder Kultur-Pädagogik. Von PAUL BERGEMANN. Gera, Theodor Hofmann, 1900.—pp. xvi, 615.

Philosophie des Geldes. Von GEORGE SIMMEL. Leipzig, Duncker & Humblot, 1900.—pp. xvi, 554.

Kant contra Haeckel: Erkenntnistheorie gegen naturwissenschaftlichen Dogmatismus. Von ERICH ADICKES. Berlin, Reuther & Reichard, 1901.—pp. vi, 129.

Friedrich Nietzsche und seine Herrnmoral. Von M. KRONENBERG. München, C. H. Beck, 1901.—pp. 35.

Le mystère de Platon: Aglaophamos. Par LOUIS PRAT. Paris, Félix Alcan, 1901.—pp. xxii, 215.

L'éducation par l'instruction et les théories pédagogiques de Herbart. Par MARCEL MAUXION. Paris, Félix Alcan, 1901.—pp. iv, 188.

Dix années de philosophie: études critiques sur les principaux travaux publiés de 1891 à 1900. Par LUCIEN ARRÉAT. Paris, Félix Alcan, 1901.—pp. vi, 181.

Essai sur l'esthétique de Lotze. Par AMÉDÉE MATAGRIN. Paris, Félix Alcan, 1901.—pp. 166.

Constitution de l'éthique. Par E. DE ROBERTY. Paris, Félix Alcan, 1900.—pp. 224.

Psychologie de l'invention. Par F. PAULHAN. Paris, Félix Alcan, 1901.—pp. 185.

NOTES.

On November 19, 1900, in Denver, occurred the death of James Simmons, Professor of Philosophy and Pedagogics in Iowa College. He was born at Lake Geneva, Wisconsin, October 16, 1858, and graduated from Beloit College in 1883. The year after graduation he served as instructor in the Academy of Beloit College; during the two years next following he pursued studies in philosophy at Princeton under Dr. McCosh. During 1886-89 he continued his studies at the University of Berlin. He then came to Iowa College and was rapidly advanced: Instructor in Mathematics, 1889-90; Instructor in Mental and Moral Science, 1890-91; Professor of Mental and Moral Science, 1891-92; Professor of Philosophy and Pedagogics, 1892-1900.

Professor Simmons was a man of most extraordinary character and ability, but he lived wholly in his teaching. Taciturn almost to a fault, he spoke little and wrote less; yet he possessed the best qualities of the teacher and philosopher, and won the love of all who knew him.

The position vacated by his death has been temporarily filled by the appointment of Dr. John Elof Boodin, of Harvard University.

W. A. HEIDEL.

We publish in this issue the secretary's report of the first annual meeting of the Western Philosophical Association. At Baltimore on December 27-29th occurred the ninth annual meeting of the American Psychological Association. The president of the association, Professor Joseph Jastrow, delivered an address entitled "Currents and Undercurrents in Psychology." In addition to a number of experimental papers, which were read at the meetings of the special sections devoted to this purpose, the following papers of more general philosophical interest were presented: "The Kantian Doctrine of Space," by Professor G. S. Fullerton; "Nietzsche," by Professor Grace N. Dolson; "Professor Ladd's Theory of Reality," by Professor W. Caldwell; "The Doctrine of the Two-fold Truth," by Professor F. C. French; "A Study of Pluralism," by Professor A. H. Lloyd; "The Problem of an Emotional Logic," by Professor W. M. Urban; "Self-consciousness and its Physical Correlate," by Henry Rutgers Marshall; "Reduction to Absurdity of the Ordinary Treatment of the Syllogism," by Mrs. C. L. Franklin; "Examination of Professor Sidgwick's Proof of Utilitarianism," by Dr. Ernest Abbee; "A Peripatetic Formula for the Moral Ideal," by Professor W. R. Newbold; "Active and Passive Reason in the Writings of Aristotle," by Professor W. A. Hammond.

We regret to announce the discontinuance, with the December issue, of the *New World*, the journal of "Ethics, Religion, and Contemporary

Thought," which has appeared regularly since 1892 (the year in which the REVIEW was first published) under the able editorship of Professor Nicholas Paine Gilman.

We give below a list of articles, etc., in the current philosophical journals.

THE INTERNATIONAL JOURNAL OF ETHICS, XI, 2 : *D. G. Ritchie*, War and Peace ; *J. J. Chapman*, The Unity of Human Nature ; *W. R. Sorley*, Henry Sidgwick ; *F. H. Hayward*, The True Significance of Sidgwick's Ethics ; *Tokiwo Yokio*, Education in Japan ; *G. M. Stratton*, A Psychological Test of Virtue ; *F. J. Gould*, Children's Ethical Classes ; *J. A. Nicklin*, The Greek View of Life ; Book Reviews.

THE PSYCHOLOGICAL REVIEW, VIII, 1 : *Joseph Jastrow*, Some Currents and Undercurrents in Psychology ; *A. T. Ormond*, The Social Individual ; *J. E. Downey*, An Experiment on getting an After-Image from a Mental Image ; Discussion and Reports ; Psychological Literature ; New Books ; Notes.

THE MONIST, XI, 2 : *N. Vaschide*, and *H. Piéron*, Prophetic Dreams in Greek and Roman Antiquity ; *J. H. Leuba*, Introduction to a Psychological Study of Religion ; *Ludwig Boltzmann*, The Recent Development of Method in Theoretical Physics ; *Friedrich Jodl*, Goethe and Kant ; *Editor*, Jew and Gentile in Early Christianity ; Literary Correspondence ; Communications ; Book Reviews.

THE NEW WORLD, IX, 36 : *L. P. Jacks*, The Influence of John Ruskin ; *W. E. Burghardt Du Bois*, The Religion of the American Negro ; *H. B. Frissell*, Negro Education ; *W. Caldwell*, Schopenhauer and Present Tendencies ; *Nathaniel Schmidt*, The Book of Jeremiah ; *George B. Stevens*, Some Present-Day Conditions Affecting Theological Education ; *Francis Tiffany*, Theodore Parker ; *H. M. Simmons*, The Recrudescence of War ; *C. H. Toy* and *N. P. Gilman*, Charles Carroll Everett ; *Josiah Royce*, Professor Everett as a Metaphysician ; Book Reviews.

MIND, 37 : *Leslie Stephen*, Henry Sidgwick ; *The Late Henry Sidgwick*, The Philosophy of T. H. Green ; *B. Russell*, On the Notion of Order ; *W. McDougall*, Some Observations in Support of Thomas Young's Theory of Light- and Color-Vision (I) ; *H. R. Marshall*, Consciousness, Self-Consciousness, and the Self ; Discussions ; Critical Notices ; New Books ; Philosophical Periodicals ; Notes and Correspondence.

ZEITSCHRIFT FÜR PSYCHOLOGIE UND PHYSIOLOGIE DER SINNESORGANE, XXIV, 3 u. 4 : *E. Storch*, Haben die niederen Thiere ein Bewusstsein ? *Theodor Elsenhans*, Ueber Verallgemeinerung der Gefühle ; *W. v. Zehender*, Die Form des Himmelsgewölbes und das Grösser-Erscheinen der Gestirne am Horizont ; *Marx Lobsien*, Ueber binaurales Hören und auffällige Schalllocalisation ; Literaturbericht.

XXIV, 5 : *Alexander Netschajeff*, Experimentelle Untersuchungen über die Gedächtnissentwicklung bei Schulkindern ; *Oskar Raif*, Ueber Fingerfertigkeit beim Clavierspiel ; Literaturbericht.

XXIV, 6: *C. Ritter*, Ermüdungsmessungen; *L. Edinger*, Hirnanatomie und Psychologie (Entgegnung); Literaturbericht; Namenregister.

XXV, 1 u. 2: *Sephan Witasek*, Zur psychologischen Analyse der ästhetischen Einfühlung; *Emil Berger*, Ueber stereoskopische Lupen und Brillen; *M. Straub*, Die normale Refraction des menschlichen Auges; *F. Kramer und G. Moskiewicz*, Beiträge zur Lehre von den Lage- und Bewegungsempfindungen; Literaturbericht.

ARCHIV FÜR GESCHICHTE DER PHISOSOPHIE, XIV, 2; *Richard Wahle*, Beiträge zur Erklärung Platonischer Lehren und zur Würdigung des Aristoteles; *Georg Misch*, Zur Entstehung des französischen Positivismus (Schluss); *I. Halpern*, Der Entwicklungsgang der Schleiermacher'schen Dialektik: Eine kritisch-vergleichende Untersuchung; *Otto Apelt*, Die deutsche Litteratur über die sokratische, platonische, und aristotelische Philosophie 1897 und 1898 (I. Theil): Neueste Erscheinungen auf dem Gebiete der Geschichte der philosophie.

VIERTELJAHRSSCHRIFT FÜR WISSENSCHAFTLICHE PHILOSOPHIE, XXIV, 4: *E. Marcus*, Versuch einer Umbildung der Kant'schen Kategorienlehre; *Joseph W. A. Hickson*, Der Kausalbegriff in der neueren Philosophie und in den Naturwissenschaften von Hume bis Robert Mayer, I.; *Raoul Richter*, Friedrich Nietzsche; Besprechungen; Selbstanzeige; Philosophische Zeitschriften; Bibliographie.

REVUE PHILOSOPHIQUE, XXV, 12: *Murisier*, Le fanatisme religieux: Étude psychologique; *Bos (Camille)*, Contribution a la théorie psychologique du temps; *Palante*, Le dilettantisme social de la philosophie du "surhomme"; Revue générale; Analyses et comptes rendus; Notes et documents; Revue des périodiques étrangers.

XXVI, 1: *V. Brochard*, La morale ancienne et la morale moderne; *F. Le Dantec*, La définition de l'individu (1^{er} article); *Sokolov*, L'individuation colorée; Notes et discussions; Revue critique; Analyses et comptes rendus; Revue des périodiques étrangers.

REVUE NÉO-SCOLASTIQUE, VII, 4: *J. Halleux*, L'hypothèse évolutionniste en morale (suite); *A. Thiéry*, Le tonal de la parole (suite); *D. Mercier*, L'induction scientifique; Mélanges et documents; Bulletin de l'institut supérieur de philosophie; Bulletins bibliographiques; Comptes rendus; Table des matières.

REVUE DE PHILOSOPHIE, I, 1: *J. Bulliot*, Le problème philosophique, I; *Dubosq*, Théorie des beaux-arts; *Paul Tannery*, Un nouveau fragment d'Héraclite; *De Lapparent*, Cristallographie; *P. Duhem*, La notion de Mixte: essai historique, I. Des origines à la révolution chimique; Analyses et comptes rendus; Bulletin de l'enseignement philosophique.

REVUE DE METAPHYSIQUE ET DE MORALE, IX, 1: *F. Ravaisson*, Testament philosophique; *H. Bouasse*, De l'éducation scientifique des "philosophes"; *L. Brunschvicg*, De la méthode dans la philosophie de

l'esprit ; *Ch. Le Verrier*, Friedrich Nietzsche ; *Th. Ruysen*, Le mysticisme spéculatif en Allemagne au XIV^e siècle ; *E. Chartier*, Le culte de la raison comme fondement de la république ; Nécrologie ; Livres nouveaux ; Revues et périodiques.

RIVISTA FILOSOFICA, III, 4 : *F. Bonatelli*, La psicologia di D. Mercier ; *R. Mariano*, Religione e religioni (Parte II^a ed ultima) ; *F. De Sarlo*, La metafisica dell'esperienza dell'Hodgson (I^a parte) ; *F. Cosentini*, La nozione di progresso nella filosofia sociale contemporanea ; Rassegna bibliografica ; Bollettino bibliografico ; Rassegna di riviste straniere ; Notizie ; Sommari delle riviste straniere ; Libri ricevuti.

III, 5 : *C. Cantoni*, L'insegnamento della filosofia nelle università e nelle scuole secondarie ; *G. Marpillero*, Francesco Saverio quadrio e l'uomo di genio ; *F. De Sarlo*, La metafisica dell'esperienza dell'Hodgson ; *G. Al-lievo*, Correlazione delle potenze umane ; Rassegna bibliografica ; Bollettino bibliografico ; Sguardo generale alle riviste italiane dell'annata ; Notizie ; Sommari delle riviste straniere ; Libri ricevuti.

RIVISTA DI FILOSOFIA, PEDAGOGIA E SCIENZE AFFINI, III, 4 : *R. De La Grasserie*, Du but et des effets de la pénalité ; *E. Troilo*, La filosofia naturale di Giordano Bruno ; *C. Ranzoli*, La religione di D. G. Giovenale ; *U. Pizzoli*, Laboratorio di pedagogia scientifica in Crevalcore (Bologna) ; Rassegna di filosofia scientifica ; Rassegna di sociologia e scienze affini ; Fra i libri ; Fra le riviste ; Notizie ; Libri ricevuti e sommari di riviste.

THE PHILOSOPHICAL REVIEW.

THE DOCTRINE OF SPACE AND TIME.

II. DIFFICULTIES CONNECTED WITH THE KANTIAN DOCTRINE OF SPACE.

MORE than two thousand years ago, it was argued by Zeno of Elea that motion is impossible, on the ground that, since space is infinitely divisible, no space, however small, can be passed over by a moving body. To go from one place to another, a body would have to pass through an unlimited number of intermediate spaces. That is, it would have to reach the last term of an unlimited series, which is absurd.

The more clearly this problem is stated, the more evident it seems to become that the difficulty is insurmountable. It appears to arise out of the very notion of space and of motion in space as continuous. "The idea expressed by that word *continuous*," says Professor Clifford,¹ "is one of extreme importance; it is the foundation of all exact science of things; and yet it is so very simple and elementary that it must have been almost the first clear idea that we got into our heads. It is only this: I cannot move this thing from one position to another, without making it go through an infinite number of intermediate positions. *Infinite*; it is a dreadful word, I know, until you find out that you are familiar with the thing which it expresses. In this place it means that between any two positions there is some intermediate position; between that and either of the others, again, there is some other intermediate; and so on *without any end*. Infinite

¹ *Seeing and Thinking*, p. 134.

means without any end. If you went on with that work of counting forever, you would never get any further than the beginning of it. At last you would only have two positions very close together, but not the same; and the whole process might be gone over again, beginning with those as many times as you like."

In this extract Professor Clifford plays directly into the hand of Zeno, although it is no part of his purpose to support the contention of that philosopher. He is merely trying to make quite clear what we mean by calling space continuous; and is it not generally admitted that space *is* continuous? But then how *can* anything move through space? The difficulties that beset a moving point Clifford has himself admirably exhibited, and again without the slightest intention of unduly emphasizing these difficulties or of denying the possibility of motion. He writes:¹

"When a point moves, it moves along some line; and you may say that it traces out or describes the line. To look at something definite, let us take the point where this boundary of red on paper is cut by the surface of water. I move all about together. Now you know that between any two positions of the point there is an infinite number of intermediate positions. Where are they all? Why, clearly, in the line along which the point moved. That line is the place where all such points are to be found."

. . . "It seems a very natural thing to say that space is made up of points. I want you to examine very carefully what this means, and how far it is true. And let us first take the simplest case, and consider whether we may safely say that a line is made up of points. If you think of a very large number—say, a million—of points all in a row, the end ones being an inch apart, then this string of points is altogether a different thing from a line an inch long. For if you single out two points which are next one another, then there is no point of the series between them; but if you take two points on a line, however close together they may be, there is an infinite number of points between them. The two things are different *in kind*, not in degree."²

¹ *Op. cit.*, pp. 143-4.

² *Ibid.*, pp. 146-7.

. . . "When a point moves along a line, we know that between any two positions of it there is an infinite number (in this new sense¹) of intermediate positions. That is because the motion is continuous. Each of those positions is where the point was at some instant or other. Between the two end positions on the line, the point where the motion began and the point where it stopped, there is no point of the line which does not belong to that series. We have thus an infinite series of successive positions of a continuously moving point, and in that series are included all the points of a certain piece of line-room. May we say then that the line is made up of that infinite series of points?

"Yes; if we mean no more than that the series makes up the *points* of the line. But *no*, if we mean that the line is made up of those points in the same way that it is made up of a great many very small pieces of line. A point is not to be regarded as a *part* of a line, in any sense whatever. It is the boundary between two parts."²

Surely Zeno would have welcomed all this as directly establishing his position. "When a point moves along a line, we know that between any two portions of it there is an infinite number . . . of intermediate positions." "Infinite means without any end." The positions with which we are dealing are "the successive positions of a continuously moving point." Hence, to complete its motion over any given line whatever, the moving point *must* pass, one by one, an *endless* series of positions, and must finish with the *end* position. If the moral of this is not that a point cannot move along a line, there is no validity in human reasonings.

Again: The moving point must take, one by one, the "successive positions" in the series. Even the (conscious or unconscious) Kantian has his preference in absurdities, and rejects some rather than others. Clifford does not conceive the point as in two positions at once, or as making some ingenious flank movement by means of which it can 'scoop in' a whole stretch of

¹ Professor Clifford has used the word 'number' in two senses, a quantitative and a qualitative. By number in the latter sense he means simply 'unlimited units.'

² *Op. cit.*, pp. 149-50.

line simultaneously. It must move *along* the line, from end to end, taking one position at a time, and taking them in their order. It cannot make jumps, and are not the positions "successive"? Its path seems clearly marked out for it—a smooth road, and without turnings. Alas! the line is "continuous"! The point cannot take *successive* positions, for have we not seen that no position can immediately succeed any other on a continuous line? "Between any two positions there is some intermediate position; between that and either of the others, again, there is some other intermediate; and so on *without any end*." Can any living soul conceive the gait that must be adopted by a point, which must move continuously (without jumps?) over a line, and yet is debarred from passing from any one position to the next in the series? It cannot pass first to some position which is not the next, and then get around to the next after a while. That is palpably absurd. And it cannot pass to the next at once, for there is no next. I can imagine the shade of Zeno rubbing its hands over this development of his doctrine. "The way for a point to get on," says Clifford, "is for it never to take the next step." "Of course that means," adds Zeno with ghostly laughter, "that a point cannot get on at all."

And what shall we say to the statement that although "all the points of a certain piece of line-room" are included in the "infinite series of successive (*sic*) positions of a continuously moving point," yet the line is not made up of these points, but is made up "of a great many very small pieces of line"? What are these small pieces of line, which are to be distinguished from the whole series of points? They are not material things, for we are not now discussing a bit of string or a chalk-mark, but we are discussing a geometrical line, an aspect of space. What lies between any two points on the line? More points, for one thing. What else? Bits of line. But what are bits of line? When a point has moved over a line, has it done anything but pass through a series of successive positions? It seems reasonable, at first sight, to assume that such a series of positions is what we mean by a line. We are informed, however, that a point is not to be regarded as *part* of a line in any sense whatever. It is "the bound-

ary between two parts." Does the assumption of these bits of line, which are not positions, but lie between positions, make more comprehensible the motion of a point over a line?

Manifestly not. If the bits of line could be supposed to take up some of the line-room in such a way as to reduce the number of points, they might be of some help, but no one supposes them to do this. Bits of line or no bits of line, the moving point must occupy successively all the positions in an infinite series. And if we turn our attention from the points, and confine it to the bits of line, we are no better off. If the number of points is endless, so is the number of bits of line, for these separate the points, which are only their boundaries, and we are forced to ask ourselves how an endless series of bits of line can come to an end in a last bit which completes the line. It is not a whit easier to conceive of a given finite line as composed of bits of line, than it is to conceive of it as composed of points, if we once admit that the line in question is infinitely divisible. We have only added a new element of mystification. What do we *mean* by these mysterious bits of line? Has the point which is passing over a series of positions anything whatever to do with them? Do they really separate the positions, so that they must be *jumped* in getting along the series, or does the point, after all, meet nothing but *positions*, never that which separates them?

The attempt is sometimes made to avoid the difficulty of assuming that a point moving over a line can progressively exhaust an infinite series, by laying much emphasis upon the fact that the members of the series are exceedingly small, and can be passed over with great rapidity. Infinitesimal spaces, it is argued, are passed over in infinitesimal times, and all these infinitesimals are included in the finite space and time of the motion. But it must be evident to anyone capable of the least clearness of thought that quibbling over the size of the members of the series, in the case either of space or of time, is wholly wide of the mark. Whether things are big or little, if the supply of them be truly endless, one can never get to the end of the supply. The rapidity with which the terms of the series are exhausted has obviously no effect in facilitating an approach to that which cannot, by hy-

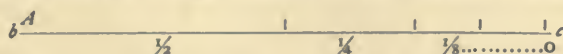
pothesis, exist, *i. e.*, to a final term. The proposed solution of the problem rests upon the implicit assumption that, provided only things are small enough, it is legitimate to reason about them in an incoherent way, and to make self-contradictory statements. I know of no way in which this assumption can be defended, unless it be by claiming that it is an 'intuition.'

If, then, in order to move a body, I must reach the end of an endless series, I may reasonably conclude that I cannot move a body. This is as clear as it is possible for anything to be. No exception can be taken to Zeno's argument, if the assumption upon which it rests be once granted. One is not at liberty to admit that there are difficulties connected with the statement that a point can move along an infinitely divisible line, and to hold, in spite of these difficulties, that the statement should be approved as being the least objectionable that can be made touching the subject. One should bear in mind that this amounts to saying that what is flatly self-contradictory and, hence, intrinsically absurd, is at least less objectionable, as an article of faith, than is something else. I wish to emphasize the fact that no opposing doctrine, try as it may, can possibly be worse. At best it can only succeed in being as bad.

The difficulties arising out of the doctrine of the infinite divisibility of finite spaces have been so long before the philosophic public that it is tired of them, and its sense has grown deadened to their significance. They are recognized ; they arouse a fugitive interest ; they are made to yield a favorable occasion for a pleasing exercise of the ingenuity, and then they are put back again into their box and their existence is ignored. They are not taken seriously, and the serious interest with which the ancients approached them is even characterized as pathologic. But whether we face them or not, the difficulties are there just the same. They do not become non-existent merely because they are overlooked ; and it is surely a crying disgrace to human reason that a theory of the nature of space should complacently be accepted as truth, which admittedly runs into unresolved self-contradictions. So important is it that the reader should clearly realize what is implied in the Kantian doctrine, that I will beg his indul-

gence while I set forth a rather interesting bit of reasoning, the sole defect in which is that it rests upon the assumption contained in that doctrine. It is, in all other respects, beyond criticism.

Let us suppose a point *A* moving uniformly over a finite line *bc*, at such a rate that it will complete the distance in one second.



Since the motion is uniform, the point will pass over one half of the line in half a second ; it will pass over one half of the remainder, or one-fourth of the line, in a quarter of a second, etc. When the point has passed over the whole line, it will have completed the descending series : $\frac{1}{2}, \frac{1}{4}, \frac{1}{8}, \frac{1}{16} \dots 0$.

We may set aside for the present purpose the 'difficulties' connected with the point's getting a start along an infinitely divisible line, and with the completion of an endless series in general. We will accept it as a fact that the line is infinitely divisible and can be passed over, in an infinitely divisible second, by a point moving at a uniform rate. All these are good Kantian assumptions. It seems to follow rigorously that both the line and the second are exhausted as our descending series indicates, and that both come to an end only when the series is terminated. The motion can be completed ; the second can be completed ; the series can be completed. In fact, all three *are* completed simultaneously. In the case, then, of a point moving uniformly over a finite line, we have evidence of the fact that an infinite descending series, such as $\frac{1}{2}, \frac{1}{4}, \frac{1}{8}, \frac{1}{16} \dots 0$, can be, and is, completed.

Now let us suppose a circular disc set revolving around its center, in the plane of this paper, in such a manner that, at the first revolution, a point *P* on its circumference is carried around to the place at which it was before in half a second, at the second revolution, in a quarter of a second, at the third, in an eighth of a second, etc. It is clear that at the end of one second from the beginning of the motion the disc will be revolving with infinite rapidity, or, in other words, the time of *P*'s revolution will be reduced from half a second to zero. We have here a descending series of exactly the same kind as the one we had above ; the times taken up by the successive revolutions are $\frac{1}{2}, \frac{1}{4}, \frac{1}{8}, \frac{1}{16} \dots 0$.

Thus, when the disc is revolving with infinite rapidity, there is no time at all between *P*'s leaving the place at which it was and coming back to it again, which means, if it means anything, that *P* is *always* at the same place. But, since similar reasoning will apply to any other position through which *P* is supposed to pass in each of its revolutions (for the interval between its leaving that position and returning to it again is reduced to zero by the completion of the series), we can prove just as cogently that *P* is in the whole series of positions all the time. We can prove, in other words, that when the disc revolves with infinite rapidity, *P* is always all around the disc at once.

I suggest this argument to those who incline to the at present rather unfashionable scholastic notion that the whole soul is simultaneously in all parts of the body—*tota in toto et tota in utraque parte*. It may be used as a new weapon of defense, and has the advantage of being based upon principles admitted by their antagonists. If there be any truth in the Kantian doctrine of the infinite divisibility of space and time, why should not the soul be thus ubiquitous? It has only to move fast enough and it may succeed in being everywhere at once. The trick is simple—let it reduce to zero the time between its setting out from a given spot and its getting around to it again. It will, then, never be away from that spot, and it will also always be at every other spot in the line of its vibration. To those who find repugnant the thought of this midge's dance of the soul through all parts of the body, I suggest that there is nothing in this doctrine to prevent one from believing that through it all the soul retains the quiet seat in the pineal gland assigned it by Descartes. There it remains, like a spider at the center of its web; and one can rest one's mind by thus conceiving it. On the other hand, in those heroic moods in which the philosopher loves to emphasize the magic powers which distinguish mind from matter, independence of space and what not, one can reflect upon the storm and stress of its inconceivable motion—a motion which appears to resemble rest, and yet is its extremest opposite; a motion which consists in being at rest in every place and in no place simultaneously. Then one can proudly maintain that, though the soul be in the

pineal gland, it is not imprisoned there, like an impotent lump of matter, hemmed in by the walls of its cell, and unable to break through them. It is there, as it is everywhere, by its own tireless energy—there and not there, there and everywhere, a standing miracle, a living contradiction.

The topic is one upon which an enthusiast might dilate; but even enthusiasm should not be allowed to run into injustice, and the mention of matter reminds me that, for the Kantian, matter, too, may have its magical properties. We began with a revolving disc, and found that a point upon its circumference may be, under certain conditions, all around the disc at once. But if this be so, it must be possible for a material particle in the tire of a revolving wheel to be all around the wheel at once, when the wheel is revolving with infinite rapidity, and, thus, to occupy the same space with all the other particles in its path. Is this a new insight into the constitution of matter? Shall we say that every particle of matter excludes from the space it occupies every other particle when, and only when, its motion is not too rapid? Or shall we say that, although it *is* conceivable that an infinite series may be completed by a point moving along a line, yet it *is not* conceivable that an infinite series can be completed by the revolutions of a disc? Is it an 'intuition' that there is this difference between moving points and revolving discs?

But, it is objected, all this is sheer nonsense; no point can possibly be in more than one position at one time, nor is it possible that a point should move so rapidly as always to remain in the same spot. I answer: Of course it is sheer nonsense; but I insist that *the whole nonsensical edifice rests upon the one nonsensical assumption that an endless series can be completed by a progress which results in the attainment of a final term.* This is the assumption to which his peculiar views of the infinite divisibility of space and time force the Kantian. Grant this assumption and the rest follows of itself. The reasoning contains no other error. Its steps, briefly stated, are as follows:

1. If finite spaces and times are infinitely divisible, a point moving uniformly over a finite line *must* be able to pass through an endless series of positions and arrive at the very end.

2. The total space and time of the motion may be so divided as to be truly represented by the descending series $\frac{1}{2}, \frac{1}{4}, \frac{1}{8}, \frac{1}{16}$ 0.

3. If it is possible for one such series to be completed, there is absolutely no reason for affirming that another series of exactly the same kind may not be.

4. Hence, if it is conceivable that a disc may complete one revolution upon its center in half a second, the next in a quarter of a second, etc., etc., there is no reason for affirming that it is theoretically impossible for it to attain such a rate of speed that the time of its revolution will be reduced to zero.

5. When it is thus reduced to zero, it is clear that there is no time whatever during which a point upon the circumference of the disc is away from the position in which it was at the beginning of the motion, etc.

The conclusions of this reasoning are highly unpalatable ; but there is only one way to avoid them, and that is to repudiate the foundations upon which they rest. Perhaps I should amend this statement by saying there is only one *logical* way to avoid them. Practically, of course, we can avoid them by turning our minds from the whole subject, and this is what is commonly done. The unpleasant consequences of philosophic reasonings may be put to rout by an enemy who has not borrowed his arms from Aristotle or from his successors. "I dine," writes Hume,¹ "I play a game of backgammon, I converse, and am merry with my friends ; and when, after three or four hour's amusement, I would return to these speculations, they appear so cold, and strained, and ridiculous, that I cannot find it in my heart to enter into them any further." In such a mood logical difficulties are not taken seriously, and the mind drifts upon the stream of its habitual associations. It is worthy of remark that such moods are by no means exclusively the result of relaxation and conviviality. An attachment to the doctrines of this or of that school of thought, doctrines to which we have grown accustomed, and which seem to place at least some sort of ground under our feet ; the agreeable sense that we belong to a party, and are not groping our

¹ *Treatise of Human Nature*, Book I, Part IV, § 7.

way alone in the maze of speculations which confronts the philosopher; these things, and such as these, may disincline us to take seriously even the most serious of difficulties. We choose to jolt our way along upon the old road, even over an occasional self-contradiction. It seems better than to seek a smoother track, which is little frequented, and which may, for all we know, lead anywhere or nowhere. Accordingly, we take up an exposition of the inconsistencies which arise out of the Kantian doctrine, read it through, indulgently compliment the author upon his 'acute-ness,' and, feeling unable to point out any actual flaw in his argument, we take our stand upon what may be called the platform of the liberal-conservative in philosophy, saying: 'There are undoubtedly difficulties connected with the doctrine of the infinite divisibility of finite spaces, but the way to avoid these difficulties is not to repudiate what is undoubted truth, and to take refuge in a shallow empiricism,' etc. Although the occasioning cause may be different, our attitude of mind is distinctly Humian.

Before closing this discussion of the Kantian doctrine of space, I must comment briefly upon one attempt to avoid the enormities we have been passing in review, which does not repudiate the doctrine of the infinite divisibility of finite spaces, and which yet does not simply avert its eyes from the painful consequences of the doctrine. This attempt consists in maintaining that we are not bound to hold that every finite space consists of an infinite number of finite spaces, for space is *infinitely divisible*, not *infinitely divided*. This quibble—for, although it has a venerable history, it is nothing more—need not detain us very long. We have only to ask how it helps us in the case of the moving point. The line over which the point has moved is infinitely divisible. What does this mean? We call a line divisible, because we believe that it can be divided; and we believe that it can be divided (theoretically of course), because it is composed of parts. If we did not believe it to be composed of parts, we should not regard it as divisible. By saying that the line is infinitely divisible, we mean simply that it is composed, not of a limited, but of an unlimited number of parts; and by saying that the motion of a point over it is continuous, we mean that the point must take

successively an infinite series of positions. Now our point has completed its progress ; it is at the end of the line. Has it, or has it not, passed over every part of the line ? Has it, or has it not, been successively in an endless series of positions ? It is trivial to raise the question whether the parts of the line, the positions along it, have been counted or not. If the line is infinitely divisible, and if the point moves along it, it evidently comes to the end of an endless series at every step of its progress.

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THE INFLUENCE OF SCHOPENHAUER UPON FRIEDRICH NIETZSCHE.

SOME time between October, 1865, and August, 1867, Friedrich Nietzsche, who was then a student of philology at the University of Leipzig, found in an antiquarian shop a copy of *Die Welt als Wille und Vorstellung*.¹ The book was new to him and he carried it home. When he had finished reading it, Schopenhauer had gained another disciple. With all the ardor of a newly made convert, Nietzsche began to proselyte. He succeeded in winning over his friends to the faith, and together they paid homage to their divinity. If one was in trouble, the others suggested appropriate passages from Schopenhauer's works. It was no mere collection of doctrines that they studied. Schopenhauer was to them an incarnation of the ideal philosopher, a friend with whom they came into almost personal relationship. Later, when Nietzsche accepted the chair of philology at Bâle, it was with the express intention of infusing the Schopenhauerian spirit into philology.² When he came to write *Unzeitgemässe Betrachtungen*, he called one of them *Schopenhauer als Erzieher*, and in it he tried to show what Schopenhauer meant to him. The essay, instead of reproducing Schopenhauer's theories, is rather a description of his 'physiological influence,' as Nietzsche calls it.³ The importance of a philosopher, he goes on to say, rests not so much upon specific doctrines, as upon the example that he sets both in his books and in his life; for a philosopher is not only a great thinker but a genuine man, and it is in these virile qualities that Schopenhauer is preëminent. He makes men see what life means, and what are the essentials of a true culture. He preaches freedom from the prejudices due to individual surroundings, to the end that each soul may learn to live its own life undisturbed by outside influences.⁴ His independence makes

¹ Frau Förster-Nietzsche: *Das Leben Friedrich Nietzsches*, Vol. I, p. 231.

² *Ibid.*, p. 306.

³ *Werke*, Vol. I, pp. 402-3.

⁴ *Ibid.*, pp. 386-392.

him the best possible educator (*Erzieher*). From him men may learn that happiness is not an essential, and that the end of life is the establishment of a nobler culture and the production of genius. The entire essay is written in such a spirit of enthusiasm that the reader is lead almost involuntarily to feel that Schopenhauer is one of the greatest names in the history of philosophy. "I belong to the readers of Schopenhauer," Nietzsche says, "who after they have read the first page of him know with certainty that they will read all his pages, and that they will listen to every word that he has said."

After Nietzsche's own system had taken more definite shape, he threw off his whole-hearted allegiance to his master, and even came to feel that in his own nature was to be found the explanation of the deep significance that Schopenhauer had once had for him. Full of the ardor of discipleship, he had read his own ideas into the other's words, and even while making use of the Schopenhauerian forms had filled them with a different content. It may be doubted whether Nietzsche was just in this respect to his early position and the influences that moulded it. He was too much in love with intellectual freedom to find it easy to believe that he had once accepted anyone's philosophy. Nevertheless, the testimony of his books is against him, and it is safe to assume that Schopenhauer's influence was a real and important one. The problem to be solved does not concern its existence, but rather its direction and extent.

Nietzsche's philosophy presents such different aspects at different stages of its development that some chronological arrangement of his views is almost a necessity. His writings lend themselves most readily to a triple division, the three periods of which may be called from their different standpoints the æsthetic, the intellectual, and the ethical. Each gives an answer to the question that occupied Nietzsche's attention during the whole of his literary activity, namely, that of the nature of true culture, or, what was practically the same thing for him, the problem of the supremely valuable. Nietzsche was always asking what it is that is really worth while, and since at different stages of his development the world appeared to him under different aspects, his answers

were naturally inconsistent. To attempt to trace the influence of anyone through so many phases of thought is perhaps a hazardous undertaking. It is difficult to avoid emphasizing overmuch either the differences or the likenesses. Any throughgoing agreement between Nietzsche and Schopenhauer is precluded by the nature of the subjects treated. Nietzsche's interests were never in the direction of metaphysics. He even ridiculed attempts to solve the ultimate problem of the universe, sometimes seeming to base his scorn less upon the frailty of the human reason than upon the conviction that there were no ultimates to be known. Schopenhauer, on the other hand, was a metaphysician. He took seriously such questions as the nature of the phenomenon and the noumenon and the relation of the two to each other. He approached the *Ding-an-sich* with all the traditional reverence of a German philosopher. Naturally, the subject matter of his philosophy and that of Nietzsche's had often nothing in common. In some respects, however, as has been stated, they remained closely related, and although these points of agreement decreased in number as Nietzsche attained greater independence, they nevertheless did not entirely disappear.

At the time of the publication of *Die Geburt der Tragödie* in 1872, Nietzsche was a professed follower of Schopenhauer. The subject of the book precluded any discussion of Schopenhauer's metaphysics, but the published selections from Nietzsche's note-books written at this time show that he accepted most of the theories of his master; and even without these explicit statements the implications of the *Geburt* would be sufficient to establish the importance of Schopenhauer's influence. The fragments found in the note-books contain a discussion of the ultimate nature of the universe, which, in true Schopenhauerian fashion, Nietzsche declares to be the will.¹ The intellect is merely phenomenal: outside of the will and its manifestations nothing can be said to exist at all. The will's efforts to attain individuality are the cause of the phenomenal world, of which man forms a part. No matter what varied shapes the phenomena may assume, in themselves they are less than nothing. Their only

¹ *Werke*, Vol. IX, pp. 47, 66, 67, 69-72, 130, 164-174.

value lies in the degree in which they further existence. Whatever brings about permanence is affirmed by the will without regard to any other characteristics. Nietzsche differs from Schopenhauer in distinguishing between conscious and unconscious idea, and also speaks of an original intelligence that logically precedes individual existence.¹ Individuation is the result of this unconscious idea, of the universal ideating principle, which seems to stand midway between the particular phenomena and the will. The difference, however, is not fundamental, and as it had no influence upon Nietzsche's position in other matters, it may well be ignored, especially since he deliberately refrained from publishing any statement concerning these early metaphysical theories.

The notion of the primal nature of the will is the connecting link between Nietzsche and Schopenhauer. In Nietzsche's later writings, although he abandoned the distinctively Schopenhauerian form of the theory, he still gave the will the foremost position, emphasizing in fact more and more the secondary importance of the intellect. To be sure, the will to live has with him become the will for power, but it is still the will. He reduces to it, all the other manifestations of the mind, and even attempts by means of it to explain the world. At least, he says that since the will can act only upon will, the one possible reduction of the world to simple terms is found in the assumption that the will is everywhere present.² In no other way can the relation between the human will and its environment be made intelligible. To complete the simplification, one needs only to suppose that all the impulses of the mind are different manifestations of a single form of the will, 'the will for power.' Unlike Schopenhauer, Nietzsche nowhere goes into details concerning the cosmological side of his theory, so to speak, but devotes all his attention to showing the omnipresence of the 'will for power' in the life of mankind, where it appears not only as the formula for all existence, but as the criterion of value as well. All states of consciousness are due to it, and are to be measured by the degree in which they

¹ *Op. cit.*, pp. 66, 67.

² *Werke*, Vol. VII, pp. 27, 33, 55-57.

express it. There is little attempt to show in detail the presence of the will as a basis for the individual ideas and feelings. Its fundamental nature was so much a matter of assumption with Nietzsche, that he not only wisely refrained from trying to prove it, but also felt no obligations to point out its various manifestations. He was more interested in establishing the moral value of the will, in correlating degrees of will and degrees of morality. In doing this he differed radically from Schopenhauer, inasmuch as he made the supreme good consist not in complete denial of the will, but in its fullest affirmation.

As soon as one passes from this general attitude to more definite theories, the differences between Nietzsche and Schopenhauer are more numerous than the resemblances. In fact, the one field where they were in anything like agreement is æsthetics. This is doubtless partially due to the early appearance chronologically of Nietzsche's positive contributions to the theory of art and to art criticism ; but even later his revolt from Schopenhauer was scarcely perceptible in this particular field. Even here, however, the subjects treated by the two men were as a rule different, but the Schopenhauerian spirit of Nietzsche's work is evident. One always has a feeling that, in general, Schopenhauer would have treated the subject in the same way, if he had ever had occasion to discuss the same questions.

In fact, an attempt has been made to show that the two forces which Nietzsche found in all forms of artistic expression, and which he called the Apollinic and the Dionysian, are nothing more nor less than Schopenhauer's *Wille* and *Vorstellung*. There are, however, two objections to such an identification. In the first place, Nietzsche never even suggested the extension of his forces beyond the field of art. He never attempted to apply them to the universe as a whole ; and though, if he had done so, the result might have been practically Schopenhauer's ultimates, yet there seems to be no reason why any one should insist upon doing in his name what he deliberately left undone. The second reason for rejecting the proposed parallelism is that the Apollinic and Dionysian correspond much more closely to one of Schopenhauer's specifically æsthetic classifications. Schopenhauer drew

a sharp line of division between the pictorial and plastic arts on the one side and music on the other, which latter he regarded as the more direct expression of the will, and so as more ultimate in its nature. Nietzsche made the same distinction with regard to his two art forces. The Apollinic finds expression in all the static arts, so to speak. The Dionysian, on the contrary, includes all the musical and passionate arts, such as lyric poetry, and especially music itself. The Apollinic is a dream, the Dionysian is intoxication. The latter expresses the will immediately, without veiling its strength of feeling under the form of representation. This is substantially Schopenhauer's position, and the very closeness of the parallel makes the attempted identification with *Wille* and *Vorstellung* seem the more forced.

Outside the field of æsthetics the differences between Nietzsche and Schopenhauer are everywhere evident. One of the most striking is in the valuation put upon truth. Nietzsche regarded the history of civilization as made up of one long line of errors, without which any advance would have been an impossibility. The development of reason, of art, of all the feelings and sentiments that make life full of meaning to us, is based upon false ideas. A knowledge of the truth would have been fatal to much that is worth having. Schopenhauer's position is just the opposite of Nietzsche's. According to him every error is a deadly poison.¹ The truth and the truth alone is worthy of pursuit.

Inasmuch as Nietzsche's most important contributions to philosophic thought are ethical in nature, any discussion of his relations to other writers must concern itself chiefly with the problems of morality. Here, from the very nature of Nietzsche's system, one finds no metaphysical basis for the ethics proper, as there is in Schopenhauer. The will is assumed as the fundamental factor in human life; and although there is a brief account of its universal validity as an explanatory and substantial principle, this is altogether a matter of secondary importance, merely a subordinate issue that has no vital connection with the more important problem of the will as an element of personality. Whether the will in this more restricted form is the same in Nietzsche and in Schop-

¹ *Die Welt als Wille und Vorstellung*, Bk. I, § 8.

openhauer is a question that hardly admits of a categorical answer. If the 'will to live' and the 'will for power' are taken strictly, the terms are evidently not identical in meaning. Nevertheless the 'will to live' necessarily includes the exercise of power and the effort to get it. No existence is possible without a certain amount of struggle with other existences, and some degree of success in overcoming them. Of course, the desire for life and the desire for power sometimes conflict; they are not always the same. The latter, at least as described by Nietzsche, is more conscious and might be called a higher degree of development. The closeness of the parallel between it and the 'will to live' depends entirely upon the interpretation of the two principles. They may be put far apart, or they may be brought close together; either procedure admits of justification. A middle course would perhaps be the most prudent, but here again the amount of likeness and of difference to be admitted must remain a matter of individual opinion.

However the will for power is interpreted, it is the basal principle of Nietzsche's ethics; and he differed from Schopenhauer in that he regarded the exercise of the will not only as a fact, but as a moral end. The one thing needful is more life, a healthy freedom of feeling and impulse. Nothing could be further from quietism than Nietzsche's deification of force, especially in its physical form. The result is an acceptance of Schopenhauer's pessimistic premises, but a denial of the conclusions drawn from them. There is no doubt that the world is evil, and that wretchedness is everywhere. Life is full of pain and sorrow for which there is no help nor hope, and the future is quite as dark as the present and the past. Man is a poor thing, pitiable in his weakness, and is not even a healthy animal. All this and more Nietzsche believed, but he was never led by it to advocate the inaction of despair. The strong man, who is the only being worthy of consideration, fights the harder when fate is against him. No pain can overcome him, because he will yield to nothing. He is strong enough even to live without hope. He recognizes the condition of the world, he has no illusions, but the very abundance of opposition gives him a fierce joy in his own power of overcoming evil. He is always and everywhere a fighter with no desire to yield.

It may be questioned whether such a position as Nietzsche's can properly be denominated pessimism. To call it optimism seems absurd, and yet according to it life certainly does offer something worth the having. Evil may be predominant, but so long as a man can struggle against it, life is good. There is no suggestion of despair, no feeling that salvation should be sought in the negation of the will. Nietzsche's own name for his position describes it exactly. His attitude toward life is that of a 'tragic optimist.'

Great as is the difference between Nietzsche and Schopenhauer with regard to their valuation of life, they are no less far apart in their relative estimation of the virtues. In fact, one of the main incentives to Nietzsche's work in ethics seems to have been his opposition to Schopenhauer's view of sympathy. Instead of making sympathy the chief virtue, he put it among the vices, and could find no terms opprobrious enough for those thinkers who might defend it. In his eyes it was a mark of weakness, a disgrace to both giver and receiver. In the one it shows a desire to pry into another's secrets, a total lack of delicacy and reserve; in the other, a willingness to acknowledge oneself beaten and no longer self-sufficient. To found all morality upon sympathy is to make every man a slave, whose only criterion of worth is that which makes life easier.

Nietzsche classes with sympathy all the allied virtues, such as humility and self-sacrifice. These he regards as positively vicious, and the only qualities that he considers worthy of praise are those characteristic of the warrior. Strength and power, and pleasure in using them are the virtues of a free man. Nothing that does not express these in some form or other deserves the name of virtue. Complete independence, complete self-assertion, a certain ruthlessness and cruelty are all so much superior to sympathy that a comparison is almost impossible.

The ethical ideals of Schopenhauer and Nietzsche evidently differ as much and in the same way as does their estimation of the different ethical qualities. For the former, the highest end of human existence is found in the negation of the will to live. The first step toward its attainment is sympathy with the sufferings of

others, in which state one feels the underlying identity of all life, even of all being. As this feeling is strengthened, the futility of effort becomes more evident, all desire is suppressed, and life itself ceases to be worth a thought. The final stage is complete quietism, the negation of all positive physical and mental life. The ethical ideal held up by Schopenhauer is that of the Buddhist monk. For both, existence is the greatest of evils, involving all the others, and the saint is he who approaches most closely to the state of Nirvana.

It would be impossible to conceive any form of the ethical ideal more opposed to that of Nietzsche. As his chief virtues are those that best further aggressive life, so his ideal is complete self-affirmation. Its embodiment is the warrior, who crushes all opposition by the exercise of his own strength and power. The ethical aim is not life for others but life for self. The development of one's own personality, self-expression, freedom from restraint even by ideas, are at once means to the will for power and also a part of the end. Napoleon was the incarnation of the noble idea. He had the capacity for power and the will to use it without misgivings. The aim for man is self-assertion, and all that interferes with it is to be ruthlessly cast aside.

In the face of such great differences between Nietzsche and Schopenhauer, what is the close connection in their views that is commonly assumed to exist? We have found no great similarity in their theories, and their interests were on the whole even more widely separated. Yet the relation between them was a real and important one. What seems especially to have attracted Nietzsche to Schopenhauer was a radical independence of tradition and public opinion, and where he praises the latter's work it is usually for this freedom from outside influences. Schopenhauer was a man who gloried in disagreeing with established authority, living or dead; and he was able to find little to praise in the systems of any philosophers except Plato and Kant. His manner of expressing his criticisms was often personal in its tone and could hardly fail to be offensive to many of his readers. He advocated greater freedom in many lines of thought, and the fact that the results in his own case were a different

form of dogmatism, rather than more open-mindedness, probably recommended his standpoint to Nietzsche all the more. It was exactly the intellectual attitude that appealed most strongly to him. He controverted many of Schopenhauer's views with great bitterness, but he always recognized that here was an enemy worthy of him; and his strictures were never contemptuous. The chief bond between the two men was that of a similar intellectual personality; and though Schopenhauer's influence upon the latter periods of Nietzsche's philosophy was not always positive, and often appears quite indefinite, it was no less real.

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AN EXAMINATION OF PROFESSOR SIDGWICK'S PROOF OF UTILITARIANISM.¹

NO attempt will here be made to estimate the value of the late Professor Sidgwick's total contribution to Ethics. The purpose of the present paper is merely to examine, with such care as the limited time at our disposal will permit, the crucial argument in the *Methods of Ethics*, by which the author seeks to provide Utilitarianism with an Intuitionist basis, and thus to bring together these two ethical methods, which had hitherto for the most part pursued parallel, if not divergent, lines of development. It will be remembered that this comes nearly at the end of Book III, on "Intuitionism," and is supposed to represent the logical outcome of the preceding very careful analysis and criticism of the Intuitionist method. The argument as a whole naturally falls into two main divisions: (1) the determination of what may be regarded as truly intuitive moral principles; and (2) the determination of the nature of the Good, which, as it turns out, can alone give to these purely formal principles of conduct the concrete character which they require, if they are to be employed as actual guides in moral action.

In his examination of Intuitionism, and his attempt to discover in it a residuum of tenable doctrine, Professor Sidgwick has, in one respect at least, observed most commendable caution. He has pitilessly analyzed the conventional tautological propositions, and candidly pointed out the inconsistencies that are inevitable, so long as Intuitionism is regarded as affirming an aggregate of independent, but at the same time absolutely valid, particular principles, corresponding in detail to the various recognized virtues. The result of this searching examination, as will be remembered, is a good deal the same in the latest as in the earliest edition. In the first edition of the *Methods* (1874), Samuel Clarke's maxims of Equity and Beneficence were accepted as

¹ Read before the Philosophical Section of the American Psychological Association at Baltimore, December, 1900.

really intuitive—"as much so as the axioms of mathematics." In the later editions (*e. g.*, 5th ed., 1893), the statements are somewhat more guarded; but it is still held that in the principles of Justice and Benevolence, as commonly recognized, "there is at least a self-evident element, immediately cognizable by abstract intuition,"¹ while a third intuitive principle, that of rational Prudence, is also admitted. The explicit formulation of this third principle in the later editions need not be regarded as in itself particularly significant, since it might very reasonably be held that the principle was implicitly recognized as intuitive in the earlier treatment; but it is to be noted that, in the later and more elaborate form of the author's proof of Utilitarianism, with which we are here more particularly concerned, this principle of rational Prudence is regarded as in a sense more ultimate than that of Benevolence, since it is accepted as logically coördinate with, if not logically prior to, the more general principle (not named, as we shall see) from which that of Benevolence is deduced.

Assuming, then, as of course we must, that this later enumeration of three intuitive principles, corresponding to the virtues, rational Prudence, Benevolence, and Justice, accurately represents the author's later, if not also his earlier view as to the Intuitionist foundation of Ethics, it may be well first to recall the precise form in which these principles are given. The two which are certainly treated as intuitive are: (1) the principle which is supposed to underlie the ordinary conception of Justice, viz.: "It cannot be right for *A* to treat *B* in a manner in which it would be wrong for *B* to treat *A*, merely on the ground that they are two different individuals, and without there being any difference between the natures or circumstances of the two which can be stated as a reasonable ground for difference of treatment"; and (2) the principle of rational Prudence just referred to, viz., that one part of a given conscious experience is not to be regarded, other things being equal, as of more importance than any other equal part of the same experience. The precise formulation of the third supposed intuition, from which the abstract principle of

¹ P. 383.

rational Benevolence is directly deduced, will be considered when we come to see how it is actually derived by the author.

Now, in connection with these supposed intuitions, three closely related questions at once present themselves: (1) Are any or all of these principles to be accepted as really intuitive, without further examination? (2) What, exactly, does each of these principles imply? (3) Are they all to be regarded as strictly on the same plane? If the first question be answered in the affirmative, the two others may perhaps be regarded as superfluous; otherwise they will most certainly be relevant. As regards the first question, it is difficult to see that Professor Sidgwick has taken the necessary steps to prove that any of these principles are intuitive, even granting for the time that they all may very well be such. Throughout the treatise he has studiously avoided all metaphysical and epistemological questions, and, on the whole, this has been most fortunate for his treatment of Ethics; but it is difficult to see how one is to prove that the principles in question are strictly intuitive, without for the time passing over into Epistemology. The mere fact that, when separately considered, they commend themselves to common sense, which seems to be the test depended upon by the author, is plainly insufficient; for the result of philosophical reflection very commonly is to show that what common sense unites must be separated, and that what common sense separates must be united.

Since, then, we cannot accept these principles as intuitive without further examination; and since we cannot directly raise epistemological questions without entering into those very discussions which the author explicitly avoids, it seems fairest to pass on at once to the two remaining, very closely related questions: What, exactly, does each of these principles imply? And, in particular, are they all to be regarded as strictly on the same plane? Professor Sidgwick himself suggests one important difference, in making the transition from his treatment of the so-called intuition of Justice to that of the intuitions which are supposed to correspond to rational Prudence and Benevolence. He says: "The principle just discussed [Justice], which seems to be

more or less clearly implied in the common notion of 'fairness' or 'equity,' is obtained by considering the similarity of the individuals that make up a Logical Whole or Genus. There are others, no less important, which emerge in the consideration of the similar parts of a Mathematical or Quantitative Whole."¹

Now it is partly because the principle of Justice, as here formulated, does not depend upon this conception of a quantitative whole, which to many seems inapplicable to Ethics, that it almost inevitably appears more ultimate than the other two principles, in the particular form here given, whether or not one think proper to ascribe to it a strictly intuitive character. Moreover, it is to be noted that this principle, viz., that "it cannot be right for *A* to treat *B* in a manner in which it would be wrong for *B* to treat *A*, merely on the ground that they are two different individuals," is much more extensive in its application than what is ordinarily understood by Justice. This fact is not sufficiently recognized by the author. Yet from the mere statement of the principle, it is evident that it applies at least to all our moral relations to others. It is thus a regulative principle, applicable to rational Benevolence, quite as much as to Justice, though so abstract that the subordinate principles, justice and benevolence as ordinarily understood, need to be formulated before this general principle can be of much practical assistance in directing moral conduct. But if one consider the matter more closely, it will be evident that this same abstract principle, here called that of Justice, applies not merely to all our conduct which directly concerns others, but equally to that part of our conduct which more immediately concerns ourselves; for any recognized form of ethical theory demands some reason for our treating ourselves differently from others, though the reasons accepted as valid no doubt vary quite considerably.

It thus gradually becomes evident that the principle which we are examining is not a particular ethical principle at all, but rather an abstract statement of that postulate of objectivity, or impartiality, which is implied in all ethical reasoning as such. Whether or not one call this postulate an intuition depends, of course, upon

¹ P. 380.

one's theory of knowledge. At any rate, from the epistemological point of view, it would appear to be on a plane with the most fundamental methodological postulates of the various sciences and disciplines; it is not a particular principle, referring to any one side of our moral experience more than to all others.

When we come to consider the supposed intuitions corresponding to rational Prudence and Benevolence, as here formulated, it soon becomes evident that we are dealing with relatively subordinate principles, and principles that involve certain assumptions that are likely to make them less universally acceptable. The principle of rational Prudence—viz., that one should aim at one's good on the whole—looks at first very innocent, at any rate so long as the Good is left undefined, and so long as the point insisted upon merely is that "difference of priority and posteriority in time is not a reasonable ground for having more regard to the consciousness of one moment than to that of another." But when it develops that this principle is regarded as logically separate from, and apparently as logically prior to, that of Benevolence, it needs little argument to prove that this supposed 'intuition' is by no means free from certain assumptions which themselves assuredly have no intuitive basis.

The most important, perhaps, is the highly questionable assumption that there is a good for me that is originally separate from the good of others. This at once commits one to that "dualism of the Practical Reason," which Professor Sidgwick frankly admits in the final chapter of the *Methods*. But this is not all. When Professor Sidgwick argues that all that is necessarily implied is that the Good be "conceived as a mathematical whole, of which the integrant parts are realized in different parts or moments of a lifetime," he partly suggests a really serious difficulty. As a matter of fact, the Good is here assumed to be not merely a mathematical whole—which might vaguely suggest certain internal relations—but a quasi-physical aggregate, as opposed to an organic whole. And this plainly begs the question, as against certain forms of ethical theory for which the author has no sympathy, *e. g.*, Self-realization.

How important this latter assumption really is, can readily be

seen from the use which Professor Sidgwick makes of it ; for he immediately proceeds to base his further argument upon this questionable analogy. Just as the notion of individual good is "constructed by comparison and integration of the different 'goods' that succeed one another in the series of our conscious states," so the notion of Universal Good may be found "by comparison and integration of the 'goods of all individual human—or sentient—existences." In other words, consider the Good, whatever that may prove to be, in abstraction from the nature of the being for whom it is the Good, and the question of more or less is all that remains. Mathematics, the most abstract of all the sciences, is at least ideally applicable here in the most thorough-going fashion, precisely because we are dealing with something that is already abstract.

It should be observed that we have not even yet obtained the desired intuition of rational Benevolence—which is emerging rather slowly for an intuition—viz., the principle "that each one is morally bound to regard the good of any other individual as much as his own, except in so far as he judges it to be less, when impartially viewed, or less certainly knowable or attainable by him." This is confessedly a deduction, though a perfectly logical one, from the more general principle—here employed, but unnamed—that 'the good of one individual is not as such to be preferred to that of any other individual.'

Now what is this unnamed principle, here treated as the real ultimate, from which the principle of rational Benevolence is regarded as merely a corollary? Professor Sidgwick does injustice to the strength of his own argument, such as it is, by representing this principle as suggested by analogy, *i. e.*, by arguing that, just as one part of the individual's good is of no more importance than any other equal part, so one part of the total good (or good of all) is of no more importance than any other equal part of the same. This is making the all-important transition from the subjective, in the sense of merely self-regarding, attitude to the objective ethical attitude altogether too easily. As a matter of fact, this unnamed principle, here treated as an ultimate, is merely the original so-called principle of Justice, translated into terms of

the Good. Any deduction from it, therefore, like the abstract principle of Benevolence, involves the same assumption, viz., that moral distinctions are to be interpreted in terms of the Good, instead of in terms of duty, good will, etc., an assumption which, no matter how capable of being justified by argument, can by no means be regarded as intuitive. Of the author's abstract principle of Benevolence, then, we must conclude: (1) that it is a deduction from another principle, rather than a separate intuition; and (2) that the principle from which it is deduced cannot possibly be regarded as an intuition, even if we should accept the so-called principle of Justice as such.

So much then, for the three fundamental so-called 'intuitions,' which are regarded by Professor Sidgwick as affording the needed Intuitional foundation for Ethics.¹ By themselves, however, these intuitions are insufficient, according to his own admission; for he holds that they all equally imply a Good, still undetermined, of which they are to be regarded as 'distributive' principles. That this is true even of Justice, is asserted in the following definite statement: "Justice (when regarded as essentially and always a virtue) lies in distributing Good (or evil) impartially according to right rules."²

Before passing on to this second main division of the author's proof of Utilitarianism, which fortunately will not detain us long, viz: the determination of the nature of the Good, which all of these so-called 'intuitions' are supposed to imply, and of which they are regarded as 'distributive' principles, two preliminary criticisms require to be made: (1) The very abstract principle of Justice, at any rate, which has turned out to be merely the postulate of objectivity, or impartiality, implied in all ethical reasoning, does not logically imply an apportionment of the Good, as the author holds that all of these principles do, precisely because it is so abstract that it applies to the Duty Ethics as well as to the various forms of the Ethics of the Good. (2) It must not hastily be assumed that even the subordinate principles, rational Prudence

¹ Of "the axiom of Rational Benevolence" in particular, he has said a little before, that it is, in his view, "required as a rational basis for the Utilitarian system."

² P. 393.

and Benevolence, which, as here formulated, do undoubtedly imply the conception of the Good, are necessarily to be regarded as 'distributive,' rather than as 'regulative,' principles. Whether they are to be the one or the other, depends entirely upon the nature of the Good, still left undetermined.

It is impossible here to enlarge upon this distinction between 'distributive' and 'regulative' principles; but fortunately it is at once fairly obvious and quite commonly recognized. If the Good be conceived as something, *e. g.*, happiness, which is to be portioned out, as nearly as may be, into equal parts, these principles will of course have to be regarded as externally distributive. If, on the other hand, the Good be conceived as organic in character, *e. g.*, Self-realization, or even 'health of the social organism,' we can no longer speak of 'distribution' merely, as if a lump sum of money were to be impartially distributed. On the contrary, all the principles of Ethics — these as much as any others — must then be regarded as internally regulative, and as deriving their specific character from the concrete nature of the Good.

But let us return to Professor Sidgwick's own argument. What is the Good, which is supposed to be implied by all three of these principles, here treated as distributive? It should be carefully noted that this problem, by far the most important of all for any form of ethical theory except pure Intuitionism, is not here discussed with anything like philosophical thoroughness. The attempt rather seems to be to show what, on the whole, commends itself to common sense as the Good. This is particularly disappointing, since the direct investigation of the problem has been deferred so long. After remarking that it will not do to say that virtue itself is the Good, since that would involve one in an obvious logical circle, the author provisionally identifies the Good with 'desirable conscious or sentient life.' But he further observes that not all psychical existence can be regarded as ultimately desirable, "since psychical life as known to us includes pain as well as pleasure, and so far as it is painful, it is not desirable." This, of course, frankly *assumes* that 'desirable' consciousness is happiness or pleasure. Now he urges that this is

the only possible criterion of feeling as feeling ; and further that both cognition and volition, taken strictly by themselves, are quite neutral in respect of desirability. The details of the argument may be neglected, for, as will readily be seen, the result is a foregone conclusion. By this highly abstract method,— which practically begs the question, by arbitrarily isolating the different sides of consciousness,—happiness, or pleasure, is vindicated as the only practicable test of what is desirable in conscious life. And the Good being thus defined, the author holds that we are finally at liberty to regard the three genuine moral intuitions, relating respectively to Prudence, Justice, and Beneficence, as affording the needed Intuitional basis of pure Universalistic Hedonism or Utilitarianism.

Little need be said by way of summary. As the chain is no stronger than its weakest link, it is evident that Professor Sidgwick's proof of Utilitarianism equally involves the validity of his treatment of the three fundamental 'intuitions' and his hasty determination of the nature of the Good, which he holds that all of these intuitions imply. As regards the three supposed intuitions, we found that they were by no means on the same plane. The so-called intuition of Justice turned out to be merely the postulate of objectivity, or impartiality, implied in all ethical reasoning as such, and not a separate intuition, referring to one part of moral conduct more than to others. From the epistemological point of view, therefore, it appeared to be closely analogous to the most fundamental methodological postulates of the various sciences and disciplines.

Moreover, to the relatively subordinate principles of rational Prudence and Benevolence, also assumed as intuitive and apparently as being on the same plane with that of Justice, two special criticisms were found to apply : (1) The assumption of an original separateness between the interest of each individual and that of all others could not be conceded. (2) We found that only the principle of rational Prudence was really treated as a separate intuition, that of Benevolence having been arrived at indirectly. The first step was the disguised translation of the

original principle of Justice into terms of the Good, a conversion which itself should have been justified by argument. The second step was a deduction from this principle in its modified form. The principle of Benevolence, therefore, as here formulated, is at least twice removed from being an intuition in the proper sense, even if the author's abstract principle of Justice be regarded as such.

Again, we have seen that these principles do not, as the author claims, all imply a Good, still undetermined, of which they are to be regarded as 'distributive' principles. The so-called principle of Justice is so abstract that it does not necessarily imply the conception of the Good at all. Even rational Prudence and Benevolence, as here formulated, are not necessarily to be regarded as 'distributive' principles merely. That will depend upon the nature of the Good, still left undetermined; for if the Good, *e. g.*, turns out to be Self-realization, or even 'health of the social organism,' no particular principle of Ethics can be regarded as externally distributive, but all must rather be regarded as internally regulative, and as deriving their specific character from the concrete nature of the Good. Finally, even assuming these principles to be 'distributive,' the author's hasty determination of the nature of the Good hardly pretends to be a philosophical treatment of this all-important problem, but is rather an attempt to justify Hedonism to common sense. When he practically rests his case upon the argument that pleasure is the only possible criterion of the value of feeling as feeling, he unconsciously begs the question, which is, and must remain, whether or not the value of conscious life is to be determined solely in terms of feeling.

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A STUDY IN THE LOGIC OF THE EARLY GREEK PHILOSOPHY.

PLURALISM : EMPEDOCLES AND DEMOCRITUS.

THAT any study of pluralism is a study, not merely in the history of philosophy or apart from historical setting in technical metaphysics, but also in a field which is bounded only by human experience, seems to me to go quite without saying, and yet I would have it understood that at least between the lines of what follows this general point of view is in my mind. Pluralism refers not only to the doctrine of a number, finite or infinite, of physical or psychical elements or entities in the universe, but also to any recognition, open or implicit, of a number of cases of anything, or stages in any process, or points in any argument, or classes in society, or parts of the self; and the conclusions which follow should be applied *mutatis mutandis* to all these several pluralisms, and to as many others as anybody, perhaps any good pluralist, might care to enumerate. The doctrines of Empedocles and Democritus—or Leucippus?—which are to be discussed specifically are only the figures on these pages through which I would demonstrate a universal proposition. And this besides: They are selected in grateful recognition of the rich field for study which even the early Greek philosophers have given to modern thinkers.

Among the early Greeks, pluralism was an inevitable conclusion from the peculiar monism of the Eleatics. Eleaticism had reduced the physical account of the world, so far as this could retain monistic form, to the merest bubble that was at the very point of bursting even with the Eleatics themselves and of precipitating a physical pluralism. Whether one considers the empty unity of Being, which because empty—a negative term, observe—was virtually or intensively plural, or recognizes that Being by its very abstraction once for all took unity away from physical things, the case is clear that physical pluralism was bound to succeed Eleaticism. Perhaps the Eleatic Melissos felt this, when

he said, defending Eleaticism by assuming pluralism: "If we should assert . . . that things are many, we should still be bound to say that each thing is such as the Eleatics declared the One to be"; but, even if he did not, his statement is most significant, and Empedocles and Democritus, teaching in their different ways that things were many, and more or less directly that each was the One, were living witnesses to its truth.

Empedocles's pluralism was cruder than Democritus's, being a finite pluralism. That of Democritus was infinite. Thus Empedocles recognized only a fixed number of elements, earth, air, fire, and water. And what I wish to examine particularly is the inner logic of the projection of a finite pluralism to infinity, or historically the movement of thought from Empedocles to Democritus. Presumably, for example, a finite pluralism—and whether there be only four elements recognized or seventy is of no moment—has its own peculiar conception of change, while an infinite pluralism, a genuine atomism, if the negative really has any motive, really stands for anything, must have a different conception, but what the difference is, and exactly why it is, need to be determined.

So, to begin in a very simple way, a world of finite elements is bound to lack unity, to be a world of gaps. Only a world of unity, however, can satisfy thought, even the thought of a finite pluralist; and what the thinker fails to recognize directly is sure to force itself upon his indirect recognition, for thought always conserves its universe.¹ For a finite pluralist, then, something besides the elements is logically necessary, something to compensate for the finiteness, or conserve the required unity, or fill the

¹ That thought always conserves its universe is a principle of which I think there can be no doubt, and yet it does not seem to me to have had due recognition. This, however, is not the place for discussion of it. Only let me suggest that we see it illustrated in the 'working hypotheses,' logical constructions that they are, of any special science. These 'working hypotheses' work, because, however unwittingly or indirectly, they do really compensate for the neglects of specialism. Again, in further illustration, any system of thought may be defined as a system of mutually corrective or compensative errors. Thought cannot go wrong. It may be wrong to think of an arbitrary God, or spirit of good, working upon the world from without, but those who have thought of such a God have always thought also of an arbitrary Devil or Spirit of Evil, and the two opponents have saved each other from doing any violence to reality.

offensive gaps, and in response to this need, force is introduced into the order of things. But why force instead of another element or other elements? Merely because other elements cannot possibly satisfy the demands of thought. Other elements, that are simply elements, mere passive substances, cannot possibly give the required unity to the plural world. Only something active in its nature, that is to say, something external to the elements and *qualitatively* other than they and calculated to take them out of themselves, can ever fill the want, and such a thing is what is known as a force.

But, secondly, force so conceived, so derived, is of course arbitrary; it is arbitrary just because it is external or 'other,' or just because it has to make the elements reach beyond themselves, or to impose its own special nature upon them. Accordingly, again, for the sake of the conservation of reality, for the sake of the unity that thought has to insist upon, the admitted force cannot be single; it must at least be double; there must be two arbitrary but opposing or counteracting and so conserving forces. A single arbitrary force would be at once annihilative and creative. For a finite pluralism, in short, material or substantial existence and causation as the source of change are bound to be separate functions or separate realities; they cannot be mutually inclusive; they cannot be identical. And then the force upon which the causation depends must be at least double, say on the one hand integrating or organizing or attractive, and on the other disintegrating or differentiating or repulsive; the two of course producing a rhythm by tending to act, not together, but in turn. Thus Empedocles, in addition to his four elements, recognized the two opposite forces of love and hate, which, rising and falling, or 'passing in' and 'passing out' successively, produced a rhythm.

Here somebody is quite likely to suggest or even to insist that to make the causative force or forces external to the elements is not at all necessary, since all the demands of thought would be fully satisfied if the elements themselves possessed the powers of compensating for their finiteness. This, however, would be fatal treachery to the finite elements as elements, making them

more than merely elements, and so directly and openly betraying the pluralistic position, or, if not that, it would be sheer occultism, and occultism is certainly of a piece with externalism. Empedocles's interpreters have found him vacillating between thinking of his forces as independent realities acting *ab extra*, and thinking of them as only special properties of two, or of two groups, of his four elements, and his vacillation, whether real or imagined, would evidently be fully justified in that the two views really amount to one and the same thing. Occultism is externalism.

Still, thirdly, the state of mind to which vacillation between occultism and externalism points, showed itself in another way that has real importance. The two forces were often also other elements in Empedocles's consciousness, his original four becoming six. The forces were sources of limitation to the elements, and the finite can never be finite, or limited, except through its own kind. There were gaps between the elements, and these, again, could be filled only in kind. Or, once more, in the whole history of human thought, wherever appeal has been made to something outside, to something external or 'other,' the appeal has been satisfied only by some disguise, some new case or some new manifestation of that from which it was made, and sooner or later the disguise itself has been cast aside. Indeed, is it not even as much a law of thought that another world, even a negative of this, must be brought into this, made real in terms of this, as it is a law of physics that action always meets with an equivalent reaction? For my own part, I am far from prepared to say that the two laws are not one and the same. But, be that as it may, the two external forces of a finite pluralism have no choice after all but to enter the world as other elements.

Does not this flatly contradict the statement made above that thought in its effort to make pluralism an adequate account of a universe can not possibly be satisfied with other elements? I think not, for the two added elements are now seen to be more than mere elements, being forces also, never losing their character as forces, and actually standing forth as witnesses to the inadequacy of the pluralistic conception of what an element really

is. Indeed, we are here confronting what is only a special case of a very general principle. In brief, addition of others in kind to any given number of things really involves qualitative as well as quantitative change. Other elements can not be merely other elements; the addition of elements, or cases, or points, or persons, or parts, really changes even that to which it is made.

So in a finite pluralism (1) force as apart from mere substantial existence in the form of passive elements is a necessary supplementary or compensating conception; (2) this external arbitrary force is double, there being in reality two forces which counteract each other and give to the process of the universe a rhythmical character; and (3) the two forces have to figure as other elements, but other both quantitatively and qualitatively. A finite pluralism, therefore, both with regard to the fixed number, four or seventy or any other larger or smaller, upon which it establishes itself, and with regard to its idea of what an element is, evidently contains an irresistible motive or impulse of escape from itself. Quite from within itself it moves towards infinity. An infinite pluralism is its natural, logical goal. After Empedocles, Democritus.

But an infinite pluralism, obviously enough, can be pluralism only in form. I say 'obviously enough,' because of course infinity is something more than one among the other numbers, being the very negative of all that makes mere numbers. At best, infinity is only a quantitative abstraction; it is a projection of something that is not mere number or quantity on the plane of number or quantity; it is, again, a witness within the very sphere of number or quantity to something else that must be true of number or quantity, say to quality, to intension; so that as number or extension it is only formal. In general, however, whatever is what it is only in form is bound to be full of paradoxes, self-contradictions, antinomies, so that in the infinite pluralism, the atomism of Democritus, the elements can not be real elements, nor the *vacua* or gaps real *vacua*, nor the external forces really external forces, nor even the rhythm a real alternation, and in each case the formal character, the unreality, must show itself in a paradox. Multiplication, and one even so slight as from four

to six involved Empedocles's finite pluralism in a movement of escape from itself, but at infinity the escape is fully accomplished—except that there seems to be a need of somebody to call out the station.

Democritus's elements were elements only in form, because quantity or number, historically Pythagorean number, was the only ground of their differentiation. They had only 'primary qualities,' only properties of mathematical determination; they differed in size and shape and weight, but not in substance. Their substance was one, not many. Never in the history of thought was a doctrine more timely than that number-doctrine of the Pythagoreans; it filled such a real want, such a positive need of the contemporary pluralism; for as *quanta* the elements, the infinite atoms, could retain at least a specious independence; they could be at least the shells of a lost reality. An important result, too, of Pythagoreanism, or of the speculation of the Greek thinkers generally, conspicuously of the subtle Zeno, was the separation of the idea of number from that of mass—witness among other things the book of proportions in Euclid—and the fact that this separation was made through reflection on infinite or infinitesimal quantities, and incommensurable quantities only adds to the inner significance of Democritus's infinite number-atoms. The atoms could be numbers or *quanta* independently of any mere massiveness.

But, furthermore, between those number-atoms there were, and could be no real gaps, since infinite elements must be at least physically contiguous as well as of a substance physically homogeneous, and must make accordingly a physical plenum. A vacuum, too, that is vacuum relatively to elements, whose characteristic quality is number, must itself be quite independent of the determinations of number, and, recognizing and truly appreciating this, one can conclude only that the elements were in a vacuum of which the following paradoxes are strictly true: (1) it existed between things without separating them by any distance; (2) it permeated the things themselves, without losing its own reality; and (3) as if in justification of Melissos, not only it did not separate things by existing between them, but also it

really made all things in it coëxtensive or mutually inclusive, or say even mutually penetrating. In short, Democritus's *vacua* were as purely formal—or empty?—as his *plena*. "*Vacua*," he insisted, "are as real as *plena*"; a paradox if there ever was one, and a paradox which could not but lurk in both of its members, the separate *plena* being empty shells, the separating *vacua* full of all that was. The space of vacuum, in other words, was virtually, logically, that of the infinite or infinitesimal as quality, as an intensive unity, while the space of the elements was quantitative or extensive. Democritus, however, did not clearly see this, if he saw it at all. This is only the inner logic of his teaching. He simply did not know or does not seem to have known where he was, being in this respect not unlike some atomists of more recent times; he did not seem to see how formal and paradoxical his world was in all its aspects; but, I repeat, because infinite, his pluralism was formal and paradoxical throughout.

The Greek atomist's concept of vacuum simply teems with interest for any one who makes history more than antiquarianism. Thus, again, he saw the infinity of his elements and the 'number' by which he characterized them only quantitatively, so that, since infinity is really a witness to something besides mere quantity, he was obliged to recognize something else, outside of the elements and other than them, and his concept of vacuum was the result. In that, then, he made compensation for his pluralism even as Empedocles had done before him in the idea of force. Vacuum was force, not, it is true, as some external embodied force, but as a basis, even the passive and so ultimate basis of the possibility of change or motion; it was force, so to speak, as absolutely latent, which to my mind is force as only formally external to that upon which it is supposed to act, as really but not openly or visibly immanent. A finite pluralism had no choice but to see the needed force as both external and embodied, but an infinite pluralism escapes from all but the form of the external and embodied force. More directly, too, or more positively, Democritus made force virtually immanent by referring the motion, which vacuum only made possible, to differences of weight. These differences, moreover, made counter-motions, the lighter elements

by falling more slowly, moving upward at least relatively to the heavier, and rotation and integration were the result ; and, in view of this ingenious account of things, we may even regard the force of Democritus as not only virtually immanent, but as also single or only formally double—witness the counter-motions due to the single cause of weight ; but I do not care to complicate my present case by too much subtle analysis. Suffice it, therefore, to say that an immanent force or an only formally external force, a latent or purely passive force, like that of Democritus's vacuum, could not possibly be arbitrary and so would not need outside control or counteraction ; it would control itself ; its virtual immanency would protect it from excess, from doing violence to reality. It would also make progress or change continuous ; not broken and rhythmical, not vibratory.

But now the motion, that vacuum, which was itself without magnitude and motionless or with only an infinite or infinitesimal magnitude, made possible, needs to be considered carefully. Whatever may have been Democritus's direct consciousness of it, evidently it could not have been merely extensive, merely in terms of so much distance. Motion for infinite or infinitesimal distance or motion in a vacuum which virtually, although not openly, made all things that it contained co-extensive or mutually penetrating, was bound to involve intension as well as extension, or, perhaps I may be allowed to say, to express a process among things that was chemical, if not also vital or mental, as well as physical. This may seem like mere fanciful interpretation, extravagant and perhaps 'pathological,' but the Greeks of the time were not without some sense of a difference between physical and chemical change and—as possibly more to the point—the same interpretation may if not *must* be put upon the motion which the modern scientist's motionless but transmitting medium renders possible among things. This medium, at its ideal limit, is a perfect vacuum relatively to the things in it, and also it exists between things without separating them, permeates things without losing its own reality, and makes all that it contains virtually co-extensive, and motion in it or through it, being instantaneous for an infinite distance or eternal for an infinitesimal distance, is certainly

intensive as well as extensive. Like Democritus's vacuum, then, it is only a physical disguise or indirection for what is chemical, if not vital or mental, as well as physical. Darkly, negatively, the scientist admits this when he confesses that his transmitting medium is no dogma about things as they really are but only a working hypothesis *logically* necessary to the integrity of the purely physical point of view; for a working hypothesis, especially when in such a paradoxical form as that of a motionless cause or basis of motion, can be only an abstraction, subject to the peculiar standpoint of the science that finds it workable, for some other science or sciences, for some other point of view. The paradox always takes thought beyond its adopted forms. In general, then, any science's working hypotheses, peculiarly prone as they are to the paradoxical, are as doors in the paneling, by which other sciences enter secretly. But, general principles and specific illustrations aside, I must return to Democritus. Whatever may be said for the knowledge of chemistry¹ or even for that of biology in his time, a mental science and a purely physical science were existing side by side and it is safe to say that each had to have its secret entrance for the other. The Socratic philosophy with all that it implied, developed contemporaneously with the infinite pluralism, the materialism of Democritus, so that—at least as I have to see it—Democritus's vacuum, immaterial as it was and really without magnitude, 'equal' or homogeneous and indivisible, can not but have been his substitute for the Socratic mind or concept, and motion in it was the motion of a world to which the intensive conserving unity of mind belongs.

And now just one thing more. The Greek atomist's well-known doctrine of emanation has an important place in the logic of his system, for it is a *tertium quid* between the doctrine of material elements as having only primary qualities and that of vacuum as a witness, although an unappreciated witness, to something besides mere quantity and matter, namely to quality and mind. Elements that were only so many numbers or quanta

¹ Democritus was probably something of a chemist himself. Witness his *Natura naturam gaudet; natura naturam vincit; natura naturam retinet*. See H. Kopp's *Beiträge zur Geschichte der Chemie*, pp. 108-143, Braunschweig, 1869.

could not have secondary qualities, but at the same time, because of their infinite plurality or of the infinity from which their individual quantities were judged, they could not but make secondary qualities, that is, intensive unities, to emanate from them. The process, as a matter of course, was conceived by Democritus in a strictly physical way, in the way of elements coming from objects, however distant, and impinging on the sense-organs, but this only shows to what pass the physical pluralist is obliged to come; it does not affect at all the significance of the need of the conception. The logic of thought is often bound to make the form of expression absurd. And furthermore, as regards the doctrine of emanation is it not a general truth that whatever is as paradoxical or self-contradictory in its nature as the infinite number-elements of Democritus must not only point to something outside and different, but also be itself a sphere of constant movement away from itself? Our modern theories are no doubt free from the letter of Democritus's account of secondary qualities, but it would be far from safe to say that they are free from the spirit, so that the logic here uncovered might possibly be applied to them with much effect, though for the present only Democritus's infinite pluralism, a pluralism rather of number-elements than of number-vibrations or wave-lengths, is directly in question.

As already more than merely hinted, infinite pluralism leads to something. Its very paradoxes are necessarily prophetic. Democritus put a pure mechanicalism in the place of Empedocles's dynamism, but Democritus's mechanicalism was only a subtle disguise for something else. His elements as quanta were only disguises for the relations of an organic life or for 'centers of force'; his external vacuum, as we saw specifically, was only an indirection for force as immanent and conservative, not external and arbitrary; his infinity, for quality or intension; and his motion, for chemical or vital or mental change; so that whoever runs may read in his pluralistic mechanical philosophy only a disguise, and a very thin disguise, for Relationism, or Organicism, the philosophy of evolution. This, however, is 'another story,' which accordingly does not belong here.

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NATURAL SELECTION IN ETHICS.¹

THE biological doctrine of natural selection has been applied to ethics, more or less literally, by writers representing the most diverse intellectual types. It is important therefore to determine whether this principle of organic evolution can be employed to explain the facts of morality. In this investigation it is not necessary to make any assumption regarding the validity of natural selection in biology. A perfectly definite conception, which happens to be originally biological, has been used in ethics, and all that is incumbent upon us, therefore, is to understand clearly what the conception is, before proceeding to consider whether its application to morality is legitimate or the reverse.

The salient features of the theory of natural selection can be briefly recalled to mind. Everywhere in the organic world more individuals are produced than can possibly survive, and this universal tendency to increase beyond the means of subsistence necessarily brings with it a struggle for existence. The struggle is so keen that any individuals which vary in a way that gives them an advantage, however slight, will have the best chance of surviving and of transmitting the favorable variation. Nature thus selects a variation by killing off in time those individuals who do not possess it. The variations selected all tend to adapt the animal more completely to its environment, since variations of this sort are alone advantageous in the struggle for existence. On this hypothesis, therefore, evolution proceeds because organic beings which show an advance in adaptation to environment live and multiply in virtue of this fact at the expense of their less fortunate competitors.

The implications of the theory require more emphasis. Natural selection depends upon the struggle for bare life, and therefore for individual existence, since life is essentially an individual matter. It can, we are told, develop organs and capaci-

¹ An address delivered before the Philosophical Club of Bryn Mawr College.

ties in one being for the detriment of others, but it cannot modify the structure of an individual for the good of others, unless the individual is itself distinctly benefited thereby. It puts a premium on craft and brute strength ruthlessly exercised at the expense of the weaker or less cunning. 'The weakest and stupidest go to the wall, while the toughest and shrewdest survive.'¹ Nor can we console ourselves with the reflection that the survival of the fittest is thus secured. As Darwin admits, and as Huxley insists, the 'fittest' are not necessarily the best.² The fittest are those who are best adapted to cope with their environment, who can by any means survive. In short, as Haeckel puts it, the struggle is a struggle of each for himself, of each against all. Survive if you can, no matter how, is the law as laid down by natural selection.

Let us turn now from natural selection to the typical systems of ethics founded on natural selection. The transition is striking. We pass from the repulsive to the attractive, from the horrors of this Ishmaelite strife to the peaceful serenity of fraternal love and sympathy. The Golden Rule, Darwin tells us, is the essence of morality. Clifford maintains that the spring of virtuous action is the social instinct; the sense of duty in a man is the prompting of a self other than his own; conscience is that portion of a man's nature which is what it is for the sake of the whole.³ That morality is social we hear on all sides.

On what arguments does this remarkable change of standpoint depend? Huxley insisted that morality, being social, is directly at variance with the struggle for existence which is ruthlessly individual. But the advocates of natural selection in ethics assert that morality, social as it is, has been produced out of, and in virtue of, the struggle for existence. The argument is at first sight plausible enough. The presence of sympathy means that all the members of a group in turn assist one another; it means the possibility of coöperation. "When two tribes of primeval man living in the same country came into competition, other

¹ Cf. Huxley, *Nineteenth Century*, Pt. I, 1888, p. 165.

² *Ibid.*, p. 163.

³ *Lectures and Essays*, 2d ed., p. 363.

things being equal, if the one tribe included a greater number of sympathetic and faithful members always ready to warn each other of danger, and defend each other, this tribe would succeed better and conquer the other." This is Darwin's account of the matter, but the statement is typical. Sympathy, that is, would enable the tribe to survive and therefore the individual. It is thus a variation which would be selected in the struggle for existence on account of its survival value. At first, those sympathetic variants would have no sense of right or wrong. They act sympathetically, not because they feel it is morally right to do so, but simply because they have a natural tendency in that direction. As knowledge develops, however, and man becomes a reflective being, sympathy and reflection give rise to conscience, the sense of right and wrong. Here again we may take Darwin's description of the process. A cognitive being who reflects cannot live merely in the present. In his case an action is not over with when it is done. The past rises up before him in memory, and conflicts or harmonizes with the present. Now the social instinct is always present. It is not always the strongest, however, and an individual may therefore, under the influence of another desire, act in defiance of his sympathetic instinct. But if he satisfies his hunger, for instance, at the expense of others, he will on reflection feel a conflict between what he has done and what his social nature demands. Moreover, his hunger, being satisfied, is no longer as strong as it was; the social instinct is as strong as ever, relatively stronger now than his satisfied hunger. Hence he wishes he had not acted as he did; he is unhappy, feels remorse, and resolves to conduct himself otherwise in the future. By a continuous repetition of this process, "man comes at last to feel that it is best for him to obey his most persistent impulse." "The imperious word ought," we are led to infer, then arises.¹ Conscience is therefore the voice of our most persistent impulse, the voice of sympathy, or, as Clifford puts it, the voice of the tribal self.

Thus, through sympathy and reflection, those actions which conduce to the survival of society come to have the high sanc-

¹ *Descent of Man*, ch. iv, pp. 110 ff.

tion of conscience. The further development of intellect renders a further development of morality possible. A fully reflective being can look into the future and foresee what consequences the present will eventually bring. Such a being is not compelled to proceed blindly in one direction until it falls unawares into the pit of destruction, or learns by actually surviving that its path was the path of safety. And since the more thoughtful members of a community can reflect for the community and discover beforehand what actions will in the end be fatal, a society can, if necessary, have the opportunity of mending its ways, and avoid extinction by the adoption of better habits of conduct. In this way, as Professor Ritchie tells us, a higher form of morality is possible; the cruel process of natural selection is anticipated and obviated by more peaceful methods.¹ The development of intellect, moreover, leads to a still more significant development of morality, since it involves the gradual extension of sympathy beyond the tribe or nation. This is not emphasized equally by all the writers we are now considering, but it follows necessarily from the very nature of sympathy. For sympathy depends upon the sense of community with others, and, though it naturally extends most rapidly within our own social group, it must go beyond those limits as soon as we recognize that individuals outside our tribe or nation are, nevertheless, fellow creatures. This is Darwin's account of the matter, and it is the only one which is tenable in view of the facts.²

The transformation is complete. The characteristic impulses of human nature are now directry at variance with the impulses which underlie the struggle for bare existence, and yet they are the product of this purely individualistic strife. The struggle for existence leads to the 'selection' of sympathy and intellect, and these turn the struggle of each against all into a struggle of each for all. We started with a barbarous contest for bare life, in which nothing counted but success; we end with a sense of right and wrong, compelling us, not merely to respect the rights of others, but also to take an active interest in their welfare.

¹ *Darwinism and Politics*, p. 105.

² *Descent of Man*, ch. iv, p. 122.

This literal transformation of a thing into its opposite cannot be viewed without misgiving, and, when we examine the argument, we find much to diminish the plausibility of this dialectic transition. First of all, the precise point which has to be proved must be made clear. What has to be established is *not* the fact that sympathy and morality are the best possible aids in the struggle for existence, or the fact that they are in themselves better in this respect than individual strife. All this is irrelevant, for we are not considering the origin of the best possible, or of the intrinsically better. We are dealing with what is possible or probable in the actual circumstances. Now the circumstances are plain. If we say that morality and sympathy were originally variations selected as advantageous by the struggle for existence, we must mean that this struggle was originally a contest between non-moral and non-sympathetic individuals. It would be absurd to maintain that sympathy and morality had been evolved through the struggle for existence, if we meant that they had always been there. The question then is : Could morality and sympathy be selected in the course of a struggle for existence between individuals who are non-moral and non-sympathetic ?

Since sympathy is put forward as the foundation of morality, we shall first consider whether sympathy can be regarded as a variation which is selected on account of its survival value in the process of a non-sympathetic struggle. This variation cannot be preserved if the sympathetic individual is eliminated, and the sympathetic variant as such cannot be selected for preservation unless sympathy aids him to survive. The precise question then is : Will the individual who happens to be sympathetic have, in virtue of this fact, an advantage in a struggle for life which is carried on by his fellow competitors in a purely selfish way ?

Rendered thus definite, the question presents serious difficulties to the advocates of natural selection. Sympathy implies an unselfish regard for others, consideration for others without thought of self. Pity, says Schopenhauer, obliterates the distinction between self and not-self, and Schopenhauer was not prone to exaggerate the nobility of human nature.

Clifford makes the same assertion in regard to all those kindly feelings toward others which are vaguely included under the terms 'social instinct' and 'sympathy.' The fact indicated by these terms, he asserts, "is not altruism, it is not the doing good to others *as others*; it is the service of the community by a member of it who loses in that service the consciousness that he is anything different from the community."¹ This is true, just because sympathy depends upon the sense of community with others, and therefore leads to action which transcends the distinction between self and others. The application of this to the question in dispute is obvious. If sympathy implies self-forgetfulness, and if the struggle for existence is so keen that a slight disadvantage turns the balance in the direction of death, then the sympathetic individual will surely perish, for self-forgetfulness is a great disadvantage in a struggle for life in which other combatants fight solely for their own hand. The sympathetic individual gives to others, and receives nothing in return. Indeed, he has a fatal inclination to give where most is required, for he is influenced by pity and this feeling becomes more intense in proportion to the distress of the sufferer. He adds to his own load the burdens of others; he has a preference for the heaviest burdens he can find. Thus foolishly does he handicap himself in the race for life, and the victory cannot be his. He is doomed to extinction by the perversity of his nature, and sympathy perishes with him.

The objection will doubtless be made that this argument applies only in the case of isolated individuals, and would not be valid if a number of individuals varied simultaneously. On the theory of fortuitous variation, however, simultaneous variation on the part of an appreciable number of individuals cannot be regarded as a probability. Even if, by a lucky chance, a number of sympathetic variants appeared at the same time, the chances are still smaller that they will be able to form a sympathetic group, for this implies that they appear at the same place as well as at the same time. The objection not only rests on the assumption that this will happen, but also tacitly presupposes that the sympathetic

¹*Lectures and Essays*, p. 229.

variants will naturally form themselves into a community which opposes itself as a unit to the individuals forming the rest of the original aggregate. This supposition is wholly at variance with the nature of sympathy, which, as we have seen, implies self-forgetfulness. It must also be remembered that there are no historical reasons for the limitation, since we are dealing with the origin of the social group, and, by hypothesis, the natural range of the social instinct is not circumscribed by artificial social barriers, historically conditioned. The unselfish can selfishly combine against all others, only if selfish calculation acts as a restraint on sympathy, and in attempting to form a selfish combination sympathetic individuals are always at a disadvantage, since they have their natural unselfishness as an enemy within the camp. On the other hand, it cannot be assumed that the outsiders would necessarily remain a mere aggregate in the presence of a hostile combination. Sooner or later the common danger would unite them, and, since they would greatly outnumber the sympathetic few, the fate of the latter could not long remain in doubt.

Darwin's own argument brings to light the difficulties of the doctrine that sympathy can be accounted for by means of natural selection. In the fifth chapter of the *Descent of Man*, he first tells us that the social virtues were acquired through natural selection on account of their paramount importance for the tribe in the struggle for life. Immediately afterwards, he remarks that the members of the tribe who first became endowed with social qualities would on the average perish in larger numbers than other men. We then find that sympathy, though it was selected as an advantage for the tribe in its contest with other groups, has little regard for tribal limitations and inevitably tends to extend to all humanity. After that we are not surprised to learn that in other respects it is something of a failure as a survival advantage. It leads man to cherish the sick and infirm, allowing the latter the opportunity of transmitting their weakness, thus diminishing the survival efficiency of the race. All this is prefaced by the remark that here for the first time have the problems of ethics been approached exclusively from the standpoint of natural his-

tory, which leads one to doubt whether on the whole it is well to approach one group of facts exclusively from the point of view of another.

That it is impossible to regard sympathy as a variation selected by the struggle for existence, can be made clear if we reverse the conditions from which we started to discuss the question. Suppose, for the sake of argument, that a sympathetic community had in some way come into being. Suppose, further, that a non-sympathetic individual appeared in this society as a variation, an assumption sanctioned by the theory of fortuitous variation. His position is diametrically opposed to that of the sympathetic individual among non-sympathetic competitors. He has an advantage, greater if possible, than the disadvantage of his polar opposite. He receives from every side, and gives nothing in return. He will certainly survive, since he adds all the aid afforded by others to the undivided support he renders himself. Suppose, finally, that he is not absolutely alone in his peculiarity, a supposition which the supporters of natural selection cannot consistently exclude. The non-sympathetic few will thrive and multiply; for they are the 'fittest' and transmit their fitness to their offspring. The process of social disintegration can be stopped only if the sympathetic individuals are able to repress their sympathetic impulses and ruthlessly combine against their selfish competitors.

That the social organism never tends to dissolve in this or any other way, points to the fact that sympathy is not a fortuitous variation which has to contend against other variations, but something which cannot be lost or acquired, something inherent in man's nature as such, and therefore a factor that is present in all human struggles. Clifford's instinct was sound when he incidentally remarked that "we may fairly doubt whether the selfhood of the tribe is not earlier in point of development than that of the individual."¹ Stripped of its paradoxical form, this statement gives the core of the matter. The tribe would not be a tribe unless the individuals composing it were originally, essentially, and by their very nature, social individuals sympathetically interested in their fellows as such, and

¹ *Lectures and Essays*, p. 291.

thus capable of rising above the tribal limits. In other words, if mental beings were originally mutually repellent atoms, devoid of all inner connection with one another, they would remain separate to the end. Natural selection can perhaps do much, but it cannot change the ultimate metaphysical constitution of a section of the universe.

Sympathy, then, is not a fortuitous variation which happens to survive because it is useful ; it is an integral and essential part of the nature of man as a psychical being. Moreover, though it had been selected in the manner alleged, it could not have given rise to the sense of right and wrong, even with the aid of intellect. Conscience is not simply the reflective recognition of the fact that it is best to follow the most persistent impulse, for morality is not identical with the sympathetic inclination, and the latter may on occasion be conscientiously condemned. We regard as morally wrong, for instance, the indulgence which springs from the unregulated affection of parent for progeny. Since it is sometimes ethically wrong to follow the dictates of sympathy, it is evident that conscience is not merely the authoritative voice of this element of our nature. Even when the sympathetic impulse coincides with the moral, there is an essential difference between the mere fact that I am impelled to act in one way, and the fact that I feel I ought to act in this manner. It is one thing to have an impulse ; it is quite a different thing to judge that this impulse is 'right.' Only when the notions 'right' and 'ought' appear, do we have morality in the true sense ; and it is here that the evolutionary accounts of morality are weakest. It is not too much to say that they make no real attempt to show how the consciousness of actual impulses gives rise of itself to something distinct from the bare consciousness of actual fact, of itself gives rise to the feeling that one is right and another wrong.

Hitherto we have been dealing with the possibility of the origin of morality from the struggle for existence. If we turn now to the nature of the fact in question, a more vital objection presents itself. A morality evolved by natural selection could not be morality as it exists. From the point of view of natural selection, right actions are actions which conduce to survival. The up-

holders of the doctrine under discussion do not usually emphasize this aspect of the matter, and are inclined to offer more specious and plausible statements of the case. But it seems undeniable that if morality is selected on account of its survival value, right conduct is conduct that leads to survival. Natural selection necessarily tests moral codes, not by their intrinsic worth, but solely by their survival efficiency. The whole duty of man, therefore, is to exist and promote existence. Surely a most inadequate solution of the riddle of existence! Every one makes a distinction between mere life and life that is worth living, a distinction which finds practical expression in action. And, whatever our practice may be, our moral judgments are conclusive on this point, that morality does not exist for life, but life for morality.

To establish this clearly we must investigate morality itself, and attempt to ascertain the essential nature of moral obligation. In doing this, we shall at the same time take the best method of penetrating to the root of the whole question regarding the relation between morality and natural selection.

As many evolutionists would admit, the essential feature of moral obligation is its internal character. That we are morally obliged to act in a certain way does not mean that God, or the powers that be, will punish us if we do not, or that God has implanted in us a sense of duty as an external restraint on our nature, a foreign tyrant that is within us but not of us. Morality is the expression of our nature; moral obligation is internal obligation, not external compulsion however disguised. Now the statement that obligation is internal can only mean that something appeals to the individual as a thing of value or worth, and therefore a thing that attracts him. It is *his* ideal, it appeals to him because he is what he is; hence the force it exercises is internal, drawn from his own nature. That the agent feels obliged to choose one course of action to the exclusion of all others, implies that one line of conduct has in the circumstances supreme worth as compared with all others. Moral obligation therefore implies an ideal of supreme worth with which a particular mode of behavior is in harmony. Why, then, it will be asked, does morality involve a struggle? Why does the individual feel obliged to

realize his ideal of worth, seeing that obligation implies authority and this in turn presupposes recalcitrant elements. The answer is simple. Self-consciousness is one condition without which the sense of worth could not exist. If the agent is not capable of distinguishing himself from other things, he cannot have the notion of something that appeals to *him*. But the individual and the race alike gradually become self-conscious, and when they come into conscious possession of themselves they find an actually existent nature already developed. A conflict therefore arises between the self as it exists, and the ideal which appeals to the individual when he becomes self-conscious. It is in virtue of this conflict that the ideal of worth appears, not merely as attractive, but also as authoritative, as something the agent is obliged to realize. It is in virtue of all this, that the word 'ought' is so difficult to define. 'I ought' does not signify 'I must,' nor, on the other hand, does it mean merely 'I wish' or 'I am inclined.' It means that the ideal of worth rendered possible by self-consciousness attracts in one direction, while the actual nature for the moment impels in another. It also implies the superiority of the one over the other, a superiority which gives morality its absolute authority and prevents the moral impulse from being simply one factor among others. In short, 'I ought' means 'I owe it to myself to realize my ideal of worth.' Moral obligation thus represents the conflict between the ideal that the individual wishes to realize, and the actual self which was developed before self-consciousness and ideals of worth appeared. It represents also the fact that the conflict is not between forces which stand on the same level; for what appeals to the agent as a thing of worth has a natural superiority to the impulses which act *a tergo* and derive all their force from that which simply happens to exist.

From the internal character of moral obligation can be deduced the second characteristic of morality, namely, that moral action involves doing the right for the right's sake, and for no other reason. What we feel internally obliged to do, is that which in its own nature appeals to our nature, apart from everything else. Being what it is, it appeals to us as we are, and we may express this by saying that the morally right is chosen for its own sake.

The result of this analysis of moral obligation is that ethical conduct presupposes an ideal of worth which in itself appeals to us because we are what we are. We must now proceed to show that as a matter of fact we do possess such an ideal. Two related facts throw light upon this question. The first is the existence of the feelings of admiration and scorn. We admire or scorn an individual because he is what he is, irrespective of what he may do or has done to ourselves or those in whom we are interested. The other fact is indicated by Mill in that striking passage where he emphasizes the sense of personal dignity which makes us feel that it is better to be a human being dissatisfied than an animal satisfied. This implies that the individual feels that there is a mode of behavior which alone is becoming to him, an ideal which in itself appeals to him, something he owes to himself irrespective of everything. The becoming mode of behavior is alone worthy of him; he is worthy so far as he realizes this ideal; his fellows have worth and are admired so far as they realize it. The sense of personal dignity, therefore, is the basal fact on which the other depends. It is expressed in the feeling that there is something owing to ourselves just because we are what we are. It thus bears within itself the inseparable notions of internal obligation and intrinsic worth.

No elaborate proof of the existence of this basal fact is necessary, for without it the facts of life would be inexplicable. The agent who feels that there is a mode of behavior which he owes to himself, necessarily recognizes that he has a definite part to play in the drama of the universe; hence the Nemesis which pursues the aimless life, the force which impels a man to make the most of his gifts, despite the loss of pleasure and comfort thus involved. Hence, too, the shame which overwhelms the undetected transgressor, and the self-deception by which we seek to escape that sense of degradation in our own eyes which is the essence of shame. This basal fact is the source of conscience; where conscience is derided it appears as honor; where honor seems unknown it manifests itself as a lingering remnant of self-respect. There are certain things the most depraved will not do, come what may, and even the most abandoned can be insulted

by the assumption that they are capable of certain actions. The scope of the principle is not to be judged merely by its manifestations in conduct. Where it is ineffective in action, it makes itself felt in the feelings of shame and self-condemnation.

Assuming, therefore, the existence of an ideal of worth which necessarily appears as something we ought to realize, we may now attempt to ascertain what this implies. As we have seen, worth and internal obligation could not exist without self-consciousness. It does not follow from this, however, that they are direct and necessary implications of the cognitive awareness of self as distinguished from everything else. Air is essential to life, but this does not prove that life is air, or is necessarily involved in air. Moreover, cognition deals with matters of fact, and has nothing to do with evaluation in terms of worth. Worth, therefore, cannot be derived from mere cognition in any form, and a purely cognitive being, though aware of itself as opposed to other things, would have no notion of worth or value. Accordingly, though an ideal of worth is impossible without self-consciousness, the complete fact has other implications which remain to be determined. In this further inquiry, a clue is furnished by the reflection that, while an individual's ideal of worth is *his* ideal, it is not arbitrarily adopted by him. It is his ideal because he is what he is ; consequently, its character is necessarily determined by his nature. The judgment of worth and the feeling of obligation implied therein, point, therefore, to the conclusion that the self-conscious being is not at the mercy of a variety of particular impulses which merely happen to exist, and, on the other hand, is not permitted to excogitate an arbitrary end or capriciously choose a rule of conduct. In other words, the notion of worth implies that there is a definite law and order in the spiritual world. This regulative principle is different from a merely physical law, for self-conscious beings are different from mere things. The form which the law assumes is modified by the medium in which it appears. What is binding on us is that which has worth for us, and the form of the law is : ' Do this, or be unworthy in your own eyes.' From this alternative there is no escape, and this internal principle has thus an inflexibility

of its own, though not the same kind of inflexibility as that which characterizes a 'natural' law.

Since worth implies an inner regulative principle, and this in turn is synonymous with moral obligation, we can therefore assert that moral obligation is simply the form which law assumes in the world of persons as opposed to mere things. To elucidate and develop this point of view, it will be necessary to ascertain what the moral law commands. The definite mode of behavior which an individual feels he owes to himself cannot be at variance with his nature. This does not mean that it must be consistent with his nature in the sense that it allows every impulse full play, or as much indulgence as is consistent with the indulgence of other impulses. The different impulses must be arranged in a scale of worth; otherwise the agent would be a thing and not a person, a natural and not a moral being. Now that which is distinctively the endowment of an individual, that which he alone possesses, or possesses in a special degree, must evidently be that which he feels most called upon to develop; for what he owes to himself above everything is dependent on what he distinctively is. Generally speaking, therefore, we may say that man as man ought to realize his human capacities in the degree and manner determined by his distinctive nature. But each human being, as we have seen, is not an isolated particular. The individual's sympathetic relations with others are elements of his own nature. In virtue of this, he has not duties to himself, and, in addition, duties to others. His duties to his fellows constitute a part of his duty to himself, and since what is of supreme worth for him must be essentially the same for his fellows, the supreme end for each individual is the realization of human capacities in general. To this end all tendencies of his nature must be subordinated; by this must all impulses be judged.

Further, as man cannot be isolated from his fellows, he cannot be separated from his environment as a whole. What in particular he has to do to attain his end, depends upon circumstances. Though moral rules may be generally valid as a matter of fact, there are no moral rules intrinsically absolute. There is, and can be, but one absolute in morality, namely, the obligation to realize the distinctive human capacities as can best

be done in the circumstances. What the moral law enjoins is determined by the nature of the individual and of his environment, that is, by the place which the individual occupies in the system of things. What the moral law commands, therefore, is that each play his part as defined by his place in the universe, that each perform his proper function in the whole.

The full significance of moral obligation now becomes apparent. That the universe is in some sense an organic whole or system is a necessary presupposition of science and philosophy alike. Its supreme principle must be that each member of the system is impelled to perform its functions, and cannot with impunity fail in this respect. Otherwise the universe would be a mere aggregate and not a whole ; for the very conception of an organic whole is that the members do not act for themselves in isolation but play their part in the system. The moral law is thus an expression of the supreme principle on which the universe depends. The form which the supreme law here assumes is appropriate to, and determined by, the nature of the medium in which it appears. Conscience, then, is not a direct product of reason ; it is not the voice of the tribal self, or even of humanity. It points to a whole in which the social organism is included. It is the manifestation of the whole in the part.

The application of this to the natural selection theory of ethics is obvious. The moral law does not enjoin survival, but performance of function regardless of all else. It is not evolved in the struggle for existence, for it is the supreme principle of the universe as manifested in the world of persons. It is an expression of the supreme principle which makes the universe a universe, and cannot be evolved by any process which goes on within the universe.

That this is a more tenable view of morality than the one proposed by Darwin and his followers, can be further supported by a direct appeal to the facts of moral evolution. For there is ethical as well as organic evolution. The moral law does not change its essential character, but individuals become more moral, progress toward a more perfect realization of the moral law. On what principles, then, does this evolution depend ? In the moral realm we find something similar to the fact of variation

in the region of life. Great ethical examples and teachers may be regarded as striking examples of moral variation. They introduce something new into the moral world, and when we attempt to explain this we are forced, directly or through the intervening conditions, back to the fact of variation, which simply means that the universe is not dead or static, but is the manifestation of an essentially active and productive principle. If variations did not appear here, as in life, ethical customs and institutions would petrify, habit would rule the world, and the race would cease to progress. Along with variation, we find selection also. The form of selection which here prevails has nothing to do with biological survival. When a moral variation appears which throws new light upon the range and content of the moral law, the more adequate ideal of worth necessarily appeals to moral individuals. It is selected and survives in the sense that it passes into the lives of individuals. It is selected, not because it is an aid in the struggle for biological existence, but simply because it is a better ideal. This adoption of the more adequate expression of the moral ideal necessarily leads to a struggle. The new cannot be adopted without effort by a being whose actual nature has grown up under the influence of old ideals and of forces which are absolutely non-ideal. The struggle, however, is a struggle within the individual for his ideal. All this is expressed, by those who will be biological at all hazards, in the statement that the struggle for survival is no longer a struggle between individuals but between ideals. This tends to obscure the essential nature of the whole process. Ideals apart from individuals are mere abstractions. In themselves they do not struggle, in themselves they do not survive. The struggle is a struggle within the individual, by the individual; its sole object is the individual realization of the more adequate ideal.

The whole history of civilization shows, on the plane of objective fact, the working of this principle of moral selection. Amid all the struggle and conflict of nations and the rise and fall of empires, we find that the higher ethical ideals tend to maintain themselves against the lower just because they harmonize better with human conceptions of worth. A vanquished nation may

¹ Cf. Alexander, *Moral Order and Progress*, Bk. III, chaps. I and II.

conquer its conquerors if its civilization is higher. In this way the ethically higher constantly tends to be preserved. Here the principle of natural selection is reversed. Might is not right, but right is might. In a real and literal sense, that which has the right to survive possesses *de facto* the might.

This general conclusion can be further substantiated by an argument drawn from the very nature of evolution itself. Evolution is not a law in the strict sense of the word; it is a result of laws and presupposes laws. The form it assumes in the case of any particular class of phenomena must be determined, therefore, by the special laws which there prevail. Where the laws differ the form of evolution must differ also. Natural selection, for instance, presupposes life and the laws of life. It is incapable of acting where life does not exist; it ceases to apply when we pass from life and the struggle for life to personality and the struggle for ideals of worth. From the essential nature of evolution, therefore, moral evolution must be different from any form of organic evolution, since it holds, not in the region of mere life, but in the world of personality.

A final problem arises from this statement of the case. Moral beings are also living beings, and it seems generally admitted that natural selection is 'in some sense and to some extent' a principle which operates in the organic world. Accordingly, we are confronted with the question of the relation between natural selection and the moral order. At this point we can only indicate the general solution. Stripped of its mythological wrappings, the essence of the natural selection doctrine is seen to be the bare statement of the fact that if an individual is out of all harmony with his biological environment he will biologically perish. Natural selection therefore is simply an expression, in the region of life, of the fact that the universe is a system. As organic it is elastic, and can survive under a certain amount of discoördination and mal-adjustment. But, if a thing comes to be wholly at variance with the system, it must disappear from it. Natural selection and the moral law are therefore different expressions of the one fundamental principle: that the universe is not an aggregate of parts, but in some sense a unity.

DAVID IRONS.

REVIEWS OF BOOKS.

A Critical Exposition of the Philosophy of Leibniz, with an Appendix of Leading Passages. By BERTRAND RUSSELL. Cambridge, The University Press, 1900.—pp. ix, 311.

There have long been needed in English a full, accurate, and systematic *exposition*, and a *critical examination* of Leibniz's philosophy. On glancing at the title and the table of contents of Mr. Russell's book, one is tempted to exclaim: "At last, we have the comprehensive exposition!" When one comes, however, to examine more closely the body of the work, and to read the author's preface, one sees that the book is rather inappropriately named, as it is in fact a "*critical examination* of the philosophy of Leibniz," and contains only so much of exposition as the author deems necessary to that end. "Philosophic truth, and falsehood, in short, rather than historical fact" (p. vi), are what primarily demand our attention in this inquiry. "It is this task," says the author, "and not the more strictly historical one, that I have endeavored to perform towards Leibniz" (p. vi). And truly the work is nothing if not critical from beginning to end.

Mr. Russell is evidently, as his earlier book showed, a close and independent thinker. He has made an extensive study of the system of thought which he criticizes, both in its external and in its internal development. As for the external development of Leibniz's system, he holds that, beside Plato, four successive schools of philosophy—Scholasticism, Materialism, Cartesianism, and Spinozism—contributed to Leibniz's philosophical development; from each of which Leibniz derived a part of his views, without being at any time a mere disciple. He has rightly discovered that the student who wishes to escape from the apparent artificiality of the monadology, and to understand and to feel the force and naturalness of Leibniz's thought, must approach it through the *Discours de métaphysique*. From January, 1686, till his death in 1716, Leibniz's views underwent but slight modification. "By the beginning of 1686," says our author, "Leibniz had formed his notion of an individual substance, and had sufficiently perfected his philosophy to send to Amauld what is perhaps the best account he ever wrote of it—I mean the *Discours de métaphysique*. With this and the letters to Amauld his mature philosophy begins, and not only the temporal, but logical beginning also is, in my opinion, to be sought here" (p. 7).

In regard to the internal development, Leibniz's system, according to Mr. Russell, would lend itself far better than Spinoza's to geometrical deduction from definitions. It follows almost entirely, he thinks, from a small number of premises. The principal premises, our author holds, are five in number. Of these, some, he thinks, were by Leibniz definitely laid down, while others were so fundamental that he was scarcely conscious of them. "The premises in question are as follows :

"I. Every proposition has a subject and a predicate.

"II. A subject may have predicates which are qualities existing at various times. (Such a subject is called a *substance*.)

"III. True propositions not asserting existence at particular times are necessary and analytic, but such as assert existence at particular times are contingent and synthetic. The latter depend upon final causes.

"IV. The Ego is a substance.

"V. Perception yields knowledge of an external world, *i. e.*, of existents other than myself and my states."

The fundamental objection to Leibniz's philosophy, according to our critic, will be found to be the inconsistency of the first premise with the fourth and fifth ; and in this inconsistency he finds a general objection to Monadism.

The course of Mr. Russell's book is then as follows : Chapters II-V discuss the consequences of the first four of the above premises, and the attempt is made to show that they lead to the whole, or nearly the whole, of the necessary propositions of the system. Chapters VI-XI are concerned with the proof and description of Leibniz's Monadology, in so far as it is independent of final causes and the idea of the good. The remaining chapters (XII-XVI) take account of Final Causes and the Good, and discuss Soul and Body, the doctrine of God, and Ethics. In these last chapters, the author holds that "Leibniz no longer shows great originality, but tends, with slight alterations of phraseology, to adopt (without acknowledgement) the views of the decried Spinoza" (p. 5).

Chapters II-V, which deal with "The Questions of Logic" (the analysis of propositions, etc.), with which, according to Mr. Russell, the philosophy of Leibniz began, and upon which it rests, are full of keen and suggestive criticism of such topics as the analysis and classification of propositions, the law of contradiction, analytic and synthetic judgments, necessity and contingency, the Law of Sufficient Reason, the meaning of substance, the conception of activity, the relation of time to the notion of substance, the identity of indiscernibles, the Law of Continuity, possibility and compossibility, and the

like. We are told that, according to Leibniz, the Law of Sufficient Reason is the supreme principle of contingent propositions, contingent propositions being, speaking generally, such as assert actual existence, —the case of the necessary existence of God being the one exception. Mr. Russell finds in Leibniz two forms of the Law of Sufficient Reason. The one is metaphysically necessary, and applies equally to possible and to actual existents, asserting that all events are due to design. The other applies only to actuals, and gives the source of the world which does exist, asserting that designs are always determined by the idea of the good and the best. The principle of the Identity of Indiscernibles is not, Mr. Russell holds, like the Law of Sufficient Reason, a premise of Leibniz's philosophy, but rather a deduction. The Law of Continuity, which usually holds a prominent place in expositions of Leibniz, has, we are told, no great importance except as applied to mathematics. The metaphysical application of the principle, peculiar to Leibniz and employed by him in arguing against the existence of a *vacuum formarum*, Mr. Russell declares "seems destitute either of self-evident validity or of grounds from which it may be proved" (p. 64). When we recall how repeatedly Leibniz declares, in support of this principle, that a *vacuum formarum* "would indicate disorder and imperfection," and would contradict also the Law of Sufficient Reason itself, which demands a reason as well why a thing is *not* as why a thing is, we are surprised to find our critic writing: "Why Leibniz held that substances form a continuous series it is difficult to say. He never, so far as I know, offers a shadow of a reason, except that such a world seems to him pleasanter than one with gaps" (p. 65).

The second part of the work, Chapters VI–XI, deals with the actual world, *i. e.*, with Leibniz's explanation of it through his Monadism, in so far at least as this is independent of final causes and the idea of the good. Here, we are told, we have to ask: How can the notion of substance be applied in the world of existents? And how does this notion serve to explain the difficulties which the actual world presents to the metaphysician? "In this problem," says our critic, "Leibniz, for reasons which apparently were only historical and psychological, began with matter as his datum" (p. 70). "Historically and psychologically, I think, Leibniz started with matter and space in a purely common-sense spirit. The reason that a problem arises for him is, that by criticism of these notions he transformed them into something quite different, namely, unextended substances and their perceptions" (p. 74). These admissions regarding Leibniz's

starting point and the empirical nature and spirit of his method are interesting in view of the general position respecting these points taken in the earlier chapters and maintained throughout the book, and to which we shall allude again later.

Leibniz, we are told, never thoroughly faced the question: Does matter actually exist? Since he held that perceptions originate wholly from within us, and are in no proper sense caused in us by the objects perceived, he destroys the ordinary grounds for assuming an external world. He repeatedly confesses that there is no "exact demonstration" possible of the existence of the external world, but merely a moral certainty. Leibniz's problem, therefore, we are told, is not, Does matter exist? but, What is matter? How are we to conceive that which, in perception, appears as spatial and as other than ourselves? In attempting to answer this, Leibniz is led to his doctrine of monads. "The chief criticism of Leibniz's procedure is, that he never examined its starting-point, the assumption, namely, that there is something other than ourselves to be perceived" (p. 75).

The longest, and one of the most interesting chapters in the book, is the one in which Mr. Russell undertakes to set forth Leibniz's views on dynamics in relation to his general system. Mr. Russell holds that the relation of Leibniz's Dynamics to his Metaphysics is hopelessly confused, and that the one cannot stand while the other is maintained. "Leibniz has acquired much credit for the vaunted interconnection of his views in these two departments, and few seem to have perceived how false his boast really is. As a matter of fact, the want of connection is, I think, quite one of the weakest points in his system" (p. 89). Leibniz, we are told, failed to grasp the three alternative types of dynamical theory: the theory of extended atoms and impact, the doctrine of a plenum and the fluid ether, and the theory of unextended centers of force with action at a distance. "The failure to choose between these alternatives made his Dynamics a mass of confusion. The true Leibnizian Dynamics is not his own, but that of Boscovich" (p. 91). In this connection, and in the face of the *Letters to Clarke*, and the references they contain to Newton's *Principia*, it is surprising to be told that it is probably correct to say that Leibniz never took the trouble to read the *Principia* (p. 91, note 4). The arguments of Leibniz against extended atoms are, Mr. Russell holds, on the whole valid. Leibniz has, however, we are informed, no valid arguments whatever against a vacuum; while his denial of action at a distance is classed as a mere vulgar prejudice, and one, moreover, which had a most pernicious effect upon the relation of Leibniz's Dynamics to his Meta-

physics. The conclusion reached is that Leibniz's attempt to establish on the basis of dynamics a plurality of independent causal series, must be pronounced a complete failure. It is faulty in detail and mistaken in principle (pp. 98-99).

In the doctrine of Extension and Continuity, we find, our critic tells us, the central point of Leibniz's philosophy. "The most distinctive feature of Leibniz's thought is its pre-occupation with the 'labyrinth of the continuum.'" To answer the question, How can that which is continuous consist of indivisible elements? was, he says, one of the two chief aims of Leibniz's doctrine of substance and of all that is best in his philosophy. Then Mr. Russell adds: "That I did not begin with this question was due to motives of logical priority; for the abstract doctrines which we have hitherto considered, though perhaps invented largely with a view to this problem, are logically prior to it; they form an apparatus which must be mastered before Leibniz's treatment of the present question can be understood." Extension, as distinguished from space, is Leibniz's starting point; Kant, on the other hand, begins with space and time. Russell holds that the great error of Leibniz was the idea that extension and duration are prior to space and time. Leibniz's theory of space is, we are told, more or less involved in everything that can be said about his philosophy; and although it is thus far the only philosophical alternative to the self-contradictory doctrine of absolute space (Newton), it is itself inconsistent with facts, and just as self-contradictory as Newton's (p. 113). Against the doctrines of absolute space and of space as an attribute, Leibniz, we are told, is fairly strong; in favor of his own doctrine of space as an assemblage of relations, he is inconclusive. Indeed, Leibniz, our critic insists (pp. 112, 129), had two theories of space, the one subjective and Kantian, the other giving an objective counterpart, *i. e.*, the various points of view of the monads. "The difficulty is, that the objective counterpart cannot consist *merely* in the differences of points of view, unless the subjective space is *purely* subjective; but if it be purely subjective, the ground for different points of view has disappeared, since there is no reason to believe that phenomena are *bene fundata*" (p. 122).

The observations on Leibniz's speculations on the labyrinth of the continuum and on his theory of space and time are valuable. In the relation of monads to space and time, Mr. Russell finds a fundamental difficulty of all monadisms.

This second part of the work closes with a brief chapter on the nature of monads in general, dealing with the common qualities of

monads, such as perception, appetite, and pre-established harmony. Leibniz's theory of perception, denying as it does any action of outside things upon the percipient, may, it is pointed out, be regarded as the antithesis of Kant's. "Kant thought that things-in-themselves are causes (or grounds) of presentations, but cannot be known by means of presentations. Leibniz, on the contrary, denied the causal relation, but admitted the knowledge" (p. 133). To the "crowning conception of Leibniz's philosophy" (p. 133)—the doctrine of pre-established harmony—our critic gives, perhaps, too little significance.

The third part of the work, Chapters XII–XVI, treats of the relations of the monads; and here the idea of *passivity* plays a prominent part. Mr. Russell holds that a sharp line should be drawn between the parts of Leibniz's philosophy already discussed, and those which, through the notion of passivity, depend upon the apparent interaction of monads. "The former seem mainly original, while the latter are borrowed in great part, though always without acknowledgement, from Spinoza" (p. 139). These closing chapters exhibit at times an almost partisan bias, anti-Leibnizian and anti-theistic, and convey an unfavorable impression of Leibniz as a man and as a philosopher, an impression which the facts are far from warranting.

Two inconsistent theories of the connection of soul and body are, we are told, taught by Leibniz. The first theory is that the soul is an absolutely separate unitary being, and that soul and body do not interact, but only agree; the one acting freely according to the rules of final causes, the other acting mechanically according to the laws of efficient causes. The second theory is that mind and body together make one substance, having a true *unity*. This second view appeals for support to the passages in Leibniz in which he refers to the *vinculum substantiale*, and is held by Dillmann and others to be Leibniz's real view. Mr. Russell is right, however, in declaring that the second view is wholly inconsistent with Leibniz's general philosophy and springs from Leibniz's endeavor to make his opinions acceptable to his Catholic friends—that it is, in a word, "the concession of a diplomatist rather than the creed of the philosopher" (p. 152).

After an interesting, although brief, discussion of confused and unconscious perception, there follows a chapter on Leibniz's theory of knowledge. The title, however, is disappointing, for we are at once told that the chapter is not to deal with the strictly epistemological problems, but rather with the question as to the origin of cognitions as events in time. Leibniz's views of innate ideas and truths, of the

distinction between sense and intellect, of the quality of ideas, of definition, and of the *Characteristica Universalis*, are here handled. There is much, we are told, that reminds one of Kant in Leibniz's view of knowledge. This is true especially as to the relation of sense and intellect in knowledge, but the two philosophers are strikingly divergent as regards the relation of thought to reality, Kant being a phenomenalist, while Leibniz holds that "in perceiving the mind we perceive substance," *i. e.*, pierce through phenomenalism and reach real being. On the doctrine of innate truths, Leibniz's view is declared to be more like Kant's than it has any right to be, since Leibniz rejected all causal action of the objects of perception (although in the *New Essays* he inconsistently adopts the common sense view that sense-perceptions are caused by their objects). Mr. Russell declares that it is false to suppose that in *a priori* knowledge we know a proposition, while in perception we know an existent; we know a proposition equally in both cases. He insists that "we must either hold all knowledge to be always in the mind, in which case its emergence into consciousness becomes a problem, or we must admit that all knowledge is acquired, but is never caused by the proposition which is known (p. 165)."

Leibniz's proofs of the existence of God Mr. Russell calls "the weakest part in Leibniz's philosophy, the part most full of inconsistencies" (p. 172). A philosophy of substance, our critic holds, should be either a monism or a monadism, the former being necessarily pantheistic, and the latter, when logical, being necessarily atheistic (pp. 172, 185). Indeed, our critic seems to think that there is a "pantheism which lurks in all arguments for God" (p. 177), and, at any rate, that Leibniz, "whenever he treats God at all seriously, falls involuntarily into a Spinozistic pantheism" (pp. 155-6). "The inconsistencies, in which Leibniz is involved by the belief in God, are so many and various that it would take long to develop them all" (p. 182). The argument for the being of God from eternal truths our critic "can only describe as scandalous" (p. 178). "It confuses God's knowledge with the truths which God knows—a confusion which, in other places, Leibniz quite clearly exposes" (p. 178). The proof from the pre-established harmony, which is a peculiar form of the so-called design argument, is declared "more palpably inadequate than any of the others" (p. 183).

The final chapter treats of Leibniz's Ethics, "in which, more even than in his doctrine of God, all the difficulties and inconsistencies of his system culminate" (p. 191). The emphasis, we are told, which

Leibniz laid on final causes, gave ethics great importance in his philosophy, while nevertheless, he occupied himself but little with its problems. "His ethics is a mass of inconsistencies, due partly to indifference, partly to deference for Christian moralists" (p. 191). Leibniz's views on three questions are then considered. These are (1) the doctrine of freedom and determination, (2) the psychology of volition, (3) the nature of the good. We are told that *all* sin, for Leibniz, is original sin, the inherent finitude of any created monad, and that this fact is concealed by him by remarks which are "discreditable subterfuges" (p. 197), and that "on the relation of metaphysical and moral perfection Leibniz can with difficulty be cleared of dishonesty" (p. 199). "The ethics," our critic concludes by saying, "to which Leibniz was entitled was very similar to Spinoza's; it had the same fallacies, and similar consequences. But being the champion of orthodoxy against the decried atheist, Leibniz shrank from the consequences of the views, and took refuge in the perpetual iteration of edifying phrases. The whole tendency of his temperament as of his philosophy, was to exalt enlightenment, education, and learning at the expense of ignorant good intentions. This tendency might have found a logical expression in his ethics. But he preferred to support sin and hell, and to remain, in what concerned the church, the champion of ignorance and obscurantism. This is the reason why the best parts of his philosophy are the most abstract, and the worst those which most nearly concern human life" (p. 202). The appendix (pp. 203-299) contains a useful collection of extracts from Leibniz, classified according to subjects.

Mr. Russell's book is open to two general adverse criticisms. The first respects the view taken by the author of the relation of Leibniz and his philosophy to Spinoza. Mr. Russell seems to accept as established the view of Stein that during the years 1676-1681 Leibniz was practically a Spinozist (*cf.* p. 145, note 2, etc.); and he declares that Leibniz in his mature philosophy, especially in those matters discussed in the last part of this book, while openly heaping opprobrium upon Spinoza, incorporates much from the latter without acknowledgement. Both of these contentions, we think, are certainly far from being made out, and are in themselves very questionable. Dr. Rall has given, in the dissertation noticed in the January number of this REVIEW, an excellent but all too brief criticism of Stein's contention; and any one who will carefully examine the passages in their context quoted by Russell on pages 186-187, and the references to Spinoza in his last three chapters, will feel great hesitancy in accepting Mr. Russell's view of the relation of Leibniz's philosophy to Spinoza.

The other general criticism deserves especial notice. Mr. Russell contends that Leibniz's philosophy began with an analysis of propositions, and that the system is built upon or deduced from a few logical and formal principles. The fundamental positions of the system, we are told, Leibniz reached as the result of the analysis of propositions, rather than as the result of empirical reasoning or metaphysical reflections; an analysis of propositions which yields the doctrine that all propositions are reducible to the subject-predicate form; the doctrine that every proposition ascribes a predicate to reality, as the only ultimate subject. The passages quoted, or appealed to, hardly support the general contention or implication that Leibniz reached his fundamental principles in this way, and that these principles primarily rest for support upon such logical grounds. Granting that Leibniz did take "the subject-predicate" view of propositions, and that he drew support for his philosophy from logical speculations, it by no means follows either that he originally reached his philosophical principles in that way, or that he based his system primarily upon such logical doctrine. Mr. Russell fails to give proper recognition to the empirical and inductive side of Leibniz. A good deal can be said in support of the position contended for by Dr. Rall, in the dissertation already alluded to, that, in spite of a certain preference for the *à priori* method, Leibniz neither attained his fundamental conceptions nor developed his system from them by employing that method. Leibniz was in full accord with the scientific movement of his time, and starting from observations and experience, and ever returning to them for confirmation, he put forth his fundamental conception—that of substance—as an hypothesis which would explain and harmonize all that is given in outer and inner experience. As an illustration, consider Leibniz's notion of substance. Mr. Russell's account in § 17, 'The Meaning of Substance in Leibniz,' is substantially as follows: The conception of substance, which so dominated the Cartesian philosophy, is no less important in the philosophy of Leibniz. The change of meaning which Leibniz gave to the term was one of the main sources of novelty in his philosophy. He perceived that in the notion of substance the relation to subject and predicate was more fundamental than the doubtful inference, so insisted on by the Cartesians, to independent existence. He, therefore, definitely brought his notion of substance into dependence upon this logical relation. It is a special form of the logical subject, the notion of subject and predicate applied to what is in time, combined with the doctrine that there are terms which can only be subjects and not predicates, which constitutes the notion of

substance as Leibniz employs it. Substance, then, is that which can only be subject, not predicate, which has many predicates, and persists through change. It is, in short, the subject of change.

Now, while there may be nothing absolutely erroneous in this account, it certainly conveys a mistaken impression both as to how Leibniz reached his new and fruitful conception of substance, and as to what that conception essentially is. Is not the truer account somewhat as follows? Starting from the actual observation and experience of 'body' as resisting, moving, and divisible, Leibniz was led, through the criticism of Descartes's conception, to his own notion of substance, and to the position that this substance must explain the actual world. The objections which he urges against Descartes's conception of 'body,' and through which he reaches his own conception of substance are: first, that extension alone does not suffice to explain the nature of body, as it fails utterly to account for resistance (impenetrability) and motion, for the explanation of which recourse must be had to *force*; secondly, that extension gives us no unity, since the extended is always divisible. Thus the conclusion is reached that force, activity, energy, is that in which the very substance of things consists. 'That which does nothing is nothing.' In a word, Leibniz defines, or replaces, substantiality by causality (agency), and this is the central element in his fruitful conception of substance. Instead of defining substance as "essentially the permanent subject of changing attributes," it would be truer to say that he defined it as the "permanent agent of changing activities"—activities, indeed, which obey a "persistent law." "I regard force," he says, "as constitutive of substance" (Gerhardt, IV, p. 472).

While passing these adverse criticisms on Mr. Russell's book, and dissenting from many of the detailed opinions expressed in it, we regard the book as by far the best piece of work yet produced in English on the philosophy of Leibniz, and one for which all students of his philosophy will be grateful.

It may not be out of place to add that the American translators of Leibniz, who had no predecessors in their difficult task, might, perhaps, at times have given a freer or more felicitous rendering of the original; and it may be (they are not infallible) that some mistakes are discoverable in their work. But certainly Mr. Russell's *implication* (p. ix) that their translations are full of errors and hence unreliable, is undeserved, and shows lack of appreciation on the part of one who has evidently benefitted by their labors.

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Ethics, Descriptive and Explanatory. By S. E. MEZES. New York, The Macmillan Company; London, Macmillan & Co., Ltd., 1901.—pp. xxi, 435.

"The question, What is morality? can, I believe, be answered quite as scientifically as the question, What is a living being?" writes Professor Mezes in the preface. "This book, then, is an attempt to construct a positive or purely scientific theory of Ethics, and to give a naturalistic account of all the aspects of morality and immorality, in so far, of course, as space limitations permit." "But there is another question which reads, What is the cosmic significance of morality?" (p. viii). This question can be answered by metaphysics alone, but does not fall within the scope of the present work (p. ix). "Ethics is the science that first defines, and afterwards describes and explains, morality and immorality, and their subdivisions" (p. 6). Its normative character comes from the fact that in the course of its description and explanation it "discovers a fact of a peculiar kind," viz., "a norm, a standard, an ideal type of conduct, actually so conceived by men." Ethics does not establish the norm; "ethical writers do not in any proper sense judge conduct or issue pronouncements as to what is right or wrong. Their more modest task is to discover and record men's genuine judgments as to what is right and wrong." "In an ethical treatise all statements of what is right, as distinguished from statements of what men hold to be right, are open to distrust" (p. 7). Now, there can be no objection to an author's limitation of the range of his book, but when that limited range is declared to be the whole legitimate extent of a science that for more than two thousand years has covered a wider field a valid reason should be given. The mere statement that unless ethics limits itself to the narrower field it is open to distrust is hardly correct, if what is meant is that the distrust is warranted. Open to criticism any science is, even the merely descriptive science of ethics; open to distrust from the outset, no science should be unless it pursues a scientifically discredited method. But the method of examining what is and has been actually done by men to secure a certain end, with a view to ascertaining the *right* way to reach that end, is not a discredited method, else every so-called 'practical' science, from the science of railway-engineering down to the science of golf, is discredited. That a man is not likely to find the right way without knowing the way others take is perfectly true; but that the mere discovery of the way others take is *ipso facto* the ascertainment of the right way is a risky proposition, itself open to distrust. The problem Professor Mezes sets himself to solve, namely,

what actual morality has been and is, is without doubt, all-important as a preliminary; but it cannot be accepted as the whole problem of ethics. Nor will an 'explanation' of actual morality be sufficient to supplement the description of it, desirable as explanation is. What is wanted most of all is a description, it may be only in general terms, of the *right* end of life, and of the *right* means to attain that end. In other words, the problem of obligation, not of what men actually feel obliged to do, must be grappled with by the moralist; and there is no *prima facie* reason why he may not do this in a thoroughly scientific spirit and with scientifically accredited methods; in short, without exposing himself to justifiable distrust.

Professor Mezes discovers that as a matter of fact moral judgments are passed only on voluntary actions or willing agents (pp. 19-28); but "not all voluntary actions are morally judged" (p. 28). This statement is explained to mean that a person is not morally condemned or approved for all the consequences of a willed act. Consequences for the sake of which an action is performed, and consequences foreseen and consented to, or foreseeable if the agent would only exercise due care, are morally judged in the fullest sense of the word. A person is responsible for all these consequences in the sense that, if they are injurious, steps are taken to punish him as well as to reform him, to protect society, and to secure reparation for the injury. In case the agent is incapable of foreseeing the consequences, but if properly educated can be brought to foresee them under similar circumstances in the future, he is not so fully responsible: he is not punished. Reformation, social protection, and reparation are the measure of his responsibility. For "other injurious consequences that are 'immediately' and 'directly' due to the action," the responsibility is measured by the fact that no steps are taken to punish or reform the agent; social protection and reparation are the only ends in view in holding the agent responsible. For remote, unforeseen, and unforeseeable consequences, there is no responsibility (pp. 29-35).

Morality, studied in accordance with the plan of this book, is seen to consist partly in following conscience—this is "subjective morality"—and partly in securing "the wisest and the most reasonable ultimate end" of all voluntary action, viz., "sentient welfare"—this is "objective morality." The book, therefore, falls into two parts. Part I, "Subjective Morality," contains six chapters, and Part II, "Objective Morality," contains eight chapters. Part II will perhaps be found to be more generally satisfactory. Part I will be estimated differently in accordance with the different psychological and epistemological affiliations of the reader.

The first chapter of Part I, Chapter III of the book, contains a criticism of perceptual intuitionism, or the theory that "every man, in presence of a concrete action, perceives its moral value by intuition, *i. e.* by an apprehension as immediate as that by which men perceive the whiteness of a swan or the blackness of a crow, and as assured as any intuition of mathematics, *e. g.* that two and two make four" (p. 42). This view, though plausible (pp. 42-44), is in part erroneous; for in many cases "no intuition appears," and in the other cases "men change and differ in their intuitions of right and wrong" (pp. 44-46). The partial truth of perceptual intuitionism is found in the fact that "all ethical theories ultimately rest on the perception of the morality and immorality of concrete actions" (pp. 46-49). "It is now necessary to determine the morality of actions that follow the agent's moral perceptions." "A man in following his best insight cannot do wrong, but, on the contrary, achieves morality in very large measure," although he may not thereby come up to the "full measure of right demanded by the highest standard" (p. 50). Thus from the point of view of subjective morality intuitionism is right, but from the point of view of objective morality it is defective.

Chapter IV treats of Voluntary Action, which "first appears with effort and consent." "The rôle of effort is to come to the support of a weaker impulse, and either to overbear its naturally stronger opponent by its own dynamic force as a fact of consciousness, or else merely to hold it in check until the weaker impulse gains time to rally other considerations to its assistance" (p. 59). This is not a generally accepted psychological truth, any more than the classification of emotions as sensations (p. 60) is a generally accepted classification. Would it not be wise, when a large and respectable body of psychologists support a different view from that advocated in a textbook, to give at least some hint of the fact? The beginner should be put on his guard against accepting such statements as undisputed truths. This whole chapter, entirely psychological in content, is singularly lacking in reference to psychological works. Indeed, a weak point in the whole book is lack of a bibliography, judiciously selected for the use of beginners, whether students or general readers. The latter part of Chapter IV treats of "Ends of Action and Interests," and emphasizes the interest in persons and quasi-persons—college, fraternity, regiment, party, 'Mother Church,' etc.—as the predominant interest in all moral actions.

Chapter V deals with "The Adult Conscience," which is regarded as both feeling (= emotion or mood) and intellect. As feeling,

conscience includes the "emotions" of responsibility-obligation and of free performance, in addition to various others, associated with the will. What responsibility and obligation are we are nowhere told, at least so far as the reviewer can discover. This omission is, perhaps, due to the fact that "it is difficult to describe emotions, and impossible to describe them sharply" (p. 75). There are also "emotional components of conscience associated with intellect rather than with will," viz. approval and disapproval. "They are signals to the individual that he is in presence of a right or wrong action, as the case may be," but of them "little need be said" (pp. 78-79). "The intellectual elements of conscience, the moral conceptions and categories, are ideas that awaken the emotions discussed" above (p. 82). The moral categories are 'the right' and 'the wrong,' 'the good' and 'the bad.' "In form, moral judgment and reasoning are the same as theoretical judgment and reasoning; the difference is only in subject-matter. A moral judgment is a conviction that some action belongs or does not belong under some moral conception; and moral reasoning is merely reasoning on moral subjects" (p. 85). A section of this chapter is given to "The Moral Ideal." "An ideal may be defined as a schematic dynamic system of ideas of action" (p. 86), and this definition is then translated into more popular language. In its schematic character "an ideal is an epitomized biography of an exemplar, or a composite biography of many exemplars acting in some particular capacity" (p. 88). The moral ideal is differentiated from other ideals by the token that it "awakens approval or disapproval, responsibility, obligation, and the sense of free performance" (p. 90).

Chapter VI, "The Psychic Cause of Conscience," discusses the question, "what a man must be conscious of in order that his conscience shall be aroused" (p. 91), and answers it first negatively by saying that actions "performed capriciously, or in accordance with preference, or the dictates of prudence," do not arouse conscience (pp. 93-95), and then positively by saying that actions which "are seen to affect others in interests regarded as vital," are the cause of conscience (pp. 95-98). Duties to one's self come under this head, because "a man objectifies his moral self and looks upon it as an *alter ego*" (p. 101).

Chapter VII, "Birth and Growth of Conscience in the Child," deals with genetic psychology in the spirit of Professors Baldwin and Royce. The doctrine of "The Three Stages," Projective, Subjective, and Ejective, is proclaimed without a hint that it is a much disputed

question among experts. The unsuspecting reader is in danger of taking for scientific law and gospel what is only questioned theory.

Chapter VIII, "Birth and Growth of Conscience in the Race," is in many respects very valuable, but here again there is too much dogmatic assertion without recognition of the existence of opposing views. Especially is this true of statements made concerning the lower animals. Just one instance in point can be given here. "No animals can perform difficult actions," says the author (p. 145). It is doubtful whether any cautious observer who has watched a young parrakeet 'learning to talk' would care to say off-hand that no animal "can try, can set his teeth and square his jaw to accomplish what he wills" (p. 145). For, whatever may be said of parrakeets' teeth and jaws, they do set their tongues and square their beaks, day after day, in what seems to be patient, laborious, and frequently silent, practice on the proper disposition of their vocal organs for the pronunciation of new words and sentences. "With them the recalcitrant matter of muscles and members" at least seems "constrained to the more skilful performances counselled by the ideas that look before and after" (p. 145). Animal psychology is without doubt a very uncertain quantity, but sweeping negations of the type quoted give it a more dubious character than it might otherwise have. Interesting is the view that the sense of effort is the sense of strain in the powerful muscles of the jaw, which owing to the usurpation of the hand have "lost their special occupation, and acquired instead the *general* function of assisting the performance of difficult actions" (p. 148). The sections on "Social Counterchecks to Volition" and "The Development of Group Consciences" are admirable, always of course bating the passages which if compiled might form a curious chapter worthy to be entitled, "What Animals Cannot Do."

Part II, 'Objective Morality,' is altogether an excellent piece of work, painstaking, judicious, and full of valuable practical hints as well as sound theory. Especially noteworthy is the chapter on Justice. But there are some inaccurate statements that one could wish to have omitted. For instance, Professor Mezes says that "the word 'mean' is a mathematical term used to designate the exact mid-point between two quantitative extremes. And with that meaning in mind, Aristotle, and he alone, undertook to define virtuous conduct as that which observes the mean" (p. 243). Now if there ever was any mistake that Aristototle took particular pains to prevent, it was the mistake of supposing that his 'mean' was quantitative. It is not to the point to say as Professor Mezes does in a footnote that "Aristotle recognizes

the importance of time, place, manner, and company (*Nik. Eth.*, Bk. II, Ch. V-VI), but he does not develop the thought, or bring these factors into connection with the mean, which is central for him." One cannot forbear to quote a sentence from the indicated passage of Aristotle's *Ethics*. "To experience these emotions," namely fear, courage, desire, etc., "at the right times and at the right occasions and towards the right persons and for the right causes and in the right manner is the mean or the supreme good which is characteristic of virtue" (Welldon's trans.). When speaking of the history of human marriage, and assuming "a relative promiscuity giving place in turn to polyandry, polygyny, and monogamy," the author says nothing of the fact that many recent writers of repute do not accept the doctrine of the 'relative promiscuity' of sexual relations among primitive men; nor is it doing full justice to what appear to be the facts to say: "It seems probable that some races have skipped polyandry" (p. 240). "Some" is a very mild qualification here.

It would be interesting to summarize Professor Mezes's views on courage, temperance, benevolence, justice,—of which there is a remarkably detailed and careful treatment based upon principles of law—wisdom, and welfare. But all that can be done here is to say that the execution of this part of his task is deserving of high praise. A trial of three months leads the reviewer to believe that the book as a whole will be very useful in the class-room.

The publishers have done their part well. The type is long primer, well leaded, making a beautifully clear page. The paper and binding are good. Misprints however occur, *e. g.*, page 11, line 5 from bottom, "voluntarily" should be "voluntary"; p. 19, line 14, "negative" should be "negatived"; "supercede" supersedes "supersede" quite consistently throughout the book (page 146, line 18, and elsewhere). Greek accent and coronis are both misplaced in one phrase on page 216, and on the next page the phrase, "no doubt but what," is scarcely permissible.

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Social Justice: a Critical Essay. By WESTEL WOODBURY WILLOUGHBY. New York and London, The Macmillan Company, 1900.—pp. ix, 380.

In this volume it has been the aim of the author to ascertain, if possible, those general principles of right upon which the social sciences must rest. The philosophical standpoint adopted is, in the main, that

of the school of T. H. Green and, so far as the book is an ethical treatise, the only merit claimed for it is "that in it there has been made a more comprehensive application than has perhaps been before attempted of transcendental principles to the concrete problems of social life" (p. viii). After a brief introductory chapter on the nature and value of the proposed inquiry, the author proceeds to discuss the abstract conception of Justice. The result is essentially negative. Starting with the ethical mandate, "Be a person and respect others as persons," the author reaches the conclusion that, positively, "Justice consists in granting, so far as possible, to each individual the opportunity for a realization of his highest ethical self," and negatively, "that there are no such things as definite absolute rights." This negative formulation of the idea of justice (which is, we think, undoubtedly accurate), cannot be directly applied as a norm. Professor Willoughby, however, claims for it positive results, and these are characteristic of the practical bias of the entire work. Chief among these are that it necessitates the bringing of each of our acts to the bar of reason, and that it deprives "dangerous revolutionary and socialistic schemes of the ethical support that is claimed for them" (p. 28).

At this point, the inquiry divides into two branches. Of these the first is that which treats of the proper distribution of economic goods. In this part of his work, Professor Willoughby discusses Equality, Property, and the Canons of Distributive Justice. The result reached is simply that of the idealistic school. Private property is justified by its relation to the realization of the will of the individual, and is limited by the ethical considerations of the social welfare. Especially noteworthy in this section are the two chapters devoted to the labor theory of property. That theory is traced in all its ramifications from Locke to Spencer and George, and the criticism by which it is refuted is at once minute and thorough. The second part of the volume is occupied with an attempt to harmonize the principles of liberty and law. This attempt is embodied in three excellent chapters, "The Right of Coercion," "The Ethics of the Competitive Process," and "Punitive Justice." Of this branch of his inquiry, the author says: "We have reached a position which sustains that portion of the theory of the socialist which justifies the extension of state activities in any conceivable direction where it can be shown that, as a matter of fact, political control will be followed by beneficent results. At the same time, this does not commit us to the advocacy of social control in any given case. An estimate of all the considerations involved may indeed easily lead us to advise the reduction of state duties to a

minimum below that now practiced in any of our civilized states" (p. 315).

Throughout the entire volume, Professor Willoughby's criticisms are detailed, moderate, and fair, his statements sober and conservative, sometimes indeed so cautious as to make his results appear almost inconclusive and unsatisfactory. The practical end of the inquiry is ever kept in view. The 'matter of fact' and 'the feasible' are always in evidence and the 'insuperable difficulties' in the way of any socialistic reconstruction are insisted upon. The whole work displays the hand of the social scientist rather than that of the philosopher, but it emphasises many important points which philosophers too often ignore. A marked feature of the book is its lengthy quotations. It has been the aim of the author to add to the historical value of his work by stating the various theories as far as possible in the exact language of their authors. The result is, we think, unfortunate. No quotation, however lengthy, can reproduce, for a student unacquainted with the writings of Locke, Hobbes, Bentham, etc., the philosophical setting in which their theories originally stood, while the effect of the quotations is to impair the unity of the book, destroy its perspective, and sometimes to completely overshadow the concise criticisms by which Professor Willoughby would refute them.

In his preface, Professor Willoughby expresses the hope that his work "will possess value not only as an ethical speculation, but as a contribution to the history of social and political philosophy." We would prefer to say that it possesses value not only as a contribution to the history of social and political philosophy, but as an ethical speculation. If it were to be judged as an ethical speculation alone it would be necessary to declare it wanting. Indeed, it may be said that the author 'puts himself out of court' as an ethical philosopher when, in the very beginning of his inquiry, he dismisses with a word the speculations of the pessimist as "metaphysical moultings" (p. 3). Much of the existing agitation for social reform is the vague expression not of easy optimism, but of deep-seated pessimistic despair. As a treatise on ethics, it would be necessary to reverse the order of the entire volume; for those questions of law and liberty, which are discussed in the second part, are for ethics the fundamental problems of the whole inquiry. What is the relation of the individual to society and the state? In an earlier volume, *The Nature of the State*, Professor Willoughby maintained that the demand for a moral justification of the state is an unnecessary one. In the present volume he reasserts this position, but modifies it so far as to say: "The demand for an ab-

abstract or *a priori* justification of the right of state control, or in fact of any form of coercion, is an illegitimate one. To ask the question whether the state has a right to be, without reference to a particular state, is as little sensible as to ask whether a picture is beautiful without designating some particular one to which the judgment is to be applied" (p. 229). In other words the question must not be, "Is state control right?" but, "Is this state exercising its control rightly?" This position is based upon the fact that, in a world of human beings with incompatible desires, coercion arises as a natural necessity. But this does not in itself justify state control. It is necessary for us to regulate our lives by the changes of the seasons, or by the revolution of night and day, but the laws of nature remain profoundly non-moral.

The coercion of the state may be a natural necessity, and it may, as a matter of fact, mould or thwart the realization of the self; but, if it is impossible to show some vital connection between that coercion and the right, it must remain as non-moral as the law of gravitation itself. Such a conclusion would be to justify the "metaphysical moultings" of the most gloomy pessimist. It would admit that there is an impassable chasm between the individual will and the universal will. On the other hand, to demonstrate such a relation would be that justification of the state which the ethical philosopher is entitled to demand. Idealism attempts it. Its fundamental equation is "the end of one is the end of all." Hegel endeavored to unite the one and the all by means of the self-contradictory conception of impersonal spirit. Green, identifying the individual self with the divine, obtained an abstract principle of unity, but as one of his followers admits (D'Arcy, *Short Study of Ethics*, p. 46), "the one instance of a plurality which the self cannot unify is the plurality of selves." Naturally, Professor Willoughby does not attempt the metaphysician's task of harmonizing the end of one with the end of all. He accepts the system of Green, and takes the formulæ of idealism as he finds them. In applying them, however, he slips away from the idealistic to a somewhat empirical standpoint. In discussing the social and political restraints, he thinks of the interference of individual with individuals. In his illustrations, that interference seems to be parallel to the conscious dictation of a parent or schoolmaster. He distinguishes sharply between the fact of social restriction and its particular forms. While he holds that restraints humanly imposed are as necessary as the limitations of physical environment, he admits that there is one great difference between natural and human restraints and penalties. "This

is, that the coercion of nature is beyond our control, and therefore one for which no human being or beings can be held responsible; whereas social and political restraints are artificially created, and therefore, as to any particular exercise of them, within our power to limit or abolish them" (p. 220). It would not be difficult to demonstrate that particular social restraints are not artificial products of the will, but the necessary results of the development of the race. After all, social and political laws are only historycodified, and it is only gradually and within narrow bounds that we can consciously direct or limit their force. In this age, with its mania for legislation, it would be an easy matter to adduce instances of laws either wholly inoperative, or producing results diametrically opposed to those intended by the legislators. Throughout his entire argument, Professor Willoughby underestimates the necessary character of the social and political restraints. The same natural necessity which has produced those restraints and given them force, has imposed upon them form and laws. It is a consequence of this empirical conception of coercion that Professor Willoughby adopts as absolutely valid Fitzjames Stephen's canons of compulsion. These are: (1) that the object aimed at be desirable, (2) that the means employed be calculated to obtain it, (3) and at not too great expense (p. 264). There is no moral arithmetic which would enable us to apply these canons to present or future conditions. As employed by Professor Willoughby, they would justify any tyranny.

It is not, however, as an ethical treatise that the work is to be judged. It is essentially a detailed analysis of concrete problems of social life. That the results attained are largely negative is the chief merit of the book; for it is only by such sober negative criticism that we can ever reach a sure basis for social reconstruction.

T. W. TAYLOR, JR.

Kant's Cosmogony. As in his *Essay upon the Retardation of the Rotation of the Earth*, and his *Natural History and Theory of the Heavens*. With introduction and appendices. Edited and translated by W. HASTIE. Glasgow, James Maclehose; London, Macmillan & Co., 1900.—pp. cix, 205.

This is a book of importance to both the philosophical and the scientific scholar. And it has also particular claims upon the student of Kant and the student of natural theology. In *Kant's Cosmogony*, Professor Hastie has given us a translation of those early writings of

Kant (his *Natural History and Theory of the Heavens*, and his *Essay on the Retardation of the Rotation of the Earth*) which have hitherto been thought of by philosophers and scientists alike, mainly in connection with Laplace's celebrated *Nebular Hypothesis*, and with a supposedly remarkable anticipation of the theory by the Königsberg philosopher. He has, however, not only done this, but also presented his translation in a very serviceable and important setting, consisting of an introduction and appendices in which the reader, be he Kant scholar or Kant student, or a student of contemporary science in its bearings upon origins, or a thinker interested in the relations of evolutionism and idealism and theism, will find presented before him ample material for the settlement, or at least the investigation, of many important and interesting questions.

The work is dedicated to Lord Kelvin, a recent colleague of Professor Hastie's at Glasgow, and Professor Hastie has evidently worked in conjunction with scientific authorities who have directed his attention to contemporary literature upon the question of the relative originality and importance of Kant's early physical theories as compared with those of Laplace. Important portions of this literature are presented here from Professor De Morgan's account of the speculations of Thomas Wright of Durham (a writer, a summary of whose work in a Hamburg journal on *1st January, 1751*—Professor Hastie has traced out the very issue and translates the article for us—*by Kant's own confession* set Kant thinking on cosmological questions), and from other sources about Wright's work, from printed statements of men like Huxley, Lord Kelvin, Professor Newcomb, Helmholtz, Dr. Conrad Dietrich, "a careful student of Kant in his relation to Newton," and from an article by Geo. F. Becker, in the *American Journal of Science*, as late as February, 1898. And all this matter is woven through and around an introduction of Professor Hastie's own, in which the great questions of the comprehensive character of Kant's genius, and of the ultimate lesson of Kant's philosophy as a whole, are brought home to the mind, as is also the possibly still greater question of idealism in its relation to what is called cosmic evolution.

So far as Kant's scientific originality is concerned, the evidence presented by Professor Hastie brings out many interesting things, *e. g.*, how the untoward fate of Kant's *Natural History* in being kept from the public by an accident (the bankruptcy of a publisher), and in being known until 1797 only through a summary, prevented the fact of its thought being fairly estimated, and how Professor Huxley seems to be "the first English scientist who adequately appreciated Kant's

cosmogony in the original German," and how Kant is perhaps the "greatest of all the pre-organic evolutionists" in first truly discerning the "universal range" of the "evolutional process of nature." Not only is Kant's originality in relation to Laplace vindicated, but Professor Hastie concludes from Thomson and Tait's *Natural Philosophy*, and from an 1897 address of Lord Kelvin's, that Kant's "early scientific work has already become part of the current material of the popular scientific writer." It would be a piece of the sheerest presumption in the present writer to pretend to be able to prove or disprove this statement, although he has nothing but admiration for the love and the diligence that Professor Hastie shows in his collation of scientific evidence, and to this collation evidently the scientist, as well as the philosopher, must have recourse.

In respect of the bearings of Kant's physical philosophy upon the system of his thought as a whole, Professor Hastie entertains and expresses opinions that are at variance with the notions that many of us know to have been prevalent among 'English' neo-Kantians before the recent appearance of Mr. Bradley's *Appearance and Reality*, which work has to some extent brought to an end the previous tendency of regarding the real as sufficiently determined when described by epistemological categories. To begin with, he inclines to think that Kant in the *Critique of Pure Reason* was "too much absorbed in the forms of his own subjective perception and reflection," and that he therein "shut out for the moment the great universe beyond, which gives them their meaning and purpose," and that this tendency has worked itself out to a "certain hopeless result" in the "idealistic movement from Fichte to Hegel" and in the "neo-Kantian philosophy." He inclines, in short, to minimize the importance of Kant's Copernican discovery, and to find the basis of a spiritual interpretation of the universe in the theistic philosophy of the pre-critical treatise which he has translated and edited.

"His [Kant's] *Natural History and Theory of the Heavens*, as he ultimately designated its exposition, will probably be regarded as *the most wonderful and enduring product of his genius*."¹ In other words, Professor Hastie, on grounds of the importance of Kant's early physical theories to contemporary physical science and to contemporary theistic philosophy, is of the opinion that the return to Kant is (1) a *scientific* return, and (2) a return to the theistic philosophy of his early treatises as the true idealism of which both science and philosophy are in search. As for this contention, it

¹ Italics mine.

may, indeed, be well for the philosophical world to return to a reconsideration of the well-known close association that existed in the mind of Kant between physics and metaphysics, but it is doubtful whether this same world is ever likely to sacrifice that part of its very mental structure for which Kant is responsible, *i. e.*, the conviction that it is impossible to regard matter as 'given' independently of a spiritual consciousness that we have in ourselves and in our life. Professor Hastie will doubtless be willing to admit that many of the scientific men in Germany and elsewhere, to whom he frequently refers, have learned from Kant (through Schopenhauer, of course, rather than through Hegel—and Professor Hastie has a note to this effect in which he has the support of his colleague Professor Adamson) to have done with that unreflecting realism that talks of time and space and the qualities of matter as if they were things outside the mind. It is true that in the matter of the great importance of Kant's physical philosophy, Professor Hastie dwells largely upon the extent to which Kant may be said to have anticipated the evolutionary philosophy. And this, in my opinion, represents that part of his attitude to Kant (so far as *philosophy* is concerned) which is likely to have the most fruitful consequences. "All is the realization of an eternal plan, which advances from stage to stage on its sure prescribed way, and which must issue in a perfect result." It would, however, be but slight honor to Kant to associate him with dogmatic evolutionism in its assumption that a spiritual life might appear at the end of a cosmic process, unless that life had been implicit in its very beginnings. And if Kant be an idealistic or a critical evolutionist, like Aristotle or Hegel, he is this only on the ground of the great discovery of the *Critique of Pure Reason*.

A second tendency of Professor Hastie's is to regard Kant in a semi-positivistic way. "Kant has been called a Prussian Hume; I would rather call him a Prussian Comte." "*According to Kant the cosmic evolution of nature is continued in the historic development of humanity and completed in the moral perfection of the individual.*"¹ This is the largest and most valuable thought in Kant's philosophy. It combines all the parts of his system into unity; it enables us to distinguish the essential from the accidental in his development and expression; and it furnishes the criterion by which his place is to be determined as the founder of a new period in the philosophical and scientific history of the world. But in order to find it we must look through and beneath the elaborate formation of his later mode of thinking." Now it is

¹ The italics are Professor Hastie's.

doubtless true (and this is a point admitted by many German and English scholars) that there are many correspondences between Kant's teaching about the *limitations* of knowledge and the teaching of positivism, and also true that the moral kingdom of persons of which Kant talks in his ethical writings is perhaps the final outcome of his philosophy. But the spiritual life of this moral kingdom is never to be thought of as merely superimposed upon an indifferent Nature, as it is in general by Comte or the Comtians. If Kant be a positivist at all, it is an ethical or an ideal positivism that he teaches rather than what is ordinarily understood by positivism. Professor Hastie, indeed, allows himself to talk of Herbart as continuing the scientific work of Kant, and this thought might have led him to indicate how much akin to the ideal realism of Leibniz the ultimate philosophy of Kant really is, just as his mention of Schopenhauer might have made him speak of the extent to which Kant took his theory of Ideas from Plato. And then how does Professor Hastie reconcile his positivistic construction of Kant's philosophy with the cosmic theism, which he takes to be the final word of cosmology in general, and of Kant's cosmology in particular? It is doubtless true that in his treatise on the Heavens Kant seeks to show how a spiritual or theistic conception of the world is compatible with a purely mechanical conception of the action and interaction of natural forces, but then, too, this spiritualistic monism is a very different thing from positivism as ordinarily understood.

In other words, only if Professor Hastie will allow us to associate together more closely than he himself does in his otherwise laudable zeal for the originality of Kant's early work, the later and the earlier results of Kant's philosophy, can that strong case be made out for a possible synthesis of Kant's metaphysics with the truth of evolutionary science. That what he has presented in this little volume will contribute to this very end there is every reason for believing. It is all the more likely to do so because it represents an attempt to show how Kant may be approached with the most conspicuous success from the standpoint of physical science. Even the idealistic philosopher can hardly rise from a perusal of Professor Hastie's evidence without an increased admiration for the comprehensiveness of Kant's genius. Doubtless, it may seem to many a most arbitrary piece of procedure to attach so much importance to Kant's writings before the time of his intellectual conversion, especially in view of the fact that that conversion has meant the conversion of one-half of the educated opinion of the nineteenth century.

Nevertheless, there is a great deal to be said for insisting upon the

manifest importance of that characteristic of Kant's which was so strongly marked both before and after his conversion—his habit of connecting metaphysical with physical researches.

As a piece of editing, and as the presentation to the reading world of a definite question in its historical and its critical setting, Professor Hastie's book must be pronounced perfect, for the translation seems to be on a level with the approved excellence of Professor Hastie's previous and important services in this connection.

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SUMMARIES OF ARTICLES.

[ABBREVIATIONS.—*Am. J. Ps.* = *American Journal of Psychology*; *Ar. f. G. Ph.* = *Archiv für Geschichte der Philosophie*; *Int. J. E.* = *International Journal of Ethics*; *Phil. Stud.* = *Philosophische Studien*; *Rev. Ph.* = *Revue Philosophique*; *R. I. d. Fil.* = *Rivista Italiana di Filosofia*; *V. f. w. Ph.* = *Vierteljahrschrift für wissenschaftliche Philosophie*; *Z. f. Ph.* = *Zeitschrift für Philosophie und philosophische Kritik*; *Z. f. Ps. u. Phys. d. Sinn.* = *Zeitschrift für Psychologie und Physiologie der Sinnesorgane*; *Phil. Jahr.* = *Philosophisches Jahrbuch*; *Rev. de Mét.* = *Revue de Métaphysique et de Morale*; *Ar. f. sys. Ph.* = *Archiv für systematische Philosophie*.—Other titles are self-explanatory.]

LOGICAL AND METAPHYSICAL.

De la distinction entre les sciences deductives et les sciences expérimentales.

CH. RIQUIER. *Rev. de Mét.*, VIII, 6, pp. 736-744.

In this article M. Riquier attempts to establish a distinction within the sciences which shall be founded exclusively upon *positive* considerations. For him, then, the only possible bases for such a distinction are experience, abstraction, and logical argument—and the second of these he rejects, since "abstraction results only in a kind of scholastic entity, a metaphysical phantom." He adopts, therefore, the following criterion for a distinction between the sciences: All sciences the logical development of which involves no contradiction are to be called deductive, and all others experimental. From a positive point of view he holds that "there are no deductive sciences except those which reduce logically to the arithmetical notion of the entire number"—which, as he wishes his readers to remember, "enables one to define fractional, negative, and incommensurable numbers without any regard for concrete size, thus giving rise to a mathematical or numerical continuum." Only mathematical sciences independent of any spatial intuitions, he goes on to show, are truly deductive. Geometry might seem to be an exception, but that form which is founded upon the sensible intuition of space involves a contradiction, and so is experimental. For the notion of the infinite divisibility of space, by means of which the contradictory conceptions of mathematical points, lines, etc., are resolved, is really inconceivable. "The Greek mathematicians," remarks the author, "being forced to decide between the contradictory and the inconceivable, very naturally chose the latter; but that is no reason why we, two thousand years later, should still accept a conclusion which logical necessity, together with their ignorance of number, forced upon them." Thus if one would remain on the firm ground of positive knowledge, the arithmetical notion of the entire number is, besides logical agreement, the only possible foundation for a deductive science. Geometry, if it is intuitive, is necessarily experimental, *i. e.*, contradictory; and can become deductive (rigorously and

truly mathematical), only by rejecting all spatial intuitions, and regarding none but numerical and logical concepts. For the hypothesis of the indefinite divisibility of space, if it does not take a purely arithmetical form, is not only inconceivable, but, in the actual state of science, is fruitless and without power.

GEORGIA BENEDICT.

Consciousness, Self-consciousness, and the Self. HENRY RUTGERS MARSHALL. Mind, No. 37, pp. 98-113.

Physiological parallelism has done much to uproot the old atomistic or associationist account of consciousness as an aggregate or series of independent ideas or states. The neural organism is no doubt composed of an almost indefinite number of elementary parts, but they are not elements apart from the neural system itself, but are rather conditioned by being inherent parts of the system. What light can this fact throw upon the nature of self-consciousness? The neural organism is constantly active as a whole, but it is just as constantly receiving increments of activity in some particular organ or group of organs which are but intermittently affected by its environment. Moreover, these particular activities are being constantly assimilated by, and so modify the activity of the whole system. Corresponding to these three aspects of neural activity, we have three parallel aspects of psychic activity. We have: (1) A relatively constant mass of feeling activity; this is the self and corresponds to the activity of the neural system as a whole; (2) a constantly shifting play of more or less particular presentations; this is consciousness and corresponds to the particular increments of neural activity in particular bodily organs; (3) the assimilation and constant modification of this constant mass of feeling, the self, by these particular presentations; this is self-consciousness, and corresponds to the effect of particular increments of nervous activity in particular bodily organs upon the activity of the neural organism as a whole. The self is thus seen to be a "vast bundle" of inherited "instinct feelings." But yet it is the self that determines what presentations shall be attended to and so emphasized, inasmuch as it is the function of the activity of the neural organism as a whole to determine what special neural activity shall become emphatic in the production of variation from typical organic reactions. The writer of this article elaborates his theory by a series of diagrams and special observations.

IRA MACKAY.

PSYCHOLOGICAL.

The Apperception of the Spoken Sentence: A Study in the Psychology of Language. W. C. BAGLEY. Am. J. Ps., XII, 1, pp. 80-130.

This study undertakes an experimental determination of the following problems: (a) What is the effect of 'context' upon the perception of auditory symbols? (b) How are the objective elements of auditory symbolic perception related to one another? and (c) What are the conscious pro-

cesses involved in the apperception of the spoken sentence? For the first problem the method involved the use of words mutilated by the elision of consonants. These words were given first alone, then with a minimal amount of context, then at the beginning, at the middle and at the end of complete sentences. Constant conditions of articulation, etc., were maintained by the use of a phonograph for recording and reproducing both words and sentences. The results show: (1) that when mutilated words are given with a minimum of context, the chances for their correct perception are increased by 82 per cent. as compared with their chances for correct perception when given without context, and (2) that when mutilated words are placed in sentences their correct perception is a function of the amount of context which has preceded them; that is, when placed at the beginning of the sentence they are less likely to be correctly perceived than when given in the middle or at the end of the sentence. The results of the second determinations show that the elision of 'mutes' works the greatest injury to the correct perception of the mutilated words; the elision of the 'semi-vowels' the least injury; and the elision of 'spirants,' 'sibilants,' and 'nasals' greater injury than the elision of semi-vowels and less injury than the elision of mutes. In the third determination, the general method of introspection was employed. Following are a few of the conclusions: (1) In filling out a mutilated word through 'context' the process of successive association is most largely involved; this peculiar instance of successive association is called by the writer 'contextual supplementing,' as contrasted with 'associative supplementing' which involves simultaneous association only. (2) Under the conditions of the test the apperception of auditory symbols involved the presence in consciousness of visual and verbal ideas mainly. (3) The complete ideal reproduction of a symbolized environment is not common. (4) Verbal ideas exist more frequently as associative or contextual supplements than as focal objects of the apperceptive consciousness. (5) Certain 'turns of speech' are constantly referred to certain uniform 'sets' or patterns of ideational material; such sets or patterns may be called 'constant supplements' or 'type associates.' (6) The imagery which apperception involves is not always consistent with the significance of the context; yet this does not necessarily mean that the significance is inadequately apperceived. (7) A characteristic of the apperceptive consciousness is the constant change of its pattern to meet the changes in the context. The discussion of the general subject of sentence apperception is considered with reference to the problem of the 'meaning' or significance of sensory contents. Stout's theory of 'implicit apprehension' is held to be inadequate to the facts. Something of a purely structural nature must exist to carry the function of 'meaning.' This structural something the writer finds in the marginal or non-focal elements of the apperceptive consciousness.

THE AUTHOR.

A Psychological Study of Religion. JAMES H. LEUBA. *Monist*, XI, 2, pp. 195-215.

There are at present two methods of studying religion. First, the historical comparative method from which all the knowledge of the subject thus far acquired has been derived. Second, the psychological method which is now beginning to come into prominence. The difference between these methods is due to the fact that the former deals with the community consciousness, while the latter investigates the individual consciousness. Corporate religion is born from individual experience. Social organisms are always realized through the separate individuals. The psychology of religion deals with the formative elements of corporate religion, while the history of religions deals with the complex products. The facts of immediate religious experience cannot be explained by a study of the community. If they are to be accounted for, it must be by the psychological method. The chief problems of individual religious life are given by the writer as follows: (1) What are the motives of religious activities; what needs do they express and what ends do they secure? (2) What are the means by which religious impulses express themselves and through which the needs seek their satisfaction? (3) What relations exist between the means used and the satisfaction they are expected to produce? The psychology of religion may be expected to lay down foundations not only for reformed dogmatics in closer agreement with the modern religious conscience, but also for a truer religious practice. The reason for conflicting definitions of religion is to be found in a deficient understanding of the psychical life in general. When one makes a careful study of the psychical facts of life, he must conclude that the religious life always manifests itself in actions as well as in thought and feeling. We must conclude then that the student of the psychology of religion has for his subject-matter, complex psychological processes culminating in certain classes of actions called religious activities.

G. W. T. WHITNEY.

Le problème de la perception. E. CHARTIER. *Rev. de Mét.*, VIII, 6, pp. 745-754.

To common sense there is no problem of perception, says M. Chartier. Perception is a simple and immediate function. It needs but small reflection, however, to demonstrate the insufficiency of this idea, and then the question arises: What is the given element in our experience? After a long and interesting discussion, in the course of which the writer analyzes the notions of distinct objects, distance, resistance, sensations of all kinds, etc., he is led to the conclusion that "what remains after this analysis is (1) an indefinite multiplicity, which—as the opposite of thought—is the essential nature of the object; and (2) the fixed order of this diversity, that is, the exterior necessity in accordance with which our perceptions are not obedient to our will, but impose themselves upon us through necessary mediums, and in inevitable ways." "Therefore the given object may be defined as

the fixed order of an indefinite diversity of possible sensations, and the problem of perception should be stated thus: How is it possible for any perceiving being to know the fixed order of an indefinite diversity of causes of sensations ?'

GEORGIA BENEDICT.

A Psychological Test of Virtue. G. M. STRATTON. Int. J. E., XI, 2, pp. 200-213.

Professor Dewey in his *Study of Ethics* traces the development of conscious action from its lowest level. In impulsive action, the impressions call forth an immediate response. In the higher forms of action, the impulse is 'mediated' by an interplay of conflicting tendencies. The higher the action the more it shows the man. This is the true basis for determining moral value. An act is good if it spring from the whole nature. Professor Dewey's doctrine is in the main true but it is unpsychological. For him the real man is the ideal man; for the psychologist the real man is the actual man. Both would agree that human activity is not only bodily movement but also mental and spiritual process. But the psychological view is inadequate. The conceptions of the self must include more than the explanation of experience and conduct, if it is to afford ground for ethical demands. Further, the perfect interaction of our powers is not a psychological conception, because it implies a knowledge of the aim of life. Finally, if one regard the effect on the person as the criterion of the value of an act, one has first to interpret that effect in ethical terms. In short, there is no psychological test of virtue unless psychology is taken to mean absolute philosophy. When one turns from the question of terminology to criticise the theory itself, one finds first, that the relation between perfect and imperfect adjustment of forces, the ground of moral responsibility, is not clearly shown; second, that no standard of ideals is given. Perhaps these defects are due to the limit within which psychology actually remains, for to treat of ethics thoroughly one must be metaphysical to the bitter end.

N. E. TRUMAN.

ETHICAL.

La morale ancienne et la morale moderne. V. BROCHARD. Rev. Ph. XXVI, 1, pp. 1-12.

What meaning should the student of the history of philosophy attach to the fact that ancient and modern philosophies totally differ in many of their most fundamental conceptions—this is the problem which M. Brochard has set for himself. For instance, infinitude and omnipotence, ideas which to us form perhaps the most essential elements in the idea of God, are no part of the ancient conception; matter, to them, was essentially non-being, while at least until very recently, we have thought of it as substance; and—to pass from questions of metaphysics to those of ethics—the ideas of

duty, conscience, a moral law, sin, and responsibility, are simply non-existent in ancient thought. The Greek and Latin tongues have no words to express what we mean by these terms. Nor is any part of the ancient philosophy based upon the idea of a future life, although this conception was not unknown to the Greek religion. What shall we think of these facts? The general opinion is that the ancient morality was very imperfect as compared with our own; but the question may be asked if, in proposing moral questions in the customary terms, the representatives of modern ethics have not confused the religious or theological with the philosophical point of view. Had not the Greeks perhaps the true scientific idea when they made morality a matter of reason and experience? Is not the supreme end of all ethical thought, for reason and science, the good—the highest good being understood, as among the ancient peoples, to be inseparable from happiness? Not that there is or should be any thought of returning to the ancient morality, pure and simple; but more than once modern thought has found itself approaching, after a long detour, a point of view abandoned for centuries. It may be that what the *Elements* of Euclid are for all geometry, the *Ethics* of Aristotle may be found to be for all morality.

GEORGIA BENEDICT.

Materie in Kant's Ethik. MARTIN BOLLERT. Ar. f. G. Ph., VI, 4, pp. 483-503.

In this article the writer points out how the insufficiency of Kant's purely formal theory compelled him to introduce into his ethics a material content, which, though an inconsistency in his system, was necessary if that system were to have any significance for human life. Ethics is a science of pure reason, and the Moral Law is characterized by a *a priori* necessity and universality. Hence we cannot allow it to be derived from experience, or from the empirical content of the will. The *form* of the will must be regarded as the principle grounding the moral law. But in the determination of phenomenal representation, the will takes the form of the causal law, mechanical and inexorable. Since morality is dependent upon freedom, Kant supposed the will to have two sides, the one applicable to objects of sense in the form of causality, the other supreme in the intelligible world, where freedom and the pure moral law are its expression. Thus Kant places the two sides of human nature, the sensible and intellectual, in absolute separation. Any attempt to combine the two involves an inconsistency in the logic of his system. Nevertheless, his desire to establish an ethics of practical value led him to disregard this, and to give experience an important part in the determination of the moral law. The expression of the will in concrete moral action brings in the material element. In duty the absolute *ought* of reason is enforced upon the inclinations of sense. But if the moral law is to affect the will it must prescribe for it a purpose. This purpose must involve an object, and the object must possess some interest for the acting agent. This interest voices a feeling which is the motive to action. Such

feeling Kant brings in as "respect for the moral law." Elsewhere Kant holds the will to be determined by an *a priori* necessary object, the 'highest good.' This consists in virtue and happiness. The *Metaphysik der Sitten* contains the application of the transcendental law of morality to human life. The standard used here for the deduction of the virtues has manifest reference to experience. All this shows how Kant, for the determination of the moral law, was obliged to forsake the pure form of the will, and turn to its concrete objects in human experience. The last word to be said for conduct by a purely formal ethics consistent with itself, is found in Kant's principle: "Act only on that maxim whereby thou canst at the same time will that it should become a universal law." Here the objective standard proposed is a purely rational one. The possibility of generalization without logical contradiction is the criterion for morality. But this is insufficient. The thought of a society of beings in which stealing is universally approved and commended contains no logical contradiction. True, they would not be *human* beings. But when this qualification is made, an experiential element is introduced not contained in a criterion of logical possibility. The character of the Kantian ethics is partially explainable from the parallelism with the *Critique of Pure Reason*. Here, the theoretical reason is expressed in universal and necessary judgments *a priori*. What more natural than that the practical reason should speak in moral laws of the same nature? The absolute and authoritative character of duty and moral obligation would seem to confirm this. But the limitations of this standpoint are fully revealed by Kant himself.

H. W. WRIGHT.

NOTICES OF NEW BOOKS.

The Individual: A Study of Life and Death. By NATHANIEL SOUTHWATE SHALER. New York, D. Appleton & Co., 1900.—pp. xiii, 351.

The author of *The Individual* has already given us suggestive contributions to the humanistic bearings of natural science, in his delightfully written little books, *Nature and Man in America*, and *The Interpretation of Nature*. The present work is a more serious undertaking, but written with equal charm. Professor Shaler writes from the point of view of the naturalist, and he speaks with the caution and reserve of the true scientist. But he sees what most naturalists of the outgoing century have overlooked, viz., that the place of the *individual* in the universe is the central problem of the philosophy of nature. As a naturalist Professor Shaler contents himself with tracing the successive phases in the growth of individuality in nature, and with indicating in an undogmatic tentative manner some of the implications of this growth. His fundamental thesis is that the universe of nature throughout its history has been in travail to bring forth more highly organized individuals.

The first chapter outlines, in a general and preliminary way, the phases of individuality manifested in the *physical* world. These are the atom, the molecule, stars, and star-systems. He tells us that "on this individualizing process depends all the real work that is done within the universe." But even here, on the abstractly *physical* plane, the individuals interact, and the more varied the individuals become, the higher and more complex become their interactions. Professor Shaler rightly criticises the purely negative conceptions of the ether as the medium of interaction. He suggests that the *apparently* undifferentiated ether represents the lowest potency of individuation. It is to be regretted that he did not give more consideration to the physical aspects of individuality. This phase of the problem certainly needs more clearing up than our metaphysicians have given it. In the second chapter, which deals with organic individuals, we are evidently on more congenial ground. The great distinction between organic and inorganic individuals is found to lie in the capacity of the former to gather and store *experience* (p. 23). Organic individuals are educated by their environment. Now death comes in as an inevitable corollary to advancement by *education*. When the parent form has done its best, it must make room for its successor, that on the stepping stones of its dead self they may rise to higher things. Once death has entered, the chief energies of the individual become centered in the care of offspring. In this way the individual fulfills his part in the educational process of nature. Professor Shaler holds that *natural selection* does not suffice to explain the entrance of death. For definite longevity in a species does

not in itself account for the survival of the species (pp. 47 ff.). Indirectly, death contributes to progress by quietly removing ancient individuals who are no longer useful, as well as defectives. He concludes that death "appears to be an act of service which is enforced on the individual by a power more remote than the acts of its own ancestry, summed up and transmitted by the process of inheritance" (p. 50). In the fourth chapter, he defines an individual broadly as a center of localized movement. In defining the *atom* as a center of completely and permanently equilibrated forces, I think Professor Shaler takes the indestructibility of the atom too seriously. Does not this assumed eternity of the atom introduce a dualism into the conception of individuality? For his next step is to define the individual as a "center of organization of new modes of operation of energy." It follows that the more highly organized an individual is, the more sensitive it is to environmental influences—the more unstable it is (p. 75). Now if, as Professor Shaler rightly says, interaction, interdependence, instability, are marks of highly organized individuality, his atom does not seem entitled to rank as an individual.

Following out the nature of individuality, we are told that the higher individual includes the lower, and this inclusion goes on until we reach the supreme all-containing individual. Attention is called to the progressive organization of individuals which culminates in human association. The conservation of racial experience in successive individuals gives occasion for the suggestive hint that our involuntary, spontaneous, and unconscious thought in normal life, in insanity, in double personality, in genius, is the rekindling of a conscious process handed down from some near or remote ancestor. Professor Shaler finds that after the plane of consciousness has been reached, the most significant factor in the development of individuality is the growth of sympathy. This he traces, with freshness of illustration, through birds and mammals to man. The higher individuality is realized only through sympathy, in which escape is made from the prison-house of the atomic self. Human institutions unite individual lives, so that the gulf of death between the generations is bridged, and the individual coöperates in the onward movement of his kind.

The latter chapters of the book are mainly concerned with social and ethical applications of his doctrine. There are some fine and suggestive passages on the study of individual expression in the face, etc., and on the appreciation of individual differences. As a mitigation of the sorrows of death and parting, Professor Shaler points to contemplation of the place of death in the majestic evolution of life. In considering the usefulness of old age, he combats the popular notion that mental impairment is a necessary accompaniment of bodily decay. The final chapter takes up the question of immortality. Natural science, our author tells us, has nothing positive to say on this theme. He holds that there are, however, no weighty arguments on scientific grounds against immortality. Moreover, he thinks there is a valid indirect argument for the belief, based on the indications of the

activity of a supreme intelligence in nature. He regards the hypothesis of a supreme intelligence as affording much the best explanation of the gradual growth of organized individuality. He calls attention to the kinship between our minds and the order of nature, indicated by our perception of the beautiful in nature. This is, in my opinion, an important consideration which has been too often overlooked. Professor Shaler's conclusion is that if we can assume a supreme intelligence, then the great significance of the individual man in the process of evolution raises the presumption that the historic personalities of men embody and preserve against the ravages of time the purpose and achievement of the visible universe.

The whole work is characterized by the blending of the attainments and temper of the naturalist with a ripe human wisdom. It is in a high degree suggestive, stimulating, and ennobling.

J. A. LEIGHTON.

HOBART COLLEGE.

A Syllabus of an Introduction to Philosophy. By WALTER G. MARVIN. [Columbia University Contributions to Philosophy, Psychology, and Education.] New York, The Macmillan Co., 1899.—pp. x, 279.

This book is, Dr. Marvin tells us, a syllabus which he has used in connection with a course of lectures on the Introduction to Philosophy given at Columbia University. As an elementary text-book which attempts to give to the beginner his first acquaintance with philosophic thought, the work cannot fail to interest teachers. No more difficult task confronts the teacher of philosophy than that of properly 'introducing' the student to his subject, and no book will meet with a more hearty welcome than the fortunate one which shall finally surmount the difficulties of this task. Neither in method nor in execution, however, can Dr. Marvin's treatment be regarded as contributing very largely to the attainment of the desired end.

The method or form of arrangement is the one common to most introductions. There are two main divisions. Part I. contains a definition of philosophy and a classification of problems. Part II. is a discussion of the problems with constant reference to historical systems and opinions. In this discussion, Dr. Marvin declares his allegiance to an Idealistic system, and attempts by criticism and construction to lead the student to an acceptance of Idealistic principles. Although the method here followed is, as has been noted, the one commonly adopted by writers of introductions, its application to elementary work must be attended with serious difficulties. Such definitions of philosophy as are here given, and such discussions of problems as follow, cannot be properly understood by an untrained student who is unacquainted with the development of philosophic thinking. And further, the attempt to supply an historical setting by disconnected references to the great systems is not successful; the student who knows Kant or Hegel or Plato only through the medium

of some fragmentary polemical utterance will be quite as likely to misunderstand the thinker and his problem as to understand them. Under these circumstances, one may question the wisdom of leading the student to an idealistic or to any other solution of philosophic problems. To do this is to train him to think in terms that he cannot define, to grapple with and give solutions of problems which he cannot formulate, to misinterpret the great masters of philosophic thinking as he approves or condemns them in the passing; in short, it is to train him to think badly, rather than to think well. It must be allowed of course that the method has advantages which are amply proven by its popularity. It is certainly desirable that the student should be taught as soon as possible to think, to grapple with the problems, to philosophize, but on the other hand, the dangers of the procedure here adopted are so obvious as to suggest the question whether the same results may not be obtained along some other less dangerous line. It would seem, for example, that a course in the history of philosophy would more slowly, but with far more certainty, give to the student a definition of philosophy, a classification of the problems, an appreciation of the great systems, and would at the same time cultivate the intellectual virtues of reverence, sobriety, and clearness. If this be true, the construction of a system might well be delayed until the more advanced courses are taken.

But quite apart from the question of method, Dr. Marvin's work is unsatisfactory in its execution. Part II., which constitutes the body of the book, is devoted to a study of the concept of 'the given.' It is in terms of their interpretation of this notion, that the various systems are classified and evaluated. One might criticise the discussion at many points, but there is one defect which surpasses all others—the statement would be quite unintelligible to the student for whom it is intended. The notion of 'the given' is not an easy one at best, but in Dr. Marvin's text it has far more than its customary variability, so that the present reader at least has been quite unable to follow its turnings.

In order to justify such general criticism as the above, it may be permitted to give one instance which concerns perhaps the most important matter in the book, viz.—the definition of philosophy. Philosophy, we are told, is the "science of the principles of the universe" (p. 145), a principle being, 'an interpretation of the universe gotten *a priori*' (p. 145). As against this, science in the narrower sense is a *posteriori* knowledge, *i. e.*, empirically gathered knowledge of the laws of nature (p. 145). Further, we mean by a *priori* knowledge that which is gotten by "direct apprehension" (p. 140), or by "intuition" (p. 140), as are the principles of mathematics. Finally, separating logic and epistemology, which deal only with formal principles, from those sciences which study the material principles, we find in the latter sciences the four divisions of philosophy proper—metaphysics, philosophy of religion, ethics, and æsthetics. In considering these statements, one may note the departure from the common practice which regards ethics and æsthetics as sciences in the narrower sense; it is certainly hard to see how

they come under Dr. Marvin's dictum as sciences of "the principles of the universe." Again, one hardly expects to find both logic and epistemology excluded from the realm of philosophy, as being too formal for a place therein. Again, it is not clear where such a science as mathematics, which is noted as the typical *a priori* science of principles, is to be placed; it would seem that it should occupy an important place within philosophy's field. But apart from these peculiarities, there is in this definition, the fundamental weakness insisted upon above. The distinction between *a priori* and *a posteriori* is not made clear to the student; it is altogether too difficult a concept for a beginner at any rate, and, as here expounded, it is quite unintelligible. One might safely defy any student to see that the discussion of 'the given' in Part II. is matter of 'direct apprehension'; so far as one can see, it is nothing more nor less than a testing of theories which are offered as explanations of what is surely an empirical content if it is anything—'the given.' In this respect, it is in no sense different from the procedure of those natural sciences, in contradistinction to which philosophy is defined as *a priori*. Finally, Dr. Marvin is not even faithful to his own definition. Though philosophy is the science of principles, we do not hear of principles until the main discussion is ended. Not until the last thirteen pages of the book (pp. 266-279) are the principles mentioned at all, and then we are given only a most formal and cursory consideration of Contradiction, Sufficient Reason, Causation, The Persistence of Force, and Evolution. Such incoherence of outline as this, is quite unpardonable in an elementary text-book; pedagogically it is the worst of sins.

As was said at the beginning, the task of writing an 'Introduction' which shall be of real service is not an easy one; the method which Dr. Marvin follows may be the best one, but on the other hand, the difficulties are so obvious, that a much higher quality of exposition than is given in this syllabus, will be needed to give it real value as an aid to the beginner.

ALEX. MEIKLEJOHN.

BROWN UNIVERSITY.

Some Problems of Lotze's Theory of Knowledge. By EDWIN PROCTER ROBINS. Edited with a biographical introduction by J. E. CREIGHTON. [Cornell Studies in Philosophy, No. 1.] New York, The Macmillan Company, 1900.—pp. 108.

A reading of the monograph which forms the opening number of the Cornell Studies in Philosophy will emphasize the loss which the philosophical world has sustained in the death of Mr. Robins. It is a thoroughly good piece of work in every way, showing a sympathy of understanding, a frequent acuteness in criticism, a clearness of statement, a maturity of thought, and a grasp of ultimate problems, which is out of the common. The work is a valuable contribution, not only to the Lotze literature, but to epistemological discussion.

In Chapter I, entitled "Problem and Method," the point of view is stated which is to give the clue to the interpretation of Lotze. Lotze's problem, in the first place, is essentially that of mediation, an insistence on all the facts wherever found, even if we cannot explain *how* they are to be reconciled, in opposition to the tendency to allow the demand for a system to override certain aspects of reality which do not come under its concepts. Growing out of this is the method which is the key to his philosophy. The true method is emphatically not deductive. The deductive method is of value for the exhibition of truth, but not for its discovery; and this latter is the business of man. Again, the deductive method deifies the mere intellect. This criticism of the *a priori* method has, however, been misunderstood. Because idealism is a system, and because Lotze is constantly objecting to a system as tyrannizing over its parts, it is argued that he rejects idealism. This is to confuse between a system of reality and a system of human knowledge. Ontologically Lotze is a monist and an idealist; he believes that reality itself is a system. What he denies is that *we* are in a position to grasp the central principle of reality in a way to deduce everything from it. Since our knowledge is fragmentary and not a system, we can only proceed empirically. For us, the unity is only an ideal, and concepts are not constitutive, but methodological. Without being pure fictions, since man and his knowledge are parts of reality, they yet are tentative and incomplete, since he is *only* a part. We, therefore, have no right to transfer these limited ways of thinking directly to reality as such; so long as they are useful to us in helping us sum up experience, they have a relative validity, but they must be held in constant readiness for revisal. So, again, on account of the wide difference in portions of the field of knowledge, it is often impossible for us to show how they come under a single category; it is then better to distinguish the different functions by categories which are partially or even totally exclusive, than to pretend to a unity which may indeed exist for a perfect intelligence, but which for us only serves to lose the characteristic of each group of facts in general conceptions which aim at covering both.

Having made this distinction between the realism of Lotze's method and his ontological idealism, the second chapter goes on to consider Lotze's doctrine of appearance. This stands opposed alike to Kantian phenomenalism and Hegelian idealism. For Kant, appearance is a mental construct which alone is knowable; reality is unknowable. The second doctrine admits with Kant that we know only phenomena, but denies that there is any reality behind appearance to know, and so declares that knowledge and reality are one. Lotze dissents from both these positions, though admitting in them a relative truth. Kant is right when he makes appearance a mental construction, but not reality; Hegel, when he maintains that reality is known. But Kant robs knowledge of all significance by making reality unknowable, while the Hegelian deifies *human* cognition.

Now both the opposing theories of knowledge agree in maintaining that

it is appearance that is known. It is on this account that, being unable to get from appearance to reality, whether like the appearance or unlike, idealism was forced to deny the existence of anything outside of appearance. According to Lotze, knowledge is not confined to appearance but comprehends reality; *reality is known in appearance*. Phenomena are not things, nor are they like things; they are an interpretation of things. Appearance is a mental construction, or knowledge which the subject has of the object, and there is really no question as to whether appearance is like or unlike the object—this is the answer to Kant's agnosticism. Such a question implies that knowledge is like the object; but how can knowledge be compared with a thing? We do not know knowledge, we know things; our knowledge is knowledge of things. "For this reason we do not first know appearance and then reality. The truth is, we do not know appearance in any case, but what we do know is reality, and appearance is our knowledge of reality." From this flows the main point in Lotze's criticism of idealism, which has already been mentioned—that human concepts are only methodological. The use of concepts as constitutive is based upon a confusion in respect to the meaning of the term reality. Reality is real in the sense that it exists, knowledge in the sense that it is valid. Idealism identifies the two notions, whereas in truth we do not know how thought is valid of reality, and we must therefore, for human knowledge, take each concept as ultimate in its own sphere.

The third chapter deals with Lotze's theory of reality. Although human knowledge is fragmentary and not a system, it points toward a system, and demands a unity as its ideal. If it is objected that we cannot argue from a demand for unity in knowledge, to the unity of reality, Lotze's answer is that this would be true only if we started out with a knowledge of appearance. But if appearance is knowledge of reality, we now know reality as a unity, and there is nothing illogical in saying that reality is a unity. We have thus an ideal which outruns our positive knowledge, but which nevertheless in outline we can believe to be true. And since in the self we find a real unity, and the most intelligible fact of experience, we are led to interpret the world in terms of this unitary self, although we cannot see *how* the unity is constructed, or understand its details. This furnishes a criterion of philosophical theories; true idealism must interpret things in terms of the complete man, and this includes thought, feeling, and will. Thus reality is neither the feeling of mysticism, the will of Schopenhauer, nor the idea of Hegel. We experience immediately what a real thing is in the self. Because man is a self, a living, acting, knowing, feeling, emotional being, he knows what it is to be real, and has a way of interpreting the reality of other things. A further difficulty now arises as regards the way in which we are to prevent the unity from being dissipated in the pluralism which apparently results. The concept of relation is shown to be insufficient, and to pass into that of interaction. Reality thus appears as an organization of selves, which react on one an-

other by reason of their underlying unity. But *how* the two aspects—pluralism and unity—come together, again we do not know. The notion of interaction explains also the possibility of knowledge. Subject and object are not two things, but different aspects of the same reality—an object in so far as known, a subject in so far as it has knowledge. Knowledge is a conscious state arising in the subject by means of the causal activity of the object which it knows, both subject and object being interpreted ultimately in terms of interacting selves.

In closing, the query may be raised whether after all the 'copy theory' has been dispensed with. It may be true that we do not know knowledge first and then infer to reality, and it may be true, again, that the colorless state of knowing is not the full reality of being. And yet if there is *no* resemblance between my interpretation of reality and the reality interpreted, between the imagery which represents the knowing state, and the thing known, can we be said to have anything that we ordinarily mean by knowledge? My thought of a previous experience may not be the full experience, but except as I am able to reproduce this partially, I do not remember or know it at all. So if in knowing reality as a system of selves I cannot partially reproduce the outlines of such a system in my knowing experience, the supposed knowledge would seem to be a blank.

A. K. ROGERS.

BUTLER COLLEGE.

The Philosophy of Friedrich Nietzsche. By GRACE NEAL DOLSON. [Cornell Studies in Philosophy, No. 3.] New York, The Macmillan Company, 1901.—pp. v, 110

This is a timely and able monograph on the most unique writer on philosophical topics that the 19th century has produced. Whatever one may think about the ephemeral nature of Nietzsche's work in philosophy, the fact that he is so much in vogue with *la jeunesse*, particularly in France and Germany, calls for an appreciative recognition of the services of one who makes a serious attempt to digest and reproduce in something like a systematic form, the chaotic, disjointed, and paradoxical ejaculations in which the philosopher-poet of Röcken, like the haughty aristocrat of Ephesus, imitating nature, preferred to conceal rather than reveal his meaning. The value of Dr. Dolson's work is greatly enhanced by the dispassionate and judicial tone which is maintained throughout.

The study is introduced by a brief biography of Nietzsche which gives us a glimpse of the sublime egotism of his personality, a presage of the ethical egoism in which his views finally crystallized. Think of a man deliberately setting out to employ a faithful Boswell to tag about at his heels and catch and preserve all the chance utterances that might fall from his lips! Following a customary classification, Dr. Dolson then treats of Nietzsche's work as falling into three, more or less clearly defined, periods. In the first, or æsthetic period, he approaches the problem which throughout

his life held his main interest, the problem, namely, as to the measure of the value of life, from the standpoint of the artist. Here the ideal of art and culture dominates, and the world with all its toil and struggle finds in beauty its sufficient excuse for being. In the second, or intellectual period, the critical faculty has gained the upper hand of the artistic. The one thing of value now is truth and the "life of culture built upon it" (p. 35). Truth here is the truth of the scientist, not of the philosopher. The latter is always trying to find a view by which he can live happily; the former is interested in truth as such. "Belief in truth begins with doubting all truths hitherto believed" (p. 42); and it ends in finding that there is no such thing as truth, for there is no fixed or permanent anywhere. Again we are with our philosopher of Ephesus: *πάντα ῥεῖ*. But our philosopher outdoes his prototype: life is built upon error; without error the race not only could not be happy, it could not even be preserved (pp. 35 ff.). We get a sort of substitute for truth in the knowledge of the genesis of reputed truths wherein is revealed their nature as error in disguise. Thus man may be freed from the thrall of error, in a measure—not wholly, for unless he cling to error of some sort, to some values which are pure fictions of fancy, he cannot even live. At any rate he will loose his reverence for the time-hallowed, and for all that is conventionally respected, and he may then disport himself in the world of fictions which his genius selects. This is the life of culture built upon truth! Let no one try to make this subjectivism a logically statable doctrine. It is only describable as a temperament. In the third, or ethical period, the artistic and critical faculties of our author unite in the depiction of the new scale of values which shall supplant for lords of creation the older forms of morality. The gist of the new ethics is simply this: the race is, *and should be*, to the swift, the battle is, *and should be*, to the strong. Let the strong and the swift then glory in their superiority, and, without compunction, mightily prevail. "Self-assertion is the first and last command" (p. 78). The will for power is the motive to life. Let the proud man who can stand alone do so, and riot in the expression of his power and self-love, fearing naught save the pleasures and the pains, the dogmas and the feelings, that enfeeble. This subjective creed is rounded off in the worship of "Over-man," whereby it gets a quasi-objectivity, and arouses, in its author at least, an almost religious fervor.

The monograph concludes with a brief consideration of Nietzsche's relation to other writers, and of the significance of his work. The indebtedness to Schopenhauer was the most obvious and enduring, and Dr. Dolson has clearly brought out the points of difference as well as of agreement between these two writers. Nietzsche, while agreeing with his teacher in the rôle assigned to the will, in the cult of genius, in the emphasis upon the development of the individual, in the belief that the world is as bad as bad can be, none the less contrives to turn the flank of Schopenhauer and make of this very gloom of things the basis of a tragic optimism which

substitutes for quietism and despair the demoniac exultation of the proud and warlike man, who can always throw down his gauntlet to the universe, defy fate, and thus suffer, and, if need be, die, joyously. The obvious similarities with various forms of Protagoreanism and positivism are noted. But Nietzsche is properly at home in the ranks of the modern decadent writers. His philosophy might be adopted bodily by them (p. 96).

In estimating the significance of Nietzsche's work, Dr. Dolson holds that the claim that he has "added something of permanent value to the history of thought must rest entirely upon his ethics" (p. 97). Here his doctrine is one of extreme individualism, with not the slightest suggestion of a social ideal (p. 98); one of extreme egoism, which, to be sure, recognizes the existence of sympathy, but deems it unworthy of the strong man—and those who are not strong are to have no part in the new ideal. None the less, this is an individualism that may even call for the sacrifice of the strong individual, not for the sake of the weak, through sympathy, but in the interest of the still stronger individual yet to be; it is an egoism that, if not anti-hedonistic, at least would bring all pleasures under the sole dominion of the instinct for strength and power. The mainspring of all worthy conduct is the "will for power." Of this fact no proofs are offered; the "delicate discrimination of the aristocrat" is expected to confirm it.

Dr. Dolson condemns this ethics as "narrow and therefore inadequate, arbitrary and therefore unconvincing," but holds it to be useful in reminding us that "aristocracy and self-assertion are not synonymous with evil" (p. 102). Nietzsche's "contribution to philosophic thought" she finds in his new form of egoism which does not merely recognize the presence of the egoistic instincts, but regards them "as expressing the ethical end of life." There have been suggestions before of such views, but nowhere else has the "theory found philosophic expression" (p. 103).

The general impression left upon the reader by this monograph is not exactly the one which its concluding paragraphs would convey. For every page has but made the more apparent the utterly unphilosophical cast of Nietzsche's mind, and emphasized the fact that he was throughout the poet, scornful of rational processes, and superior to self-consistency, simply seeking to give expression to the wild mood of the *révolté*, to the wayward and capricious boastings of the enlightened savage. Yes, so anti-philosophical is he that he grows uncomfortable if he finds any one coming into agreement with him.

We do not find the writer's characterization of Nietzsche's "new form of egoism" quite accurate. For us, the 'novelty' consists, first, in the attitude toward sympathy; and, secondly, in the rigoristic type of the egoism that is proclaimed. And we are quite sure that Nietzsche has not given his new form of egoism "philosophic expression."

We are not altogether convinced of the wisdom of so sharply differentiating the three periods of Nietzsche's work. Certainly the differences

between these periods are much exaggerated in the comparison with Schelling (p. 15). In all of the periods we find the same ethical motive, the same distrust of reason, the same uncompromising individualism, the same fundamental attitude toward the world and toward life ; only, the attention is mainly focussed, now on the æsthetic, now on the larger scientific, now on the ethical questions.

Dr. Dolson's treatment of "Over-man" is particularly inadequate. "Whether he represents an ideal," she writes, "that will one day be attained by the higher type of man as a whole, or whether he is the goal set for the development of each individual aristocrat in and for himself, is uncertain. The weight of evidence seems to be equally divided between the two suppositions. Perhaps the simplest interpretation is that the ideal, though at present unattainable by the higher man, should be nevertheless the object of his life ; and since a race or a type is no more than a collection of individuals, every approach to the goal on the part of the single aristocrat lifts the entire class so much the nearer" (p. 81). Surely, this is covering with confusion a fairly simple conception. We should, at least, like to see the evidence for these assertions, particularly the last, which we are sure would have angered Nietzsche.

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Variétés philosophiques. By J.-P. DURAND (de Gros). Second edition, revised and enlarged (first edition, 1871). Paris, Félix Alcan, 1900.—pp. xxxii, 333.

In searching for the principles on which the special sciences rest, the author is brought to consider certain metaphysical questions, of which he regards the one in dispute between 'materialists' and 'spiritualists' as the most fundamental. To remove this obscurity, he seeks a point of view which shall include all the truth that each side has seen, and exclude their respective illusions. He is thus led to a monadology not unlike that which Renouvier and Piat have recently worked out in more systematic fashion in their *La nouvelle monadologie*.¹

From the "subjective facts" of consciousness, we infer a "force that produces feelings" and a "force that feels." To the former attaches the notion of extension ; it is called 'matter.' The seat of the latter, if it is to explain the unity of consciousness, we must conceive to be non-extended ; it is then punctual and so immaterial, being called 'soul' (pp. 54 ff., 86 ff., 103 ff., 169 ff.). Now physics has come to regard matter as composed of non-extended centers of force (Faraday *et al.*). Why not identify the 'soul' with such a center of force and regard the universe as a society of "centers of conscious force" ? (pp. 58 ff., 104 ff., 119, 319).

The forces of nature are, all of them, varieties of attraction ; the only chance we have to experience this force from the inside is in the act of volition. We may regard this as revealing the root nature of force, the

¹ Cf. the *Review*, Vol. VIII, 6, pp. 638 ff.

variety of whose manifestations is due to the different relations in which the monad stands to its fellows (pp. 321 ff.). So too it depends on these relations whether a given monad plays its humble part in a lump of clay, or *primus inter pares* in the organization of a Socrates, figures in history as a great soul (p. 120). The soul is immortal, for 'force' is indestructible, but since it is the fate of monads to come into many different relations to their fellows, it would be absurd to infer from this the immortality of a given personality. Traditional ethics and religion cannot turn to metaphysics for support of their doctrines respecting immortality (pp. 107 ff.).

An organism is not merely an aggregate of monads; it is a system in which we find a hierarchy of chiefs (p. 174). The prime monad is located at some point in the cerebral hemispheres, lower monads in the inferior nerve-centers (p. 185). In some of our actions (reflex, automatic) the latter function alone; in some bodily conditions (anæsthesia) they alone feel (p. 216). There is a possibility of an indefinite development of the powers of the central monad, corresponding to the development of the organism whose center it is (p. 261).

Turning from these details to the universe as a whole, M. Durand finds in it both plan and purpose; but it is the kind of purpose an egg displays as its potential properties become actual: the cosmic egg realizes the plan of development latent in its germ (p. 301). As for the concept of God, there is indeed, "an absolute principle in which resides all first and final causality"; but it is not a unique 'I' dominating the universe from above and from without. "No, the one is everywhere, the one is everything; and this, metaphor apart, means that the whole universe resolves itself into ones, that is, into monads, into dynamic centers, into psychic centers, in each of which resides the eternal essence in its completeness, the universal law, the infinite cause" (p. 305).

EDGAR A. SINGER, JR.

UNIVERSITY OF PENNSYLVANIA.

Grazie und Grazien. VON FRANZ POMEZNY. Herausgegeben von Bernhard Seuffert. Hamburg und Leipzig, L. Voss, 1900.—pp. vi, 247.

A pathetic interest attaches to the publication of this volume, inasmuch as it is the only work of its author, who died in 1897 at the early age of twenty-six (*Vorwort* p. v). It is the thesis of Pomezny for his doctor's degree, which he received in 1895. His career, which included his position in a *Mittelschule* and his marriage, though short, was (as the present work shows) devoted to sincere and helpful investigation.

The editor, Dr. Seuffert, professor at Graz, explains that the author did not consider his work of sufficient weight, but adds his own judgment, which the work itself goes far to justify, that the subject was of sufficient interest for æsthetics and the history of literature to be revised and published. Surely the tracing of the graces from the ancient mythico-personal conception to the modern idea of them as æsthetical and ethical

qualities was an important undertaking, not only historically but in itself. The editor's work consisted in enlarging some parts and abbreviating more ; and, though he has not indicated where this has been done, apparently he has faithfully kept the author's meaning in mind.

The work, which forms the seventh volume in the *Beiträge zur Aesthetik*, edited by Theodor Lipps and Richard M. Werner, is divided into five parts. The first (*Einleitung*) deals with the graces in the Greek Anakreon, and the anthology of the seventeenth century literature. In this part the author, after carefully discriminating the influences which led to the modification of the Greek ideas (the epigram, *e. g.*, p. 5), traces the development of the grace poetry of the eighteenth century through Opitz and Weckherlin, laying particular stress on the gradual inwardizing of the early ideas. He shows how tenderness, elegance, and charm, but specially grace (*Anmuth*) came to relative prominence in the poetry of the Renaissance.

In the second part our author traces the development of the concept of the graceful (*Anmuthsbegriff*) in the *theory* of the eighteenth century. This, to our mind, is the most interesting part of the work ; for, as the author points out (p. 14), the eighteenth century witnessed a very decided development of the æsthetic consciousness ; so much so that in that fact was laid the foundation of modern æsthetical science. Dr. Pomezny, therefore, shows the growth of modern æsthetic theory from Gottsched to Sulzer, through Shaftesbury, Mendelssohn, Winckelmann, Kant, and Lessing, so far as it bears upon the general concept of the graceful. We have no space for quotations, but it may be said that this part of the work shows wide acquaintance with English and French, as well as with German literature.

The third and fourth parts are devoted to a study of the eighteenth century poetry, dealing more particularly in the third part with German imitations of Anakreon, and in the fourth with Wieland. The latter contains a very interesting treatment of that strange man, who, from being an ascetic, became a kind of literary epicure. As a master of style Wieland has received scant justice ; but this discriminating work has shown his influence in a way that is new to us, a way also that cannot but command respect. The last part of the volume is devoted to the works of Gessner, Jacobi, and Herder.

The work, which we have thus briefly sketched, deals with a branch of æsthetics which needs careful handling. It belongs to the history rather than to the theoretical part of the science. Such works are important for two reasons. First, they give us light on particular points of æsthetic activity. In this case, the graces form one part of the general topic of 'the kinds of beauty' ; the graceful being one of the most important subdivisions of the beautiful. We should like to see a similar work done for the conception of the sublime, the tragic, and the grand. Second, they pave the way to a reliable classification of the types of æsthetical experi-

ence, corresponding to the classification of the ethical virtues. No such classification exists at present; and it is not likely that one will be forthcoming until the historical data has been more thoroughly sifted, with a view to the discovery of the true order of the facts.

The work, as a whole, is to be commended. It is a pity that a sounder method was not employed by the author in his æsthetic analysis; but his catholic spirit, clearness of thought, and excellent style, go a long way toward atoning for any loss of this kind. Though it is not a final work, this book is deserving of its place in the important series in which it appears.

HENRY DAVIES.

YALE UNIVERSITY.

David Hume, moraliste et sociologue. Par G. LECHARTIER. Paris, Félix Alcan, 1900.—pp. 275.

A new publication on Hume is always received with pleasure, as well as examined with interest, by all admirers of the great Scottish philosopher who stamped the impress of his commanding genius on every aspect of modern thought. As one reads M. Lechartier's book, however, one's feeling of enjoyment becomes gradually transformed into something akin to disappointment. After a brief account of Hume's life, and an exposition of the problem of morality as treated by Hume's predecessor, M. Lechartier enters upon his task proper, an examination of Hume's ethical and sociological doctrines. The book falls into two parts: (1) Theoretical Philosophy; (2) Practical Philosophy. The first part contains an exposition and criticism of the doctrine of the passions, and of the principles of morals. Here the author clearly and ably shows that Hume, from his purely empirical standpoint, failed to give a valid or satisfactory account of morality. This is much the more valuable portion of the book.

The second part consists, in the main, of excerpts from Hume's writings, and is a popular, if not superficial, exposition of Hume's views on practical morality, politics, art, and religion. Here there is scarcely any pretence at criticism, or investigation. Thus, to take an instance or two, when treating of religion, the author quotes freely from the *Dialogues Concerning Natural Religion*, without once touching the chief question involved, viz.: Which speaker in the *Dialogues* represents Hume? Similarly, when treating of the doctrine of immortality, the author regards Hume as solving the contradiction between science and religion by means of his appeal to revelation, but has not a word to say with reference to the worth or the significance of Hume's admission on this point. Once more, in his concluding chapter, the author states that Huxley and Compayré "have shown in a definite manner that no one has been, in fact, less skeptical than Hume, and that the name of skeptic with all that it implies actually does him an injustice." Now, the name of skeptic, simply, may do Hume an injustice; but neither Huxley, nor Compayré, nor any one

else has ever shown that he was not a skeptic. No single term designates Hume's true philosophical position ; for in metaphysics he was a skeptic, in epistemology he was a positivist, and in religion he was an agnostic. In short, if the reader wants to know what Hume *said*, he must still go to the philosopher's own writings ; and if he wants to know what Hume *meant*, he will turn only in vain to this portion of M. Lechartier's exposition.

W. B. ELKIN.

HAMILTON COLLEGE.

Râmakrishna : His Life and Sayings. By F. MAX MÜLLER. New York, Charles Scribner's Sons, 1899.—pp. x, 200.

The name of Râmakrishna is known outside of India chiefly through the lectures of his pupil, Vivekananda, who is responsible for the brief sketch of the life of his teacher which is here prefixed to the list of his sayings. Râmakrishna is introduced to us as a temple priest of the goddess Kâlî, and, like most temple priests in India, he seems to have been ignorant of Sanskrit. What he lacked in knowledge, however, he made up in emotion. He so idealized the image of Kâlî as to look upon it as "his mother and the mother of the universe." We are told that in her presence "he would weep for hours." He had visions and trances. Some regarded him as "mad," others as a "great lover of God." A prominent idea of his was that of "the motherhood of God." Through this conception he seems to have influenced Keshub Chunder Sen, the founder of the Brahmo Samâj. As an apostle of Vaishnavism he emphasized both in his life and in his teachings the doctrine of *Vhakti*, devotion or love to God. He died in 1886.

Of the sayings of Râmakrishna three hundred and ninety-five are quoted. The following are examples : "What is the strength of a devotee ? He is a child of God, and tears are his greatest strength" (p. 92). "A true devotee who has drunk deep of the divine love is like a veritable drunkard, and, as such, cannot always observe the rules of propriety" (p. 104). "What you wish others to do, do yourself" (p. 158). The following saying reminds us of Spinoza : "Knowledge and love of God are ultimately one and the same. There is no difference between pure knowledge and pure love" (p. 173). "We should always maintain an attitude of respect towards other religions" (p. 251). "The faith-healers of India order their patients to repeat with full conviction the words, 'There is no illness in me, there is no illness at all.' The patient repeats it, and, thus mentally denying the illness goes off. So if you think yourself to be morally weak and without goodness, you will readily find yourself to be so. Know and believe that you are of immense power, and the power will come to you at last" (p. 202).

These examples of the wisdom of a modern Indian sage are not without a real interest for the student of the history and philosophy of religion.

H. D. GRISWOLD.

LAHORE, INDIA.

The following books also have been received :

- Experimental Psychology: A Manual of Laboratory Practice.* Vol. I. Qualitative Experiments : Part I. Student's Manual. Part II. Instructor's Manual. By EDWARD BRADFORD TITCHENER. New York, The Macmillan Co.; London, Macmillan & Co., 1901. Part I.—pp. xviii, 214, Part II.—pp. xxxii, 456.
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- Essai critique sur le droit d'affirmer.* Par ALBERT LECLÈRE. Paris, Félix Alcan, 1901.—pp. 264.
- La foule criminelle : Essai de psychologie collective.* Par SCIPIO SIGHELE. Deuxième édition, entièrement refondue. Paris, Félix Alcan, 1901.—pp. ii, 300.
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NOTES.

ANTHROPOLOGY AND PSYCHOLOGY.

It is interesting to notice the trend of recent investigations and discussions in the fields of Folk-lore and Anthropology. What is at once evident is that the center of interest in inquiries regarding man and his history has greatly shifted in this generation. When in 1863, Huxley delivered his famous address on "Man's place in Nature," the problem was thought to be chiefly biological, and the biologist was expected to give the answer. Now, however, it has been recognized that man's place in nature depends largely upon his knowledge and conscious life, and the problem has been passed on to the psychologist and the epistemologist. This tendency is clearly seen in two recent presidential addresses, that before the American Folk-lore Society, at Baltimore, on December 27th, by Professor Franz Boas, and that before the Anthropological Society of Washington, on February 26th, by Dr. W. J. McGee, both of which have been recently published in *Science*.

In the former, "The Mind of Primitive Man," Professor Boas says that the two fundamental characteristics of the mind of primitive man are the lack of logical connection in its conclusions, and the lack of control of the will. These differences, he says, may depend either upon a different organization of mind in different races, or upon a different character in the individual experience that is subjected to the action of these laws, *i. e.* upon the different social and geographical environments. In reference to the former, Professor Boas thinks that there are no essential differences in the mental characteristics of men, but only differences of grade. He says that all minds exhibit the same psychic characteristics, all being able to form abstract conceptions, such as that of number, and the conceptions of abstract relations of phenomena, such as are seen in developed language and grammatical categories. Primitive man has also the power of inhibiting impulses, and of choosing between perceptions and actions according to their value, as is seen in art and ethics, respectively. Evolution calls upon us to assume that these powers developed from lower conditions, but so far as we can say, man always had these powers, though doubtless in different degrees. Passing to the second question, Professor Boas says, "the difference in the mode of thought of primitive man and of civilized man seems to consist largely in the difference of character of the traditional material with which the new perception associates itself." The superiority of civilized man consists in having eliminated more of the traditional elements, and in having gained a clearer insight into the hypothetical basis of our reasoning. The differences, then, between primitive and civilized man, are to be sought

not in *mind*, but in *culture*, or in the achievements of the one universal form of mind.

In the second address referred to, that by Dr. McGee on "Man's Place in Nature," the author calls attention to the fact that this is now recognized as a psychological problem. Huxley apparently said the last word for the biologist. His problem was to show the *structural* homologies between man and the lower animals. The problem since then has been to show the correlation of human and animal *activities*. Here, however, there has been little progress, and definite homologies have remained practically un-found. But the science is now working in a still newer and larger field, and is trying to find the *psychic factors* pertaining to activities, sub-human as well as human. Expressed otherwise, the first problem was to find out what mankind and their kindred *are*, and was worked out by Huxley. The second was to find out what they *do*, and this was suggested by Huxley and worked out by Powell. The third is to find out what they *think*, and this was undertaken by Tylor, Powell, Brinton, and others. What has been done goes to show that primitive mind is largely controlled by instinct, and that enlightened mind is governed less by instinct, and more by reason, and that enlightened mind is more individual. A very interesting parallel movement from the animal forms to human or psychic individuals is seen in the development of primitive art. Among the earliest peoples, animals are the only æsthetic symbols, and progress is made by dropping zoic forms and attributes, and substituting human forms and attributes and motives. Industry, and clanship, and language also show a similar development. Dr. McGee concludes that man "must be placed wholly within the domain of nature, yet above all other organisms at heights varying widely with that highest product and expression of nature, mental power."

This is seen to accord closely with the conclusions which Professor Boas reaches, but differs only in holding that the distance separating man and beast is not so great as that separating man and man. But both writers agree that the problem of man's place in nature is essentially a psychological and not a biological problem. That which distinguishes man from the rest of nature is his mental power, and to the mental sciences, then, we must look for a full and final account of man.

Professor R. B. Johnson, of the chair of philosophy, of Miami University, has been called to the Ohio State University.

We regret to record the sudden death of Professor Francis Kennedy, of the University of Colorado, which took place on February 19. Professor Kennedy was a graduate of Princeton, received his Ph.D. from the University of Leipzig, and went to Colorado in 1898.

Messrs. William Blackwood & Sons will publish early in the autumn, *Studies in the Psychology of Ethics*, by Dr. David Irons, of Bryn Mawr College.

Dr. H. Heath Bawden, of the University of Iowa, has been appointed professor of philosophy at Vassar College to succeed Professor F. C. French who has resigned.

We give below a list of articles, etc., in the current philosophical journals.

THE PSYCHOLOGICAL REVIEW, VIII, 2: *G. T. W. Patrick*, The Psychology of Profanity; *Warner Fite*, Art, Industry, and Science; *Raymond Dodge* and *T. S. Cline*, The Angle Velocity of Eye Movements; Proceedings of the Ninth Annual Meeting of the American Psychological Association; Psychological Literature; New Books; Notes.

THE AMERICAN JOURNAL OF PSYCHOLOGY, XII, 2: *Henry Hubbard Foster*, The Necessity for a New Standpoint in Sleep Theories; *M. F. McClure*, A 'Color Illusion'; *L. Hempstead*, The Perception of Visual Form; *W. C. Bagley*, On the Correlation of Mental and Motor Ability in School Children; *W. S. Small*, Experimental Study of the Mental Processes of the Rat, II; *A. J. Kinnaman*, A Comparison of Judgments for Weights lifted with Hand and Foot; Psychological Literature; Books Received.

THE INTERNATIONAL JOURNAL OF ETHICS, XI, 3: *John M. Robertson*, The Moral Problems of War; *Bernard Bosanquet*, The Meaning of Social Work; *Charles Graw Shaw*, The Theory of Value and its Place in the History of Ethics; *Mary Mills Patrick*, The Ethics of the Koran; *H. Barker*, Factors in the Efficiency of Religious Belief; *J. G. Phelps Stokes*, On the Relation of Settlement Work to the Evils of Poverty; *Guglielmo Ferrero*, The Evolution of Luxury; Discussions; Book Reviews.

THE MONIST, XI, 3: *Ernst Mach*, On Physiological, as Distinguished from Geometrical Space; *L. Edinger*, Brain Anatomy and Psychology; *William Weber*, the Resurrection of Christ; *Editor*, The Fairy-Tale Element in the Bible; Literary Correspondence; Discussions; The International Psychological Institute at Paris; Book Reviews.

VIERTELJAHRSSCHRIFT FÜR WISSENSCHAFTLICHE PHILOSOPHIE, XXV, 1: *August Dinges*, Das Problem des Todes, I.; *J. W. A. Hickson*, Der Kausalbegriff in der neueren Philosophie und in den Naturwissenschaften von Hume bis Robert Mayer, II.; *Paul Barth*, Fragen der Geschichtswissenschaft: III, Die Grundlagen des neunzehnten Jahrhunderts; Besprechungen; Selbstanzeige; Philosophische Zeitschriften; Bibliographie.

KANTSTUDIEN, V, 4: *R. Soloweiczik*, Kants Bestimmung der Moralität; *E. Zvermann*, Die transcendente Deduktion der Kategorien in Kants "Kritik der reinen Vernunft"; *F. Paulsen*, Zu Hemans "Kant und Spinoza"; *F. Heman*, Nachwort; Recensionen; Selbstanzeigen; Bibliographische Notizen; Neue Kantlitteratur; Vier Preisaufgaben über Kant.

ZEITSCHRIFT FÜR PSYCHOLOGIE UND PHYSIOLOGIE DER SINNESORGANE, XXV, 3: *Th. Lipps*, Psychische Vorgänge und Psychische Causalität; Literaturbericht.

REVUE PHILOSOPHIQUE, XXVI, 2: *F. Pillon*, La mémoire affective: son importance théorique et pratique; *Mauxion*, La vraie mémoire affective; *F. Le Dantec*, La définition de l'individu (2^e et dernier article); *G.*

Richard, La philosophie du droit et le droit economique ; Analyses et comptes rendus ; Revue des périodiques étrangers.

XXVI, 3: *Dr. Grasset*, Le vertige : étude physiopathologique de la fonction d'orientation et d'équilibre ; *Ch. Dunan*, Les principes de la morale.—I. Le souverain bien ; *R.-P. Sertillanges*, La morale ancienne et la morale moderne ; *Evellin et Z.*, Sur l'infini nouveau ; Analyses et comptes rendus ; Revue des périodiques étrangers.

REVUE NÉO-SCOLASTIQUE, VIII, 1 : *D. Nys*, La définition de la masse ; *J. Halleux*, L'hypothèse évolutionniste en morale (*suite*) ; *A. Thiéry*, Le tonal de la parole (*suite*) ; *S. Deploige*, Pensées d'un évêque sur le juste salaire ; Mélanges et documents ; Comptes-Rendus ; Revue des Revues.

RIVISTA FILOSOFICA, IV, 1 : *A. Faggi*, Attraverso la geometria ; *E. Sacchi*, Giacomo Leopardi come uomo, poeta e pensatore ; *A. Franzoni*, La morale utilitaria di Stuart Mill esposta dal prof. G. Zuecante ; *A. Gnesotto*, Interesse e disinteresse nei sentimenti ed in particolare nei sentimenti morali ; Rassegna bibliografica ; Rassegna di psicologia ; Rassegna di riviste straniere ; La morte di Giuseppe Verdi ; Pro philosophia ; Notizie e pubblicazione ; Sommari delle riviste straniere ; Libri ricevuti ; Per le onoranze a Gioberti.

THE PHILOSOPHICAL REVIEW.

THE UTILITARIAN ESTIMATE OF KNOWLEDGE.¹

IN the following article I desire to indicate both the truth and the error of that practical, utilitarian, or—as it is apt to call itself—‘ethical’ estimate of knowledge which has received such emphatic expression from more than one recent writer of authority. It is part of my purpose to show that, in a deeper sense of the term, the ethical function of knowledge is not exhausted by its practical application, but includes also its pursuit as an end-in-itself, as a thing of essential and intrinsic and not of merely instrumental value. For, in our escape from the one extreme of a scholastic and academic intellectualism, we are in danger of falling into the other extreme of a practical and utilitarian Philistinism. Both errors find abundant illustration in the history of human thought.

That all knowledge has a practical utility and social value, that the end of knowledge lies beyond knowledge, and is to be found in the field of activity and life, is indubitable, and may be very easily shown. I do not know any clearer or more persuasive statement of this profound psychological law than that of Professor William James in his volume of essays entitled, *The Will to Believe*. It may be said to be the thesis (or one aspect of the thesis) of the entire volume, and it is the explicit subject of the essay on “Reflex Action and Theism.” “From its first dawn to its highest actual attainment, we find that the

¹ This article is based largely on a paper entitled “The Relation of Knowledge to Will and Conduct,” prepared by the writer for discussion at the Washington Meeting of the National Educational Association, and printed in the fourth Yearbook of the National Herbart Society.

cognitive faculty, where it appears to exist at all, appears but as one element in an organic mental whole, and as a minister to higher mental powers—the powers of will. Such a thing as its emancipation and absolution from these organic relations receives no faintest color of plausibility from any fact we can discern. Arising as a part in a mental and objective world, which are both larger than itself, it must, whatever its powers of growth may be . . . remain a part to the end. This is the character of the cognitive element in all the mental life we know, and we have no reason to suppose that that character will ever change. On the contrary, it is more than probable that to the end of time our power of moral and volitional response to the nature of things will be the deepest organ of communication therewith we shall ever possess. . . . This is nothing new. All men know it at those rare intervals when the soul sobers herself, and leaves off her chattering and protesting and insisting about this formula or that. In the silence of our theories we then seem to listen, and to hear something like the pulse of Being beat; and it is borne in upon us that the mere turning of the character, the dumb willingness to suffer and to serve this universe, is more than all theories about it put together. The most any theory about it can do is to bring us to that.”¹ To separate knowledge from life, intellection from volition, is to abstract a part from the whole, and to attribute to the part, in and for itself, a value which it possesses only in its indissoluble relation to the whole. And in the hierarchy of mental elements, in the constitution and economy of human personality, intellect and knowledge exist for the sake of will and its practical activity, not *vice versa*. Man is primarily and characteristically an active being, a doer, and only indirectly and secondarily an intellectual being, or a knower. Knowledge is power, it is not an end-in-itself. Its function is to minister to better living. The good will alone has value in and for itself. The value of knowledge depends, like the value of all else, upon the character of the will that uses it. In the hands of the bad will, knowledge is an evil; in the hands of the good will, it is a good.

¹ *The Will to Believe*, pp. 140, 141.

This doctrine of the practical or teleological character of knowledge is stated in an extreme form by the same author in his *Principles of Psychology*, with special reference to conception. The translation of the perceptual into the conceptual order of the world, it is there maintained, "always takes place for the sake of some subjective interest." "The conception with which we handle a bit of sensible experience is really nothing but a teleological instrument. This whole function of conceiving, of fixing, and holding fast to meanings, has no significance apart from the fact that the conceiver is a creature with practical purposes and private ends."¹ My thinking is determined not by the necessity of the facts themselves, but by "the necessity which my finite and practical nature lays upon me. My thinking is first and last and always for the sake of my doing."² While "the reality overflows these purposes at every pore," it were idle for us to attempt to grasp that reality in its totality. "Our scope is narrow, and we must attack things piecemeal, ignoring the solid fulness in which the elements of nature exist, and stringing one after another of them together in a serial way, to suit our little interests as they change from hour to hour."³ It follows that "the only meaning of essence is teleological, and classification and conception are purely teleological weapons of the mind."⁴

Put in this way, the teaching of psychology would seem to coincide entirely with the teaching of the active and practical instinct in human nature. The practical man is always a utilitarian; knowledge is for him an instrument of activity, a "teleological weapon," a means to an end, not an end-in-itself. Even science has in his eyes, only an instrumental value, which lies in its application to the business of life, in its ministry to social convenience. Such also is the ordinary man's view of the value of education. What is education, he asks, but a preparation and equipment for the business or professional career? The measure of its value is for him the degree in which it fits a man to take his place and do his work in the social order of his community and age. In the knowledge which is irreducible (in

¹ *Principles of Psychology*, Vol. I, p. 482.

² *Ibid.*, Vol. II, p. 334.

³ *Ibid.*, Vol. II, p. 383.

⁴ *Ibid.*, Vol. II, p. 335.

reality or in appearance) to terms of life, in the theory which finds (or promises) no application to practice, the ordinary practical man who claims to represent the practical 'common sense' of humanity itself—recognizes no value at all.

This is *our* 'common sense,' the common sense of the modern Christian world. To the Greek, on the contrary, knowledge seemed to have an intrinsic value, to be an end-in-itself, nay, the supreme good, in comparison with which the life of feeling appeared irrational, and even the life of practical activity seemed inferior and not entirely worthy of a rational being. The characteristic function of man—that which differentiates his life from that of the animal and allies it to the divine life itself—is for the Greeks the activity of thought. This is that *actus purus* into which there enters no element of passivity, and in the exercise of which man asserts his independence of external conditions and becomes sufficient unto himself. So far is this life of thought from deriving its value from any overt or practical activity to which it leads, that, by its very nature, it is self-engrossed and never points beyond itself. The practical activities—what we call the life of conduct or will—are regarded as distractions from this high occupation of the mind with truth. The business activities—even philanthropy and politics and the entire civic life are relegated to a lower plane; they are the inevitable result of the composite nature of man, partly animal and irrational, and only in part rational, and the large space they cover in human life leaves but a narrow field for the discharge of man's proper business and true spiritual vocation. It is with a grudge that so much of the energy of reason is sacrificed to the lower or less worthy ends of practice. The true life of the cultured Greek is the life of culture itself, and the highest form of culture is the scientific and philosophic form, the pursuit and contemplation of truth. What gives life value is the intellectual leisure which is purchased by its civic activities; these are the means, that is the end.

This estimate is exemplified not only in the Greek depreciation of what we call 'business'—a depreciation which is not less intellectual than social in its origin and significance—but also in the

Greek appreciation of philosophy. For the cultured Greek, who had ceased to believe in the gods of the old religion, philosophy took the place of religion. So far was he from separating thought from life, that he found in thought the best and highest form of life. This view finds expression in the Socratic identification of 'virtue' with 'knowledge,' and in Socrates's conception of his mission and service to his fellows as no less ethical than intellectual. It finds expression also in Plato's account of education as a process which gradually weans the soul from the love of illusory appearance to the love of essential reality, and culminates in the contemplation of that which is at once the ultimate good and the ultimate truth of the universe. It finds expression in Aristotle's differentiation of "intellectual" from "moral" or "practical" virtue, and in the supreme value which he assigns to the speculative and intellectual life. The highest and the true happiness of man consists, according to Aristotle, in the exercise of reason, the highest and the true function of human nature; the highest and the true excellence of man is excellence of intellect. It finds expression, finally, in the Stoic identification of happiness or well-being with 'wisdom,' although the Stoics are apt to praise wisdom rather for the peace and rest which it brings to the soul wearied with the perturbations of a mean and disappointing world, than for its own intrinsic worth as the best and worthiest of human activities. The Stoics have lost the objective interest in truth for its own sake; and though they still seek salvation in the old Greek way, it is the subjective effect of wisdom rather than wisdom itself that they pursue. Yet in their insistence upon the essential and exclusive dignity of the life of reason we cannot fail to recognize the old Greek point of view.

That the other estimate of knowledge, as instrumentally rather than intrinsically valuable, was struggling for expression even in the Greek consciousness, is evident from the place which it finds, alongside the estimate which has just been described, in the ethics of Plato and Aristotle. Plato insists that the salvation of the State implies the rule of the philosopher, and that it is the duty of the philosopher to render this service to the State. Although the philosopher has learned, with the discovery of the

true riches of wisdom itself, the essential worthlessness of the ordinary civic life, yet he must be compelled to sacrifice in a large measure his own highest life that the life of the many may be rendered less unwise. The recognition of this obligation lying upon the philosopher to use his wisdom in the interests of civic order, implies that, if for Plato knowledge is the only end-in-itself, it is also the grand instrument of social regeneration. And although, the Aristotelian point of view is more individualistic than that of Plato, yet Aristotle also recognizes the interplay of the intellectual and moral virtues. In the intellectual virtue of prudence (or practical, as opposed to speculative wisdom; *φρόνησις* as opposed to *σοφία*), he finds the key to the entire system of practical virtue. "The presence of this single virtue of prudence implies the presence of all the moral virtues."¹ All practical virtue is an expression of intellectual virtue, although not all intellectual virtue finds practical expression.

The ethical inadequacy of such intellectualism is strikingly illustrated in the rationalistic ethics of Kant. Kant tries to identify reason and will, thought and activity, in the conception of "practical reason." Logical consistency, conformity to the canons of pure reason, fitness for law universal in the realm of intelligence—that is for him the ultimate standard of moral value. The conduct thus prescribed is rather the conduct of the understanding than the conduct of the will. For Kant, as for Aristotle, the ordinary practical life—the life of secular interests and vocations—is forever inferior to that life of reason itself, which is essentially a life apart, withdrawn from those activities which have their roots in natural human sensibility. But whereas Aristotle, like Plato, concedes to the latter forms of activity a second value, Kant refuses to see in them any value at all. For him the entire phenomenal world is ethically worthless, and the only ends worth seeking are the ends of pure intelligence. The result is an irresolvable dilemma. On the one hand, Kant represents the modern tendency to find the ultimate measure of value in practice rather than in theory, in life rather than in thought, in will rather than in intellect. He holds that knowledge

¹ *Ethics*, VI, 13 (6).

of noumenal reality is impossible, and that the only solution of the problems of metaphysical thought is a practical solution. On the other hand, he invalidates the moral or practical life itself, no less radically than he has already invalidated the intellectual life. Activity in the phenomenal world, springing as it does from motives of human sensibility, and directed to ends which cannot be reduced to terms of reason, is, in his eyes, ethically worthless. His effort, by a *tour de force*, to give reason a practical significance without allowing the practical significance of any activity other than the activity of reason itself, is a conspicuous failure. If the intellectual life is not itself alone the sufficient life of man, if the ethical value of reason is to be found in its indispensable-ness as the servant of the will, then we must look beyond reason for the field of its practical activity.

That life is more than knowledge, that conduct is more than culture, is, as we have already seen, a commonplace of the modern conscience, a commonplace of ordinary thought which finds abundant confirmation in modern scientific psychology. That knowledge has a practical value, and that, from the point of view of practice, this is its chief value, is no less indubitable. If knowledge is not virtue, in the sense of being its exclusive and sufficient presupposition, if we *can* "know the better and choose the worse," knowledge is at least one of the presuppositions of virtue. In the light of the psychological analysis of volition into ideo-motor activity, we may reaffirm the Socratic position with a new confidence, and say that, while a mere cold idea would be practically impotent, yet no idea *is* cold, and an idea 'touched with emotion' or, more accurately, possessing 'affective tone,' is omnipotent. All purposive or volitional action is, in the last analysis, ideation. The measure of activity is found in the ideas of which it is the expression, in the ideals of which it is the realization. We must still say with the Greeks that virtuous activity is activity "in accordance with right reason," that the true *rôle* and standard of conduct is prescribed by the intellect, that knowledge determines life. And, from the practical point of view, 'ideas' which find no expression in action, or which do *not* 'move' us, have no value; knowledge which is *not* a means to

practical ends is really worthless. From the same point of view, however, it might well be questioned whether there are any such ideas, whether there is any such knowledge. Who shall undertake thus to imprison the human intellect within the confines of its own solitary life? Who shall draw the boundary line that separates intellection from action? The solidarity of the various elements in the total life of the self, the continuity and organic unity of that life, the subtle contagion of its every operation, forbid any such separation. The practical significance of knowledge is limited only by the possibilities of knowledge itself.

And even within the intellectual life as such, we find ethical characteristics present. The life of the intellect is at the same time the life of the will. To think is to attend, and to attend is to choose. Not only is there selection of what we shall think *about*, but the process of thought is itself a process of selection, of active choice. The education of the intellect is also an education of the will, and the 'higher' intellectual education of the scientific and philosophic life is no less real than the lower forms of this education. It is no figure of speech to say that there are intellectual, as well as moral or practical virtues; that all education, even the most severely intellectual, has ethical significance. Even the recluse whose absorption in the problems of the intellect unfits him for the solution of the practical problems of daily life, reaps from the severe labor of the spirit a harvest of moral as well as of intellectual gain. Strength and purity of will, patience and perseverance and self-sacrifice, candor and generosity, these are some of the moral fruits of the intellectual life. The essential unselfishness and objectivity, the characteristic refinement and nobility, of the interests of the student and the scholar, cannot fail to refine and elevate the character which is consecrated to them.

But after we have thus fully admitted and emphasized the ethical function of knowledge, we must still ask whether this is its only function. Knowledge has a profound practical significance, a subtle and omnipotent influence upon character and will. Is this its only significance? Does this influence exhaust its value? We have seen that, according to Professor James, not only does

knowledge determine practice, but practice determines knowledge in such wise that our subjective needs and desires prescribe the the form of our science and philosophy, and find expression in what we call 'Truth.' How far is this doctrine of the reciprocity of intellect and will a true account of the nature of knowledge? How far can we carry the theory of the 'primacy of the will'?

The subtle dependence of the perception of truth upon the conduct of the will is one of the insights of Christianity. "If any man will do His will, he shall know of the doctrine." Knowledge is an act, rather than a passive reflection of the universe; the secret of divine reality is hid from the wise and prudent, and revealed to the pure in heart. Understanding implies sympathy, and sympathy is impossible without a common attitude of will. We must take the right attitude to the universe, we must be in harmony and not at discord with it, if we would know it as it is. Such an attitude, however, is rather one of objectivity than of subjectivity, of conformity to the nature of things than of dictation by the subject to the object. Not he who doeth his own will, but he who doeth the will of the Father, shall *know*. Moreover, the willing which leads to knowing is a willing which itself depends upon knowing; we must know what the will of God is, if we would do it. All that is implied in the Christian view of the dependence of knowledge upon conduct and character, is that, since the ultimate Reality is moral, or the expression of an absolutely good Will, it follows that the pathway of knowledge is at the same time the pathway of conduct, that only he who does the will of God can know the content of that Will. But he who puts himself in such living sympathy with the divine reality may hope to *know* that reality as it really is. The intellectual reward of such obedience of the will is escape from the illusions of subjectivity, and attainment of objective truth.

Such an exclusive assertion of the practical function of knowledge as negates its theoretic value, such an emphatic affirmation of its subjective significance as negates its objective validity, invalidates knowledge, and reduces it to the level of mere opinion. The distinction between knowledge and opinion has always been seen to depend upon the objective and ontological significance

of knowledge; and the skeptical dissolution of knowledge has always followed as the inevitable consequence of its reduction to subjective opinion. On the other hand, the Socratic discovery of the uniformity of the concept beneath the variety and multiplicity of the percept was the reestablishment of the distinction between knowledge and opinion after its obliteration by the Sophists. And after a similar dissolution of knowledge into subjective opinion, of 'reason' into 'feeling,' in the skepticism of Hume, the modern theory of knowledge found a new starting-point in the Kantian rediscovery of the object in the subject, of rational uniformity and necessity in the procedure of the knowing intellect.

It is important to note that the skeptical reduction of knowledge to opinion has always been the result of the temporary predominance of the practical over the theoretic interest. The Sophistic skepticism was the result of the lapse from the objective scientific interest in truth for its own sake to a merely practical and technical, or professional, interest in knowledge. The Sophists were not students of science, they were professors of the art of life. Similarly, in the school of Locke we find the keen practical instinct of the British mind gradually supplanting the strictly theoretic interest. In both Locke and Berkeley this practical interest takes a religious form which is absent from Hume. But for each of these thinkers, the philosophic interest centers in life rather than in truth; and for the 'knowledge' which Locke reported to fall so far short of reality, and of whose complete illusoriness Hume is convinced, the latter finds a sufficient practical substitute in 'opinion,' or irrational 'belief.' If knowledge has a merely practical value, it inevitably loses even that value. If our concern is not to know, but merely to act, then a belief determined by the needs of practice, habitual rather than reflective, conventional rather than independent, quick in its response to changing circumstances, untroubled with critical questions and skeptical doubts, undisturbed by any aspiration after truth and reality, will serve our purpose better even than knowledge itself. Probability, not certainty, is the guide of life, nay the more nearly our intellectual processes approximate

to those of animal instinct, the more practically effective would they seem to become.

Even in the philosophy of Kant we see the agnostic tendency that resides in the exclusively practical estimate of knowledge. Kant's view is that the function of reason is to guide the will, not to know reality. And again the merely phenomenal and subjective character of knowledge—its ontological worthlessness, its theoretic invalidity—does not detract from its practical serviceableness. On the contrary, what is theoretically uncertain becomes practically certain, and intellectual agnosticism becomes the foundation of moral faith. Kant could never have rested content with his agnostic result in epistemology if he had not from the first regarded the intellect as the servant of the will, and been more interested in the practical significance of knowledge than in knowledge itself.¹

On the other hand, when we interrogate the intellect itself as we find it in the consciousness of the man of science and the philosopher, of the student and the scholar, its invariable and unmistakable answer is that knowledge, as such, has ontological significance, and that its characteristic interest and value are to be found not in its practical results or ethical consequences, but in the attainment of its own inherent purpose—the apprehension of reality, the contemplation of truth. The measure of its value is to be found, according to its devotees, not in any subjective influence which it exerts upon the subject of it, but in the degree in which it corresponds with objective reality itself. Not the subjection of the world to our human purposes, but the desire of insight into the nature of things—disinterested curiosity as to the 'What' and the 'Why' of them all—is the spring and motive of the intellectual life. The universe is full of meaning—meaning not only relative to us and our practical purposes, but meaning that transcends all these purposes and reveals to us their insignificance—and it is the 'proper business' of the intellect to discover that meaning. To deny that there is any such meaning to be discovered, or the possibility of its discovery, is to sap the very springs of the intellectual life.

¹ A striking recent illustration of the same tendency is found in Mr. Balfour's *Foundations of Belief*.

The abstraction of knowledge from all practical reference, of the interest in the nature of objective reality from all subjective interest in its practical significance for us, is not merely possible, but is the essential condition of the process of knowledge in its stricter sense. The intellectual interest proper, or the interest of knowledge, is an interest in the object itself; not in its uses for the will of the subject, or in its affective value. Of course, we may be stimulated to intellectual activity by the spur of practical necessity, and the desire of comfort or of adjustment to our environment; and the primitive interest in knowledge is no doubt mainly of this practical kind. But the historical (or prehistoric) origin of knowledge, and the conditions of its development, do not determine its nature any more than the origin and conditions of its development determine the nature of morality. And until the desire of knowledge for its own sake is felt, until the disinterested interest in the object itself arises in the human mind, the strictly intellectual interest has not begun to exist. The very existence of the intellectual life, therefore, implies leisure from the absorbing cares of the practical life. As the Greeks always seem to have perceived, knowledge is the occupation of a mind at leisure from itself. And if we cannot go so far as to say, with the Greeks, that the provision of this learned leisure is the final *raison d'être* of all the toil and labor of mankind, we must surely admit that it is one of the things most worthy of our toil, one of the things best worth living for. There is such a thing as 'pure science,' and, apart altogether from its practical application and its social utility, truth is worth pursuing and attaining.

Doubtless all knowledge is teleological, but its teleology is the immanent teleology of the intellect itself. If the world of science arises in response to our desires, it is not in response to our practical, but to our intellectual, desires that it arises. The argument for the subjectivity of knowledge is like the argument for the subjectivity of morality. Because morality results in human advantage, it is argued that it is all a matter of human advantage. But the only way to secure the advantage of morality is to lose sight of the advantage. Similarly, the only way to secure

the practical advantage of knowledge is to pursue knowledge for its own sake. The intellectual life is no less 'paradoxical' than the moral life. The true intellectual interest is, like the true moral interest, objective rather than subjective, although the subjective value of the one is as indubitable as that of the other.

The single, comprehensive purpose of the intellect, is to *know*. In the accomplishment of this purpose it is guided by all kinds of minor purposes, but all these are means to the one constant end—the attainment of truth. It is not by a straight road, but by innumerable and devious bypaths, that this goal is reached; yet it is as the most available path to this goal that each path in turn is chosen. The intellectual life, like the practical, is a selective process, but the purpose which guides the process of selection is not the gratification of desire in general, but only that of intellectual desire; and *its* gratification consists in the discovery and contemplation of truth. The measure of intellectual importance is found not in any merely subjective end, but in the degree in which our human thought conforms to reality, the degree in which the intellectual reproduces the cosmic process. Doubtless, in the gradual execution of this intellectual purpose, we abstract one aspect of the cosmos at a time from its other aspects; and as we attend to each in turn, each acquires for us an importance which does not belong to it from an absolute point of view, and which it loses even for us when we pass to another aspect. The complete system of truth, if attainable at all, must be written chapter by chapter, and as the volume of knowledge grows, the earlier chapters must always be rewritten in the light of the latter. As we advance in insight, we learn to correct the errors of our abstract and partial thought, and to redistribute the emphasis of attention. This correction is the lesson of the cosmos, whose pupil the intellect is. But in the final correlation of these several aspects of truth, no one will be found to have been without its own peculiar importance.

The essential objectivity of knowledge—its growing independence of the will, has been specially marked by Schopenhauer. "Knowledge generally, rational as well as merely sensuous, proceeds originally from the will itself, belongs to the inner being

of the higher grades of its objectification as a mere means of supporting the individual and the species, just like any organ of the body. Originally destined for the service of the will for the accomplishment of its aims, it remains almost throughout entirely subjected to its service; it is so in all brutes, and in almost all men. Yet, in certain individual men, knowledge can deliver itself from the will, throw off this yoke, and free from all aims of the will, exist purely for itself, simply as a clear mirror of the world."¹ . . . While, in the mass of men, "knowledge remains always subordinate to the service of the will, as indeed it originated in this service, and grew, so to speak, to the will, as the head to the body,"² yet, "in proportion as, in the ascending series of animals, the intellect appears ever more developed and complete, knowledge always separates itself more distinctly from will, and thereby becomes purer."³ The possibility of this ascent from "the world as will" to "the world as idea" is man's distinctive mark, and even in the undeveloped human intellect we detect its presence. "The brute only perceives things so far as they are motives for its will, and even the most intelligent of the brutes scarcely overstep these limits, because their intellect is too closely joined to the will from which it has sprung. On the other hand, even the stupidest man comprehends things in some degree *objectively*; for he recognizes not merely what they are with reference to him, but also something of what they are with reference to themselves and to other things."⁴ "The rise of intelligence, from the obscurest animal consciousness up to that of man, is a progressive *loosing of the intellect from the will*."⁵ Such a liberation of the intellect from the will, or rather such a captivation of the will by the intellect, is the presupposition of knowledge. The subject must thus lose itself in the object, if it would find the object.

The perpetuation of the primitive bondage of the intellect to the service of the will would mean the arrest of man's intellectual

¹ *The World as Will and Idea*, Eng. trans., Vol. I, p. 199.

² *Ibid.*, Vol. I, p. 230.

³ *Ibid.*, Vol. III, p. 30.

⁴ *Loc. cit.*

⁵ *Ibid.*, Vol. III, p. 31.

development before it had reached its culmination. The true destiny of the intellect is independent ; it has its own career to run ; its own mission to fulfill. The very essence of knowledge implies the obedience of the affective and practical self to the intellectual and theoretic. It implies the Copernican change of standpoint from the subject to the object, from the self to the world. To say that the subject must always dictate to the object, desire and will to intelligence, is, we have seen, to deny the possibility of knowledge. To advocate the persistency of the will's dominion is to urge contentment with a lower level of intellectual possibility, and against any such reactionary doctrine we must reaffirm the old Greek view of the essential value of the purely theoretic life. If we hold that it is the duty of man to realize all the possibilities of his nature, we cannot hold that he has discharged that duty so long as his highest intellectual possibilities remain unfulfilled. We rightly condemn the life of the recluse in whom the ordinary sensibilities are numbed and the practical activities forgotten in an absorbing intellectualism ; we rightly demand of the scholar and the man of science the faithful discharge of ordinary social service. Yet we ought not to forget, as in this practical and utilitarian age we are apt to do, that the intellectual life has its own rights and its own responsibilities, and that the fulfillment of these implies undistracted and uncompromising devotion. The first and last condition of such devotion is leisure from practical preoccupation, from the business of the will. Let not the practical man grudge the devotees of the intellectual life their 'learned leisure' : let him remember that their business is different from his, and that it needs other tools for its accomplishment. And let us try to secure some leisure hour in every life, however practical, for the care of the intellect and the pursuit of knowledge.

Not that there is any real dualism of interest between intellect and will, knowledge and life. The highest and best service of the will demands the highest development of the intellect. We must know, if we would do ; and the highest knowledge is never reached so long as the mind's eye is fixed on the practical value of knowledge. Socrates found the secret of virtue in self-knowl-

edge ; and we, to whom the 'environment' has come to count for so much in the development of all life, can hardly fail to see that, if we would adapt ourselves aright to our environment, we must know the world as well as ourselves. And when we think of human 'practice' in all its length and breadth, when we give full scope to all the possibilities of the human will, to what form of knowledge shall we deny a practical value and a bearing on the will ? Have we not seen that they are all, in the last analysis, forms of will, since all are forms of attention ? The intellectual life has its own peculiar temptations, as it has its own peculiar virtues, developed by victory over these temptations. And where else shall the will learn so well its great lesson of obedience and self-surrender as in learning the lesson of a loyal and complete obedience to the truth ?

The most valuable ethical results of the intellectual life are possible only if knowledge be sought as an end-in-itself. The education of will and feeling which results from the disinterested pursuit of truth cannot take place if truth is pursued as a means to self-gratification. Knowledge is, in its essence, objective and universal ; truth is, in its very nature, catholic and not of private interpretation. The ethical fruits of the intellectual life are objectivity and catholicity of spirit, unselfishness of character. In the truly scientific or philosophic mind there is no thought of self, no consideration of personal advantage. The entire attitude is one of harmony with reality itself, of obedience to the facts : the soul is filled with the "intellectual love of God." If we cannot, with Spinoza, say that this is the only freedom, the only way of escape from the slavery of passion, we must surely admit that it is one form of human freedom, one way of escape from the dominion of selfish feeling. In self-knowledge lies the secret of self-control, as Socrates saw no less clearly than Spinoza. "That emotion which is a passion ceases to be a passion as soon as we form a clear and distinct idea of it," that is, as soon as we see it in its universal relations. Thus to know ourselves is to know our neighbors, and the world, and God as well. The act of knowledge is itself an act of will, and the parent of similar acts, the source of a corresponding character. The intellectual life is a

training school of moral virtue. The intellectual virtues are, themselves moral virtues. Courage, patience, perseverance, independence, modesty, candor—these are some of the marks of the intellectual character, wherever we find it. Not these, but the corresponding vices, are the results of the pseudo-scientific spirit of intellectual utilitarianism. In the true intellectualism is always found the spirit of self-sacrifice and of the 'love of God'; from the false intellectualism self-love is never absent. The kingdom of knowledge is entered, like the kingdom of heaven, *non nisi sub personâ infantis*. If moral freedom consists in the escape from self, the knowledge which delivers us from this bondage is surely one of the paths of moral freedom, one form of the liberty of the children of God. "Ye shall know the truth, and the truth shall make you free."

The social value of such true knowledge is no less real though it may be less obvious, than its value for the individual. The indirect social utility of knowledge through its application to the business of life, its ministration to human convenience, is obvious enough, and has been sufficiently emphasized. What I have now in view is the direct social value of pure, unapplied knowledge. The education of will and feeling which is inseparable from intellectual development is itself a splendid preparation for social service. As selfishness is the fundamental social vice, unselfishness is the root of all social virtue; and we have seen that the intellectual life is essentially unselfish. Besides, psychology teaches us that the intellectual process is essentially a social process. The part which the imitation of others plays in the development of knowledge, has been emphasized recently by Professors Baldwin and Royce, among others. Even 'invention' and discovery, originality and genius, the departure from the established social forms of knowledge, must submit to social confirmation if its results are to receive their final ratification as true. What, indeed, is the distinction between true knowledge and mere opinion but the distinction between that which holds good for all, and that which holds good merely for the individual, between the public or social and the private or individual interpretation of reality? Every attainment in knowledge is, therefore, an ex-

change of the individual for the social point of view. Every intellectual lesson is a lesson in the subjugation of individual prejudice and preference to the obedience to a common truth. The school and the university, no less than the family and the State, are the scene of conflict, of adjustment and readjustment, between the individual and society. And, in the one case as in the other, the conflict may be keenest and most momentous when the *alter* or the *socius* is invisible rather than visible, and future rather than present.

The results of our inquiry may be briefly recapitulated :

1. We have found that it is an error to separate and hypostatize the intellectual life, and to regard it as the whole, or as the highest and only worthy form, of human life. Knowledge is only a part of the complete whole of human possibility.

2. In the larger whole of which it forms a part, knowledge has not a merely instrumental value. It is not merely a means to an end beyond itself, it is also an integral part of the end. To assign to it a merely instrumental and subjective value is to negate the essential idea of knowledge, and the logical issue of such a view is skepticism.

3. The recognition of the intrinsic value of knowledge secures to it an ethical significance otherwise impossible, a significance which is social as well as individual in its scope.

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THE DOMINANT CONCEPTION OF THE EARLIEST GREEK PHILOSOPHY.¹

THE fragments which remain of the philosophy of Heraclitus and of the Greek thinkers immediately subsequent to him, afford the historian not only the first original material for the positive reconstruction of Greek philosophy, but they also serve in some measure to determine the dominant conception of previous thinkers. Of these latter hardly a word has been preserved to declare at first hand the character of their thought. Indeed their names would doubtless never have received distinction in history, if Plato and Aristotle had not preserved a few precious remains of a tradition already old and crumbling in their time. But, even if the names of these early thinkers had been lost, it would still be possible to form some conception of their philosophy from their successors. For Heraclitus and Parmenides seem to have had that perennial weakness of the philosopher which leads him to minimize the achievements of his predecessors, in order to magnify his own. Heraclitus, Parmenides, Empedocles, and Anaxagoras not only construct, they destroy. And it is natural to suppose that what they aimed at destroying, was the conception of the world which they found existing. The determination of this conception from their fragments, and its comparison with the later tradition, would, therefore, appear to shed some light on the character of the earliest Greek thought.

One cannot read the fragments of Heraclitus, few and disconnected as they are, without appreciating their strong negative character. So marked is this, that it has been repeatedly pointed out that the key which unlocks his dark and fervid sayings, is the understanding of what he would condemn. His censure seems to fall on all alike, on the masses of men for their blind subservience to the authority of poets, priests, and teachers, on these for their ignorance of the aim and contents of philosophy.²

¹ Read before the Western Philosophical Association at Lincoln, Neb., Jan. 1, 1901.

² Compare fragments 1-6, 16, 17, 35, 43, 92, 93, 95, 111, 115, 116, 119, 124-127. The numbers are from Bywater's edition of Heraclitus.

While few representative names are mentioned, as, for instance, Homer, Hesiod, Pythagoras, Xenophanes, and Hecataeus, the sweep of his denunciation is so wide that it is not unlikely his complete work contained others of equal prominence. The geographical extent represented by these names and the fact that he himself was of Ephesus, testify to his familiarity with contemporary and previous thought. It would thus appear that if the understanding of the cause of his censure is the key to his own philosophy, it is also a key to that of his predecessors.

His criticism seems to culminate in Fr. XVIII: "Of all those whose words I have heard, none has attained to this, to know that wisdom is from all things separate." Nor do the fragments leave any doubt in what this separateness of wisdom from things consists. Wisdom is separate, not as one thing from other things, but separate in that its object is separate. "Eyes and ears," he affirms, "are bad witnesses for men who have barbaric souls." (Fr. IV.) "Am I," he asks, "to esteem preëminently the things of which there is sight and hearing and learning?" (Fr. XIII.). And as if in answer to his own question he declares, "The hidden harmony is better than the apparent." (Fr. XLVII.) The object of wisdom thus appears to be inaccessible to the senses alone. That it is accessible to reason is made no less apparent by his insistence on the universality and authority of reason. But Heraclitus does not leave this separateness of wisdom from the things of the senses with only a negative determination. He states it positively in Fr. XIX: "Wisdom is one, to know the *γνώμην*, or intelligent principle, by which all things are steered through all things." Thus the fragments warrant the conclusion that Heraclitus distinguished consciously and definitely between knowledge attained by the senses and knowledge attained by reason, and that he regarded an error of previous thought to lie in the failure to make this distinction. True philosophy, according to him, must seek the actuating intelligent principle behind the phenomena of sense. It seems safe then to conclude, that to Heraclitus at least, the philosophy which preceded him confined itself to the world as it appears to the senses, trusting to sense phenomena to explain the processes there revealed.

To him these phenomena appeared to be in ceaseless change and flux, to contain among them nothing fundamental on which to rest. So persistent is his emphasis on this conception that "the flux of Heraclitus" became a Greek proverb. This flux, as he thought of it, is not the changing forms of some material principle, but a strife of opposites, of things in deadly warfare, one dying to live as its opponent.¹ Strife, as something akin to thought, itself the father of gods and king of all, guides the flux, and he calls it by various names, God, Zeus, Wisdom, Fire.² This fire of strife is not the material element which lives in the death of earth and dies in the life of air, but the destructive process of death itself, the medium of exchange in nature, as gold is the medium in the market.³ This truth of the relativity of things, so Aristotle says,⁴ Plato learned early and drew from it the conclusion, akin to that of Heraclitus, that science could not be founded on such a ceaseless change, but demanded other realities than those of sense. And it is this relativity of all that the senses perceive that Heraclitus emphasizes in opposition to his predecessors. In its light they seem to have held that there is among the phenomena of sense something absolute or fundamental, on which the coming and going of things, their birth and death depend, some material element, which somehow is the source of all things. Such an element Heraclitus does not find, but in the light of reason perceives separate from all the changing flux of nature a γνώμην, an intelligent principle, a hidden harmony, which to realize itself holds all the strife of things within strict limits of unvarying law and measure. Thus Heraclitus appears to be the world's first great idealist.

It is this idealism which gives him his own feeling of distinction, and which minimizes in his eyes the naturalism of his predecessors. He would convict them of a naturalism inadequate to a world with purpose in it. He would charge them with the failure to recognize the difference between sense and reason, and the failure to recognize the flux of all things which admits no

¹ Cf. Fr. 25, 35, 36, 39, 40, 41, 50, 52, 57, 67, 68, 69, 70, 78, 81.

² Cf. Fr. 19, 20, 21, 26, 36, 43, 44, 46, 61, 62, 65.

³ Cf. Fr. 20, 21, 22, 26.

⁴ *Metaph.* I, 6, 987 a 32, XII, 4, 1078 b 12.

material principle to which things owe their existence and life. He would thus imply that they sought to explain the processes of nature by a principle which the senses could grasp.

The epithet 'obscure,' which tradition has attached to Heraclitus, seems to be more applicable when attached to his contemporary Parmenides. But it is chiefly in its positive aspect that the philosophy of Parmenides is hard to understand. In its negative aspect, which indeed is the more pronounced, it is far clearer. If he is opposing himself in his denials to the philosophy which preceded his, he like Heraclitus affords the possibility of determining the dominant conception of that philosophy by implication.

The philosophy of Parmenides apparently consists of three parts, an "Introduction," the "Way of Truth," and the "Way of Opinion." The introduction is allegorical in character, and represents the source of truth as difficult of access and far out of the path of men.¹ Thus Parmenides, as did Heraclitus, conceives his contribution to knowledge to be new and unusual. And that its newness may receive the greater emphasis he will contrast it with the current opinions of men. For that goddess which is the hidden source of truth tells him, "It is necessary that you should learn all things, both the unshaken heart of persuasive truth and the opinions of men in which there is no true confidence. Yet these latter you shall also learn, since you must rightly judge of seeming truth" (28-32). The "Way of Truth" contains his own philosophy, and closes with this fitting transition to the "Way of Opinion," "Here I end the faithful account and thought about truth. Learn henceforth the opinions of men, listening to the deceptive ordering of my words" (110-112). Then follows "The Way of Opinion," the remaining fragments of which indicate the original presence of a well developed account of the way the phenomena of nature come into existence.

The absence of names in the fragments of Parmenides is remarkable in view of his critical method. It would indeed have been a gain for history if he had named the sources from which

¹ Lines 1-25. The numbering of Karsten is followed and the text of Ritter and Preller, *Hist. Phil. Graec.*, 1898.

he drew for the third part of his work. That he does not do so may indicate the currency of the opinions he condemns. It is not necessary to exhibit these opinions in detail. Viewed as a whole, in their general character, they present an interpretation of natural phenomena similar to that which Heraclitus also criticises. It is nature as it appears to the senses which is explained, and the explanation is based on the operation of material principles, a light, thin substance like fire and a dense, heavy substance black as night.¹ Mixed with this naturalistic explanation is a mythological element, the presence of a *δαίμων* which causes the elements to unite through sexual love,² thus making the process of nature a physiological generation. Such in general is the current opinion of men which Parmenides rejects.

Some addition to the rejected opinion must be made in view of the second part of Parmenides's philosophy. Here an insistence on thought and reason as distinct from sense, similar to that made by Heraclitus but more emphatic, is discovered. The reality of things is accessible to thought alone; and conversely, any inconsistency for thought reveals an impossibility in the sphere of reality.³ Fundamental among these impossibilities is the notion that there can be in reality any absolute origin of things, any real beginning or birth, likewise any real ending or death. For thought demands an absolute, unchanging, unbegotten, and undying reality in the whole of nature. The way to such a conception is the sole way of truth.⁴ Just what this permanent, indestructible, and uncreated reality may be, and just what its relation to individual things may be, are riddles still awaiting a satisfactory solution. They are the obscurities of Parmenides. But while this unnamed reality, this *ὄν*, is clouded in obscurity as to itself, it remains a clear indication of a conception not previously entertained. It seems as if Parmenides had grasped the principle of the indestructibility of matter, but was unable to wield it to any intelligible results. It seems indeed as if he were bringing all the force of his reasoning to bear against the opinion

¹ Lines 113-121.

² Lines 126-132.

³ Lines 38-40, 63-65, 94-96.

⁴ Lines 33-40, 43-53.

that things have an absolute beginning and an absolute end, that they are born as really new to nature, and die in annihilation. This was to him unthinkable, let the senses testify as they might, and let his contemporaries and predecessors explain the ceaseless generation of things by what principles they might, invoking, if they would, two substances like male and female to be drawn together in sexual love by a *δαίμων* filling them with passion. In thus blotting out genesis and making destruction incredible,¹ he implicitly testifies to a current belief in absolute generation and death.

When Heraclitus and Parmenides are compared with regard to the idea they seem to entertain of the dominant conception of their predecessors, they show a marked agreement. Diverse as their own positive speculations may be, they appear in opposition to the same current opinions. They stand opposed to a naturalistic philosophy, which basing all explanation on the phenomena of sense, sees these phenomena in a process of generation and destruction, of birth and death, and explains this process through the activity of some material element. According to Parmenides this activity is accounted for by the passion of love aroused by some divinity. Over against this current conception, they assert as truths new to the world, the one the guiding principle of an unseen harmony, veiled from the senses, but revealed to reason as an intelligent principle, the other the persistence of an indestructible reality whose absolute nature makes seeming birth and death a real impossibility for thought.

Empedocles and Anaxagoras represent Greek thought at least half a century later. The character of their fragments makes it natural to regard their philosophies as attempts to reconstruct the line of thought prior to Heraclitus and Parmenides in the light of the reasoning of these two vigorous thinkers. Empedocles and Anaxagoras are both conscious that science is a science of nature, and of nature as it appears to the senses. But they are conscious, too, of the need of indestructible elements and of principles which lead to an ordered world. Of these two necessities it is the former which appears to them as the greater. This

¹ Line 76.

necessity of indestructible elements leads them not only to deny the generation and decay, the birth and death which Parmenides denied, but also to substitute in their place new conceptions, which may bridge the gulf between a changeless persistent reality and a world of changing things. These conceptions are with both men the same. Thus Empedocles says:¹ "There is no birth for all mortal things, nor any end in destroying death, but only a mixing and interchange of what can be mixed; but men speak of a birth." And Anaxagoras says:² "The Hellenes do not rightly use the terms generation and destruction, for nothing is either generated or destroyed, but from existing elements they are mixed and unmixed. So they should properly speak of generation as mixing, and of destruction as unmixing." Thus had Parmenides labored not in vain.

But these terms reveal far more than the triumph of Parmenides's thought. They reveal also a change from the dominant conception of natural processes entertained by previous thinkers. This change is from a physiological origin of things to an origin resulting from the mechanical union of natural elements, brought about by forces acting upon them; a change from elements possessed somehow with life and power to produce things, to lifeless elements mechanically mixed. In this change, the significance of Heraclitus and Parmenides for early Greek philosophy is disclosed. They appear to be the promoters of the new view. Their influence during the next hundred years may have been very different, but back in the time before Socrates, they stand out as epoch-making men, who forced the natural philosophy of Greece from a crude physiology to the first beginnings of a mechanical explanation of nature, which was to reap its full fruitage in Democritus.

The study of the fragments of early Greek philosophy as thus pursued, appears to reveal in outlines generally clear the dominant conception of the philosophy prior to Heraclitus and Parmenides. The process of nature was conceived, it appears, as a

¹ Lines 36-39. The numbering of Stein is followed and the text of Ritter and Preller, and Fairbanks, *First Philosophers of Greece*, 1898.

² Fr. 17, Ritter and Preller, p. 113.

physiological process, a succession of births and deaths, of absolute beginnings and endings, mediated, it may be conjectured, by some natural principle. This conclusion is reinforced by an examination of the term in the fragments which expresses this physiological conception.

The words quoted from Empedocles to express the idea of mixing in his philosophy are very instructive when viewed in the light of the title which tradition has given to the work of Heraclitus, and indeed to nearly all the works of the early Greek philosophers. This title is the well-known *περὶ φύσεως*, a title which signifies naturally that the subject of their investigation was *φύσις*. Tradition so well supports the genuineness and currency of this title that it is hardly open to question. Plato gives an expanded definition of it,¹ and Aristotle uses the term *φύσις* in various combinations when speaking of the early Greek philosophers.² How far the title goes back it is difficult to determine, but its meaning in early times is not difficult to fix. The words of Empedocles referred to afford an excellent point of departure for this fixation, used as they are in connection with the determination of his own view of things in contrast with earlier conceptions. His words are as follows :

*φύσις οὐδενός ἐστιν ἀπάντων
θνητῶν, οὐδέ τις οὐλομένου θανάτοιο τελευτή,
ἀλλὰ μόνον μεῖζις τε διάλλαξις τε μεγέντων
ἐστὶ, φύσις δ' ἐπὶ τοῖς ὀνομάζεται ἀνθρώποισιν.* (36-39.)

It is evident from the connection in which the term occurs here that *φύσις* is opposite in meaning to *θανάτοιο τελευτή*, and in the translation of this fragment given above it has been therefore translated 'birth' in contrast to 'death.' Thus 'birth,' 'origin,' or 'coming into being' is the conception which Empedocles would replace by *μεῖζις* or 'mixture.' The term *φύσις* occurs twice elsewhere in the fragments of Empedocles, first in

¹ Phaed. 96 A. εἰδέναι τὰς αἰτίας ἐκάστου, διὰ τί γίγνεται ἕκαστον καὶ διὰ τί ἀπόλλνται καὶ διὰ τί ἐστὶ.

² οἱ φυσικοὶ 14 times, οἱ φυσιολόγοι 23 times, οἱ περὶ φύσεως 11 times. See index to Berlin edition s. v.

the following passage where it is contrasted as 'birth' or 'origin' with the settled *ἦθος* or nature of things :

αὐτὰ γὰρ αὖξει
ταῦτ' εἰς ἦθος ἕκαστον, ὅπη φύσις ἐστὶν ἑκάστω. (225-226.)

Thus the translation would read : " These will cause them to grow each in its own nature, whatever origin each may have." The second passage is as follows :

ἀλλὰ διέσπασται μελέων φύσις· ἡ μὲν ἐν ἀνδρὸς,
ἡ δὲ γυναιχὸς ἐν. (270-271.)

These words refer to the origin of offspring and are naturally rendered : " But the origin of the members is diverse, part in man and part in woman." The cognate verb *φύειν* occurs six times¹ in the fragments of Empedocles, and in each case must be translated 'come into being' or 'originate' or 'be born' or 'grow.' This meaning of the term *φύσις* is especially significant in view of the fact that Empedocles's own work bears the title *περὶ φύσεως*. Its natural meaning would thus be *On Origin, On Birth, On Coming into Being, On Growth*. It may well be concluded then that if he adopted this title, he did so in the full consciousness that he was using a term, the meaning of which in his hands was to receive a new interpretation, the substitution of a mechanical mixture for a physiological process. Indeed Aristotle,² in noting various meanings of the term *φύσις*, indicates that Empedocles used it to denote *τὴν πρώτην σύνθεσιν* which he elsewhere³ describes as a "synthesis of the elements, as some call them, earth, air, water, fire."

The term *φύσις* does not occur in the fragments of Anaxagoras, and the verb *φύειν* only once,⁴ where it is used in the sense of 'bringing forth.' But in the passage⁵ quoted above, where he refers to the erroneous conceptions of the Hellenes, he uses the terms *γίνεσθαι* and *ἀπόλλυσθαι*. As already noted, these terms

¹ Lines 69, 182, 188, 242, 257, 375.

² *Metaph.*, IV, 4, 1014 b 37.

³ *De Part. An.*, II, 1, 646 a 13.

⁴ Fr. 10.

⁵ Fr. 17.

have the same force as the φύσις and θάνατος of Empedocles. It is apparent, therefore, that φύσις is a synonym of γένεσις, and that the title περὶ φύσεως might as well be rendered in Greek περὶ γενέσεως, *On Generation*.

In the fragments of Parmenides, φύσις occurs three times and φύειν three times. In the first two cases, the meaning of φύσις is naturally 'origin.' The passage is as follows :

εἶσθι δ' αἰθερίην τε φύσιν τὰ τ' ἐν αἰθέρι πάντα
σήματα καὶ καθαρῆς εὐαγέος ἡελίοιο
λαμπάδος ἔργ' αἰδήλ' ἀκαὶ ὀππόθεν ἐξεγένοντο,
ἔργα τε κύκλωπος πεύσῃ περίφοιτα σελήνης
καὶ φύσιν. (133-137.)

It may be thus rendered: "You will know the aether and its *origin* and all the signs in the aether ; and the destructive works of the pure, bright touch of the sun, and whence they arose ; and you will learn of the wandering works of the round-eyed moon and their *origin*." That this is the correct meaning of the term in this passage is evident from the fact that it is used parallel to ἐξεγένοντο, and also from the line immediately following the passage quoted :

εἰδήσεις τε καὶ οὐρανὸν ἀμφὶς ἔχοντα,
ἔνθεν ἔφυ. (137-138.)

"You will know also the surrounding sky, whence it came into being." Here the term ἔφυ is clearly the key for the translation of φύσις in the other lines. The remaining passage where φύσις occurs is the following :

ὥς γὰρ ἐκάστοτ' ἔχει χρᾶσις μελέων πολυχάμπτων,
τὼς νόος ἀνθρώποισι παρέστηκεν· τὸ γὰρ αὐτὸ
ἔστιν ὅπερ φρονέει μελέων φύσις ἀνθρώποισιν
καὶ πᾶσιν καὶ παντί. (146-149.)

Here the term is used synonymously with χρᾶσις, and apparently indicates the product resulting from the process of φύσις. The last two lines would therefore be rendered: "That which thinks in men one and all is the same, namely the composition of the members."

In the three passages¹ in the fragments of Parmenides where the term φύειν occurs, the meaning is that of 'coming into being' or 'generating.' The last passage is very suggestive. It occurs as the apparent conclusion of the third part of his philosophy which deals with the rejected opinions of men :

οὕτω τοι κατὰ δόξαν ἔφυ τᾶδε νῦν τε ἔασι,
καὶ μετέπειτ' ἀπὸ τοῦδε τελευτήσουσι τραφέντα·
τοῖς δ' ὄνομα ἄνθρωποι κατέθεντ' ἐπίσημον ἑκάστω. (151 ff.)

"Thus, according to opinion, things *came into being* and now are, and afterwards when they are grown, they will perish. For these men have settled upon names as distinguishing marks for each." Thus Parmenides epitomizes the dominant conception of his predecessors.

The interpretation thus far consistently given to the term φύσις in the fragments of the early Greek philosophers, leads one naturally to employ the same interpretation in the case of Heraclitus. Here the term occurs three times,² once as subject, and twice in the phrase κατὰ φύσιν. The second of these is of doubtful genuineness. The phrase occurs in the familiar Stoic connection of living 'according to nature,' a conception which it is difficult to refer to the time of Heraclitus. In the other passage the phrase apparently means 'according to origin,' and thus reads : "Determining each thing according to its origin and deciding how it is." διατρέων ἕκαστον κατὰ φύσιν καὶ φράζων ὅπως ἔχει (Fr. II). The remaining passage is the peculiarly interesting fragment φύσις κρύπτεσθαι φιλεῖ (Fr. X), which is commonly translated, 'Nature loves to hide.' Translated, however, in the light of the philological evidence here adduced, it receives a meaning beautifully in accord with the tenor of Heraclitus' philosophy, 'the origin of things loves to hide,' for it is the hidden harmony of the world.

The term φύσις, as already noted, expresses according to an unvarying tradition the dominant conception of the earliest Greek philosophers. They studied according to Plato περὶ φύσεως ἱστορίαν. They are termed φυσικοί, φυσιολόγοι, οἱ περὶ φύσεως by

¹ Lines 65, 138, 156.

² Fr. 2, 10, 107.

Aristotle. They entitled their works *περὶ φύσεως*. It is of exceptional interest, therefore, to discover, that in every case where the term occurs free from ambiguity in the fragments which bring Greek philosophy down to Anaxagoras and Empedocles, it can mean only 'origin,' and is a synonym of *γένεσις*; while in all other cases, the same or a related rendering gives the text a clear and consistent meaning. Linked as it is with the verb *φύειν*, and with *θάνατος* as its opposite, it seems to mean 'coming into being through a process of physiological generation.' That it is just such a conception of natural processes, which, as has been pointed out, Heraclitus, Parmenides, Empedocles and Anaxagoras consciously oppose and seek to supplant, leads naturally to the conclusion that it was the dominant conception of the earliest Greek philosophy.

The tradition concerning this philosophy current a century later than Empedocles is embodied in the well-known passage in Book I of Aristotle's *Metaphysics*. This century was momentous for Greek thought and language. Both underwent changes of the greatest magnitude, leaving their records in the permanent products of Greek literature. It will be an interesting study to compare this later tradition with that already determined. But first it ought to be noted that this tradition, as embodied by Aristotle, is preserved with no essential change through all subsequent Greek philosophy, and down even to modern times. Whatever sources other than Aristotle subsequent writers may have drawn from regarding the details of the early systems of thought, they seem either to have followed him in determining its dominant conception, or to have found these other sources in full accord with Aristotle. The former supposition seems the more likely, as a comparison of what Aristotle has to say on this point with the records of later writers, reveals a similarity of language and reasoning too marked to admit of other than Aristotelian origin.¹ Indeed, the lack of evidence for sources other than Aristotle in this connection, inclines one to the belief that he alone among the authorities from which later writers drew,

¹ Compare for instance on Thales, Theophrastus, (Diels. *Dox*, 475) and Aetius (Diels. *Dox*, 276).

originally defined the conception, and that all others simply followed his definition. An examination of the Aristotelian definition and its comparison with that already made from the study of the fragments and the term *φύσις*, seem to be the remaining problems of interest.

The passage¹ from Aristotle reads as follows: "The greater number of the first philosophers thought that the principles of all things are in the form of matter alone. For that of which all things are, and out of which they are at first generated, and into which they are at last destroyed, while its real nature is conserved but undergoes modifications, this they say is the element, and this the principle of things. And on this account they think that nothing is generated or destroyed, since a substance of this sort is always conserved. As for instance, we do not say that Socrates becomes absolutely, when he becomes beautiful or musical, because the underlying reality, Socrates himself, is conserved. Similarly in the other cases; for it is necessary that there be some substance, either one or more than one, from which the others are generated while it is conserved. As to the number and form of such a principle, however, all do not say the same thing, but Thales, the originator of this sort of philosophy, says it is water."

This passage is preceded by definitions of the four Aristotelian causes, and is followed in the subsequent paragraph by the statement that one might conclude that the sole cause of things is the material cause. Thus in Aristotle's mind the dominant conception of the earliest Greek philosophy was that of material cause, the substance out of which things are formed, as the statue is formed from bronze, a *ὑποκείμενον* or permanent substratum, which abides through all change of objects. He criticises this conception on the ground, among others, that it does not provide for an efficient cause to account for movement.

The lack of agreement between this interpretation and that developed from the fragments of the early Greek philosophers, is at once apparent. If the Aristotelian terminology is to be adopted, it would seem as if the fragments of Parmenides, Empedocles,

¹ *Metaph.*, I, 3, 983, b 7 ff.

and Anaxagoras seek to formulate the conception of a material cause. And further, this attempt seems to be made with full consciousness of its significance, with the recognition that such a conception has been lacking hitherto. The fragments of Parmenides in their second part are a constant reiteration of the primacy of substance, and Empedocles and Anaxagoras explicitly state that there is no generation, but only a mixture of material elements. The conclusion seems therefore justified, that Aristotle is in error when he assigns the idea of a permanent substance to Thales and his immediate successors. Indeed, in his references to Anaximander, he implies that the latter's conception of a substance infinite in quantity, was formed in order to provide for an endless generation.¹ Such a conception is not that of a permanent, abiding substance, but of one that is constantly being used up, but never wholly on account of its unlimited amount. It is also to be noted that Aristotle finds it a matter of surprise that 'earth' was not chosen by the early philosophers as the material cause of things. Thus he says:² "Each of the three elements has had a supporter; for some say it (the substance of things) is fire, others water, and still others air. But why did they not say it is earth, as most men do?" The question is certainly a natural one, for any thinker, and especially a primitive thinker, must indeed go far afield, if he gives to the question, "Of what substance are things made?" the answer 'water,' 'air,' or 'fire.' If, however, the question raised was rather, "What is the generative principle of things?" their answers are natural and to the point. If they wrote on generation, *περὶ φύσεως*, and sought its principle, they could find it in the water and the air and the fire which give life. That water was such a principle in the system of Thales, Aristotle seems himself to testify; for he cites³ as reasons which probably led Thales to adopt water as a principle, the fact that the nourishment and seeds of things are of a moist nature, and that heat is generated through moisture. He compares him also with the theologians who made Oceanus and

¹ *Phys.*, III, 8, 208 a 8.

² *Metaph.*, I, 8, 989 a 6.

³ *Metaph.*, I, 3, 983 b 25 ff.

Thetis the parents of generation. To these reasons Theophrastus and the *Placita* do not add. Unfortunately Aristotle is silent as to the reasons which lead Anaximander and Anaximenes to choose their principles, except in so far as the principle is infinite.

These considerations seem to lead to the conclusion that Aristotle is in error in his interpretation of the dominant conception of the earliest Greek philosophy. They incline rather to the interpretation which the fragments reveal, that the first thinkers of Greece sought not for a material cause, a permanent substance out of which things are made, but rather for the principle to which they owe their birth, growth, and nourishment, and to the lack of which they owe their death. But why did Aristotle fall into this error, if error it really is? The answer is found in the commentary made by nearly all students of Aristotle on his treatment of his predecessors, namely that he views them not in the light of their own thought, but in the light of his. To the early philosophers the four causes were unknown. To Aristotle, air, fire, and water were only material causes. Thus in the light of his thought the early philosophers in using these elements were attempting to explain nature through material causes alone. Such a method of interpretation is too common in the history of thought, and too common in Aristotle himself to occasion surprise. Indeed, it is a warning that the witnesses who have not yet developed a scientific terminology, are more trustworthy regarding primitive conceptions than is even the "master of those who know."

As already pointed out, the tradition after Aristotle adds nothing to help in determining the dominant conception of the earliest Greek philosophy, but seems simply to follow his interpretation. It remains, therefore, but to bring the various parts of this discussion together in order to summarize what it reveals that conception to be. This can best be done, perhaps, by following out a suggestion made by Aristotle himself in regard to Thales. He notes, as already indicated, that Thales's predecessors were the theologians, who accounted for generation through the agency of mythological parents. In the light of this suggestion, it may well be claimed, that the title of Thales and his successors to rec-

ognition as scientific and philosophical thinkers, lies just in the fact that for generation through mythological forces they substituted the conception of generation through a natural, material principle, such as water, air, fire. Indeed, this conclusion is so natural as to appear of itself almost inevitable; for quite generally the study of primitive thought reveals mythological parents as the origin of the world of things, while the first step in science is the putting of some natural principle in the place of these parents. Thus the storm-god gives place to the storm, the sun-god becomes a world in the sky, and thus continuously, until out of the realm of mythology appear at last the objects of nature to be explained with ever-increasing simplicity.

Thus the dominant conception of early Greek philosophy seems to be, not a permanent material substance out of which all things are made, but that nature is a process of physiological generation, a succession of births and deaths, of coming into existence and passing out of existence, mediated by some natural principle, as water, or a nameless inexhaustible substance, or air, or fire.

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THE DOCTRINE OF SPACE AND TIME.

III. THE BERKELEIAN DOCTRINE OF SPACE.

IT is clear from what was said in my last paper that the Kantian doctrine is a house divided against itself, and that, unless we elect to embrace the motto : *credo quia absurdum est*—a motto not now in fashion in most departments of human knowledge—we are under obligations either to modify it or to repudiate it altogether.

What shall we do ? Shall we maintain that space is *not* infinitely divisible ? If we have the temerity to do this, we shall find drawn up against us, not merely the philosophers, but with them a formidable array of those who, like Clifford, care not a doit for philosophers, but hold very definite notions regarding points, lines, surfaces, and solids, and express these opinions with much emphasis. The mathematician usually takes little interest in such distinctions as that between 'intuition' and 'conception' ; but he insists strenuously that it is absurd to maintain that a surface may be so narrow that, when split longitudinally, it is divided into two lines ; or a line so short that, when bisected, it yields only a brace of points. Mathematics, he affirms, can recognize no such lines or surfaces.

And in this the mathematician is entirely in the right. The space with which he is concerned *is* infinitely divisible ; his solids do not split up into surfaces, his surfaces into lines, and his lines into points. But, then, he is not dealing with a space immediately given in intuition ; he is dealing with *real* space. He has passed from sign to thing signified, without remarking the distinction between them, and though this distinction may not greatly concern him when he remains on his own ground, it is one of the utmost moment to the metaphysician. Indeed, it is just the failure to recognize it that has introduced into the Kantian doctrine the inconsistencies previously discussed. That doctrine is so near to the truth that it needs but a little modification to make it quite satisfactory. This I must try to make clear.

We have seen that Kant held that every object of intuition must consist of part out of part, whether we can prove it to be so constituted or not. "All intuitions," he maintains elsewhere in the *Critique*,¹ "are extensive quantities." "By an extensive quantity," he explains, "I mean one in which the representation of the parts makes possible the representation of the whole (and hence, necessarily antecedes this). I cannot represent to myself any line, however small, without drawing it in thought, *i. e.*, from a point generating all its parts successively, and thus alone producing the intuition. So it is also in the case of every, even the smallest, portion of time. In it I represent to myself only the successive progress from moment to moment, and this by the addition of all the bits of time (*Zeittheile*), finally begets a determinate quantity of time. Since the pure intuition in all phenomena is either of space or of time, every phenomenon, as intuition, is an extensive quantity, for it can only be cognized in apprehension through the addition of part to part. Hence all phenomena are intuited as aggregates, as consisting of a multiplicity of previously given parts. This is not the case with quantities of every description, but only with those that are represented and apprehended by us as in their nature extensive quantities."

The reader of the second of this series of papers will find in this passage a good deal to object to. To represent to myself any line, however small, I must produce it bit by bit ; I must successively add *all* its parts. How many of these parts are there ? An endless number. And are these bits of line ready to hand, or must they be produced 'from a point' ? And what is meant by a "successive progress from moment to moment" ? Are moments indivisible, or are they bits of time ? Evidently the latter. They, in turn, then, are a problem, and must be obtained as the result of an endless addition of parts. The successive addition of portions of space and of time seems simple only when one forgets for the moment that one is a Kantian. That is what Kant has done here ; he makes space and time out of spaces and times ; but he leaves us wholly in the dark as to how those bits of space and time that we are to piece together come into being.

¹ *Critique of Pure Reason*, Transcendental Logic, Axioms of Intuition.

There is a leap from a point — and they somehow appear ; the rest is simple. But we must not ask how we ‘drew’ the first bit of line, or how we ‘begat’ a moment. Moreover, if *all* phenomena are “cognized in apprehension through the addition of part to part,” or “intuited as aggregates,” how about the *minimum sensible*, which is inferred to have parts, although we cannot perceive it to be composed of such ? Do we ‘intuit’ this as an aggregate, even while it seems to us to be simple ?

But I must not dwell upon these inconsistencies, for they have been sufficiently discussed already. In the division of the *Critique* from which I have just been quoting, Kant again makes it evident that he is led to take the unfortunate position that he does take, by the supposed necessity of avoiding a clash with mathematical doctrine. “Empirical intuition,” he writes, “is only made possible by pure intuition—that of space and time. Hence what geometry says of the latter will indisputably apply to the former. Such evasions as the statement that objects of sense do not conform to the rules of construction in space (to the principle of the infinite divisibility of lines and angles, for example) must fall to the ground. For such evasions deny to space, and with space to mathematics as a whole, objective validity ; and one no longer knows why and to what extent the mathematics can be applied to phenomena.”

Here we have the very nerve of the dispute. Are we to repudiate mathematical reasonings, or, what seems as bad, to deny their applicability to the things of which the senses give us information ? Surely not. But are we, then, to accept the infinite divisibility of what is given in intuition, and must we, to avoid giving offense to the mathematician, shut our eyes and bolt the inevitable consequences of such an admission ? It is pathetic to hear those who feel within them the pangs of the antinomial colic murmur with resignation : “There are, indeed, difficulties,” etc.

It is a relief to find that we are not, in fact, shut up to these alternatives. Kant himself has recognized a distinction which, when its significance is clearly seen, enables us to avoid disaster in either direction. The passage in the *Critique*, which I have

in mind in saying this, is so interesting that I shall quote it at length:¹

“We are accustomed to distinguish in phenomena what belongs essentially to the intuition of them, and is valid for every human sense-faculty, from what belongs to them only accidentally, inasmuch as it is not valid in relation to the faculty of sense taken generally, but only in relation to a particular disposition or organization of this or that sense. Knowledge of the first sort gives us, we say, the object as it is in itself; knowledge of the second gives us only the object as it appears. But this distinction is merely empirical. If we adhere to this position (as is commonly done), and do not regard the former empirical intuition (as one should) as, in its turn, mere phenomenon, in which nothing that belongs to the thing-in-itself is to be found, we lose our transcendental distinction, and we believe that we are cognizing things in themselves; whereas, on the contrary, everywhere in the world of sense, even in our profoundest investigations into the objects which belong to that world, we are dealing with nothing but *phénomènes*.

Thus we call the rainbow a mere appearance or phenomenon in a sunny shower, and we call the rain the thing-in-itself. This is right enough, if we take those words in a mere physical sense, and mean by the thing-in-itself that which, in universal experience, and in all its various relations to the senses, is constituted in intuition in just this way and in no other. But if we take this empirical experience generally, and, without enquiring into its harmony with the faculty of sense of every human being, ask whether this represents an object in itself (not the rain-drops, for they, as phenomena, are evidently empirical objects)—if we do this, we find that the question of the relation of the representative to its object is a transcendental one, and that not only are the drops mere phenomena, but even their globular form, nay, the very space through which they fall, all are nothing in themselves, but are mere modifications or fundamental dispositions of our sensuous intuition. The transcendental object remains unknown to us.”

¹ *Critique of Pure Reason*, General Remarks on Transcendental *Æsthetic*.

This "transcendental object" is, of course, the "external reality" which has so often been assumed to exist beyond consciousness, and with which I am not concerned in these papers. In this passage of the *Critique*, as in many others, Kant comes near to repudiating it altogether. He sees that the distinction we all draw between appearance and reality does not necessitate any reference to such a thing as this, but is a distinction within our experience, and has to do only with phenomena, in the broad sense of that word. One experience (the rainbow) is taken as the sign of another (the falling drops); the sign is recognized as appearance, while the thing signified takes on the dignity of the reality. This is quite in harmony with the doctrine coming to be accepted, I think, by an increasing number of philosophers, namely, that when we are contrasting in our experience appearance and reality, the reality always means to us that upon which we lay the duty of ordering and explaining our experiences as a whole.

Unhappily Kant did not see the full significance of this distinction. He might, after showing in what sense the rainbow is not the reality, but only the sign of it, have gone on to show that each rain-drop, as visual-appearance, is sign of a reality known to us in terms of touch and motion. Having arrived at this point, he might have indicated that this reality, in its turn, is relatively and not absolutely real; *i. e.*, that what is actually given in sense or imagination (the intuition) may in its turn become sign or appearance of something else, which thus becomes, relatively to it, the reality. As it is, he assumes that there is given in intuition a last 'appearance,' which is the reality, not in a relative, but in an absolute and final sense, and to which the "rules of construction in space" directly apply in all their rigor. He fails to see that here, as before, he is dealing with a symbol, and out of his confusion of symbol and thing symbolized spring the difficulties exhibited above.

The doctrine which I have called the Berkeleian avoids these difficulties, without, I think, giving up anything that the Kantian need care to retain. It merely distinguishes more carefully between symbol and thing symbolized, and refuses to be led into

needless perplexities by the assumption of 'necessary forms' of intuition and supposed inferences from them. Its argument may be set forth briefly as follows:—

1. In a given experience of which I am intuitively conscious—say, an expanse of color-sensation—I can distinguish between 'matter' and 'form,' between the stuff of my experience and its arrangement.

2. I perceive the expanse of color to be composite, and to be divisible into parts, but I do not perceive it to be composed of an infinite number of parts, *i. e.*, to be infinitely divisible; so much Kant has himself admitted.

3. It is important to bear in mind, however, that no such single experience constitutes what we mean by a 'real thing,' nor is its 'form' what we mean by 'real space.' We have here only the raw materials out of which real things and real space are built up. Our experiences fall together into an orderly system, and single experiences serve as signs of other experiences or of whole groups of such. Thus the little patch of color sensation that represents a tree seen at a distance, and the larger patch that represents a tree seen near at hand, are recognized as belonging to the same group, and are regarded as different experiences of the *same thing*, *i. e.*, the one can stand for the other, and each serves as a sign of the 'tactual' tree in which the mind rests as the real thing of which each is an appearance.

4. But a little reflection makes it apparent that it is a mistake to suppose that this real thing, of which the whole series of visual appearances are signs, is a single intuitive experience of any sort. The tactual thing, as it exists in the sense or the imagination, is the temporary resting-place of our thought, not its permanent goal. Science conceives the tree to be made up of atoms and molecules, imperceptible to the sense, and yet really existing and furnishing an explanation of what is given in the sense. Of this 'reality' the tree over which I pass my hand becomes an 'appearance.' And if we are justified in thus passing from what is given in the senses, to what science compels us to accept as furnishing its explanation, a path is opened up to us to which we cannot arbitrarily set a limit. The real thing, in any but a rela-

tive sense, becomes to us a possibility of substitutions according to a definite principle ; it is not a single intuitive experience of any sort whatever.

5. If we will hold this clearly in mind, we may avoid antinomial pit-falls without either tilting against mathematics, or shocking the common-sense of mankind by denying that space, and lines and angles in space are infinitely divisible. Berkeley pointed out long ago that we cannot continue to subdivide a given finite line (the line, that is, as given in a single intuition) indefinitely. We soon come to what appears to the sense to be a mere point, and to have no part out of part. He rightly indicated that when we talk of subdividing that which seems to the eye a mere point, we are in imagination substituting for that a line, which is, of course, composed of parts, and we are continuing our subdivision upon this substitute. When we realize that this system of substitutions is typical of our whole experience of the real world, which reveals itself in consciousness as a system of interrelated experiences, we can understand why the infinite divisibility of extended things should be so earnestly insisted upon. The point which appears to result from the subdivision of a line can be approached to the eye, and it is seen as a short line. When a further subdivision has taken place, and no change of position will reveal it as a line, we can place a microscope over it. In all this we conceive ourselves to be dealing with the *same* thing, and so we are, in a very important sense of the word *same*. But it is a very unfortunate error to suppose that any one of the experiences which represents to us the real thing is the same with any other in a quite different sense of the word—to suppose, namely, that they are strictly identical. Unless we happen to be psychologists, we are not concerned with any one of the experiences in itself considered. We are concerned with the real thing, of which any single experience is a mere symbol. It is quite possible for the psychologist to maintain that any single experience is probably ultimately divisible into a limited number of sensational elements not themselves further divisible ; and yet to maintain stoutly that the real thing is to be conceived as infinitely divisible. He has only to distinguish carefully symbol from thing symbolized.

6. Thus we see that, although the geometer finds his raw materials in intuition, he uses these raw materials only as his point of departure. If lines and angles were not given in intuition, and if we could not subdivide these in individual experiences, the geometrical refinements which have grown out of such experiences would be impossible. But these refinements have, be it remembered, *grown out of* the experiences ; they are not identical with the experiences themselves.

For example, a fine line upon the paper before my eye *seems* to me to have length, but no breadth. I can divide it in such a way that the two resulting portions *seem* to me to be exactly equal to each other. I can form an angle out of two such lines, and can draw a third line in such a way that it *seems* to bisect the angle exactly. But the mathematician informs me that no line can be drawn, by any instrument, which has not breadth as well as length ; and that the chances are infinitely against the exact equality of the parts of the divided line and of the divided angle. "The line may seem to you without breadth," he explains, "and the line and the angle may seem exactly bisected ; but this is mere seeming. If your senses were more discriminating, you would discover your mistake."

This simply means that, in the series of substitutions we have been considering, the line will not remain a line, but will turn into a surface, and the halves will no longer remain halves, but will be seen to be unequal. The geometer gets his first crude notion of a line and of bisection in just such intuitive experiences as I have mentioned. But he does not rest in the intuition ; he turns it into a *conception*. The geometrical line he conceives as one which, under all circumstances, is to remain a line ; the geometrical point must not, when narrowly inspected, spread out into a spot ; the bisected angle must remain bisected. That lines which appear to be true lines are seen on closer inspection to be narrow surfaces, and that visible points turn into small bits of territory, is matter of constant experience. The geometrical line and point must not do this under any circumstances whatever. They are abstractions, not concrete things.

7. From the above it seems to be clear that real space is neither

a hopeless mystery nor the mother of unavoidable self-contradictions. *Real* space is the 'form' of the real thing, and just as the real thing (in any but a relative sense of the word) is not given in any intuition, so real space (in any but a relative sense) is not given in any intuition. When, in any given instance, I pass in thought from appearance to reality—for example, when I pass from the visual appearance to the tactual thing of which it is the sign—I may regard the 'form' of the latter as more real than that of the former. It is that in which the mind rests for the time being. But, as we have seen, any such thing may, in its turn, become appearance in relation to a reality more ultimate; and we recognize that, however far we may carry our investigations, there is no reason to believe that we shall meet with an absolute limit. Every reality in which we may rest at any time is, thus, a relative reality, and its space is relatively real. The absolute object and its absolute space are not *an* object (intuitive) and *a* space (the 'form' of an intuition), but rather *an indefinite series of substitutions* gathered up and hypostatized into an individual. It is to this absolute object and its absolute space that the mathematical conceptions apply in all their rigor. They apply to these without self-contradiction, because we are here not dealing with an individual experience at all.

And it should be noted that, just as we do not think of the several appearances as so many different objects, but call them manifold appearances of the one object; so we do not regard the 'form' of each appearance, the space it occupies, as a distinct and separate space. When we walk toward the tree which we see at a distance, we recognize that we are conscious of a succession of appearances, and a little attention to them reveals the fact that they differ from each other both in 'matter' and in 'form'; in other words, the patch of color of which we are conscious undergoes both qualitative and quantitative changes. Yet we maintain that we have been looking all along at the one tree, and we regard that one tree as occupying one real space, which does not grow larger, but remains always the same. This means that both 'matter' and 'form' in the successive appearances have been reduced to the rank of mere signs of a something beyond them.

So much for the Berkeleian doctrine. As it makes any particular finite line in consciousness to consist of a limited number of simple parts, it is not open to the objection that it makes motion along such a line a wholly inconceivable thing. It does not force upon a moving point the absurd task of exhausting an endless series. The descending series discussed in the last paper results after a limited number of terms in the simple, and there the series is broken, for the simple does not consist of parts. In all this there is, at least, no contradiction. In an earlier work I have discussed the objections commonly brought against it, and at the risk of a little repetition I shall quote what I have there said:¹

“It may be argued, first, as it often is argued, that it is impossible to conceive of any part of a line as not itself extended and having parts. It may be admitted that the small parts arrived at do not *seem* to have part out of part, that these sub-parts are not observed in them; but still it is said that one who thinks about them cannot but think of them as really having such parts. I ask one who puts forward this objection to look into his own mind and see whether he does not mean by ‘thinking about them,’ bringing them in imagination nearer to the eye, or by some means substituting for them what can be seen to have part out of part. That one can do this no one would think of denying, but this does not prove the original parts to be extended.

It may be objected again that extension can never be built up out of the non-extended—that if one element of a given kind has, taken alone, no extension at all, two or more such elements together cannot have any extension either. I answer that a straight line has no angularity at all, and yet two straight lines may obviously make an angle; that one man is not in the least a crowd, but that one hundred men may be; that no single tree is a forest, but that many trees together do make a forest; that a uniform expanse of color is in no sense a variegated surface, but that several such together do make a variegated surface. It may be that extension is simply the name we give to several simple sense-elements of a particular kind taken together. One cannot say off-hand that it is not.

¹ *On Sameness and Identity*, pp. 150–152.

“Should one object, finally, that, if a given line in consciousness be composed of a limited number of indivisible elements of sensation, consciousness ought to distinguish these single elements and testify as to their number ; I answer that what is in consciousness is not necessarily in a clear analytical consciousness, nor well distinguished from other elements. For example, I am at present conscious of a stream of sensations which I connect with the hand that holds my pen. The single elements in this complex I cannot distinguish from each other, nor can I give their number. It does not follow that I am to assume the number to be infinite. Much less should I be impelled to make this assumption, if it necessitated my accepting as true what I see to be flatly self-contradictory, as in the case under discussion. It was because of this vagueness and lack of discrimination in the testimony of consciousness that I said, some distance back, that consciousness *seems* to testify that any finite line in it is composed of simple parts. If the testimony were quite clear, the matter would be settled at once. As it is not quite clear, the matter has to be settled on a deductive basis. The most reasonable solution appears to be the Berkeleian.”

Surely the Berkeleian doctrine is preferable to the Kantian, and should replace it. But it is desirable not to overlook the fact that the latter doctrine emphasizes a very important truth — it insists strenuously upon the validity of the application of mathematical reasonings to phenomena. In this it is wholly in the right, for here it is recognizing the system of relations which obtains within our experience as a whole. Its only error — that is, its only fundamental error — lies in supposing that in dealing with any single intuition it is dealing with ‘real’ space and ‘real’ things. If the Berkeleian will admit that ‘real’ space is infinitely divisible (as it may be), and if the Kantian will admit that ‘real’ space is not given in any intuition (as it certainly is not), there need be no quarrel between them.

We shall now turn our attention to the problem of the nature of time.

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THE PHILOSOPHICAL LITERATURE OF GERMANY IN THE YEARS 1899 AND 1900.

I. HISTORY OF PHILOSOPHY.

IN my first article (PHILOS. REV., Vol. VIII, pp. 273 ff.), I discussed the three following works as representative of the different movements in the history of philosophy: Ueberweg-Heinze's *Grundriss* (a work of reference); Th. Ed. Erdmann's attempt to describe the succession of philosophical systems, in the spirit of the Hegelian construction of history, as a strictly logical sequence, and at the same time to interpret the leading philosophical movements; R. Eucken's *Lebensanschauungen der grossen Denker*, with the strong emphasis it lays on the individuality of the several philosophers as the source of their theories of the world.

I have before me now two works of Wilh. Windelband in new editions; which in point of methodology are quite as important as the representative works of the preceding years. First to be mentioned is the volume: *Die Geschichte der neueren Philosophie in ihrem Zusammenhange mit der allgemeinen Cultur und den besonderen Wissenschaften*. Vol. I: From the Renaissance to Kant; Vol. II: From Kant to Hegel and Herbart, or the golden age of German philosophy (second revised edition, Leipzig, Breitkopf und Härtel, 1899, pp. 591 and 408). The title contains Windelband's programme, which is a very comprehensive one. Coming generations will have to contribute towards its execution. Twenty years ago, when Windelband's exposition first appeared, the necessary preliminary investigations were more lacking than to-day. Profound gratitude, however, is due him for the fact that he clearly discerned a great task and courageously took it in hand. He sets before us an ideal towards the realization of which it is the duty of every investigator of the history of philosophy to contribute.

One can speak of a real understanding of the particular systems and of the entire development of philosophy only when the philosophical movement—including complete attention to the personalities of the individual thinkers—is viewed in connection with the great stream of civilization of which it is a part, and when on the other hand, one takes into account the varied suggestions and influences which bring philosophy and the special sciences into the closest mutual relationships. W. Dilthey

has earned great recognition by his work along these lines. As the task which lay before Windelband was to expound in a volume of moderate size the whole of modern philosophy, he naturally could not attempt to disentangle for the reader the many intricate threads which form the fine web in the internexus of literature and culture. This is the more true because he presupposes on the part of his reader certain scientific training indeed, but as yet no special work in the domain of philosophy. He was obliged, therefore, to be satisfied with giving a general idea of modern philosophy in schematic outlines. The second edition has undergone considerable revision, although no important changes have been made either in the general conception and fundamental plan of the work, or in the free interpretation of the different philosophical systems. Even in the matter of style, the volume retains, as Windelband himself says, "the somewhat free character which it originally had, . . . only the most youthful excrescences were pruned away." In the last respect Windelband might have gone even further. He was, however, of the opinion that unless he were to entirely rewrite the book, he must be satisfied with its peculiarities, distasteful as many of them had already become to him. The third volume (in three parts) which is not yet published, and which will treat of the philosophy of the nineteenth century, is promised for the near future.

Of deeper and more lasting importance is Windelband's later work : *Geschichte der Philosophie* (second revised and enlarged edition, Tübingen and Leipzig, J. C. B. Mohr, 1900). The two editions of this work appeared only eight years apart ; between the first and second editions of the earlier book twenty years elapsed. The earlier work was meant for beginners, the later one for scholars ; the former aimed to create an interest in philosophy, the latter pre-supposed it. The style of the later book is concise and pithy in contradistinction to the rather loose manner of the earlier publication. In the second edition Windelband attempted, for purpose of ease and fluency, to remove the compendium style from his treatise ; still the book is even yet in many places difficult reading, which could scarcely be avoided where one is obliged to compress such an enormous amount of material into a form so relatively small. The 516 pages of the first edition have been extended to 571, and the index has been greatly enlarged and improved. The last part, which treats of the philosophy of the nineteenth century, has been increased threefold ; besides which, the new edition gives evidence of many corrections, enlargements, and curtailments. In spite of all this, the individuality of the work has remained intact. In the introduction, Windelband explains

with great insight and extraordinary clearness, the three kinds of factors which enter into the formation and development of philosophical ideas and conceptions, into the statement and solution of problems: viz., factors due to conditions in civilization, to the individual, and to pragmatic conditions. "The problems of philosophy (as well as the materials for their solution) arise out of the ideas of the general contemporary consciousness, and out of the needs of society." On the other hand, the chief leaders of philosophical development are "the strong, independent personalities whose own natures determine not merely the selection and coordination of the problems, but also the working out of solutions in their own theories as well as in the theories of their successors." Nevertheless, "in the philosophy of individuals, accidentally conditioned as it may seem, positive necessities do make themselves felt, and progress in the history of philosophy is therefore in periods thoroughly pragmatical, *i. e.*, it must often be explained by the inner necessity of conceptions, and by the logic in things." In the execution of his plan, the moments relating to the history of civilization are often put too much in the background—and the personal moments, whose great importance Windelband treats in so masterly a fashion in the introduction, are scarcely noticed at all.

Windelband purposely makes this renunciation in order to concentrate "the readers whole attention upon the pragmatic necessity of spiritual processes." His object is to give a history of philosophy, not of philosophers, not a chronological list of "purely individual changes in thoughts," which characterize this or that philosopher, but a history of ideas, of problems, and of the conceptions which have been created for their solution. He looks upon the history of philosophy as the "process in which the peoples of Europe have expressed their theories of the world and their views of life in scientific terms." Therefore the apportionment of his material has nothing in common with the traditional method of treatment; names of persons or movements in thought do not form the headings of his forty-six paragraphs, but the problems under discussion (*e. g.*, for the philosophy of the nineteenth century §§ 44–46, Contest Regarding the Soul; Nature and History; The Problem of Values).

That Windelband left the beaten track and treated these often discussed materials from entirely new standpoints, is in itself a great merit. And this new constructive method bore rich fruit. His book belongs decidedly to the standard works of our philosophical literature, and it is highly suggestive and instructive to the investigator along these lines. It is just this suppression of the personal element that

brings into clear prominence the large internexus of thought-processes, the literary dependencies, and the development in its entirety, including the vanishing and reappearing of identical or similar problems and solutions. Many elements which would otherwise be isolated are drawn into closer connection with each other; on much that is singular and difficult of comprehension a new light is thrown. The treatment is, as every historical exposition ought to be (but unfortunately often is not) genetic. Nowhere is Windelband interested in the finished Being of this solution or of that problem, but always first and foremost in its Becoming. If, however, this Becoming which extends through the entire development of European philosophy is to be set forth in a single volume of reasonable compass, certain limitations must be laid on one's self: it is the rigorous maintenance of a single viewpoint, even though it be a one-sided one, which is the fruitful element here. In this case the one-sidedness consists precisely in this, that the personal factors are almost entirely ignored. In reality they are, it is true, oftentimes of decisive importance, both for the statement of definite problems, and for the particular method of their solution, as well as for the combination of problems in particular systems. In "a theory of the world and estimate of life" the important thing is not so much 'scientific conceptions,' as individually determined and consequently individually different ways of perceiving and feeling. Consequently, in the development of philosophical ideas one can speak of pragmatic necessity and progress at best only within a small range of connected theories. Certain intrinsic necessities do, without doubt, reveal themselves everywhere: problems and solutions exist only in limited number, and therefore constantly recur in manifoldly changing connections. For their recurrence and combination, however, it is not pragmatic intrinsic factors, but rather social factors and especially individual factors, that are decisive. Definitive solutions, scientific verdicts are unattainable for most of these questions. It is an illusion that there are certain universal principles "in accordance with which we (Europeans) can to-day scientifically interpret and estimate the life of the world and of man." The word 'we' does not denote anything necessarily general or universal! But, as many hearts and wills, so many heads; and as many heads, so many different views of the world and so many solutions of problems. This applies with certainty to all metaphysical questions and to many epistemological questions as well. In the latter also there appears in the course of development from one thinker to another an "unalterable logical sequence" (p. 334) only in the rarest instances. As a rule,

even in these latter cases, personal factors are decisive, as is especially true of Kant. I cannot agree with Windelband's view that Kant's epistemology followed as a "logical necessity from the way in which modern Terminism regarded its problems" (p. 438). I am firmly convinced, rather, that in its fundamental outlines it has the most intimate connection with his personality, and can be understood only through this, and looked at in its entirety it is little more than one of those "purely personal transmutations of thought" which Windelband treats with a certain contempt.

In Frommann's *Klassiker der Philosophie* there appeared in the two years under review three volumes. Two of them dealt with the Corypheei of Antiquity: Plato and Aristotle (Vol. IX, 1900, pp. 190; Vol. VIII, 1899, pp. 142, Stuttgart). The first was written by W. Windelband, the second by H. Siebeck. The choice of the authors is a very happy one. Both of them have been for years thoroughly conversant with the subjects of which they treat. With them there is nothing prepared *ad hoc*: they write from the fulness of their knowledge. The books themselves make one feel and know that one is in the hands of good and trustworthy leaders. It seems as though something of the spirit of the two great Greeks had passed over to their expositors. Windelband's work is irradiated by a great warm enthusiasm. It exhibits, in its finely thought-out creation and in its skillfully arranged materials, the marks somewhat of a work of art, and it appeals in many passages to the heart and feelings of the reader. In Siebeck's work keenness of mind, and sober, carefully considered criticism are the dominant characteristics, which, as a matter of course, give the great services and lasting importance of the Stagirite their full due; but which, at the same time, attempt to call attention to the evanescent elements (the merely erroneous elements, as well as those that directly wrought injury and hindered progress). Both writers strive to be brief and to give much within small compass. And, inasmuch as they are completely at home in their subjects, they have naturally taken definite stand regarding all the problems to which investigation in these fields has led. The uninitiated, however, reads without understanding or appreciating the import of what is said regarding these moot problems. In general, a thing of this sort is as uninjurious as it is unavoidable, in so far as it touches writings that are introductory to a given subject, and such writings are to be hailed with pleasure when they are written by experts who from their full stock of knowledge are in a position to formulate their answer to moot questions with a brief word in passing. But in the case of

the greatest classics, in the proper sense the classics of classics, in the case of a Plato, an Aristotle, a Spinoza, it would have been in place to introduce the reader not merely to the view of the writer of the monograph, but to give him also a survey of the different ways in which the system of the particular thinker has been and especially is, interpreted. The reader should also be made acquainted, as in Paulsen's *Kant*, with the different drifts of investigation, with the present condition of studies and problems, at least in their main points (even although this were, of course, done only briefly). This holds good particularly in regard to Plato's system. Windelband's is only one interpretation amongst many that are possible. He does, indeed, here and there, take other views into consideration, but he does this too rarely. Of course, it is not expected that he should engage in polemic, but merely that he should instruct the reader on the status of investigation and on the nature of the problems. Space, to be sure, is necessary for this. I should regard it as advisable only in case the pagination of the two volumes were increased in a second edition, which it is to be hoped will soon be demanded. The possibility would then be offered to make good that which is now lacking. If 186 pages are allotted to Kierkegaard, 246 pages to Hobbes, and even 392 pages to Schopenhauer, Plato and Aristotle might really claim more space. In Siebeck's work, in particular, Aristotle's doctrine of the categories, the logic, dialectic, etc., have been too scantily treated in five pages, and even the very full chapter on the historical survival of the Aristotelian philosophy would have been more useful to the beginner, if it had been presented in a more detailed form. In these works we have the following general estimate of two great systems of antiquity. Windelband says: "In Plato is prefigured and made incarnate for all time the culture-ideal of humanity, viz., the configuration of its life through its science. In this consists the very essence of Plato's personality and the highest content of his life and work; in this the profoundest significance of his teaching, the secret of his historical influence and of his abiding importance even for our time." The Aristotelian philosophy, according to Siebeck, is "the scientific expression of classical Greek antiquity, and it, therefore, qualifies the inner content of Greek antiquity to persist as an efficacious ferment in the new conception of the world, which has been created, on the one hand, by the rise of Christianity, and, on the other, by the rise of modern science."

Neither Plato nor Aristotle has any direct bearing on contemporary philosophy, on the status and solutions of our own problems. Consequently, it is possible, to a certain degree at least, to estimate them

objectively and with single reference to their content. On the contrary, the historian's own standpoint is, of course, the decisive factor in evaluating such a man as Schopenhauer. His theory of the world is still in vogue, and exerts the most direct influence not only on philosophy, but on all our conceptions of civilization; to him, therefore, in supreme measure may be applied the words of Schiller:

Embroiled in parties' hate and favor,
Uncertain hangs his portrait in the world.

Joh. Volkelt, who prepared the monograph on Schopenhauer for Frommann's Series (Vol. X, 1900, pp. 392), was especially equipped for this purpose, because of his occupying a middle position between the unqualified followers and the panegyrists *à tout prix*, on the one side, and the opponents and uncompromising zealous fault-finders on the other side. Schopenhauer was also his 'master,' as one learns from the book. Nevertheless, he maintains a free and independent position towards Schopenhauer, and is not guilty of the same extremes of judgment as Nietzsche, but attempts to distribute light and shade justly. He does not regard Schopenhauer's philosophy through the spectacles of his own system, neither does he reconstruct him, as so many do, arbitrarily, but he attempts to understand and describe the actual facts in the case. He aims to exhibit the greatness and the limitations of Schopenhauer in his philosophy; and in this he chooses the only right point of departure: the personality of the philosopher. There are few philosophers, in whom the importance of personality is so great as in the case of Schopenhauer. It alone forms the bond of union between the widely diverging tendencies of his philosophy; his whole theory of the world, including many parts of his theory of knowledge, is a growth of his inner personal life. This is especially true of his pessimism. Volkelt, therefore, is justified in opposing those who, with Kuno Fischer, are of the opinion that Schopenhauer "regarded the tragedy of the world's misery in the light of a play seen through an opera-glass, from a very comfortable fauteuil, and thereafter, although deeply moved, yet at the same time enraptured, returned home." Whoever entertains such superficial opinions must ever remain an entire stranger to the understanding of Schopenhauer's work. Whoever is incapable of feeling the pulsation of deeply-moved personal life in his writings, in his views regarding will and intellect, regarding æsthetic contemplation, regarding genius and art, to such a person Schopenhauer's work will be forever a book sealed with seven seals. Volkelt is also right in combating those critics who regard Schopenhauer's philosophy as a merely disconnected aggregate of fancies, or

who supposed they had established against it a *reductio ad absurdum*, or had even proved in the clearest fashion the meaninglessness of his ideas, when they were in a position to exhibit internal contradictions between particular doctrines. The latter is quite possible; it is indeed very easy, easier than in the case of many other philosophers. But inner contradictions are not lacking in any of the great systems. Not only *errare*, but also *sibi contradicere humanum est*. Where shall we find underlying reason for this?

Reality is not so simple and clear that it could ever take the form of a sum in arithmetic. And Schopenhauer, this man of perception and of concrete understanding, had too open a survey of reality, and his thinking was too little architectonic for it to have been possible that now this and again that aspect or tendency of the world should not have completely arrested his attention. His personality was especially rich and many-sided, and through his entire being and feeling, thinking and living (especially in his younger years), there ran a line of rough cleavage. He was in his own person the opposite of a harmonious nature: how could his view of the world be harmonious, even approximately free from contradictions? Volkelt understands admirably how to ferret out the various motives which make themselves felt in Schopenhauer's philosophy. He exhibits here also, without descending to hair-splitting, the art of keen analysis, which one had learned to admire in his work on *Kant's Erkenntnistheorie* (1879). And what is of still greater importance, he succeeds in deriving all these diverging motives and tendencies from Schopenhauer's personality, and in this personality he discovers the deep, common source of all of them: for Schopenhauer despite all his contradictions was a great single individuality. The exhibition of these contradictions is consequently not regarded by Volkelt, as by many persons, as of the greatest importance; it is of much greater importance for him to explain them psychologically and to set forth their necessity, to show why precisely in the case of this particular individual they not only *could* but *must* be found together. As far as the form of the exposition is concerned, it is clear and transparent. It would, however, be desirable in a second edition to condense the material. The line of thought is not sufficiently concise; more words than are necessary are oftentimes used, and frequently the same thoughts are needlessly reiterated.

We must not fail to mention that the distinguished thinker who heads the list of Frommann's *Klassiker*, Gustav Theodor Fechner, if appearances are not deceptive, is now beginning to exert the wide-

spread influence to which he is entitled. In my first article I mentioned the new edition of the *Vorschule der Ästhetik*. There are now new editions of two further works of his: *Nanna oder über das Seelenleben der Pflanzen* (second edition with introduction by Kurd Lasswitz) and *Das Büchlein vom Leben nach dem Tode* (fourth edition, Hamburg and Leipzig, Leop. Voss, 1899 and 1900, pp. 301 and 86). Thirty years elapsed between the first two editions of the last work; the third followed after twenty-one years more, and the fourth after thirteen years, and until another is called for, may no lustrum pass! Let us also hope that *Nanna* will find diligent readers, not only because it is a work of art as to style, but further because of its content. It appeared for the first time in a year of mad ferment (1848), caused much head-shaking, and brought Fechner, in the minds of many persons, the reputation of a visionary. But Lasswitz is right in saying: "when it is read again to-day, there will be much less head-shaking in the world of learning. For the times have changed." Thank Heaven that they have changed!

Two important publications from original sources must be mentioned here. In both instances the Berlin Academy has rendered great service. In the first place: J. Freudenthal, *Die Lebensgeschichte Spinoza's in Quellschriften, Urkunden, und nichtamtlichen Nachrichten, mit Unterstützung der Königl. Preussischen Akademie der Wissenschaften herausgegeben* (Leipzig, 1899, Veit und Comp., pp. 304). In this work all of the important sources from which materials are to be derived for a life of Spinoza are brought together, and all are most carefully revised with reference to the best texts. The oldest biography, ascribed to the physician Lucas, and that of the clergyman Colerus (= Köhler) are printed in their entirety, the latter indeed in Dutch, as it appeared originally in this language. Freudenthal also gives extracts from the Preface to Kortholt's work *De tribus impostoribus magnis*, from Bayle's Dictionary, and from Monnikhoff's biography of Spinoza in manuscript. Of still more importance is the second part of the work, containing documents relating to Spinoza's family and to himself; this is followed by a third part which contains non-official papers. There is collected in these two parts an enormous amount of material, the editing of which required immense industry and great insight. Of the ninety-one documents of the second part, fifty-five are here made public for the first time. The Archives of the Jewish-Portuguese Synagogue in Amsterdam, and especially the Archives of the various ecclesiastical magistracies in the Netherlands, have proved rich sources of information. No intelligent reader will complain of excess in the materials offered,

as Freudenthal seems to fear. One ought to entirely acquiesce with the editor in his not suppressing the account of the reception accorded to Spinoza's teaching by friend and foe during his lifetime and in the period immediately following his death. Of especial interest is the battle waged by church authorities against Spinoza's writings; nearly fifty documents bear witness to this. The contest was started by the Church Council of Amsterdam, in June, 1670; other church councils followed it up and were joined by district and provincial synods. Every effort was used to induce the civil authorities to intervene: magistrates of cities, provincial authorities, the Court of Holland, as well as influential individuals. Members of the synod were urged to look about sharply in order to collect sufficient materials for complaints; extracts were made from the heretical books and forwarded to the authorities; rewards were offered to those who denounced the printers and purveyors of these writings; the authorities were reminded of their duty and were warned in intimidating terms of the dangers of too great tolerance, and the pernicious character of the persecuted writings was pictured to them. The theologico-political tractate, along with which Hobbes's *Leviathan* often appeared, as well as the *opera posthuma* of Spinoza, these were characterized as bad, injurious, poisonous, blasphemous, soul-destroying works, the like of which, for godlessness, had not appeared since the beginning of the world. The ecclesiastical storm raged for a long time to no purpose; at last in June, 1678, after eight years of struggle, Spinoza's opponents succeeded in at least forcing the provincial authorities of Holland and West-Friesland to interdict the *opera posthuma*. All these documents are in the highest degree instructive; they afford us a deep insight into the times and show the vaunted freedom of thought in the Netherlands in a light much at variance with that of ordinary tradition. One can see from this how far short of the truth Urbain Chevreau came, when he said that Spinoza declined the call to Heidelberg because in Holland "il avait une liberté entière d'entretenir de ses opinions et de ses maximes les curieux, qui le visitaient, et de faire de tous ses disciples ou des Deistes ou des Athées" (p. 219). From this one sees also how absurd it is to censure Spinoza for exaggerated timidity or caution, or even effeminate cowardice, in holding aloof from the world and not permitting his ethics to be published during his lifetime. Just as little as he would ever have renounced his own beliefs, so little would have been the profit or wisdom in surrendering himself voluntarily in the cause of truth and learning, to a martyr's death.

Freudenthal most certainly deserves the warmest thanks of all admirers of Spinoza for his valuable work, especially as he has given us not only the original sources, records, and reports, but also because he has collected in nearly seventy pages of notes with bee-like patience everything that is necessary for purposes of explanation and critical appreciation.

The second publication from original sources concerns a writer who occupies to-day a central position in the movement of thought, at least in Germany. The first two volumes of the new edition of Kant are before us under the title: *Kant's Gesammelte Schriften*, published by the Royal Prussian Academy of Sciences, Vols. X and XI (Second Part: Correspondence, Vols. I and II), Berlin, G. Reimer, 1900, pp. 532 and 517. In general, there is far too much editing at the present time. Nothing shows more plainly than the enormous amount of work which is spent on editing, and the exaggerated recognition accorded to this most inferior of all intellectual occupations, that, as far as the mental sciences are concerned, we live in an age in which historical work predominates.

Connected with this is the fact that science and scientific character are so often confounded with learning, although on close examination one finds among a hundred learned men scarcely ten really scientific thinkers. Eras of productivity have a very different appearance. But in the present case an actual need of a new edition really existed, which in so many cases is merely a fiction. There was a real necessity, even though we have four complete editions of Kant's work. So far as the writings which appeared during Kant's lifetime are concerned, one could have been content with the existing collected and single editions, even though many of them are defective in typographical precision. There is still much to be done in the removal of these typographical errors which have been transmitted from one edition to another. Absolutely unsatisfactory, however, was the state of the material, which although it came directly or indirectly from Kant, was never published by him. This includes letters, literary fragments, and notes from his lectures. Much of this came to light in the last century, but it is scattered, out of print, and parts of it hidden in journals very difficult of access. In this case a collection of the material was imperative. How far should one go in this? It was clear without further consideration that not all of the lecture-notes could be published; under the circumstances, one must concede the necessity of selection and of good editorial revision of a number of notes into a combined form. For the rest, the Kant-

Commission of the Prussian Academy is justified in taking ground that the collection must be exhaustive, and consequently, that the letters from and to Kant, as well as his literary remains in manuscript form (in so far as they concern philosophical questions and not household matters, financial affairs, and similar questions), must be completely published, not merely the part which is still in the original writing, but that which is found in printed form. The personal judgment of the editor which would have been decisive in any selection, had here to be entirely eliminated. This feature is much, very much to be regretted. For in this way much will be published, particularly from the manuscript remains, that is mere chaff. However, as matters stand, it cannot be otherwise arranged. For one person would without a thought push much aside from which another might draw conclusions having an important bearing on Kant's development, or on the interpretation of his system, or which he might regard as throwing an interesting light on Kant's entire method of thought and work. Not until a definitive edition of all the material has been issued, can there be any prospect of an approximately definitive treatise on Kant.

Concerning his development, as well as concerning the significance and center of gravity of his system, the most important questions are still entirely of a controverted nature. This would not be of much consequence, were we concerned with some obscure individual. But Kant occupies with us the focal point of philosophical interest as much to-day as,—nay, perhaps even more than,—he did a hundred years ago. For in the last years of Kant's life speculative philosophy had begun to develop in a direction which to a certain extent was quite the opposite of Kant's. Kant seemed to be outstripped; at most he was considered as a beginner of that work which the younger men, Fichte and Schelling, were then in the act of bringing to completion. And to-day! what a change there has been since the sixties! To-day at the turning-point of a new century, Kant's system is the universal compass—the magnetic north-pole.

Not only Kantians *à tout prix*, but the most diametrically opposed tendencies all claim to go back to Kant, to originate in him, the one starting with this, the other with that point in his all-embracing system. I do not consider this condition of things to be for the good of philosophy. We should learn to stand upon our own feet, and although we should treasure the great legacy of our forefathers, and should make it our own, we should not ask ourselves in each and every problem, "What was Kant's view of this?" But in German philosophical works it has

grown to be a habit, or rather a bad habit, even in the exposition of one's own opinions, to begin with Kant, and to end with Kant. And instead of setting forth in simple, clear form the new element which one has to bring, it is the custom to make a thorough-going comparison of one's own opinions with Kant's. The fault is mainly in the fact that philosophy in Germany is for the most part in the hands of academic teachers. The entire academic procedure, with its government examinations, doctor dissertations, prize essays, etc., directs attention constantly to the Kantian system with its numerous unsolved problems. Consequently an unusual amount of youthful energy is concentrated in an ill-advised manner on a single object, which if spent elsewhere would produce quite as rich, and frequently in the working out of simpler problems, much richer results.

All of this can be changed only when the great tangle of problems, which still represents the condition of Kant's system, is unraveled, and when the knots are, at least to a considerable extent, untied. The prerequisite for this is offered in the publication of all the available materials. We must be able to look into Kant's workshop in order to inspect his meaning, to estimate the final results, and to weigh the importance of the separate parts of the system in reference to each other. If on the basis of the new publications a controverted point cannot be decided, then, in all likelihood, it will remain forever undecided, and one will be wise to stop the contest and leave the affair in suspense. Much, however, will unquestionably be decided for all time, and in any case the edition of the Academy will have done the service of bringing about a change of front. Hence its great importance and the necessity of tarrying here in its discussion. The new edition will contain about twenty-five volumes. The number itself shows how much new matter it will contain. It is divided into four sections. The writings which were published during Kant's lifetime occupy ten volumes; to these are added three volumes of correspondence, and a fourth volume containing biographical and literary notes on the correspondence. The third section (works in manuscript), under my editorship, will occupy at least five to six volumes. The last section will contain lecture-notes edited by Heinze, Külpe, Schöne, and Menzer.

The editorship of the correspondence could naturally fall to none other than Rudolf Reicke, who has spent a life-time with untiring patience and rare capacity for discovery in completing the collection of letters from and to Kant. His efforts have been crowned with success. The two volumes already published include only the

years 1747-1794, and yet they contain six hundred and twelve letters, of which not even a third are written by Kant. In the second edition of Hartenstein the whole correspondence occupies one hundred and seventy pages. The order is chronological; the original, where available, is reproduced with literal faithfulness. The text of many letters deviates considerably from that hitherto published, inasmuch as passages before unprinted are reproduced, or, as is the case with Lambert's letters, instead of the earlier draught, the final interpretation as found in Kant's literary remains, is taken as a basis. This was very important in the case of Lambert's letters, because precisely those passages from which many believed they could prove the dependence of Kant on Lambert, are lacking in the letters as Kant received them.

Concerning Kant's development the letters now published offer no material which is at all comparable in importance to what is found in the letters already known—*e. g.*, in those to Herz, Mendelssohn, and Reinhold. At most, exception might be made of the two letters addressed to Lavater in the year 1775, which contain very valuable information on Kant's religious and moral views. What may appear especially striking to many are the numerous points of contact with the later works. Also the volumes of literary remains in manuscript will show that many of the religious-philosophical views, and even of the ethical doctrines of Kant, belonging to the time of his completed system, extend back to a much earlier period than one has generally been disposed to assume.

Regarding the genesis of Kant's writings and essays, as well as touching biographical particulars, much interesting matter is furnished. This applies chiefly to disclosures regarding Kant's intervention in the Spinoza contest (his entering the lists against Jacobi in the essay: *Was heisst sich im Denken orientiren?*) and to the letters regarding the contest on the Censorship.

Of greater importance is the fact that the picture of Kant's personality becomes more lifelike in the light of the correspondence. Furthermore, the fact that as his system became more widely known, and more influential, he was induced, owing to frequent inquiries, hesitations, and doubts, to explain, to further develop, and to defend, in letters, more or less crucial points in his doctrine. He often makes on such occasions particularly clear, happy, pregnant suggestions. One must, however, frequently take expressions of this sort with great caution, for whenever a person's attitude towards a system is half assenting, and half dissenting, it is easy for the originator of the system involuntarily to emphasize the common ground and to push

the admitted elements, as especially important, into the foreground, and to regard the contested element, on the contrary, as of lesser importance. In this way important shiftings of the center of gravity may arise and the incidental points, or at least matters of second- or third-rate importance, may in passing be made to appear as the really essential elements. That Kant was not entirely free from such 'human weaknesses' is sufficiently proved by the notorious comment in the preface to the *Metaphysische Anfangsgründe der Naturwissenschaft*, in which the transcendental deduction of the categories is explained as a serviceable, but not necessary, component element of his system.

Most important, more important even than their bearing on philosophical matter, in my opinion, is the bearing of the letters on questions of civilization. The correspondence opens up unusually interesting glimpses into the intellectual life of the eighteenth century. A long list of personalities, that then played a leading rôle, passes before our eyes. The letters of the less important men introduce us even more intimately into the everyday life of the time with its sorrows and joys, its plans and interests. Nietzsche, indeed, says: "Letters are not even photographs of the inner life; they are merely fleeting shadows of fleeting moods." But what might hold good of Nietzsche, swiftly changing in his moods, has little application to the solid, learned circles of the eighteenth century, to their fondness of writing, and the need they felt for frank expression of their inmost thoughts and feelings.

Schiller's distich constantly recurs to us here :

One man with his riches blesses a thousand poor ;
The hodmen have work, when kings their palaces build.

There is here opportunity to learn, if one does not already know, how superficial and empty is the view which dethrones the great geniuses of humanity, and regards the masses as the only factor to be taken into account, even in spiritual things—the masses with their various environments and needs, their obscure instincts and unconscious tendencies. Kant's correspondence presents to our eyes, first the development of the transcendental philosophy, then the speculative idealistic movement ; and, moreover, shows how it drew into its ranks ever-widening circles, until, finally, not confining itself to the academic and learned world, it attracted the unlearned and even took possession of women. First of all, Kant's moral philosophy was widely reëchoed, often also opposed, as the following brief but characteristic letter (at the conclusion of Vol. II) of the Elberfeld physician, Collenbusch, shows : "Mr. Kant's rational belief is a belief divorced of all hope ; Mr. Kant's ethics is an ethics divorced of all love. Now comes the

question, in what particulars does the belief of the devil differ from the belief of Mr. Kant, and in what particulars does the ethics of the devil differ from the ethics of Mr. Kant?"

Under the rubric History of Philosophy belongs also Rudolf Eisler's *Wörterbuch der philosophischen Begriffe und Ausdrücke quellenmässig bearbeitet* (Berlin, E. S. Mittler und Sohn, 1899-1900, pp. 956). Such a dictionary has long been a desideratum in science; and it is a very significant fact that our age, despite all its minute historical labor, has not yet produced any such work on a high plane. What is the cause of this? It lies chiefly in the fact that terminological research, important as it is, demands so many sacrifices. It is a toilsome work, the number of readers is very small, and lasting results can seldom be achieved. In science, as in everything else, the cry of the day is: quick results! A few good preliminary works have been written, *e. g.*, by Eucken and Diels. In general, however, there has been but little done in this field.

And how should a properly constructed philosophical dictionary be made, if the work were carried out as it should be? In the first place it would have to give a complete history of philosophical terminology. To the attainment of this end it would be absolutely necessary to group about a central term all expressions which are related to it by nature and to treat them in common with it. In strict alphabetical order would come only the keywords and brief references to the main concept. Many of these articles would occupy the space of a monograph. And in order to make clear the growth and variations of philosophical termini one would be obliged to extend one's researches over a wide field and to take into consideration the most diverging factors,—national and linguistic peculiarities, conditions of religion, civilization, and science, the spirit of the times, the methods of thought in single persons as well as in whole groups, the individuality of great thinkers in their growth as well as in their maturity, and the reflection of this individuality in their philosophical systems. There are therefore, a myriad of threads which must be dextrously woven together, if the web is to be durable, and the pattern to become clear and easily discernible. It may possibly be, indeed it seems to me very probable, that the demands made by such a work would, in the present state of preliminary materials, far exceed the strength of any one man. Certain it is that a lexicon can only be successful when it meets the aforesaid demands. The future editor of a philosophical dictionary, to be written in a really scientific spirit, can unfortunately only learn from Eisler how not to go to work.

What Eisler furnishes is, in the main, only a simple arid stringing together of more or less literal citations interspersed with a few sentences of his own. The treatment, from beginning to end, is a purely external one, and the arrangement, even in the case of single reference-words, is chronological. Even in cases where the treatment of those problems is concerned which just at the present moment are of particular interest, and in cases where the different interpretation of certain terms distinguishes one school from another, or where the treatment of entire sciences is at stake, as for example in 'logic' or 'æsthetics'—even here Eisler has been unable to group these literal citations in terms of their content, and to free himself from the words of individual philosophers, or to expound their fundamental differences. To this must be added that the citations are oftentimes mere definitions. Now, anybody who is at all conversant with philosophical questions, knows what a mass of rubbish is unloaded in the definitions of philosophers. Oftentimes, if not mostly, they are intelligible only through explanations which precede or follow them in philosophical writings. If, however, they are dislodged from their connection, it frequently happens that one can understand precisely the opposite of what they were intended to mean. A derivation of the particular views of a philosopher from his entire system is for the most part not attempted by Eisler. There is no trace, properly speaking, of a really genetic treatment here. Consequently, his lexicon can serve only as a collection of materials for a future, more deeply penetrating, editor. In the meantime, as the situation lies, we must unfortunately, even for such a work as this, be thankful. One cannot deny that Eisler's work shows diligence and so we must use it as best we can until something better takes its place, which it is to be hoped will be before long.

II. METAPHYSICS AND EPISTEMOLOGY.

In the single year 1899, appeared two attempts to give us a theory of the world from a purely natural science point of view. One of them comes from a zoölogist, the other from a botanist. They are: Ernst Haeckel, *Die Welträtsel. Gemeinverständliche Studien über monistische Philosophie* (Bonn, Em. Strauss, pp. 473; translated into English under the title: *The Riddle of the Universe*, Harper & Bros., New York, 1900), and J. Reinke, *Die Welt als That. Umrisse einer Weltansicht auf naturwissenschaftlicher Grundlage* (Berlin, Gebrüder Paetel, pp. 483). Reinke wishes to have nothing to do with philosophers. One must, in his opinion, be on his guard against them, and

Heaven forbid that anyone should believe that he has any intention of writing a philosophical book! Haeckel announces himself straightway in the title of his book as a philosopher, yea, his philosophy is even the only true one, and, therefore, the philosophy of the future; it alone permits experience and thought, empiricism and speculation, to correctly supplement each other. Haeckel's work has had a great external success, a success, greater than that of any philosophical work since Büchner's *Kraft und Stoff* (one must include Nietzsche's *Zarathustra* among philosophical books). In 1900 the fifth edition had already appeared, containing the eleventh and twelfth thousand. A whole literature has grown up about the *Welträtsel*; over a dozen brochures have been published for and against it. This success is in a certain sense a good sign; it shows that a philosophical impulse is again making itself felt. Also the wide circles who are disposed to depend upon natural science for the final word in anything, are no longer content with details; there is a demand for something higher—for a world-theory. On the other hand, however, it is unfortunate that this demand can find satisfaction in such a book as Haeckel's *Welträtsel*. For it stands on the same plane as the above-mentioned book of Büchner, *i. e.*, the volume treats at best of pseudo-philosophy. As philosophers, both Büchner and Haeckel are absolutely zero. They lack epistemological training, which nowadays is the *conditio sine qua non* for a philosopher.

This deficiency is shown in the case of Haeckel in a three-fold way. In the *first* place, he will have nothing to do with external, unsurmountable limits of human knowledge. In entitling his book *Welträtsel*, he does not mean to say that there are things in heaven or earth which are to remain forever a mystery to us. Certain passages, indeed, especially in the preface and in the observations at the end, exhibit passing fits of modesty, but this trait disappears entirely from sight in the treatment of single problems. No riddle of any importance is left for the monistic philosophy; the solution of all vital questions lies either already in Haeckel's hand, or in near prospect. There are very few *ignoramus* and—in contradistinction to Du Bois-Reymond—not a single *ignorabimus*. Haeckel simply does not see the most of the problems; hence his excess of confidence, and the perspicuous unity of his system which makes it appear so plausible to the uncritical public.

The *second* consequence of Haeckel's lack of thorough epistemological training is that he has no understanding for the basal fact in epistemology, *viz.*, that the ultimate thing for us is not matter, but

consciousness; that psychical and not material processes are best known. Haeckel is a materialist, however much value he attaches to being called a monist. The unity of Nature and God plays a large rôle in his writing. But whoever describes God as "the sum total of all atomic forces and of all the vibrations of the ether" falls so far short of the reality that he would also better give up all use of the name. And the world is for Haeckel no *unity*, but an infinite variety of internally disconnected elements and forces, which continuous causal association is only able to bring into outer connection. Force is nowhere seen in the universe, as Haeckel is never tired of impressing upon us, without matter, nor matter anywhere without force. What follows from this? This only, that they both stand in the closest relationship to one another, but only as a duality, which will never be a unity. Haeckel should, therefore, have called his system atomism, pluralism, or at least dualism, but never monism. It is with injustice that Haeckel cites Goethe and Spinoza. The former would have been as much repelled by the *Welträtsel* with its insipidity, its rigid dogmatism, its "sad atheistic half-night," as he once was in Strassburg by Holbach's *Système de la Nature*. And from Spinoza, Haeckel has not inherited much more than the expression, 'substance' and its two inseparable attributes. In the place of Spinoza's psychophysical parallelism, Haeckel uses in most instances the current materialism; he explains the entire multiplicity of things by the play of chemico-physical forces and by position or motion of substance. There is no method or plan in the world, no aim and no continuous and progressive development, everywhere the psychical directly dependent on the physical. With the traditional indefiniteness of materialism, Haeckel regards psychical processes at one time as attributes, which belong to matter only in particular and relatively rare collocations, and at another time he considers them as identical with movement, or as the result of movements. In no one of the three cases can he do more than make phrases and assertions. He is as little able to explain psychical processes from physical data as any of his predecessors have been. On the other hand, it can be clearly demonstrated that Haeckel's materialism, as any other materialism, is the height of absurdity. It can be shown from the elementary truth of idealism that mind is not dependent on matter, but matter on mind; that the former does not create mind, but the mind matter.

In the *third* place, along with Haeckel's ignorance of the theory of knowledge, he is entirely unacquainted with methodological reflections and studies regarding the nature and importance of the principles of in-

vestigation in the field of natural science in general, and of biology in particular. He has an astonishing incapacity for self-criticism, for distinguishing severely between fact and theory, between what is proved and what is believed, between observation and interpretation, between actual datum and postulate—qualities that are fundamental presuppositions for sound scientific progress. This is particularly true in reference to his favorite doctrine—Darwinism. His uncritical dogmatism is so great here that he fails to see instances lying directly before his eyes when they contradict his theory, not that he does not wish to see them. For Haeckel, I am convinced, is honest here. His senses are so hypnotized through the influence of the infallible dogma, that they really observe what he wants them to perceive. Consequently he offers a picture of reality, that without his wish or knowledge, is counterfeited; he deceives, in perfect good faith, himself and others. Darwinism is for him not a possible theory, but a rigorously proved fact. Only casually, at best, he tells us that the most serious doubts have been raised against the theory of natural selection, by whose means teleology is, in his opinion, once for all banished from the world. Through the discovery of a few skeleton remains in Java by Dubois the descent of man from the ape is, in his judgment, clearly and certainly proved. And his special theories, such as cell-soul, tissue-soul, coenobitic-soul and cormal-soul, the theory of gastræa and carbogen, basal biogenetic law, and the other phantasies and theories, whatever they may be called, which rigorous science either does not take account of, or admits at best as hypotheses—all of these are introduced to the public as scientifically proved facts.

That an intelligible, continuous development leads from the inorganic world into the organic, and in the organic world upwards to the complex organism of man is a thought which in my own heart is a much cherished one. But are we obliged for this reason to regard everything in the organic world as proceeding from physico-chemical forces? Monism is not destroyed by the acceptance of special organic forces. And by the acknowledgment of such special forces we offer no explanation, but merely mark a lacuna which will always remain in an explanation by means of physico-chemical forces. And if one adopts a theory of natural development, is one then obliged to indulge in disgusting abuse of faith as Haeckel does, and to regard theism and immortality as irrational superstitions? It is interesting to take a look at Reinke here, although, according to the author's own statement, nothing is further from his thoughts than the wish to philosophize. Haeckel explains in the most decided way that his en-

ture theory of the world is purely rational and rigorously proved. Reinke on the other hand, though also a natural scientist, asserts in nearly every case almost the opposite of the foregoing. Haeckel is an atheist; Reinke a theist (or deist)—“precisely in accordance with the laws of causality we are as certain of the existence of God as we are of the existence of Nature. . . . The postulation of God is not poetry but induction.” Reinke asserts that at least two acts of creation are necessary: one for the genesis of cosmic nebula and the impulse which converted such nebula into solar systems, the second for the formation of the first protoplasm, and a third possibly for the creation of man. Haeckel is a monist, Reinke a dualist; the former believes in spontaneous generation, the latter denies it; for the former the Darwinian theory is an entirely indisputable fact, the latter combats it as an unsatisfactory theory (in a criticism covering more than one hundred pages); the former thinks that physico-chemical forces are adequate to explain the genesis and development of organic life, the latter employs the conception of dominating, *i. e.* intelligent forces which transcend mere physical energy and which are implanted in the organisms by God. Where are we to find here the rationality, the rigorous proof which Haeckel claims for his doctrine alone? For two natural scientists starting with the same facts are led to such opposite conclusions. If Haeckel were not Haeckel, he would be obliged to concede at least one thing, *viz.*, that in Darwinism, in spontaneous generation, and in all questions relating to a theory of the world, we have to do not with facts, but with their interpretation,—with theories.

But for inquiries of this sort Haeckel lacks every aptitude; nothing is more foreign to him than critical self-examination. His nature is fundamentally dogmatic, a *φιλόδοξος* and no *φιλόσοφος*. A comparison between him and Otto Liebmann is very instructive, the latter of whom is professor of philosophy in the University of Jena, where Haeckel has the chair of zoölogy. Two works of Liebmann's lie before me for review: (1) In the third revised and enlarged edition, *Zur Analysis der Wirklichkeit. Ein Erörterung der Grundprobleme der Philosophie* (Strassburg, K. I. Trübner, 1900, pp. x, 722), and *Gedanken und Thatsachen. Philosophische Abhandlungen, Aphorismen, und Studien*, Bd. I (*Ibid.*, pp. xi, 470). Haeckel is like a youth who rashly rushes into life and believes the whole world is his; but, in order to conquer it, he lacks the all-important thing: he does not see the difficulties and the abysses about him; he does not see the enemies standing ready to confront him, and because he does not see them, he

thinks they do not exist. Liebmann, on the other hand, resembles a wise, experienced man, who above all has learned to realize the limits of his power, and who therefore plans nothing and attempts nothing before taking into consideration the hindrances and difficulties, his own energy, and external opposition, all possibilities and accidents—such a man knows how to estimate his own powers, and that is precisely the source of his success. Liebmann takes the point of view of a critical theory of the world; he possesses the fundamental insight which Haeckel so entirely lacks, “that man knows everything merely in the medium of human consciousness; that consequently all philosophy, as well as all science in general, can only move within the sphere of human thoughts and human ideas.” He is right in characterizing the realism which the natural scientists so often preach and exhibit as empirical knowledge, “which starts from matter, forces, chemical elements, corporeal organization, in a word from the external world, and which regards these as existing in and for themselves, and aims to derive everything from them,—as an entirely transcendental system.” Both works are distinguished equally by their thorough acquaintance with natural science, by their philosophical mastery of the material, and clear grasp of the salient points in the problems. Their depth is as great as their clearness. Haeckel’s name is but seldom mentioned. Oftentimes, however, one seems to notice concealed reference to him. Almost all philosophical problems which Haeckel treats of in his *Welträtsel* are also discussed by Liebmann, but in a really philosophical way, and consequently from a much higher point of view than by Haeckel. If Haeckel had attempted to acquaint himself with the intellectual workshop of his colleague, and if there were a really philosophical vein in him, the *Welträtsel* would never have been written. Liebmann is quite ready to concede to natural science the great importance to which it rightfully makes claim; he acknowledges, of course, the trustworthiness of its results, and holds that no philosophy can make bold to involve itself in contradiction with natural science. But he energetically combats the dogma that exclusive jurisdiction belongs to natural science, and opposes any attempt it makes to usurp the function of philosophy, or to become the sole interpreter of the world, from which usurpation could result only a “tremendous *hysteron proteron*.” Liebmann, even, takes the position of defender of the “philosophical value of the mathematical sciences of nature” against such attacks as were made by Schelling, Hegel, and Schopenhauer (*Analysis*, pp. 275–308); these philosophers were unable with their fantastical ideas and *a priori* constructions, to explain any

reality. On the contrary, the mathematical sciences of nature have done the greatest service in establishing laws to explain *one* aspect of reality (so far as it is quantitatively determined and determinable) and in deducing these laws from a small number of ultimate principles. That which is attainable, however, by a mechanical explanation of nature remains always the external aspect—the surface of phenomena. In the most favorable case, it would resolve the variegated world which surrounds us into an aggregate of strictly regular movements and changes of position. But would the great riddle of the universe be thereby solved? Would such an explanation tell *how* movements in time and place operate? Would it tell us their law? So much, one already knew. But the questions are *what* is it that undergoes movement, and *why* does it move? These questions would be surrounded by as much obscurity as before! The mechanical explanation of nature includes “*implicite* in a mechanical act a purely intensive non-spatial element as causal factor.” One finds one’s self here driven to the conclusion that in all the phenomena of motion to which natural science tries to reduce the world, the proper *causa efficiens* is to be sought for “in a non-spatial, merely intensive change of condition in masses regarded as externally constant.” The change in spatial configuration is, therefore, only a “symptom of an internal and spatially non-perceptible act.” The entire mechanical philosophy of nature would not in that case furnish an “*ætiology* of the absolutely real, but a mere diagnosis of the symptoms of the real as perceptible to man.” It would be related to the “absolutely real as the musical notation by means of black points on paper would be related to the melodious tones of music.” But as far as natural science is removed from comprehending the absolutely real, just to this degree does science find in the quest of the real a difficult task. Precisely this absolutely real—the thing in itself—is, in my opinion, the element that steals into the notion of force and makes it one of the most complicated and most frequently misunderstood conceptions. Neither internal nor external experience exhibits to us forces producing motion as facts. They are always merely deductions made to explain the causes of existing motion. Liebmann says: “We do not know what force is, but we know it exists. Force is invisible, but it acts, and is real.” I would express myself still more cautiously, and characterize even the action and reality of force not as facts, but as a transcendent hypothesis, although an entirely probable one. But Liebmann is entirely right in his assertions and proofs that whoever regards the theory of the atomic constitution of matter as necessary,

must grant that the atoms exhibit interaction *in distans*; that an *actio in distans* of this sort is, indeed, inexplicable, but not for that reason impossible, and on the whole not more inexplicable than action by contact; that it is foolish and quite impossible to derive spiritual phenomena from matter (*cet être presque inconnu*, as Voltaire says), unless one previously converts the atoms into monads; that the atoms are "mere markers of the theory," nothing but "useful provisional notions"; that there is absolutely no ground to ascribe to matter exclusively chemico-physical forces, and not also special organic-physiological forces.

The old vitalism is indeed dead, as Liebmann concedes; but the word 'life-force' is nevertheless a word which is capable of a good meaning. It designates not so much a notion, but also a notional lacuna; and a notional lacuna is by no means a vacuum in being, but merely a vacuum in knowledge. 'Life-force' "means that mysterious plus which one has to add to mechanism and chemism in organic, plastic, morphological, vital nature." For "organic life is more than the free play of physical-chemical processes." The theory of descent is recognized by Liebmann, with unfeigned praise, as a thoroughly rational hypothesis. But he asks: If the great organic genealogical tree from the monera to man were spread before us, what would we then have? The answer is: A gallery of ancestors, a highly agreeable expansion of our historical horizon, but no explanation! Merely *causæ occasionales*, not *causæ efficientes*, would have been given for the genesis and development of the organic world, to say nothing of any knowledge touching the nature of these *causæ efficientes*. And "if one concedes absolute sway to the struggle for existence, and ascribes to it power to eliminate ruthlessly all that is unfit, there remain still as primary factors in Darwinism, as in every other theory of descent, the capacity of reproduction, heredity, and the capacity of development, without which no organism exists, and without which no struggle for existence could take place. And these factors are eminently and exclusively teleological, mechanically unexplained, necessary factors in organic nature, but for physics and chemistry inexplicable."

That is the language of a man who recognizes the results and progress of natural science not grudgingly, but greets them with pleasure, who even concedes to science unlimited jurisdiction in the entire wide realm of corporeal phenomena, but who at the same time, as an epistemologist, stands above natural sciences, and as such has not only the right but the duty to make trial of their claims, to investigate the absolute worth of their results and on the basis of this critical function

to command: "So far and no further!" I am convinced that only in this way—and in this way with certainty!—materialism of any kind (whether it calls itself by its right name, or like Haeckel's Monism masks itself in manifold forms) can be finally vanquished. If philosophy seeks its strength in investigations such as Liebmann's, it will march peacefully hand in hand with natural science; and natural science will more and more recognize and concede the indispensableness and importance of philosophical stimuli. Natural science can never, as Haeckel attempts to make it do, absorb the mental sciences into itself, and convert psychology into physiology, thus making it a branch of biology. But the mental sciences also cannot of themselves prove the stupidity of such attempts, nor determine the limits of knowledge for natural science. Only epistemology can do that, and it alone is fitted to judge between the contending parties. And if philosophy, as metaphysics, is banished from the throne which it has usurped, it is to-day, as epistemology, and will be so long as there are thinking men, the science of sciences.

It would be an agreeable task to conduct the reader further into Liebmann's thoughts, and to make him acquainted also with the parts of the two volumes above named which in passing could not even be touched upon, as well as with the discussions in the *Analysis* on the Criticism of Knowledge, and on the Transcendental Philosophy, on Psychology, on Æsthetics and Ethics, and with the last four essays of the *Gedanken und Thatsachen*: Pictures of Phantasy; Consciousness of Time; The Power of Speech; Psychological Aphorisms. But our space is not adequate. I shall, therefore, omit Münsterberg's *Psychology* and Wundt's *Völkerpsychologie* until we have them in complete form, and review briefly three works in the domain of Ethics.

III. ETHICS.

Theodor Lipps, *Die ethischen Grundfragen. Zehn Vorträge gehalten im Volkshochschulverein zu München, Hamburg, and Leipzig* (1899, Leop. Voss., pp. 308). This is a popular work in the best sense, and consequently of wide importance. For it is one of the most difficult tasks to write a book of this sort, which shall be intelligible and attractive to a large public and at the same time breathe a scientific spirit. Lipps's volume is distinguished for the acuteness of its psychological analysis, and for the extraordinary power it displays in making even extremely abstract ideas clear and vivid. It is admirably adapted to introduce a reader of general culture to the chief ethical problems. On the other hand, it is questionable whether the hearers of a popular

course of instruction would be able to follow these lectures, as they are given to us here in published form. If, however, they could be followed by such an audience, this fact would furnish important evidence regarding the justification and feasibility of university extension, not merely in subjects where one is interested in the diffusion of positive knowledge (as in the natural sciences), but also in disciplines where the chief stress is laid on historico-genetic method, pragmatic interpretation, and psychological analysis of complex psychical phenomena.

The work arouses especial interest from the fact that Lipps, one of our most prominent psychologists, agrees with Kant's views on many points. The fundamental questions of ethics are questions which concern the facts of consciousness, and consequently the method employed by him is the psychological. Kant, as is well known, believed he had discovered an entirely new method, the transcendental. And in spite of the methods of procedure, apparently so different, both investigators arrive at the same empty formalism! The measure of Kant's influence on the ethics of the present time is particularly discernible in this. The facts, as I think, show us a different path. Their pressure forces Lipps also, in the problem of Eudæmonism at least, to somewhat desert Kant. In spite of all the acumen with which he combats Eudæmonism and Utilitarianism—wherein he goes to the length of ascribing to it a desolating and confusing tendency—he is finally forced to concede that in a certain sense his own standpoint is that of individualistic Eudæmonism. He differentiates it, however, from ordinary Eudæmonism, in calling it ethical or ethically conditioned. The fundamental ethical motives are found by Lipps in feelings of value referred to personality, in opposition to feelings of value referred to things (viz. to things which I or others *have* not *am*). It is only in reference to the latter feelings of value that one can speak of Egoism or Altruism, and not in reference to feelings of worth placed on one's own or another's personality. Motives of self-esteem, therefore, are the motive which impel one to moral action. But at this point we find him veering off to individual Eudæmonism. A feeling of value, Lipps is obliged to concede, is a feeling of pleasure: the estimable in me and in other persons gives me happiness. One must not for this reason make the demand: "Conduct thyself in such way that thou mayest be as happy as possible," but: "Conduct thyself in such way that thou as moral personality mayest be as happy as possible; thy highest happiness and the final source of all thy happiness be thine own worth and that of others." If Lipps finds himself forced here to make conces-

sions to Eudæmonism, he excludes it entirely from his discussion of the essential nature of the morally right, from the discussion of the question: "What are the criteria of a good act, of a morally right volition?" He regards as morally right exclusively that objectively valid will which is determined independently of subjective conditions and entirely by certainly known facts, wherein all the facts under consideration have developed their complete motive power, and wherein it is impossible ever to have the consciousness, I ought to have decided otherwise. From these premises Lipps deduces the following chief ethical norms: Conduct thyself (1) so that thou canst in thy conduct be true to thyself; (2) so that thou canst wish the maxims of thy volition to be universal law; (3) in a manner that is valid for the moral consciousness of all men. These norms are of an entirely formal nature, and it is just in this fact that Lipps sees their merit. For it is not the function of the moral principles to give to the will its content, nor to eradicate from man certain ends, and implant others. Morality is rather a definite order of natural ends or possible volitions; it is an universally valid relation between them.

Against this it is to be urged that an objectively valid determination of the will, independent of subjective conditions, is an impossible chimera; no fact possesses a fixed mass of motive power; the latter is determined absolutely by the individuality of the person and varies with this. The criteria, which Lipps gives for the morally right, are consequently not fixed and definite. Every strongly marked individuality could and would make its own moral code on the basis of the peculiar motive forces which this or that fact has for it, and on the basis of a firm conviction (often endorsed by experience) that in its conduct it can thus be true to itself. If these criteria and formal rules are to be practically serviceable, if by means of them the right is to be univocally determined, it will be, in my opinion, accomplished only by the assistance of standards derived from a refined social Eudæmonism, which does not coördinate particular goods, values, pleasures, and needs with each other, but which reduces them to systematic order by means of laws drawn from experience and valid in this domain (not indeed unconditionally, but generally).

Of particular interest for America, in which country the ethical culture movement originated, is a book by Aug. Döring written for a prize offered by the German Society for Ethical Culture: *Handbuch der menschlich natürlichen Sittenlehre für Eltern und Erzieher* (Stuttgart, Fr. Frommann's Verlag, 1899, pp. xvi, 415). Döring's immediate aim is to furnish an introduction to Ethics for those parents

and teachers who believe that a sound (*i. e.*, corresponding to modern culture) and effective (*i. e.*, holding good in life) moral education can be built up only on the basis of human nature and not of religion. The 'handbook' is further intended to assist in the ethical agitation, and to bear witness to the possibility and necessity of a moral education which is independent of religious doctrines, and which attains greater results than the traditional religious education. Yea, even a far-reaching effective improvement of the general moral condition of things is expected by Döring and his associates from ethical instruction on a human nature basis.

Döring's book consists of two main parts. The first and more comprehensive part (pp. 1-280) presents the matter of systematic ethical instruction, which is to be commenced by the pupil at about the end of the twelfth year. The explanation of this material is designed for the teacher. The instruction is to be directed entirely to the moral conduct of the adult, and to form the best dowry for life. Döring discusses in succession the essential nature of morality, the kinds of morality (the particular duties), and the way in which morality is realized in man. He is a social Eudæmonist, as far as the aim and content of morality are concerned; he finds the true motive for moral volition in the need of self-esteem, rightly understood. The second and smaller of the two parts (pp. 281 ff.) treats of the moral education preliminary to systematic ethical instruction. This education is two-fold in character: first, the immediate education of the child in morals; secondly, ethical object-lessons "consisting in the presentation of single traits in moral life by means of stories, poems, etc., with which ethical teachings and monitions may be freely combined." The second part seems to me the better one. There speaks in it an experienced, practical pedagogue with excellent, sane ideas, keen vision, and rich personal experience. In the first part, the enumeration, classification, and exposition of duties occupy more than 150 pages, and, to be frank, I must confess that I have never read a detailed treatise on moral duties which was not tedious; and in this respect Döring's book is no exception. And I am convinced that boys and girls in receiving systematic instruction in the doctrine of duties would feel as I do. The most probable consequence is that they would begin to hate duties and virtues. And with this I come to my chief objection to ethical culture and its instruction in morals. I do not believe in its efficacy, in so far as it is systematically prosecuted. If this is not done, then I do not see why one cannot attain in the traditional religious instruction, and in instruction in general, that which Döring

and his associates expect from special ethical instruction. All that Döring suggests for ethical object-lessons, might (so far as the school is concerned) equally well be given in the hours set apart for instruction in religion and German. One must, of course, presuppose that in this case the essential nature of morality (the end of good conduct) be not made religious, founded on the will of God, but set forth as something entirely independent of God and also desired by *him* only because it is *moral*. In my opinion, however, the motives to good conduct are in most men heteronomous, and will always remain so in spite of all ethical culture. Most good actions are performed because custom, society, law, the sense of honor, or church demands them—consequently from fear of punishment or the opinion of society. And it will never be otherwise. In the case of the few, whose conduct is governed by moral autonomy, the determination, based on principle, to voluntarily pursue morality is certainly not made in most cases until long after the school period, even though the way be prepared for it then. But the preparation could very well be made in the course of ethico-religious instruction as taught at present. Consequently, I do not expect from the introduction of special instruction in human-naturalistic ethics the revolutionary consequences which the friends of ethical culture look for.

The last work to be noticed here belongs to the boundary domain of philosophy. It is Georg Simmel's *Philosophie des Geldes* (Leipzig, Duncker und Humblot, 1900, pp. 554). According to the author, every province of investigation has two boundaries, across which the movement of thought passes from the exact form into a philosophical form. On the one side, the presuppositions of knowledge in general, as well as the axioms of the particular subject are discussed; on the other side, "the always fragmentary content of positive knowledge demands to be rounded out into a world-picture by means of final notions and related to the totality of life." The philosophy of money must, therefore, fall both within and without economic science. Simmel is especially insistent on the fact that not a line of his investigations is written as political economy. In the first, analytical part of his work (to p. 276), he "explains the presuppositions which, found in physical constitution, in social relationships, in the logical structure of reality and values, give to money its meaning and practical status." This, however, is not for him an historical matter. Otherwise his work would stand on the same plane as the descriptive work of the investigator of nature, who might follow the genealogy of man back to the protozoa, but who in doing this would not get beyond

mere historical narration to an ætiological explanation from first causes. Simmel aims to do something of which that sort of narration is incapable, because it cannot show *how* the forces in organic and inorganic nature manage to produce organisms and to endow them with capacities of adjustment, heredity, variability, etc. In the domain of the mental sciences, on the contrary, a causal explanation is to a certain extent possible. It is here that Simmel finds his problem; and he solves it by explaining the essential, non-temporal relationships of a notional, psychological, ethical kind, on which the existence of money in its real nature and meaning is based. The first part of the volume is divided into three chapters, entitled: Value and Money; Substantial Value of Money; The Function of Money. The second, synthetical part, traces the historical phenomena of money in its effect on the inner world, on the feeling of individuals toward life, on the determination of their destinies, and on general culture. The titles of the three chapters in this part are: Individual Freedom; Equivalence between Money and Personal Values; Standard of Living. In these inquiries one is concerned, as the preface tells us, "on the one hand, with relations which might be exact and capable of detailed investigation, but which in the present condition of our knowledge are not so and, consequently, must be treated according to a philosophical procedure, viz.: by means of general estimates, by the substitution of the relations of abstract notions for particular processes; on the other hand, one is concerned with psychical causes, which for all time will be a matter of hypothetical interpretation and of an artistic imitation, never entirely divorced from individual coloring."

I should be inclined to agree with the author in calling the investigations of the first part genuinely philosophical. I should, however, deny this character to those of the second part. Above all one must strenuously remonstrate against the acceptance of a special 'philosophical procedure' such as that referred to in the above citation. Philosophy could only bring deserved discredit upon itself were it, from the fact of there being a domain whose exact and detailed investigation had not yet been made, to seek justification therein for interfering in this discipline and indulging in general phrases about it. Fortunately, in the present case there is no need to make use of this remonstrance touching a principle of procedure. For in the second part Simmel does not speak as a philosopher, but as a sociologist, and he has proved himself in earlier works to be a skillful investigator of sociological problems.

To give a review of the content of the book, much less to char-

acterize it, would be impossible in a few lines. It is suggestive and full of novel points of view. The style and logical order are in themselves clear, although the difficult construction of many sentences and terminological peculiarities might be troublesome to foreigners. In closing, I heartily commend this work to the reading public. The author will always be found acute, often perhaps over-ingenious. But one will scarcely ever have the feeling that a subject has been discussed with mere empty subtleties. And even in cases where one may be impelled to take opposite ground, one will be ready to concede that the book has been instructive, and that it possesses a quality still higher than instructiveness, the highest quality a book can possess—stimulation to think for one's self.

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REVIEWS OF BOOKS.

Grundzüge der Psychologie, Band I. Allgemeiner Theil, Die Principien der Psychologie. Von HUGO MÜNSTERBERG. Leipzig, 1900.—pp. xii, 565.

In the preface to the present volume, Professor Münsterberg prepares us for the body of his work, by saying that his purpose is not so much to report facts and laws as it is to discuss the problems of psychology, and to urge their reconsideration. Especially is the first volume, the author confesses, intended as a book of battle. And the reader soon finds himself indeed in the presence of the captains and the shouting. It would be interesting to report, like a true war-correspondent, the personal casualties; but for them the reader must go to the pages themselves, and be content here with the mere principles involved, and with the general result. To avoid suspense, however, we may say that the protagonist himself never admits a scratch, while James, his *lieber Colleg*, suffers severely; and Wundt is of course well nigh slain.

What Professor Münsterberg is fighting for is, as he expresses it, an idealism that will give complete liberty to physiological psychology. The tendency of the physiological psychologists has been to make light of the world of ideals. The temptation of the idealists has been to leave gaps in the system of physiological events so that certain of the highest spiritual processes might be free from physical control. The author here proposes a platform on which, he believes, both sides can meet; he has found what the Hegelians call a 'higher synthesis' of nerve-physiology and a philosophy of the will.

His account of his philosophical foundation is altogether too meagre for a confessedly philosophical volume of nearly six hundred pages. One would gladly have curtailed the long and elaborate discussions of the relation of psychology to jurisprudence, to pedagogy, to social intercourse, and to some half a dozen other neighbors, in favor of a long and rigid chapter in defense of the metaphysics here involved. As it is, one gathers that the ultimate reality is will, which freely sets up its own aims and values in a realm that is timeless and spaceless and inexplicable and incommunicable, that may only be participated in and felt. His idealism is thus on or over the verge of mysticism in the philosophic sense, although he himself is as eager as ever to combat what he calls mysticism, meaning in the main the programme of Psychical Research. But tenuous and negative as this world of ulti-

mate reality seems from the abstract terms in which the author describes it (indescribable though it be), the definite acts that he mentions as going on there seem concrete and this-worldly enough, being acts of affirming and denying, of accepting and rejecting, of honoring, of sympathizing with, and the like. Transitive as all these verbs are, this 'real' world itself is declared to have in it no 'objects,' since everything is there regarded solely from the standpoint of worth, and nothing becomes an object until it is looked at in cold blood as a fact to be described and explained.

But there comes a (logical) time when reality can no longer be merely valued and sympathized with, but must be communicated. And the only way to communicate it is to regard it as an object and to describe and explain it. The Will therefore sets itself the task of describing and explaining that which in its very essence will not permit such treatment. It therefore becomes necessary to resort to artifice and force. Since reality is indescribable, the will—illustrating anew the adage that where there's a will there's a way—*makes* it describable. It takes the world of its own ultimate activity, and 'works it over' into a form that can be dealt with in a scientific manner. It first 'objectifies' reality, and then adopts the fiction that these objects are composed of elements. The physical world is consequently treated as a system of atoms, the psychic world as made up of sensations, or even still simpler elements called psychic atoms. If one asks the author whether the facts warrant this atomic view of mind, he acknowledges that his whole conception is absolutely fictitious; the real mental process is not sensational or atomic in the least. He personally, like Mr. Spenlow, would gladly have it otherwise, but his wicked partner, Logic, will not listen to the proposal. The inexorable Logic demands explanation and description, and describe and explain we must even though we have to lie about the whole matter.

How poorly the psychic world when thus 'worked over' into sensation really answers the logical purpose by which Professor Münsterberg would justify it, can be better appreciated when we have before us the distinction he draws between physical and psychological facts, and his theory of their interrelation. The more important distinctions, after the two orders of existence have been 'objectified' and 'transformed,' might be tabulated thus:

<i>Physical.</i>	<i>Psychic.</i>
observable by many subjects.	observable by but one subject.
spatial.	non-spatial.

Physical.

temporal.
 quantitative.
 non-qualitative.
 causally interconnected.
 elements all alike.

Psychic.

timeless.
 non-quantitative.
 qualitative.
 without causal interconnection.
 each element unique.

No very conclusive evidence or argument is offered for giving many of these predicates to the mental side. Mental processes evidently are 'timeless' only in a Pickwickian sense; they are declared to have no duration nor temporal position, but they apparently have rhythmic and other temporal forms, and undergo various changes, perhaps, however, of a mysterious 'logical' character only, and out of time. Causality is denied to things mental because no 'identity' can be traced from one to another, as in the physical world. We simply have one fact giving place (again, in some curious timeless way) to a new fact. The objection to this argument is that in the case of the physical occurrence we have no more identity than we care to think into the process; there is certainly no *observable* persistence of an underlying substrate. The 'identity' is noted simply by finding that the events can be knitted together causally. To say, then, that there is no causality in the psychological realm because no identity exists in its phenomena is simply to beg the question. Once assume that they *have* causal connection and the identity will take care of itself. But, of course, there is in Professor Münsterberg's psychology, as we shall see more clearly later, no place for identity or causation or any other relation, since his whole aim is to work out a system of atomism of a most extreme type in which even the relations are reduced to atoms, and consequently disappear. By a strange perversity, however, he takes exactly the opposite tack in his argument against psychic quantity. Here he argues that even the most loosely connected process is a *unity*, and never a compound such as quantity implies. But in his more consistent exposition he tries to show that the process is just an aggregate of sensations, and the so-called 'unity' is merely one more sensation added to the rest. Why the thousands of sensations (including, as we shall see, the 'sensation of unity') that compose a mental fact should not be called a quantity, passeth understanding.

Having made the mental and the physical thus mutually contradictory at every point, and therefore, making the problem of interconnection ten-fold more difficult than even for Descartes, how is the interconnection finally established? It is here, as has already been

implied, that the author believes a chief merit of his system lies, since it is idealism with room for a thorough-going psycho-physics. Instead of faint-heartedly excepting some of our higher processes from physical domination, he would out-physiologize the physiologists. Not only does every mental process, be it high or low, have its nervous correlate, but, as the table has already indicated, the brain-side of the operation is the only side on which anything really causal occurs. The various mental elements have a kind of make-believe causal connection, in that their physical counterparts are causally connected, but they themselves have nothing of the kind in their own right. The true explanation of anything mental is thus always a physical one, and the whole stream of mental development, both in the individual and in the race, must be accounted for on a purely physical basis. In this way the author believes that freedom is assured to physiological psychology. We suspect that the physiological psychologists will prove as unappreciative of the kind of liberty here offered them as the most ungrateful Filipino could be.

For of course an explanation of this kind does not explain. The mental occurrence is left in the embarrassing situation of having been forced ('for purposes of explanation') into a world of things explicable, and is then denied *a priori* the very possibility of explanation. Its fellow psychic phenomena, according to Professor Münsterberg, do not explain it, because there is no causal connection amongst them. Its physiological correlate, on the other hand, does not explain it, since there is no causal connection between mental and physical. To say, finally, that it is 'correlated' with something that is explicable is little more illuminating, when closely examined, than if he had said it was 'abracadabra' with the physical. For the correlation is not quantitative, and of course not even *temporal*, since the psychic occurrence has neither duration nor place in time. The relation between sensation and brain-process is a 'purely logical' relation (p. 431). But since the typical logical relation, that of union in a judgment, or of the connection of premise and conclusion, is, in Professor Münsterberg's view, an act in the ultimate world of will, and cannot enter the world of description and explanation without being 'transformed' into sensation, it is indeed difficult to see what he can mean by introducing it here. The 'transformed' logical connection is just a complex of sensations from the muscles, tendons, and joints. It would seem then that this baffling connection between sensation and brain-process must itself be a sensation, or else a supersensuous, timeless act of will. In the one case we should be as far as ever from a

solution of the problem, and should have to devise intermediary elements *in infinitum*. In the other case, we should have taken refuge in an apperceptive act belonging to the indescribable world of ultimate reality; and this the author's psycho-physics abhors.

Since the mental object is timeless, perhaps a word ought to be said as to how it seems to have duration and position in time. This it gets, we are told, by being 'introjected' into the physical stream. It takes upon itself the time of the brain process caused by the physical object to which the mental occurrence refers. The author does not tell us why we have a vivid consciousness of the time of those mental processes that do not refer to any physical object at all, so far as we know, as for instance the thought of psychic atom, the time of re-occurrence of which in my own mind at this moment I could have marked to a second. Especially does his theory seem forced when we recall that such mental processes are given their time in absolute ignorance of what brain-process is involved, and without the possibility of noting when it occurred, even did we know its character and place. A more roundabout and unconvincing theory of temporal localization could hardly be conceived. Nor is this difficulty cleared up by the further suggestion that in every psychic phenomenon there is some peculiar psychic 'quality' that decides the time to which this phenomenon shall seem to belong. Since the psychic event in question seems at one moment future, and at the next instant present or past, he has immediately to assume that this quality itself undergoes change in order to produce this apparent change in time. How the change of the psychic quality can itself occur without involving time, he does not say.

And, finally, before leaving the problem of the connection between mental process and brain process, it is interesting to note the metaphysical reason Professor Münsterberg gives for connecting the sensation with just this part of the physical world rather than with some other. For since nothing whatever in the physical world really causes the mental process, nor is caused by it, nor is even simultaneous with it (timeless since it is), it becomes necessary to explain why this peculiar office of being *quasi* cause of mental occurrences should fall to the brain, rather than to the heart or foot, or even to the belt of Orion. The argument runs in this wise: Something had to be chosen that belonged to the physical world and that was influenced by all our objects of perception; so far, of course, the heart or even the heavenly bodies, apparently, could have met the requirements. But since the mental processes are a private possession, and not open to inspection by others, it was

necessary, further, that the correlated physical organ should not be an object of perception to others, and not even to one's self. Its *logical appropriateness* is consequently the decisive point in favor of the brain; it partakes of the nature of the physical world and yet is a hidden possession like our consciousness. Here, come to earth again, is practically the good old reasoning about the pineal gland and its simplicity and central position as appropriate to the unitary and unextended soul. The consciousness of poor Bertino, whose brain was open to inspection by Mosso, would, according to Professor Münsterberg's theory, be left without any physical means of support. And the transparent jelly-fish must either find some covering for its simple nervous system, or give up all claim to a psychic existence. Such an *a priori* 'deduction' of the brain as the organ of mind will hardly increase the author's reputation for humor. But leaving out of account all these difficulties as to the mode of interrelating the psychic and the physical, it is puzzling that the author should call his view Parallelism. It is an excellent example of *lucus a non lucendo*. The only apparent kinship his view has with the historic doctrine of Parallelism is that it is not Interaction. If a geometrical designation were needed for the connection of two manifolds so antithetical, it had better be called (non-intersecting) Perpendicularism, to indicate that the compared lines run at right angles and in different planes.

The artificial transformation of the world of mind for purposes of scientific explanation and description, as thus given, can hardly be said to be very successful as far as explanation is concerned. If we had resolutely aimed to transform things mental so as to make them *inexplicable*, it is difficult to see what more could have been done. We must now consider the success the author has had in paving the way for description and communication, which was the other part of the supposed justification for giving his artificial form to the mental life.

As is well known from his previous writings, Professor Münsterberg's psychology has always been atomistic in the extreme. And in the present work he does not abate one jot or tittle of his older view. "Everything psychic consists of sensations and of nothing but sensations" (p. 429). Facts or no facts, he believes we are logically compelled to work the mental world over into this form. Will, emotion, judgment—all must be reduced, willy-nilly, to complexes of sensations. In those cases where the fact to be reduced is not a sensation at all, he has not yet given us any rule by which we may decide into what particular kind of sensation it should be turned. In case of doubt, he himself seems always to give the preference to sensations

coming from the muscles, the tendons, and the joints. It would be instructive if both psychologists and philosophers would append to their works something like the German doctor's *Vita*, confessing their pet aversions and sympathies, and the type of image in which they habitually think; the reader might then make allowance, as for some known probable error. Whether our author has been influenced by an unusually strong motor tendency in his own life it would be impossible, without some such confession, to say. But, at any rate, just as his philosophy lays stress on the will rather than on reason or intellect, so his psychology emphasizes the motor sensations rather than those from the higher sense-organs. And while he seems to desire, in the more special physiological view which he proposes under the title of *Actions-theorie*, to distinguish between motor reactions and the sensations which such reactions arouse, and to admit that perhaps too much has been made of muscular sensations and of the sensory process generally, yet his psychology is an out-and-out sensationalism, frankly and confessedly so.

He tries to meet the objection so frequently raised against him that this view of mind provides only for the constituents, the filling, the 'matter' of our consciousness, and takes no account of the connection, the different kinds of unity, the 'form' which is apparent there. So he names quite an array of new species of sensation to meet this requirement in his psychology—'sensations of contrast,' of 'transition,' of 'unity'; and no doubt, if pressed to do so, he would find sensations for all the ten Aristotelian categories. This is interesting tactics, but it will never win the day. It is simply Hume's psychology over again, requiring some one to show again the Kantian truth that our forms of mental connection cannot be reduced to sensation, no matter how good our motives are for so doing. Even admitting that we are justified in 'transforming' white into black and still calling it white, what is it that unifies the 'sensation of unity' with the other sensations to which it is supposed to belong? And why should a 'sensation of transition' give a transitional character to other impressions, any more than any other sensation, like blue or sour. All these new sensations are supposed to be just bare unique qualities like red or bitter, and in that case there is no ground for assigning to them, in themselves, this peculiar relational rôle, any more than to the colors. We hope that in the succeeding portion of his work, Professor Münsterberg will explain how the self-same motor apparatus can supply, like some Hermann from his hat, at one moment just plain sensations of movement, and, at the next instant, sensations of 'affirmation' or

'negation,' and then sensations of 'time-value,' and so on. The chief error is in supposing that such complex forms as unity and transition and affirmation and negation can ever be pressed into the compass of a single simple quality. We shall next hear of sensations of infinitesimal calculus, or of the Weissmannian theory. To say that we cannot have psychology except on these atomistic terms, is as absurd as to say that we must give up physics unless we can transform time into a kind of matter, and conceive of motion as a molecule having an atom of duration joined with two of space.

One might look with more sympathy on this attempt to reduce all mental relation to sensation if it really answered the purpose for which it is proposed ; if it really made possible an accurate description of things. But it defeats its very end. For if there is anything utterly indescribable and incommunicable in mind it is sensation. The nearer we approach sensation the more we have to give up description, and appeal to a person's own experience to know what we mean. In dealing with the classic question, as to whether we all mean the same by the term red, the author acknowledges (p.334) that his ultimate psychic elements, to which he would reduce everything, are indescribable ; but he believes that this is made good by the accurate account of the physical process which accompanies the larger mental whole. This elaborate 'working over' of psychic facts in the interest of description consequently ends in the proposal to give us, not a description of any real mental process, nor even of the fictitious substitute for that process, but a description of the physical correlate of this fiction which we have set up and called by the name of the real mental event. We ask for bread and are offered not even a stone, but a bad drawing of a stone.

So that we must say of Professor Münsterberg's attempt to lay an epistemological foundation for descriptive psychology what we said in regard to the fitness of his theory for explanatory purposes ; if he had planned a conception of the mental life that would make it *ind*describable, he could not have done better. If the mind needs any transformation in order to make it describable, the method to pursue would be to make it quantitative and temporal and causal, and to leave in all the 'form' that it could carry, rather than to clear out all these in the interest of sensation. As compared with a bare sensation, how much more exact is the description and communication of such ideas as 'square' or 'hour' or 'seven.' There is a peculiar sensational character to these ideas no doubt, and this the psychologist must not overlook ; but it is just because the idea in these instances is so independent, relatively, of

the particular sensations entering into the experience, that the most significant portion of the idea can be described and communicated. To reduce all our highly developed mental constructions to sensations as an aid to description would be like running a cathedral through a rock-crusher in order to get a good photograph of the building. No one can object to a psychologist's finding all the sensations he can in even our highest processes, any more than one can object to a chemical analysis of the stone in a noble building. But the psychologist must *find* the sensations there, not put them there himself. To substitute sensations for things that are not sensations, and to say that for purposes of description these sensations are the whole thing—this is to give up truth in the interest of a theory. It is worse than to declare that the chemist's report on the stone is the only objective account of an architectural whole.

But with this we must close the discussion of this important volume. It is a helpful book, in that the author has the courage of his convictions, and has been willing to work out the foundations of psychological atomism more elaborately than has ever been done before ; it helps us see to what that theory leads when pushed to its logical conclusion. He himself tells us that he expects no general and immediate acceptance of the details of his system ; and in this he will probably not be disappointed. The general thesis of his volume, however, that beyond psychology lies the wider field of philosophy, and that idealism must leave room for a thorough-going empiricism within the limits of psychology,—many will sympathize with this who cannot subscribe to the lesser features of his plan. The author, as was said, calls this a book of battle, and, it must be owned, he wages the battle with ardor and skill. It has in it besides, a flavor of the German metaphysics of the old school, so heartily does the author throw himself into his intellectual reconstruction of things, and such implicit faith he shows in the application of logic even to the order of nature herself. The book has a lordly air toward fact that no American or Englishman, unless German-schooled, could ever quite assume. In this respect it seems fitting that it should appear in German, though it is to be hoped that this and the succeeding parts will be given us in English as well.

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L'origine de la pensée et de la parole. Par MONCALM. Paris, Félix Alcan, 1900.—pp. 316.

The present work is another pleasing contribution to a problem whose various phases have been investigated and discussed by philologists,

psychologists, and physicians, but which has never received comprehensive treatment as a whole—if one except Wundt's latest work as an achievement of this kind. Certainly the work in review has both the faults and the advantages of a certain onesidedness of conception and presentation, the outlook being that of the philologist.

Confusion of terms or of meanings is the source of much confused thinking on philosophical questions. The remedy is to seek the origin of language and of thought in language. A brief introduction acquaints the reader with the purpose of the enquiry, but leaves him in a general state of expectancy regarding numerous psychological and philosophical questions whose solution is to be found in the problem of the origin of speech, but without the definite guidance or focusing of attention which it is the part of an introduction to supply.

The first chapter corrects to some extent the impression that the present work has taken all knowledge to be its province, and after a short résumé of various hypotheses which concern the origin of man and his speech faculty, the well-known theories of 'interjection' and 'imitation' are introduced. These are at once abandoned on the ground that words do not retain the impress of primitive emotions, on the one hand, and, on the other, bear little resemblance to the cries of animals which the second of these theories invokes. Later in this work we find that the author accepts Max Müller's roots as forming the original content of a primitive Aryan speech. This may be one reason for his rejection of the interjection and imitation hypotheses.

This chapter contains some account of the beginnings of the study of Sanskrit and the literature of India, concluding with a brief mention of the Darwinian theory of descent and the religious dogmatism by which it has been opposed. In this, as in most of the questions touching the origin of human speech and reason, the philosophy of language alone is competent to decide. "The point at which the animal ends and man begins may be precisely determined, since it coincides with the beginning of the root-period of language, and language is reason" (p. 40). The science of language has as its chief instrument philology, and it is from this aspect that the solution of the problem must be sought.

The chapter on "The Philosophy of Language" depreciates the multiplication of philosophical terms, and the belief—current in philosophy of the past—that such terms represent real entities rather than aspects of psychical life or activity. The author concludes, with Max Müller, that "language is not thought plus sound," but that "thought is language without sound" (p. 55). We think aloud, or the process of

thought is unaccompanied by vocal sounds. In any case we think in words. This is to identify thought with articulate language. Gesture language is not only aided, but, the author seems to say, made possible by the other and higher sign-system of social intercourse. Tribal communication by means of sign-language is accomplished only as the participants think, each in his own language, and translate their thoughts into pantomime (p. 56). Now, using the term language in the wider sense, to include all the outward manifestations of psychical activity that form the means of communication between man and his fellow, it may well be that thought is only the internal aspect of language, or that thought is impossible without language as a social medium of some sort. But there is a general opinion that the language of gesture is capable of a high degree of development as a speech medium, that, contrary to the opinion of M. Moncalm, it is capable of being carried to a degree of efficiency which is compatible with intellectual operations, that it is a natural system of sign-communication, and, in the beginning, not dependent upon those already in possession of verbal speech (the author cites the case of deaf-mutes, p. 56), or even that the evolution of the latter and higher form of speech-intercourse may have been the result of accidental causes which have diverted a more primitive form of expression into other and better channels. At any rate, one may fairly say that the language of gesture and expression, presumably the earlier, from the present state of our knowledge of the subject, has hardly been given sufficient space or due respect by the author, although, later in the work, sign-language, indeed, receives mention as the earliest mode of communication.

With the fourth chapter we enter upon the domain of comparative psychology. The point of departure for man and animal is the same. With both the cognition of things proceeds from the impressions of sense. But their paths soon diverge. Man possesses speech, thinks objects, and represents them when they are no longer present. Of some interest is the statement, which might not pass unchallenged by the psychologist of animal life, that the most intelligent brute never interposes an instrument for the accomplishment of an act between his will and its realization. Romanes's receptual level of intelligence would hardly seem inadequate to this, but, stated in terms of the conscious recognition of cause and effect (p. 60), comparative psychology would doubtless side with the author.

In the social environment constituted by the "First Human Societies" (Chapter V), man slowly elaborated the speech mechanism which constitutes his badge of superiority over the brute creation.

The phenomena of nature, later to be adored or made subject to law and reason, wore for him the aspect of a terrifying dream. His faculties were "between sleeping and waking," and fear dominated his life. But common sentiment and collective activity assisted or lent outward expression by signs and inarticulate sounds, the latter the involuntary accompaniments of physical effort. These, the 'clamor concomitants' of *Noiré*, became differentiated as men applied themselves to the various occupations which their primitive mode of life made necessary, or their growing knowledge of nature permitted. For this theory the author acknowledges his indebtedness to *Noiré*. Max Müller's 121 parent-Aryan roots furnish the philological material upon which depends much of the evidence supporting the hypothesis. These roots are verbal, the ultimate elements of language, and expressive of human activity. If, however, we may believe with such writers as Sayer and Farrar that these roots never constituted a true language, our reliance upon them as indications of the probable course taken in the differentiation of sounds is considerably weakened. Besides, words such as measuring, hating, knowing, thinking, and many others, witness a tolerably advanced state of society, and it is somewhat difficult to believe that language was then in its beginnings, or that from these roots we can conclude that the verb rather than the noun, action rather than the object, was foremost in human speech or interest.

Space does not permit a detailed account of the remainder of the chapter, which treats of substantives and the transference of man's personal activity to the objects of nature. The author summarizes by saying that: (1) the basis of all roots is human creative activity, (2) the source of all our abstract ideas is the representation of purely material acts, (3) modern idioms are built on the ruins of ancient language and the knowledge of man's nature, and the entire history of humanity will be revealed by the study of ancient language. A few pages are devoted to the stages of language, the first seeming to correspond to the usual 'isolating stage,' the second being the agglutinative, and the third the period of myth.

Myths are accorded separate treatment in the seventh chapter. They take their origin in metaphor—not the artificial and conscious metaphor of poetry—and in terms whose root-sense has been forgotten. Hence we ought not to expect that all myths will be explained. Myth precedes mythology, the latter an inevitable and distinct period in the lives of peoples.

The eighth and ninth chapters renew a discussion begun in the fifth

chapter on the nature and origin of general and abstract ideas. The root-terms do not express single but repeated acts, such as pounding, breaking, and thus the verb contains a conception (Chap. V). In the case of substantives, the term, which at first expresses the general in the sense of the vague, is gradually transferred to the particular object. Yet of abstract ideas in the true sense, primitive man, like the animal, has none. These ideas constitute the mental economy of later thought, and correspond to nothing real.

The origin of the religious concept, the concept of God, furnishes subject-matter for positions of the ninth chapter and the four remaining chapters of the book. Problems of religion have been approached from two points of view. One question is: What is meant by the idea of God? Another is: How did the concept arise? Metaphysical solutions and dependent epistemological discussions are so unsatisfying that the only course appears to be the genetic, or rather the historic-philological treatment of such conceptions which finds them in the evolution of the human mind (p. 226), first present to man in external phenomena, then in his own person and phenomenal self, the epitome of all humanity. "Finally in the clouds of psychological mythology and behind the veil of the ego, the true self which seeks the divine is revealed to man" (p. 266); it is the infinite in man as in nature. The search is revealed as man follows the clue of his own activity, passing through the earliest stages of anthropomorphism to the recognition of law and moral order, the formation of codes and religion. Interesting is the author's treatment of fetichism, polytheism, and the comparison of Hebrew with Aryan conceptions. The ordinary view of the first is a *circulus in arguendo*, for before there can be fetichism there must be some notion of the divine. Before polytheism or monotheism is henotheism; for the primitive mind had no clear conception of plural or singular. 'God is,' not, 'there is only one God.' Thus the mind of the Hindu oscillates between the representation of many gods and the representation of one (p. 217). The Hebrew idea of God differs from the Hindu, partly because the former tended to treat natural phenomena as such, while the latter transformed them into personal agents, partly because of a certain inelasticity of the Semitic language which did not allow modification of original meanings once incorporated in root-words. Thus an abstract idea of deity such as was possible with the Hindu was not possessed by the Hebrew. For the same reason, the myth element is lacking with the latter although, on the other hand, the Old Testament abounds in metaphor.

The tenth chapter on "The Vedic Hymns" makes philological

matter of more than ordinary interest to the layman, in fact there is not a page which is dry or devoid of interest in the thirteen chapters which comprise the book. The grace and charm of mythology has more than usual attraction as one reads. The concluding chapter of "Observations and Reflections" on the scientific explanation of the purpose of existence is short and somewhat disappointing in its indefiniteness. We are brought to the recognition of the fact that philosophy and science are merely the combination of a few roots and 121 concepts of the understanding; but this is hardly sufficient fulfilment of early promises, although the intermediate matter well repays the perusal of the book from cover to cover. Whether one is seriously minded toward the main problem and conversant with its details, or approaches it for guidance, imitation, or general information, there must be much in the treatment and solution of its questions to satisfy and please the reader. But one remains unconvinced that the philosopher holds the key to the mystery of existence. The out-of-hand acceptance of Noire's theory disposes of debatable matter in too summary a way. Comparative psychology indeed finds a small place in the work, but anatomy, physiology, embryology, phonetics, the science of gesture and expression, and even the study of the child with its stage of self-taught or consciously invented language, are witnesses which receive no summons or cross-examination commensurate with the evidence they may furnish. Yet in this labyrinthine problem all clues deserve to be followed. The early decision in favor of the human activity hypothesis allows interest to center about the religious concept for the remainder of the work. But though it "may be much to show," as the author says, that God, and soul, and immortality are not empty names, and that belief in the supersensible is not only universal but inevitable (p. 135), there are others who would reserve space for the question of validity when attempts are made to round off replies to the problem of origin and development with wider and more conclusive generalizations.

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Platon. Von WILHELM WINDELBAND. Stuttgart, Fr. Frommann's Verlag (E. Hauff), 1900.—pp. 190.

Windelband in all of his works has shown great capacity for exhibiting a personality, a speculative movement, or a problem, genetically. In characterizing the personality of Plato, he places before us, vividly, often picturesquely, the interplay of elements, social, literary, and sci-

entific, that were absorbed into the fiber of Plato's being—the anabolic process, as it were, in the formation of the tissues of his spiritual structure. Plato's birth fell in the first year of the Peloponnesian war, and in the geographical center of Hellenic life. The fierce opposition between the democracy and aristocracy, the beginning of the decline of Athenian splendor tinged with a hue of pessimism which is reproduced in the dialogues, the highest achievement in art or letters,—these were the notable marks of the time. Into a world of such political agitation, fermenting with the yeast of class opposition, and refined by the highest art activity, Plato, aristocrat and artist, was born, and within his soul the eager longing of the time was clarified, became articulate in literary statement and transfigured in a new culture-ideal. For the decipherment of Plato's character, the interpretation of his writings, the analysis of the spiritual and social conditions under which he lived and worked, one owes a heavy debt to modern philologico-historical studies, which have reconstructed for us on the basis of critical or scientific principles a past that was much overgrown and obscured by myth and phantasy. The discrimination between fact and fancy has been due largely to such philologico-historical studies. From this source came the whole stimulus to critically examine documentary evidence, questions of authenticity, and adequacy of proof. It is gratifying to find Windelband, who is less an historian than an interpreter, fully recognizing the debt of philosophy to philology, and generously citing Zeller as the chief exponent of these labors as far as they apply to Plato (p. 19). Zeller is no doubt the *Alt-Meister* of the critical historians of philosophy. The volume of Windelband falls into seven chapters, exclusive of an introduction in which he discusses the general significance of Platonism and the antecedent conditions that gave birth to it. The titles of the chapters show clearly how the author never loses sight of the personality of Plato in the entire book. They are as follows: The Man; The Teacher; The Writer; The Philosopher; The Theologian; The Social Economist; The Prophet. Under these headings a very remarkable mass of clear information is compressed within the small monograph.

In reviewing the work, perhaps I cannot do better than commence with the moot and much discussed question of the chronology and order of the dialogues. Unfortunately, this still continues a quagmire not yet drained and converted into a historically safe and arable region. Windelband follows the opinion enunciated by K. F. Hermann and George Grote, viz., that the writings conform to no preconceived didactic plan (Schleiermacher), but are documents of Plato's own

spiritual development, and mark the stages of his inner history. This historical theory of Hermann has pretty well maintained itself in the struggle for existence, and may be regarded as established, although we have by no means reached any indefectible conclusions as to the exact order of the dialogues, or even as to the authenticity of many of them. We have no ground to suppose that any of Plato's writings have been lost, as is so unfortunately true of the writings of Democritus and Aristotle; on the contrary, it is certain that we have in the modern *corpus* many un-Platonic, even anti-Platonic dialogues. Windelband, although he proceeds undogmatically and regards the classification of the writings on the basis of the best contemporary researches as only tentative, gives an arrangement which may be briefly summarized as follows:

1. The youthful or Socratic writings (p. 50), *i. e.*, the minor ethical dialogues: *Laches*, *Charmides*, *Euthyphron*, *Hippias II* (doubtful), *Lysis*, *Alcibiades I* (probably spurious), *Apology*, *Crito*. All of these were probably written shortly after the death of Socrates, and none of them prior to that date.

2. The Anti-Sophistic writings: *Protagoras*, *Gorgias*, *Meno*, *Euthydemus*, *Cratylus*, *Theaetetus*, *Hippias I* (doubtful). These polemical dialogues were probably composed during Plato's residence in Athens prior to the first Sicilian journey.

3. The florescent period or writings of Plato's prime: *Phaedrus*, *Symposium*, *Menexenus* (doubtful), *Ion* (doubtful), *Republic* (Bks. I-IV, VIII-X). The *Republic* is not a unity in its composition, but according to the simplest theory, falls into three parts: (*a*) Bk. I and Bk. II, to 367, being the dialogue on Justice and Injustice; (*b*) Bk. II 367 to end of Bk. IV, being the dialogue on the Constitution of the Ideal State. To this sketch of the Ideal State belong also Bks. VIII-X. The first half, however, of Bk. X, containing a criticism of poetry, belongs to period 4, and is to be connected with the *Phaedo* and *Philebus*; (*c*) Bks. V-VII form the latest part of the *Republic* and are written in the metaphysical atmosphere characteristic of the *Philebus* and *Timaeus*. Between parts *b* and *c* of the *Republic* (or between the *Symposium* and *Phaedo*) belong the dialogues *Sophist*, *Statesman*, and *Parmenides*, all of which are of questionable authenticity, although they were doubtless written within the Platonic circle and the *Sophist* and *Statesman* are undeniably from the same hand.

4. Chief Metaphysical Dialogues: *Phaedo*, *Philebus*, *Republic* (Bks. V-VII, Bk. X, first half), *Timaeus*, *Critias*.

5. The *Laws*, work of Plato's old age (Cicero tells us that Plato died "pen in hand"—*mortuus est scribens*).

Considerable difference was shown in Windelband's attitude towards the chronology and classification of the dialogues between the publication of the *History of Philosophy* (1891) and the appearance of the *Ancient Philosophy* (1893), while the *Plato* shows practically the same position as that taken in the work of 1893. In this latest work, the *Charmides* has been withdrawn from the category of doubtful dialogues in class 1, and *Hippias I* has been included in class 2, although as a doubtful composition. In the work of 1891 he had included in class 3 the following: *Phaedrus*, *Symposium*, *Phaedo*, *Philebus*, and the *Republic*, the last named, however, being regarded as written at different periods. In class 4 were included the *Timaeus*, *Laws*, and *Critias*, while class 5 of the *Plato* was not employed. Between 1891 and 1900 Windelband's views regarding the *Sophist*, *Statesman*, and *Parmenides* appear not to have changed. He continues to regard the *Parmenides*, as he said in the *Ancient Philosophy* (p. 179), as an "æsthetic résumé of actually fought word-battles" and as having originated in the Platonic circle, but of exceedingly doubtful Platonic authorship.

Windelband regards the fundamental tone of Plato's political philosophy—and Plato is first and last political philosopher and reformer—as pessimistic. He thinks this tone is inspired partly by the loss of Athenian hegemony through the Peloponnesian war and by the internal fall of moral power in the Attic Government and people. Besides these causes, Plato had, of course, his own failures in political reform at the Syracusan court to give him the strongest bias. Plato is through and through political philosopher without being a statesman. As soon as he tried mingling in the practical affairs of government his career came uniformly to a speedy and tragic close. He was unable to create a working constitution for a state, but he created instead an ideal polity. His activity is sublimated into doctrine. His success in affairs was not greater than that attributed by De Quincey (*Works*, Ed. Masson, Vol. VI, p. 336) to Lord Bacon, who "played 'H— and Tommy' when casually raised to the supreme seat in the council by the brief absence in Edinburgh of the King and the Duke of Buckingham." The *Gorgias* is at once a polemic and a complaint against the prominence of sophistic leadership in politics, against the current democracy and demagogism. A further pessimistic note is struck in Plato's advocacy of a return to nature's simplicity, wherein he probably voices only the gospel already proclaimed by the Cynics. Plato is a pronounced reactionary. He urges the regulation of industry so as not to permit it to minister to luxury and decay. He is the opponent of political expansion, believing only in the traditional City-State, and

in his Ideal State he described this traditional πόλις converted into an educational community under military control; the *Laws* revise the *Republic* into an agrarian government of 5040 families. Plato had not learned the lesson of Persian power, nor the significance of political alliance in his own time, and he had no prophetic vision of such an empire as the Macedonian, although he was standing at its dawn. To his dying day, as witnessed in the fragment *Critias*, he was filled with the confident belief that the small City-State, wisely guided and strongly defended by a Spartan-like populace, could successfully maintain itself against the attack of any earthly power with whatsoever weapons it might be equipped. This confidence was the outcome of the exaggerated emphasis placed upon the notion of political unity. An important innovation in the Platonic Commonwealth is the training of a special class of citizens to be soldiers,—the development of a standing army. The far-reaching nature of this conception is easily missed by students familiar with this institution in the modern state. With Plato it was a new idea. Even in the Peloponnesian war one knew nothing of any special class of citizens trained to arms. The armed defence of the state was the duty of every adult possessed of full civil rights. The Platonic provision of a body of men technically trained for this service was a notable departure and its significance is discussed by Windelband appreciatively. It is, however, the ethico-psychological basis of Plato's political theories that mainly interests Windelband, and although there is perhaps not much of fact added here to what was already known, the manner in which the facts are treated is vastly superior to that of any manual with which I am acquainted. Windelband's superiority over most of the historians of philosophy lies not so much in his accumulation, discovery, or critical examination of facts, but in his mastery of them as philosophical materials. He is the philosophical historian of philosophy. He has consummate power in the analysis and restatement of problems, in his understanding of the inner significance of speculative movements and of their interdependence with culture conditions, and he is well nigh peerless in his ability to spread light over such subtle and elusive conditions, making them clear and full of meaning to the reader's eye.

In his explanation (p. 165) of the curious and to us unsympathetic provision for women in the government, Windelband says that in the feverish Athens of Plato's time there was undoubtedly an agitation regarding the condition of woman (*Frauenbewegung*). The influential and well educated Hetairai are explicable only on such an assumption. Emancipated women play a considerable rôle amongst the Cynics and

Cyrenaics. The *Ecclesiastusæ* of Aristophanes shows, Windelband thinks, an acquaintanceship on the part of the comedian with at least the oral teaching of Plato. He further points out the fact that women were participants in the triumphal march of Dionysus, and religious equality here might perhaps have furnished some suggestion for political equality. Political equality remained, however, in Plato's mind only a theoretical postulate, which he did not even work out into detail, and certainly in the life of the Academy it was in no wise put into practice Windelband even goes so far as to suggest that it may have had its motive in irony, which I should consider exceedingly improbable. Plato himself concedes the impracticability of the Ideal State, that its provisions are adapted only to ideal conditions, and in the pessimistic temper in which the *Theætetus* is written, he regards the philosopher as essentially ill adapted to earthly political conditions, and believes he should take refuge in the heavenly life of contemplation. This mystic, religious element is a prominent trait in Plato's character, although I cannot agree with Windelband that it was un-Socratic. In the latest of Plato's works, the *Laws*, it is true, religious interests receive the greatest attention politically, but they had received marked consideration in their ethical bearing in the *Euthyphro* and *Crito*. Further, it is natural that with advancing years Plato should have laid greater emphasis on religion. The change from the *Republic* to the *Laws* is not marked merely by greater provisions for religious observances. The entire legislative philosopher class disappears, and the special military class is abandoned. The Ideal State is reduced to an essentially agrarian commonwealth. Plato thus converts in un-Platonic fashion his ideal community, with its life of science, into a country of landed gentry, whose property is hereditary and fixed, and whose main interest is religious rather than scientific, though not quite into a country of "pious peasants," as Windelband with some exaggeration says (p. 174).

Plato hoists the standard of a supersensible world, at which he arrived philosophically through the well-known epistemological struggle with the Sophistic doctrine of relativity. But this world which was originally only a world of hypostasized ideas, becomes in its ethical or religious bearings of the utmost consequence. The immaterial world becomes the world of higher reality, correlated with which is the ethical moment that to the higher reality belongs the higher moral value, and the consequent ultimate identification of the supreme reality with the Highest Good. In his advocacy of flight to this superior world through contemplation or neglect of sensible reality, Plato is thoroughly

un-Greek, but he stands here a prophet for coming ages. The influence which he failed to exert on his own time—the story of this failure and its causes is interestingly told by Windelband (p. 179 ff.)—was exerted in Alexandria, on the fathers of the church, and on the ideals and organization of the mediæval religious world. His conception of the supersensible world, of the authority of dogma in ethical and religious instruction, and the exaltation of such instruction as the fundamental function of government, spurned as these ideas were by the earth-loving Greeks, became the most vital principles in the social economy of the post-pagan centuries. They completely changed the scale of moral values, issuing in the exaltation of the worth of inner experience, and making the salvation of the soul the focus of universal interest. Just at the dawn of Christianity, when oriental religious ideas were streaming into the world of Mediterranean culture, Plato's philosophy became, as Windelband thinks, the medium of crystallization for the "greatest complex of ideas ever seen in human history" (p. 187). The dualism of the supersensible and sensible assumed now the profoundest practical aspect, and was the elemental presupposition of all religious thought. The further influence of Platonism on the history of ideas as exhibited in mediæval realism, the establishment of the notion of law in modern science, the epistemology of German idealism, is too briefly mentioned by Windelband. Amongst the spiritual sources out of which has developed the social and economic position of science in history, there are none in the opinion of the author (p. 2), so important, impressive, and instructive as those connected with the name of Plato. In him the limit of human endeavor appears to have been reached (p. 12). The culture-ideal of humanity—the ideal of life enlightened and regulated by science—is made incarnate in Plato for all time (*ibid.*).

Windelband's book represents the highest type of German monograph, reflecting the best results of contemporary research. It is cast in popular form, without, however, any sacrifice of scientific content. The author has an inimitably fine understanding of *how* to say things. He has been touched by Plato's spirit, and exhibits in the æsthetic structure of his work the spell and influence of his Athenian master.

WM. A. HAMMOND.

SUMMARIES OF ARTICLES.

[ABBREVIATIONS.—*Am. J. Ps.* = *American Journal of Psychology*; *Ar. f. G. Ph.* = *Archiv für Geschichte der Philosophie*; *Int. J. E.* = *International Journal of Ethics*; *Phil. Stud.* = *Philosophische Studien*; *Rev. Ph.* = *Revue Philosophique*; *R. I. d. Fil.* = *Rivista Italiana di Filosofia*; *V. f. w. Ph.* = *Vierteljahrschrift für wissenschaftliche Philosophie*; *Z. f. Ph.* = *Zeitschrift für Philosophie und philosophische Kritik*; *Z. f. Ps. u. Phys. d. Sinn.* = *Zeitschrift für Psychologie und Physiologie der Sinnesorgane*; *Phil. Jahr.* = *Philosophisches Jahrbuch*; *Rev. de Mét.* = *Revue de Métaphysique et de Morale*; *Ar. f. sys. Ph.* = *Archiv für systematische Philosophie*.—Other titles are self-explanatory.]

LOGICAL AND METAPHYSICAL.

The Philosophy of T. H. Green. The late H. SIDGWICK. *Mind*, No. 37, pp. 18–29.

In Green's earlier works, the world of nature in space and time is conceived as a complete unalterable system of thought relations. But this is not the view expressed in the *Prolegomena to Ethics*. This hitherto complete system is here complemented by a personal "self-distinguishing, self-objectifying, unifying, combining consciousness." In a word, Green here steps from idealism to spiritualism, from Hegel to Kant and Berkeley. But is this combination thinkable, and does Green really succeed in thinking it? Professor Sidgwick in this article answers both these questions in the negative. Green variously defines this self-consciousness as 'one' and 'many,' as 'self-distinguishing' and 'self-objectifying,' as 'unifying' and 'combining.' But how can we predicate these relative terms of it without implying that it is itself inextricably bound by and determined through and through by the very system of relations from which, in the first instance, it is distinguished, and which it is supposed to create? Here Green is forced to fall back on his original idealistic position. If now we turn to his negative definitions of this self-consciousness, we are met by even greater difficulties and contradictions. It is defined as not in time nor in space, as neither substance nor cause; and yet it is constantly spoken of as 'continuing for ever,' and as 'acting upon' and 'using' the life of the sentient soul as its organ. Do not these latter terms imply temporal causation? Green tries to escape this last difficulty by distinguishing between divine and natural causality. The eternal consciousness, he claims, has no separate particularity apart from the manifold world, no character but that which it gives itself in its unifying action. But this distinction provides no basis for ethics, since the manifold is unified as much in the life of the sinner as in that of the saint. In a word, there is a great gulf fixed between Green's metaphysics and his ethics. And if we confine ourselves to his metaphysics, then this eternal consciousness becomes a mere abstract

empty entity, not worth the logical labor involved in demonstrating its existence. If the world is once comprehended as a unitary ordered system throughout, what further gain to knowledge is there in referring this unity to a unifying principle?

IRA MACKAY.

Mills Theodizee. S. SAENGER. Ar. f. G. Ph., XIII, 3, pp. 402-429.

The publication of the three posthumous essays of Mill, *Nature*, *The Value of Religion*, and *Theism*, was the cause of much contemporary discussion as seeming to indicate a decided change in what his literal followers regarded as his position. These essays form a positivistic theodicy, an attempt at a complete view of life induced by the balanced and careful nature of Mill's thought. The bridge to this theodicy is the peculiar modern longing for religion, which he treats as a problem in the essay on *Religion*. He found the moral value of religion to be due to the authority of the number involved, to early education and to public opinion; these factors, being extrinsic, could be conceivably transferred to the support of rational utilitarianism. The individual's interest in religion is due largely to the mystery of existence; he desires an answer to the question: Is the ground of things hostile or friendly to *our* teleology? This problem is the subject of the other two essays. Mill examines the often-employed adage, 'Follow nature,' and finds that it may be a mere tautology, if taken as meaning, 'Do what you must'; if the meaning is, 'Know it for use,' it is not ethical enough for a principle; and any injunction to obey spontaneous instincts contradicts morality, which implies a contest with the nature of things. In short, our moral principles are all artificial, not natural; the human nature produced by art and culture is the 'nature' we must follow. If we regard nature as teleological, the means employed seem to conflict with our traditional morality. We may either attack the process or revise our judgments of value. Mill clings to human morality as it is, and instead of explaining our moral standards from the evolutionary process, adopts the theory of a dualistic universe, in which a good and all-wise God is at strife with an evil principle which limits his power. He rejects the supernatural in Christianity, but regards its founder as the perfect model of all moral action, whom we may well regard as the special messenger of God to man. But even in this conclusion we may trace a lingering doubt due to Mill's peculiar nature.

EDMUND H. HOLLANDS.

Art, Industry, and Science. WARNER FITE. Psych. Rev., VIII, 2, pp. 128-144.

This article is a suggestion toward a psychological definition of the field of art. There are two possible attitudes to be taken toward beauty, according as it is conceived to be related or unrelated to truth and usefulness. The tendency has been to consider beauty as a unique quality. The im-

pulse toward artistic creation has been regarded as an outgrowth from the play impulses. In opposition to this view, the writer suggests a theory that conceives art on the one hand, and industry and science on the other, to be successive phases in the evolutionary process; art and industry are conceived as successive phases in the development of impulse; art and science as successive phases in the development of cognition. Therefore beauty is related both to truth and practical serviceability. There is no objectively distinct class of æsthetic impulses, nor of objects of beauty such as it would be necessary to assume in defining beauty as a unique quality. The line separating the beautiful from the useful is a function varying with the stage of culture reached in the agent for whom the distinction is made. Everything that interests us affects the organic processes, and has therefore a relation to the life process itself. We have thus instead of an absolute distinction of æsthetic and practical qualities, a graded continuum with the practical at one end, in the needs more nearly organized into a system, and the æsthetic at the other, in those least related to the organic system. If we would understand the full force of this contention, we must remember that human life is a process of growth, and the human being an evolutionary process. When a new impulse makes itself felt, and a new object is desired, it has first the appearance of the ideal and the beautiful; then as the impulse becomes more imperative, the object loses this appearance, and becomes a necessary element of the life process itself. A similar relation exists between art and science. For psychology this is a relation between the appreciation of beauty and the cognition of truth and reality. Here again no sharp line of division can be drawn. Whether an object be apprehended as a work of art, or as a fact of science, depends entirely upon the extent to which it is apprehended in analytic detail. The difference between æsthetic taste and cognition is one of degree only. Art, in order to remain art, must always retain the element of the mysterious. When apprehension reaches the point of detailed comprehension, the object is no longer a thing of beauty but merely a fact of science.

G. W. T. WHITNEY.

La définition de l'individu. F. LE DANTEC. Rev. Ph., XXVI, 1, pp. 13-35; 2, pp. 151-172.

Of late years some enthusiastic biologists have been inclined to describe man as an agglomeration of individuals rather than as an individual. But since it is from a knowledge of man that the term 'individual' is derived, this can hardly be correct. Let us ask, then: What is the exact meaning of 'individual'? How should it be defined? We all know, after a fashion, what we mean when we speak of an individual man, horse, or dog—but as we get lower in the scale of being we encounter difficulties, and when we reach the fresh and salt-water hydras, some species of which are composed of single, free members, others of which are found only in groups, we may be puzzled to state whether the single member of this

group is the individual. Having found, then, that there is a real question involved, let us ask what ideas are united in our term. *Indivisibility* is one; yet we may readily conceive of an individual as more or less divided—within limits. *Community of origin* and *continuity* also are included; yet questions of grafting, etc., may lead us into difficulties even here. But may we not say logically that an individual is “a living mass, the form of which is hereditarily obligatory”? Should this definition be adopted, the problem of the hydra would be settled, for if the group-form were fixed and hereditary the group would be the individual, no matter how much its single members might resemble individuals of other species. We may say, then, that the individual is an hereditary morphological unity.

Having arrived at a definition of the individual, M. Le Dantec proceeds to trace the course of animal life upward, showing the applicability of his definition in all doubtful cases. Individuality is an indispensable condition of the hereditary transmission of acquired characteristics, he declares. “From the point of view of heredity, the only difference that there is between the colony and the individual is that the hereditary patrimony common to all the cells of an organism is reduced, in the case of the colony, to a determination of the characteristics of the individuals constituting it; and, on the contrary, in the case of the individual, includes all its personal characteristics.” “Different tissues are not diverse elements common to all the individuals of a species; but are different modalities of a unique element which determines the personality of the individual under consideration.” Even in the vegetable world this holds, although there individuality is less developed than in the animal realm. But what connection is there between individuality as defined by inheritance and the psychical personality? The part played by education, that is, the totality of the exterior conditions encountered in the course of development, seems very small from a morphological point of view; but differences absolutely inappreciable from that side are sometimes very important psychically. Indeed, that sum of cerebral qualities which we call ‘individual character’ may be inherited. The psychical personality, then, is partly determined by inheritance, partly given over to the action of exterior influences; and it is only this second part of the personality which is capable of being modified through education.

GEORGIA BENEDICT.

Der Kausalbegriff in der neueren Philosophie und in den Naturwissenschaften von Hume bis Robert Mayer. JOSEPH W. A. HICKSON. V. f. w. Ph., XXIV, 4, pp. 447-482, XXV, 1, pp. 19-56.

The modern concept of causality originated with Hume. For him there were but two alternatives possible; (1) either the causal relation was an abstraction of metaphysics; or, (2) it rested entirely upon subjective and experiential grounds, for which there could be no other guarantee. In denying the first view, he made the concept of cause available for science;

but in affirming the second, he assumed a position which he could not consistently maintain. Hume was obliged to admit the validity of experiment or favorable observation. He subsumed such cases under the generalization that "the same cause produces the same effect," a principle which he derived from experience. Granting that the general principle was won from experience, the subsumption of a particular instance under a general law was a resort to the deductive method. In fact, it is only as a result of logical deduction that one is able to establish the causal relation between successive impressions. Mach is the modern champion of Hume's theory. His polemic against causality, cf. *Warmelehre*, is superfluous, in that it is directed against a view that is no longer current. Moreover, his substitute for the concept of causality, the *Prinzip des Abhängigkeit der Erscheinungen von Einander*, is looser and less precise in its formulation than Hume's statement of the theory.

Hume's immediate successors added nothing to his doctrine of causality. The critique of Thomas Brown has an historical interest because of its influence upon Mill; but Brown's objections to Hume's statement of the problem were weak and ill-founded. The author suggests that we might well speak of a Hume-Brown-Mill Theory of Causality, if it were not that such a designation would minimize Hume's contribution. The divergent standpoints of Mill the empiricist and Mill the logician are shown in his wavering and uncertain treatment of the problem of causality. While Mill said that succession must be unconditioned in order to establish the causal relation, he nowhere clearly distinguished between conditioned and unconditioned succession. On the whole, Mill's contribution to the theory of causality was unimportant. Kant agreed with the negative part of Hume's doctrine, but not with the positive. The difference in the positive positions of the two thinkers arose out of the difference in their conceptions of experience. Kant frequently appeared to confuse 'priority in time' with 'cause.' The cause for Kant has often a sort of absolute existence; it is a *ganz starres unveränderliches Ding*, having no dynamic relation whatsoever to the effect. While Kant recognized the validity of the principle of the conservation of energy, he did not use it as he might have to supplement his doctrine of the causal relation. The author concludes, that although Kant's treatment of the problem possessed many defects common to Hume and his school, it was still Kant who made it possible to carry the problem beyond the pure phenomenalism of the 'empiricists.'

CARRIE R. SQUIRE.

HISTORICAL.

Lamarck's Views on the Evolution of Man, on Morals, and on the Relation of Science to Religion. A. S. PACKARD. *Monist*, XI, 1, pp. 30-49.

This article, for the most part, consists of selected translations from two of Lamarck's works, the *Recherches sur l'organisation des corps vivans* (1802), and the *Philosophie zoologique* (1809). These selections show that

Lamarck anticipated Darwinism at about every point of importance. He compares man to the higher animals, *Quadrumanæ*, in point of bodily structure, mental faculty, and emotional nature; and, on the basis of the similarity brought out by the comparison, concludes that man has evolved from these higher animals. The development of any organ is due to the continued and habitual exercise of its appropriate function, and variations in organic structure at large are due to persistent adaptation to changing environment. Moreover, Lamarck points out that, if any species or variety should attain to this increased degree of adaptation, it would thereby attain to greater strength and cunning, and would force its fellow mammals into the less fruitful and waste places of the earth, where their development would be arrested, while this particular species or variety would itself increase in number without hindrance, and, giving rise to numerous tribes, would in succession create new needs, which should stimulate industry, and gradually render still more perfect its means and powers. This is clearly the law of natural selection. But while Lamarck held that man is thus evolved, he still held that he is unique in possessing the faculty of reason, by which he can observe nature and nature's laws, and ultimately arrive at an idea of God, the orderer and maintainer of those laws. This side of Lamarck's philosophy is brought out most clearly in the *Principes primordiaux*, published shortly before his death, and which treats of man's knowledge of God and of man's moral duties. We cannot know God, he says, as a physical object among other objects, but only as He is manifest to us in the laws of nature of which He is the author, and if we would know God's ways, and so be enabled to live according to them, as is our duty, we must know His laws; in a word, we must study nature. The portions of this article which are not translations are devoted, for the most part, to a eulogy of Lamarck's personal character.

IRA MACKAY.

Les lois du mouvement et la philosophie de Leibniz. G. MILHAUD. Rev. Ph., XXV, 10, pp. 346-360.

"In reading the philosophical works of Leibniz one is struck by the importance which he gave to his own researches in the laws of movement," says the first sentence of this essay—the theme of which is the relation between these mathematical discoveries and the metaphysics of the philosopher. In his warfare against the Cartesian principle of the conservation of the quantity of movement, and his assertion of the permanence of the term mv^2 rather than mv in the Cartesian formulas, there was, to his mind, more than a mathematical question involved. From it he deduced his new law that "there is always a perfect equation between the full cause and the entire effect." "Thus, as the principle of the equivalence of cause and effect, the principle of continuity which did so much to condemn the physics of Descartes, and which, on the contrary, was in accord with the dynamical views of Leibniz, henceforth appeared as better established, more main-

festly real, and was ready to play its well-known part in the metaphysics of the Monad." In all probability, Leibniz's metaphysical tendencies were independent of his mathematics, but traces of the new physics appear everywhere in his works, especially in the distinction he draws between the infinity of the possible, and the conditions of finality, expediency, and simplicity, upon which reality depends.

GEORGIA BENEDICT.

Le mysticisme spéculatif en Allemagne au XIV^e siècle. TH. RUYSSSEN.
Rev. de Mét., IX, 1, pp. 100-110.

This article takes the form of an exposition and criticism of the doctorate thesis of M. Delacroix upon Maître Eckart. In mysticism the writer sees the natural attempt of men, impatient with the subtleties of reason, to find the Absolute by feeling and intuition. Often mysticism has found expression in striking characters, and at other times is identified impersonally with religious sentiment. In M. Delacroix's work, we see mysticism in both its personal and its anonymous aspect. He deals with the period in German mysticism beginning with Scotus Erigena and ending with Maître Eckart. Between the times of these two men, mysticism was prominent in religious sects. Scotus Erigena adopted the essential conclusions of Dionysius the Areopagite. God he believed to be the absolute unity comprehending all reality, and beyond the determinations of thought. Man finds God in himself, and can rise by faith to unity with him. Christ and the Church are only symbols whereby the unity of God and his creatures can be expressed to the ordinary mind. The Ortlibians and Brethren of the Free Spirit were religious sects and varieties of the same stock. Both believed that above the traditional religion there was a free religion which dispensed with all mediation between God and man, proved the emptiness of the sacraments, and reduced Christ to a model of sanctity. But while the Ortlibians believed that mortification of the flesh was necessary to the coming of the Spirit, the Brethren of the Free Spirit believed that the presence of the Spirit sanctified all fleshly indulgence. Plotinus, Proclus, and Dionysius were the direct inspiration of Eckart. For him the Absolute embraced all and could not go outside itself in creation. The soul is divine by nature and seeks ever to re-establish its identity with God. By the exercise of reason and the discipline of religion the soul is drawn upward. But the unity of the soul with God is finally consummated in the silence and abstraction of mystic contemplation when God gives himself to the soul, and fills it with divine fulness.

H. W. WRIGHT.

^c *Friedrich Nietzsche.* CH. LE VERRIER. Rev. de Mét., IX., 1, pp. 70-99.

This article gives a somewhat detailed account of Nietzsche's critical work, which the author regards as a very essential part of his thought, and as having furnished him with the principles developed in the more positive portion of this theory.—Nietzsche was not a system-builder. The aim of his thought was to get at *his own* reason for life, as neither religion, science,

ethics, nor metaphysics satisfied him. All of these he examined in the light of his utilitarian theory of knowledge, which made it only the organ of practical action. He found God to be the invention of a race of slaves, to make less irksome the obedience exacted from them. Christianity was a reaction against the Roman world and the Roman thought of those who were held in subjection by it; hence the ascetic ideal. Scientific asceticism, thought for the sake of an idol 'truth,' apart from any regard for practical value, is worse than religious. The noumenal world of metaphysics has no interest for man's practical life; and as a whole it is based on error. The idea of noumenon is the same in essence and development as that of God, and was created for the same purpose, to free man from the limitations of what really is; the notion of soul is taken as an easy explanation of the unity of our states and actions; it also is an illusion of the *Wille zur Macht*; that of freedom is partially imported into the psychic realm from that of social life, and is based on an unjustifiable dissection of the psychic continuum. These three ideas are, however, the principal doctrines of metaphysics. Analysing our ethical ideals, Nietzsche holds sympathy to be "the expression of a force seeking vent, or feebleness seeking support." Justice is "an equilibrium of might," non-existent for the absolutely powerless. Obligation is an invention of our vanity to ennoble servility to the categorical imperative, really a relic of the past age of servitude, the immutability of which is a relief to sloth. Conscience and remorse are the results of our blindness to the real origin of the sentiments called moral. Our moral judgments of worth are one-sided, like all our other judgments, since, like all of them, they are founded on an original choice in practical life. Of their development into their present form Nietzsche gives three theories, which he makes no attempt to reconcile; (a) the "good for us" is transformed by the practical tendency of the mind into "absolute good"; (b) the pressure of society, whose interests differ from those of the individual, creates altruistic morality; (c) the imperative in ethics is a vengeance of slaves against their free and *uebermenschliche* masters. The elements which Nietzsche thus employs for explanation in his criticism he organizes into principles of practice in the theories of the Over Man and the Eternal recurrence.

EDMUND H. HOLLANDS.

Schopenhauer and Present Tendencies. W. CALDWELL. New World, IX, 36, pp. 639-655.

Schopenhauer's influence upon present thought is so great that it is difficult altogether to escape it. Though in his own time professional philosophers long neglected him, he won recognition even before his death; and more recently he has been ranked among the greatest philosophers of modern times. His significance in the history of philosophy is many-sided; but the title of his chief work, *The World as Will and Idea*, indicates the purport of his essential teaching. The antithesis of appearance and reality has descended to us directly from Kant. Schopenhauer identifies the latter with activity, and the former, as simply the manifestation of that

activity, with idea or presentation. Reality is never to be attained outside man, in external nature. That is presentation; whatever is presented to consciousness is appearance or idea; and its reality is somewhat dependent upon it being an appearance to mind. But reality never can be merely presented. It is that which eternally is, that which man finds to be the reality of himself. It can never be sensed or even merely thought by us, but is rather something that is lived and willed by us. The world consists of the will that expresses itself in us as psychophysical effort, and that also expresses itself in nature in various forms of energy; of the will in its potency and of its phenomenal manifestations. The denial of the will to live is simply the recognition of the fact that all things are manifestations of the same will that we find in ourselves; seeing which a man will not will his own happiness at the expense of others. All true life is, to begin with, an equipoise between the will to affirm life in the selfish sense, and the will to deny life for the sake of the common life. Here the doctrine shows its affinity with both Christian and Eastern ideas of a salvation to be obtained through a denial of self, and an affirmation of the eternal or other-regarding will. Examples of Schopenhauer's present influence are to be found in recent works by James, Münsterberg, and Wundt.

THEODORE DE LAGUNA.

Nietzsche and Darwinism. ALFRED FOUILLÉE. *International Monthly*, III, 2, pp. 134-165.

According to certain thinkers, Nietzsche was the first to deduce from Darwinism logical conclusions concerning the individual and social life. This raises the question, whether his ethics are the expression of Darwinism, and whether social Darwinism as understood by his partisans is a scientific morality. Nietzsche differed from Darwin, (*a*) in adopting dynamism rather than mechanism as the ultimate principle in philosophy; (*b*) in regarding aversion to organization as a natural characteristic of the strong; (*c*) in maintaining that justice was a ruse of the weak to defend themselves, and (*d*) in considering pity, even in the later stages of evolution, as depressing to vital function and as contrary to social welfare. Nietzsche was unscientific; by limiting activity to mere 'domination' he neglected one half the facts of the physical and all the facts of the mental and moral life. His ideal was the highest energy, but struggle is a waste of energy. The will which struggles sees its power diminished by the resistance which it provokes. Admiration of natural selection and the success of that which survives logically results in the admiration of altruism, kindness, and philanthropy. Guyau, who is free from moral or religious prejudices, and for whom the true imperative is self-imposed, reaches the opposite conclusion. By scientific analysis he finds the highest life in the most generous one. Instead of a tendency to prey on others, he sees a tendency toward union with others. In terms of evolution, the most social organism is the most perfect.

N. E. TRUMAN.

NOTICES OF NEW BOOKS.

Schopenhauer, Hamlet, Mephistopheles. Drei Aufsätze zur Naturgeschichte des Pessimismus. Von FRIEDRICH PAULSEN. Berlin, Wilhelm Hertz, 1900.—pp. ix, 259.

In these essays Professor Paulsen places before us three figures which throw light upon each other by reason of their similarities and differences. All three of them possess, in an exaggerated degree, the unhappy gift of detecting the evil and ugly phases of life. They delight in revealing the world in all its ugliness and nakedness, and are fascinated by the sight of human weakness and vice. They are all lacking in love, in the love that discovers the good in man and turns all things to good, the love that finds even in the apparently most hopeless soul a spark of human perfection, and can see the evil *sub specie boni*. And they all lack faith in human nature; mankind is utterly depraved and there is no hope for it.

The difference between these characters lies in this. Schopenhauer and Hamlet really despise the wickedness and ugliness of life, which are an offence to them, while Mephistopheles loves everything low and vulgar; this is his natural element. Yet they too find a certain pleasure in it; the presence of these shadow-sides confirms their theory of life and serves as a means of exercising their wit. They hate the wrong, but they cannot keep from analyzing it and contemplating it; they are morbidly attracted to it; they seek it out and expect to find it everywhere.

The business of displaying the sore spots of humanity, Professor Paulsen believes, has never been pursued with greater skill than during the last decades of the nineteenth century. Our literature is full of the spirit which reveals itself in Schopenhauer, Hamlet, and Mephistopheles. And it is not solely the love of truth that has actuated our age in this regard. We have grown tired of the false idealism that painted everything in a rosy hue, and this realistic spirit in our literature and art is a reaction against the past. But as is usually the case in such movements, we have gone too far in the other direction; where our predecessors saw nothing but beauty and truth, we see nothing but ugliness and lies. But this tendency cannot endure. The object of art will ever be to portray the beautiful, the true, and the good, to use the evil as a foil to the good, to paint the shadows in order to bring out the light, and to place before the human will as the goal of its deepest longings tangible and impressive images of the noble and the good. That is what the great masters, the creators of Hamlet and Mephistopheles, have done, and that is what the art of the future must do if it would endure.

This is an unusually fascinating and vigorous little work, and I for one have read it with the keenest interest and pleasure. The characters de-

picted are certainly attractive to most of us, and the manner in which they are presented by Professor Paulsen is masterful. The characterization of Schopenhauer's personality and philosophy is full of life and strength. Schopenhauer's system is, indeed, the natural reflection of his own self, his soul is a *world as will and idea*. His intellect is clear, placid, and blessed, his will dark, troubled, and full of woe. His will-life netted him nothing but sorrow and disappointment; in the contemplation of the world of ideas he could forget his own disordered impulses and rise beyond the misery of his everyday existence. He was intellectually honest, sincere, brave, and proud; volitionally he was selfish, vain, arrogant, hot-tempered, sensual, grasping, distrustful, and full of idle fear. "In his practical life he suffered shipwreck, but he found a refuge in the realm of thought to which the talents and inclinations of his early youth had pointed him." The dualism of his nature is reflected in his philosophy; it is the dualism of will and idea. His pessimism is the expression of his own unhappy will. His moral philosophy is the almost exact opposite of his real life and behavior; in it he passes judgment upon his own moral bankruptcy. Sympathy is for him the basis of morality; self-denial and self-sacrifice alone give a man moral worth. Goodness of will is noumenal goodness, essential good; intellectual efficiency is merely a phenomenal affair, a brain phenomenon that is nothing in itself, while the goodness of the heart can never pass away. In this regard, Schopenhauer is in perfect agreement with the great religions of redemption, the religions which preach the negation of the natural will, the elimination of our lower desires.

Schopenhauer's theoretical philosophy is also rooted in his personality. He is an idealist in epistemology and a voluntarist in metaphysics. This empirical world of ours is a world of illusion and does not deserve to exist. The will is the essential phase of being, the intellect a derivative function of the same. This voluntarism, Professor Paulsen thinks, is Schopenhauer's greatest achievement; the time will come when the history of psychology will begin a new epoch with Schopenhauer. His pessimism, however, is not a necessary consequence of his doctrine of will; for after all this will of his can negate itself and therefore realize its ultimate end and highest good, salvation.

Professor Paulsen's interpretation of the character of Hamlet has been received with the warmest favor, on the one hand, and with a storm of indignation, on the other. The cause of this difference of opinion is plain enough. A great drama is like a human life, subject to various interpretations, and absolute agreement is no more possible in the one case than in the other. Professor Paulsen regards the behavior and character of Hamlet as abnormal. His vacillation, he thinks, is not due to rational deliberation or to moral scruples, but to an almost diseased state of mind. The contemplation of events following the death of his father has destroyed his faculty of moral volition and action. The dominant feeling aroused in him by his surroundings is one of intense aversion and contempt, which poisons

his imagination and cripples his will. He feigns insanity and is thereby enabled to give free expression to his disgust, and to reveal the court life in all its moral hollowness and ugliness. His emotional nature is disordered ; states of deep depression rapidly alternate with states of exaggerated joy. His speech betrays these sudden changes of sentiment. At one moment, his conversation is pitched in a calm and rational key, the next, he breaks out in a torrent of wild and angry abuse of himself and others. His relation to Ophelia shows the same defect in his nature ; the passionate love which he pours forth in such extravagant form in his letters to her, is superseded by a feeling of contempt which vents itself in heartless brutality, and finally gives way again, at Ophelia's grave, to a pathetic declaration of extravagant love.

Hamlet's trouble is not of the kind to make him morally irresponsible. He is simply unable to assume the proper attitude to the evil which surrounds him. Instead of attacking it bravely and beating it down, as characters like Laertes and Fortinbras would have done under similar circumstances, he contents himself with unearthing it and reviling it. The problem which fate gave him to solve was the punishment of the malefactor who had seduced his mother, murdered his father, and robbed him of his inheritance. This problem he fully understands and accepts, but cannot solve, not because of its magnitude and the absence of favorable opportunities, but on account of the weakness of his will and his unfortunate habit of brooding over the wickedness and ugliness of it all. He surrenders himself to the play of his morbid imagination, and the end of the story is that instead of grappling with the evil and overthrowing it, he is himself caught in its clutches, made a playball in its hands, buffeted by it from pillar to post, until will-less tool of fate that he is, he is hurled against the poisoned sword of Laertes, and forced in the dying moments of his wasted life to inflict the long-deferred punishment upon the moral monster whom fate had driven into his toils so often before.

Professor Paulsen's portrayal of Ophelia's character and of her relations to Hamlet is open to criticism. He believes that she suffered the fate of Gretchen in *Faust*. The songs she sings in her madness and the ugly remarks addressed to her by her lover show that she has been too free with her love. After the ghost scene Hamlet loses faith in her honesty, he comes to look upon her as calculating, and thinks that she is allowing herself to be used to trap him. The conclusions with reference to Ophelia do not seem to me to be warranted by the facts. Hamlet's treatment of her may be explained by his loss of faith in all womankind—it is not strange that a man should grow distrustful of women whose own mother has behaved as his did. And the *double-entendres* in his conversations merely reflect the condition of English society in Shakespeare's time.

The chief characteristic of Mephistopheles is his love of everything low and vulgar, his absolute insensibility to the pure and noble. He is low and vulgar himself, he sees nothing but the low and vulgar, and he makes

everything that comes in contact with him low and vulgar. At the same time, he possesses an unusually penetrating intellect, which peers into the depths of human sensuality and selfishness. He does not believe in the good; he regards it as a mere external layer of reality; behind it are vulgarity and baseness, the kernel of human nature. He scoffs at religion and the love of truth; his philosophy is the philosophy of sceptical nihilism: *je ne crois rien, je ne crains rien, je n'aime rien.*

But his efforts to ensnare souls utterly fail; he is and remains *der dumme Teufel*. Gretchen sins and sins grievously, but her sin does not debase her, does not drag her down; she suffers remorse and makes atonement by accepting her punishment. Faust too is saved in spite of the devil's machinations. He owes his salvation to several things: to his aversion to the low and vulgar, to his noble discontent, to his feeling for the beautiful, true, and good.

Goethe's drama portrays the conflict between the two phases of human nature, the spiritual and sensual. These two elements are combined in Faust: *Zwei Seelen wohnen ach in meiner Brust*. The play expresses this thought: The good is more powerful than the evil, the spiritual side of man stronger than his animal nature. The evil is the negative phase of existence, the non-being; the good is the real, *realitas* and *perfectio* coincide. In the evil the good becomes conscious and sure of itself; the evil is necessary to bring out the good, it is one of the essential contrasts of life; life is impossible without. *Faust* is therefore a poetical theodicy. It represents Goethe's own view of life and is an expression of his own character. Goethe has perfect faith in human nature: "I believe in God, in nature, in the triumph of good over evil," he once said to Eckermann. His is a positive nature; the desire to sit in judgment and condemn is foreign to him. In fact, his own *Weltanschauung* is diametrically opposed to Mephistopheles's nihilistic pessimism which sees all things *sub specie mali*.

In an Appendix Professor Paulsen prints an admirable little essay on *The Ironical Element in the Position and Speech of Jesus Christ*.

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Spencer and Spencerism. By HECTOR MACPHERSON. New York, Doubleday, Page & Co., 1900.—pp. x, 241.

The object of this book is to give a general view of the evolutionary philosophy as taught by Mr. Spencer, with some account of Spencer himself, and of the origin and progress of his life work. It is written with the approval of Mr. Spencer, yet the author assumes the sole responsibility for it, and says: "The book is by no means a slavish reproduction of Mr. Spencer's writings. Taking my stand upon the fundamental ideas of the Synthetic Philosophy, I have used them in my own way to interpret and illustrate the great evolutionary process" (preface). Mr. Macpherson does

not enter into details at all ; but devotes himself entirely to the main principles of the Spencerian system, with only such reference to particulars as is necessary for understanding the principles. Moreover, although the author does not say so, his book really presupposes in the reader some knowledge of Mr. Spencer's works, or at least of the evolutionary doctrine in its various applications ; Mr. Macpherson's object being to show the nature and significance of that doctrine, rather than to describe the evolutionary process itself. This work he has done well, with evident love of his subject, and in a lucid style and with considerable expository skill.

To most readers, however, I think the earlier chapters of the work, giving a sketch of Mr. Spencer's early life and education, will be found the most interesting. I must refer to the book itself for the details, but there are two points connected with Spencer's education which are worthy of notice, and which Mr. Macpherson himself dwells upon. One of these is the fact that Spencer's failure to receive a university education, which some writers have thought detrimental to him, was caused by his inaptitude for classical studies. Mr. Macpherson, however, does not think that the lack of university training was any disadvantage in Mr. Spencer's case, except in one respect, namely, that "he was compelled to face not only a hostile public, but the insidious opposition of university cliques, who could not bear to see a new thinker of commanding power step forward into the intellectual arena without the hall-mark of university culture" (p. 13). The other important fact in Spencer's education was his failure to appreciate the religious side of life. This was not due, as in Mill's case, to his being excluded from religious influences, for his parents were both religious people, and he was for some years under the care and teaching of his uncle, who was a clergyman. On this point Mr. Macpherson says: "There is nothing in Mr. Spencer's writings to show that religion had ever taken vital hold on him, as it did some of his noted contemporaries. . . . In conversation I once asked Mr. Spencer if, like George Eliot, he had first accepted the orthodox creed, then doubted, and finally rejected it. His reply was that to him it never appealed." Most readers, I think, will agree with Mr. Macpherson when he adds : "To this lack of receptivity must be traced the error into which Mr. Spencer fell in his *First Principles* in supposing that science and religion would find a basis of agreement in recognition of the Unknowable. The terms proposed by science resemble those of the husband who suggested to the wife, as a basis of future harmony, that he should take the inside of the house and she the outside" (pp. 9, 10). Mr. Macpherson himself, however, though he seems to appreciate the religious side of life, has evidently failed to reach a philosophical solution of religious problems, and ends his discussion of the subject with the remark that "the place hitherto occupied by theology will henceforth be taken by science" (p. 199).

I have no space to dwell at length on the author's outline of the Synthetic Philosophy, nor is it necessary to do so, as his exposition follows the lines

of Mr. Spencer's own works, with which the readers of this REVIEW are familiar. He treats of the fundamental ideas of Spencerism as set forth in the *First Principles*, and then goes on to speak, of the evolution of life and of mind, of the economic, political, and ethical evolution of society, following, of course, the lines laid down by Spencer himself, and of the evolution of religion. The book closes with an estimate of the philosophical and religious significance of Spencerism as a whole. With regard to Mr. Spencer's biological doctrines I am not competent to speak; nor have I space here to enter on any criticism of his psychological views, or of his extended and laborious treatment of social and political questions, interesting as such a discussion might be.

But one of his psychological doctrines, which has a bearing on philosophy, deserves a brief remark, especially as Mr. Macpherson deems it of great importance. I refer to the doctrine that what are called necessary truths are the product of the experience of our ancestors extending through ages, and registered in some unaccountable way in the nervous system, until they now appear to be innate forms of thought. This theory is termed by the author of this book "Mr. Spencer's great philosophical contribution, whereby he revolutionized the science of psychology by bringing to an end the historic feud between the intuitionists and the experimentalists" (p. 113). I am obliged to tell Mr. Macpherson that philosophers and psychologists regard that particular theory as little better than nonsense, and as being its own refutation.

That Mr. Spencer has done useful work in various departments of thought is universally admitted; but the question arises whether his work can properly be termed a philosophy. Mr. Macpherson of course deems it so, but according to his definition of philosophy as given in this book, it is not. He says: "Science has been defined as the systematization of our knowledge of phenomena. In a word, science deals with the modes of existence; philosophy with the nature of existence" (p. 30). Now, if that is true, and it certainly contains a large measure of truth, Mr. Spencer's system of thought is not a philosophy; for he expressly repudiates the attempt to explain the nature of existence. The nature of matter and force, of life and mind, is in his opinion utterly inscrutable; and at the heart of things he postulates an Infinite Power which is and must forever remain unknowable. Moreover, evolution is not a law, but a process, not a cause but a series of effects; and, consequently, the evolutionary scheme is descriptive merely and not explanatory. For these reasons I cannot regard the Spencerian doctrine, even admitting its truth, as a philosophy at all, but only as a coördination of the sciences; and this, I believe, will be the verdict of posterity.

JAMES B. PETERSON.

Psychology: Empirical and Rational. By MICHAEL MAHER. Fourth Edition, rewritten and enlarged. London, New York, and Bombay, Longmans, Green & Co., 1900.—pp. xvi, 602, xii.

The first edition of this work may be considered the joint product of two very different forces : the Encyclical, *Aeterni Patris*, of Pope Leo XIII., and the examinations in psychology set by the University of London. The former influence was one of vast importance ; it emphasized a leading characteristic of our age, that of centralization, since it united and harmonized the scattered labors of Catholic philosophers. The latter influence was to a large extent directed by Mill, Bain, and subsequently Sully, many of whose principles Stonyhurst, in common with other institutions, refuses to accept. The Stonyhurst Psychology aimed to reconcile these two movements by insisting on the continuity of philosophic thought, by searching both Aristotelian and Scholastic principles of psychology in the light of modern discovery and progress in science, and by constructing out of these elements a system of psychology adequate to our present needs. Now, it is, in a measure, true to say that these views and aims are not new. They were emphasized by Professor Cattell before the American Psychological Association in 1895, and by Professor James in his *Talks on Psychology* (p. 7). The latter authority there states : "There is no 'new psychology' worthy of the name. There is nothing but the old psychology which began in Locke's time [*sic*], plus a little physiology of the brain and senses and theory of evolution, and a few refinements of introspective detail."

Yet in the first edition of the work before us there were certain reserves that did not commend themselves even to all who sympathized with the work and appreciated its importance. These deemed it not merely 'advisable,' to quote the words of the Preface, but even *imperative*, "to indicate the methods and chief results of the most recent investigations in physiology and psychophysics which seem to touch our subject" (p. viii). Nor were they willing to admit that "very little light is thrown on philosophical or psychological problems by these branches of knowledge" (p. ix). It is gratifying to note that whereas the second and third editions of the work remained substantially unaltered, the fourth is much more in touch with the age.

A comparison of the table of contents in the first edition with that of the last, shows not only that the author has developed many topics more fully, but likewise that he has modified his appreciation of their relative importance. The Internal Senses are not now treated in a separate chapter, but are associated with the External Senses (Chap. V). Chapters VII (Development of Sense Perception), IX (Memory, Mental Association), X (Sensuous Appetite and Movement), XII (Intellect and Sense), XIII (Origin of Intellectual Ideas), XV (Judgment and Reasoning), are much enlarged. In Chapter XVI, Apperception is now associated in the title with Attention. Determinism is made a prominent topic, and with Free-Will has a chapter to itself. Theories of the Ego occupy two chapters, and Hypnotism is discussed in one of the supplements. Chapter VI, on the Perception of the Material World, and Chapters XIII and XIV, on the Origin of Intellectual Ideas, really belong to Epistemology, and therefore might have been ex-

cluded from the treatise. Mercier, of Louvain, refers them to Critical Logic. The many principles and arguments which make up the bulk of a Philosophy of Mind, our author prefers to treat conjointly with the *phenomena* of mind, and in this he is not without precedent.

The physiological aspect of psychology is presented in the first part of the book. Four pages of illustrative plates have been inserted. "The large quantity of fresh psychological literature which had appeared [since the first edition], especially in America," called for an "enlarged treatment of physiology, psychophysics, and psychometry" as effecting the phenomena of mind. But in this treatment we find some inaccuracies and some inconsistencies. Thus, while it is true that the scope and meaning of Weber's law are still under discussion, yet it is an extreme position to hold that the advocates of psychophysics mistake and seriously exaggerate the value of that branch of study (p. 57). Moreover, the author fails to emphasize sufficiently the principle of which this law is an incomplete expression, a principle discussed by Professor Barberia, of Piacenza, in an interesting paper, *L'Esthésimétrie et la psychologie de Saint-Thomas*, at the Catholic International Scientific Congress held in Paris, in 1888. Besides, does not the author contradict himself when he asserts (p. 27) that "very faint impressions on the sense-organs are ordinarily not perceived"?

When he speaks (p. 61) of "the 'personal equation' of different observers which has to be taken into account in certain delicate astronomical observations," he is limiting this condition to an extremely narrow sphere. The personal equation is an important element in every conscious act of man. It affects poet, painter, sculptor, and literary artist. It tinges our views of religion and of science. And evidence is not lacking that our author himself has not escaped its influence. Historically, it may be considered the normal equilibrium following the reaction against Kant's extreme subjectivism.

In the chapter on Memory there is no reference to the patient investigation of Ebbinghaus. In the discussion of the Immortality of the Human Soul, the later views of Professor James, as stated in his Ingersoll Lecture at Harvard about two years ago, might have found place, particularly since they imply some approach, though remote, to the teaching set forth in the Stonyhurst Psychology. The treatment of Free-Will in Gutberlet's *Die Willensfreiheit und ihre Gegner*, is so broad, judicious, and pertinent, that this brochure should not have been relegated to the list of readings (p. 424). It would have been a distinct gain when denying "the necessity of assuming the existence of another ultimate faculty [that of Feeling] generically distinct from those of cognition and appetency" (p. 221), to have noted the excellent contribution to this topic from the pen of St. George Mivart in the *American Catholic Quarterly Review*, 1878, under the title of *Emotion*. A like criticism of incompleteness is to be pronounced on the following statement: "Some recent authors appear at times to believe that these

methods of inductive inquiry [employed to-day in experimental psychology] are a result of modern discovery, and that surprising advances of an undefined character have been, or in the immediate future will be, effected by their means in our knowledge of the nature of mind" (p. 18). It is indeed true that Aristotle (and later on, the best of the Schoolmen) did insist on induction; and this fact has been noted of the former not merely by Barthélemy St. Hilaire, whom our author cites, but likewise by Domet de Vorges in a series of interesting papers in the *Annales de philosophie Chrétienne*, 1891, and in our own country, by Professor Cattell. But it is also a fact that the modern phases, and the recent development of psychology, were conditioned by the development chiefly of physics and biology. The application of mathematics to physics paved the way for its application to psychology, and the benefits secured to biology from a study of the principles of evolution (I speak not of its extreme form), have opened a field to investigation in psychology. Professor Creighton has said (*Introductory Logic*, pp. 300-303): "The first efforts of intelligence to understand the world take the form of judgments of Quality. . . . Our thought, however, . . . pushes farther its work of analysis and construction. . . . And when this stage is reached, judgments of quality are already passing into the next higher type, judgments of Quantity." To a limited degree and in a different way, this is also asserted in the text before us; for it states that "when the effects of large changes in the degree of the stimulus are compared, introspection seems to affirm changes of quality as well as of quantity" (p. 58).

Exception must be taken to some of the remarks on judicious skipping. Free-Will is one of the most complex subjects in the whole domain of psychology. It is hedged in with difficulties. It presupposes a settlement of many of the questions bearing on sensation, emotion, intellection, and even heredity, and environment. To recommend the general reader to begin with this chapter, and then proceed to such topics as the spirituality of the soul, theories of the ego, etc., is advising a course that is out of harmony with the ordinary rules of method.

No attempt has been made to illustrate the application of psychological principles to the art of teaching, nor does the scope of the work call for this. The indications in the Preface of the matter "of most use from the standpoint of the theory of education," do not afford any immediate help to the teacher. Some practical hints in the sections on Attention, Mental Association, Imagination, Memory, and Character would have added not a little to the value of the book.

The volume is an expression of the Neo-Scholastic movement—a movement in which Gutberlet, Mercier, Farges, and others are notable factors, and it deserves a wide circle of readers.

BROTHER CHRYSOSTOM.

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Prinzipien der Erkenntnislehre: Prolegomena zur absoluten Metaphysik.

VON BRANISLAV PETRONIEVICS. Berlin, Ernst Hoffman und Co., 1900.—pp. vi, 134.

The purpose of this book is to show the possibility of absolute metaphysics. After Kant's repudiation of metaphysics the Post-Kantian idealists tried to establish it upon a new basis. That this basis was wrong is proved by the fact that their theories conflict with experience. The author believes that it is possible to work out a metaphysical system which rests upon experience, and is in harmony with it, and that this is possible because experience itself contains the source of transcendent knowledge.

Dr. Petronievics starts with the 'immediately given,' *i. e.*, the consciousness of the individual. "The absolute reality of this consciousness both in its contents and in its form is the absolute presupposition of the possibility of a theory of knowledge." But what is immediately given is only the consciousness of the present indivisible moment. My present existence is given in the consciousness of the moment, but how is it that I can go beyond this and postulate my past and my future existence? This problem of the "temporal transcendence of the Ego," which Dr. Petronievics raises, and upon the importance of which he rightly insists, forms the subject of one of the most interesting discussions in the book. It is hardly possible to reproduce the argument in the brief space at our command. The solution of the problem, however, is found in the fact that the immediately given has two aspects—a temporal and a timeless one. The conscious content changes; but the form of consciousness, the perceiving function, is itself a timeless principle; and since it is just as truly given as the content is—though in a different way—we are justified in using it to establish the temporal transcendence of the Ego. This timeless Ego must be a real essence: if it were simply the formal unity of the conscious content, it would share in the temporal nature of that content.

Just as the author tries to explain the temporal transcendence of the Ego by reference to the form of consciousness, so he appeals to the will to solve the problem of 'spatial transcendence'—*i. e.*, the problem of the external world. I posit a world of objects because I find changes in my conscious states of which I know that I am not the cause. But in order that this knowledge may be possible, I must be immediately conscious, with regard to other states, that I am their cause. And this requirement is fulfilled; we know immediately "that the movements which we will, happen only because we will them. Thus experience itself establishes the absolute reality of the will, and through this we are assured of the absolute reality of the external world. Further, since every ultimate cause must be a will, this external world is a system of wills. But although immediate experience guarantees the absolute reality of the content of consciousness, the form of consciousness, the will, and the external world, yet the relation to experience is not the same in all these

cases. The content of consciousness is wholly immanent. The form is half immanent and half transcendent, is given and yet not as conscious content. The activity of will is immanent, is immediately given in consciousness. But the will itself, as an essence, is wholly transcendent, is reached only by a process of reasoning, just as the existence of the external world is. Moreover, we seem to need a third essence, still more transcendent, to serve as a bond of union between the perceiving function and the willing function. We must assume a "simple unchangeable substance, which unites the two essences and forms their ground." It is more fully transcendent than the will-function; for consciousness reveals no activity corresponding to it. The nature of this substance and its relation to will and consciousness belong, however, to metaphysics rather than to epistemology.

Dr. Petronievics anticipates in his Preface the criticism which is most likely to be passed upon his book, viz., that his 'immediately given' contains much which to many of his readers seems to demand proof. A further criticism which may be made is that there seems to be a rather unwarrantable multiplication of essences in the individual Ego. The form of consciousness is an essence; the will is another; and behind these two is a third, the unchangeable substance. Perhaps, however, the insistence that the perceiving function and the willing function are essences (*Wesen, Wesenheiten*) is not to be taken quite literally. The author's meaning may be more accurately expressed when he speaks of them as "attributes of substance." It should be noted also, in justice to Dr. Petronievics, that he postpones the discussion of the relations between these attributes and the substance. The proof-reading on the book seems not to have been done very carefully; the number of misprints is considerable.

ELLEN BLISS TALBOT.

Die Syllogistik des Aristoteles. Zweiter Teil, Die Logische Theorie des Syllogismus und die Entstehung der Aristotelischen Logik: Zweite Hälfte, Die Entstehung der Aristotelischen Logik. Von HEINRICH MAIER. Tübingen, H. Laupp, 1900.—pp. vii, 408.

In a brief preface the author announces that this volume concludes, for the present, his investigations of the Aristotelian logic. He is not now prepared to say when the projected final volume of his work will appear, as he purposes for a time to address himself to other tasks. The two earlier instalments of his treatise were briefly noticed in this REVIEW, Vol. VI, pp. 439 ff., and Vol. IX, pp. 548 ff.

The volume before us is divided into three chapters. The first treats of the genesis of the theory of the syllogism. Here Dr. Maier briefly but lucidly sketches the antecedents of the syllogism, particularly the eristic logic-chopping of the 5th and 4th centuries B. C., and the Platonic dialectic. He then proceeds to show how Aristotle's mastery of method

grew, tracing it from its beginnings in the earlier rhetorical writings to its maturity in the logical treatises, and how he discovered the principle and the modes of the syllogism.

Then, in the second chapter, our author discusses the principle of the syllogism. Under this head the following subjects among others are touched upon: the various methods of verification and their significance; the principle of the syllogism and the logico-ontological implications of the principle of the syllogism; and the relation which Aristotle's 'notion' sustains to the 'definition' of Socrates and the Platonic 'idea.'

The third chapter is entitled, "The Principle of the Syllogism and the Structure of the Theory of the Syllogism." Several problems of the greatest importance are here touched upon, such as the hypothetical and disjunctive syllogisms, the syllogism and the problem of Being, syllogisms of existence, necessity, and possibility, and the dependence of the theory of the judgment upon the theory of the syllogism. Finally, Dr. Maier sets forth very fairly the advantages and disadvantages to logical theory that result from the subordination of the judgment to the syllogism.

The practical value of the treatise, as a book of reference and as a commentary on the logical writings of Aristotle, is greatly enhanced by the addition of a full index to the Aristotelian and Platonic passages discussed in the body of the work.

In thus taking leave of this detailed study of Aristotle's logic, it is but right that the favorable judgment, passed in this REVIEW upon the earlier volumes, should now be reaffirmed. In its field, there is certainly nothing which may be fairly compared to it for general excellence, and for scholarly mastery of details. If therefore, this last instalment is not quite so satisfying in all respects as those which previously appeared, the reason lies wholly in the inherent necessity for a different kind of treatment. The earlier portions are expository, this is essentially critical. In a field, such as this, where there is still much room for difference of opinion, it is not to be expected that a writer should command assent to all his statements, and in so brief a notice it were worse than useless to single out special points for criticism. Suffice it to say that points of that kind are singularly few, and that the work as a whole is worthy to take rank with the best recent works dealing with Aristotle's philosophy.

W. A. HEIDEL.

Outlines of Educational Doctrine. By J. F. HERBART. Translated by ALEXIS F. LANGE. Annotated by CHARLES DEGARMO. New York, The Macmillan Company, 1901.—pp. xi, 334.

Herbart's *Outlines of Educational Doctrine* is his latest and most complete work on education. It consists of three parts. Part I treats of the basis of pedagogics. Part II deals with general pedagogics, and Part III with some special applications. The work represents one of the early attempts made to elevate pedagogy to the rank of a science. It is

from this circumstance that it now derives its chief interest. The fundamental postulate of education is the plasticity of the pupil. Pedagogy is based upon ethics and psychology. Ethics points out the aim or goal of education ; psychology the means and methods. One of Herbart's most important services to education was the impetus which he gave to empirical and experimental psychology. In his treatment of the applications of psychology to teaching, he opened up a new field of investigation ; and by substituting a concrete view of mind for an abstract one, he furnished a means which has enabled later writers to deal with questions of method more effectively than he did himself.

The treatment of the ethical aspect of the problem is not quite so satisfactory as is that of the psychological. Herbart steers a middle course between fatalism and 'pure caprice of will,' or liberty of indifference, with the result that he seems to be theoretically a libertarian, and practically a determinist. While he rejects determinism in words, he reasons as if he accepted it in practice. This position, however, is not necessarily inconsistent. It is closely related to the view of Kant. And Kant's theory of two wills—the pure will free, the empirical will determined—with but slight modifications, corresponds with the facts of experience, as we conceive them. The self is an organism, something over and above the mere psychological elements that enter into its constitution. This self is free ; but each element of which it is composed, when considered by itself, seems to be determined. Herbart erred in regarding ethics as pointing out the goal of education ; consequently his conclusion, that virtue or character "expresses the whole purpose of education," requires restatement. The annotator professes to correct this error by interpreting ethics in a wide sense, or conceiving of it "in a broad way." It is true that, owing to the development of the principle of democracy in the last century, and the political and economic rise of the masses, ethical philosophy has advanced from a narrow individualistic, to a broad social view. Nevertheless it is sociology, or philosophy of history, which must be regarded chiefly as determining the goal of education.

Except to the historian, Herbart's *Outlines* has outlived its usefulness. And the work of the annotator, although done on the whole with care and judgment, can scarcely succeed, at the present day, in galvanizing it into life.

W. B. ELKIN.

HAMILTON COLLEGE.

The following books also have been received :

The Problem of Conduct. By A. E. TAYLOR. London, Macmillan & Co.; New York, The Macmillan Co., 1901,—pp. vii, 501.

The Principles of Morality, and the Departments of the Moral Life. By WILHELM WUNDT. Translated by MARGARET FLOY WASHBURN.

London, Swan Sonnenschein & Co. ; New York, The Macmillan Co., 1901.—pp. xii, 308.

The Riddle of the Universe at the Close of the Nineteenth Century. By ERNST HAECKEL. Translated by JOSEPH MCCABE. New York and London, Harper & Brothers, 1901.—pp. xiii, 391.

The Limits of Evolution, and other Essays. Illustrating the Metaphysical Theory of Personal Idealism. By G. H. HOWISON. New York, The Macmillan Co.; London, Macmillan & Co., 1901.—pp. xxxv, 396.

The Play of Man. By KARL GROOS. Translated by ELIZABETH L. BALDWIN. New York, D. Appleton and Co., 1901.—pp. ix, 412.

The Human Nature Club: An Introduction to the Study of Mental Life. By EDWARD THORNDIKE. New York, London, and Bombay, Longmans, Green, and Co., 1901.—pp. vii, 235.

Essays on the Theory of Numbers. By RICHARD DEDEKIND. Translation by W. W. BEMAN. Chicago, The Open Court Publishing Company ; London, Kegan Paul, French, Trübner, & Co., 1901.—pp. 115.

Politics and the Moral Law. By GUSTAV RUEMELIN. Translation by RUDOLF TOMBO, JR. Edited with an Introduction and Notes by F. W. HOLLS. New York, The Macmillan Co.; London, Macmillan & Co., 1901.—pp. 125.

Social Control: A Survey of the Foundations of Order. By EDWARD ALSWORTH ROSS. New York, The Macmillan Company ; London, Macmillan & Co., 1901.—pp. xii, 463.

A Text-Book of Psychology for Secondary Schools. By DANIEL PUTNAM. New York, Cincinnati, Chicago, American Book Company, 1901.—pp. 300.

The Principles of Human Knowledge. By GEORGE BERKELEY. Reprint Edition. Chicago, The Open Court Publishing Co.; London, Kegan Paul, Trench, Trübner, & Co., 1901.—pp. xv, 128.

The Ethical Aspect of Lotze's Metaphysics. By VIDA F. MOORE. New York, The Macmillan Company, 1901.—pp. iv, 101.

Hindu Logic as Preserved in China and Japan. By SADAJIRO SUGIURA. Edited by E. A. SINGER, JR. Philadelphia, Published for the University of Pennsylvania ; Boston, Ginn & Co., 1900.—pp. 114.

The Mental Life of the Monkeys. By E. L. THORNDIKE. [Vol. III, No. 5 (whole No. 15) of Psychological Review Monograph Supplements, and Vol. IX, No. 1, of Columbia University Contributions to Philosophy, Psychology, and Education.] New York, The Macmillan Co., 1901.—pp. 57.

Atoms and Energies. By D. A. MURRAY. New York, A. S. Barnes & Company, 1901.—pp. 202.

NOTES.

Dr. W. G. Smith, formerly of Smith College, has been appointed in charge of the department of experimental psychology recently established in connection with the pathological laboratories of the London County Council Asylums at Claybury.

C. V. Tower, Ph.D. (Cornell), has been appointed Professor of Philosophy at Knox College, Ill.

Mr. G. J. Blewett (Harvard) has been recently called to the chair of philosophy at Wesley College, Winnipeg, Manitoba.

The chair of philosophy at the University of Colorado left vacant by the death of Professor Kennedy, has been filled by the appointment of M. F. Libby, of Clark University.

Professor R. B. Johnson has withdrawn his acceptance of the chair at Ohio State University and will remain at Miami University.

Professor James has recently delivered a course of Gifford Lectures at Edinburgh on "The Varieties of Religious Experience."

The School of Pedagogy of the University of New York has been reorganized. Professor J. P. Gordy, of Ohio State University, has been appointed Dean, and Dr. Robert McDougall, of Harvard University, Professor of Experimental Psychology.

Miss Helen Bradford Thomson, Ph.D. (Chicago), has been appointed instructor in Psychology at Mount Holyoke College.

We give below a list of articles, etc., in the current philosophical journals :

MIND, No. 38: *Sydney Ball*, Current Sociology; *James Seth*, The Ethical System of Henry Sidgwick; *V. Welby*, Notes on the 'Welby Prize Essay'; *W. McDougall*, Some New Observations in Support of Thomas Young's Theory of Light- and Colour-Vision (II); Critical Notice; New Books; Philosophical Periodicals; Notes.

THE PSYCHOLOGICAL REVIEW, VIII, 3: *J. R. Angell* and *Warner Fite*, The Monaural Localization of Sound; *E. L. Thorndike* and *R. S. Woodworth*, The Influence of Improvement in one Mental Function upon the Efficiency of other Functions, I: *W. M. Urban*, The Problem of a 'Logic of the Emotions' and Affective Memory, I; Discussion and Reports; Psychological Literature; New Books; Notes.

ARCHIV FÜR GESCHICHTE DER PHILOSOPHIE, XIV, 3: *Theodor Lorenz*, Weitere Beiträge zur Lebensgeschichte George Berkeley's; *Otto Aberts*, Der Dichter des in uigurisch-türkischem Dialect geschriebenen Kudatku

bilik (1069–70 p. Chr.) ein Schüler des Avicenna; *Max Grunwald*, Miscellen; *Francis Maugé*, La liberté dans l'idéalisme transcendantal de Schelling; *W. A. Heidel*, Πέρας and Ἀπειρον in the Pythagorean Philosophy; Jahresbericht.

ARCHIV FÜR SYSTEMATISCHE PHILOSOPHIE, VII, 1: *Wilhelm Schuppe*, Zum Psychologismus und zum Normcharakter der Logik. Eine Ergänzung zu Husserl's "Logischen Untersuchungen"; *Julius Bergmann*, Die Grundsätze des reinen Verstandes; *Ludwig Goldschmidt*, Kants Widerlegung des Idealismus; *Adolf Müller*, Die Behandlung der Hauptprobleme der Metaphysik bei Lotze; Jahresbericht.

VII, 2: *Benno Erdmann*, Die psychologischen Grundlagen der Beziehungen zwischen Sprechen und Denken; *Paul Natorp*, Zu den logischen Grundlagen der neuen Mathematik; *Eduard Platzhoff*, Persönlichkeit und Werk. Zu einer Theorie der Biographie; *Ludwig Goldschmidt*, Kants Widerlegung des Idealismus; *Julius Baumann*, Wo steckt der Fehler oder die Einseitigkeit in Mach's philosophischen Ansichten?; Jahresbericht.

ZEITSCHRIFT FÜR PSYCHOLOGIE UND PHYSIOLOGIE DER SINNESORGANE, XXV, 4: *J. v. Kries*, Ueber die Abhängigkeit der Dämmerungswerthe vom Adaptionsgrade; *J. v. Kries*, Ueber die Wirkung kurzdauernder Reize auf das Sehorgan; Literaturbericht.

XXV, 5 u. 6: *Leo Hirschclaff*, Bibliographie der psycho-physiologischen Literatur des Jahres 1899 zusammengestellt; Namenverzeichnis der Bibliographie; Namenregister.

KANTSTUDIEN, VI, 1: *R. Eucken*, Thomas v. Aquino und Kant: Ein Kampf zweier Welten; *F. Marschner*, Kants Bedeutung für die Musik-Aesthetik der Gegenwart, I; Die neue Kantausgabe: Kants Briefwechsel. Zweiter Band (1789–1794); Luther und Kant: Recensionen; Selbstanzeigen; Bibliographische Notizen; Mitteilungen; Varia.

REVUE DE MÉTAPHYSIQUE ET DE MORALE, IX, 2: *G. Tarde*, L'action des faits futurs; *E. Le Roy*, Un positivisme nouveau; *J. Wilbois*, L'esprit positif; Études critiques; Questions pratiques; Supplément.

IX, 3: *G. Sorel*, La valeur sociale de l'art; *E. Chartier*, Sur les perceptions du toucher; *E. Le Roy*, Sur quelques objections adressées à la nouvelle philosophie; Études critiques; Discussions; Questions pratiques; Supplément.

REVUE PHILOSOPHIQUE, XXVI, 4: *Dr. Janet* (Pierre), La maladie du scrupule ou l'aboulie délirante; *Ch. Dunan*, Les principes de la morale. —II, La conscience morale; *Dr. Grasset*: Le vertige: Étude physiopathologique de la fonction d'orientation et d'équilibre (Suite et fin); Analyses et comptes rendus; Revue des périodiques étrangers.

XXVI, 5: *A. Espinas*, "Être ou ne pas être" ou du postulat de la sociologie; *E. Claparède*, Les animaux sont-ils conscients?; *Dr. Janet* (Pierre), La Maladie du scrupule ou l'aboulie délirante (Suite et fin.); Notes et discussions; Analyses et comptes rendus; Revue des périodiques étrangers.

REVUE NÉO-SCOLASTIQUE, VIII, 2: *J. Halleux*, L'hypothèse évolutionniste en morale (suite et fin.); *G. Legrand*, La renommée posthume d'Alfred de Vigny; *M. De Wulf*, Augustinisme et Aristotélisme au XIII^e siècle; *C. Piat*, Dieu et la nature d'après Aristote; Mélanges et documents; Comptes-rendus.

RIVISTA FILOSOFICA, IV, 2: *F. Bonatelli*, Il movimento prammatistico; *A. Frarzoni*, Vincenzo Gioberti nella storia della pedagogia; *F. Enriques*, Sulla spiegazione psicologica dei postulati della geometria; *N. Fornelli*, Il fondamento dell'esperienza nella pedagogia Herbartiana; *G. Buonamici*, L'antico e il moderno nella filosofia del secolo XX; Lettera inedita di Vincenzo Gioberti; Rassegna bibliografica; Il centenario di Vincenzo Gioberti a Torino; Sguardo generale alle Riviste Italiane; Notizie e pubblicazioni; Sommari delle riviste straniere; Libri ricevuti.

THE PHILOSOPHICAL REVIEW.

NATURALISM AND IDEALISM.

MORE than three years have now passed since Professor James Ward delivered at Aberdeen a course of Gifford Lectures, subsequently published under the title *Naturalism and Agnosticism*. The following notes, criticising some of the views therein expressed, were written during a prolonged stay abroad, where an acquaintance was impossible with the replies which these lectures were at the time provoking. As, however, on my return I find that I have approached the subject from a standpoint somewhat different from that adopted by others, I have thought fit to offer them in the present paper.

The main object of Professor Ward's lectures is never for one moment disguised. Yet—perhaps inevitably in a work of such scope—there appear statements and arguments which are with difficulty reconcilable. For instance, we read repeatedly that the mechanical theory of the universe is "approximate," "incompetent" and "absurdly inadequate," "landing us in a nihilism"; yet elsewhere we are told that "the course of nature *can* be summarized by mechanical formulæ" (II, p. 274), and that "whatever be its meaning, its purpose, or its life, the cosmos in one aspect is but matter in motion" (I, p. 247). Or again, while in one place the lecturer asserts that "science . . . has been driven to a species of hybrid monism" (II, p. 202), yet in another he willingly accepts the view that science "contents itself only with descriptions."

Moreover, the work contains suggestions towards a revision of current scientific theories, which, although not essential to estab-

lish his arguments, are serious defects when Professor Ward deals with more strictly technical problems. But I pass on now to consider an important topic,—the lecturer's conceptions of the general nature of protoplasmic activity. He urges that we are bound to posit some sort of directive agency ever striving to counteract that downward trend of energy towards dissipation which the entire lifeless world bespeaks; since anabolism, the process of construction of complex from simpler bodies, is the characteristic feature *par excellence* of vital activity. He infers that, because a very imperfect observation of the world's working has been summed up in a certain terse phrase generally known as the second law of thermodynamics, therefore not only must this law be unquestionably true, but the law must proceed in an undeviating unopposed path straightway to declare itself. All I wish here to point out is that even within lifeless nature there are many 'ups and downs' in the gradual degradation of energy. The world has extricated itself more than once from a glacier period into which it had been plunged. Chemists have repeatedly shown in a given system of chemical action the simultaneous occurrence of reversed chemical action. They have proved how many chemical changes may under appropriate conditions be exactly reversed. Yet, Professor Ward, arguing, as it will presently be seen, that phenomena are irreversible, concludes that the world cannot be satisfactorily stated in mathematical equations. And, arguing as it has just been shown, that the lifeless world shows only a downward trend of energy, he concludes that some new conception, a directive agency, must be introduced when we pass from the lifeless to the living world. If, perchance, I point out how from the simplest the most complex bodies are made in the test-tube, or how even from the elements the products of protoplasmic metabolism may be manufactured in the laboratory, the idealist will retort that the conditions of these phenomena are arranged by man and do not occur in nature. To this I reply that there is no reason why the conditions under which a complex sugar is synthesized artificially in the laboratory should not occur naturally in the field. What, however, I want mainly to emphasize is that within the lifeless world there are

numerous examples of a temporarily upward trend of energy, and that the difference between protoplasmic and other chemical activity is one of degree and not of kind. Anabolism is to be found outside protoplasm, where one system improves its energy at the cost of another. But in no substance, as in protoplasm, do we find this process so marked, nor instability and ceaseless change consequently so characteristic.

Professor Ward goes on to tell us that "Natural selection, it is allowed, is metaphorical. The common environment is not an agent, and selects as little as it conserves. Its tendency, if we consider it alone, is not to produce variations any more than to produce life; on the contrary, its tendency is towards uniformity and quiescence, as we may see in the dust and ashes to which in the end it reduces all" (I, p. 297). I doubt whether these twenty lectures contain any passage more astounding to the biologist than such a conception of natural selection. For who, imbued with the modern spirit of evolution, has asserted that natural selection *produces* variations? Who again is there to deny that the play of external conditions (*i. e.*, natural selection) actually *selects* variations? Surely in nature and in experiment, the evidence is sufficient to prove that by organisms themselves variations are even being produced, of which some are adapted, others unfitted for the environment of the organisms, and that those organisms which display (and tend to transmit) unsuitable variations ultimately perish.

But here again Professor Ward will enter a protest. He objects to the evolutionist's use of the term 'adaptation' or 'fitness' which he condemns as metaphorical; metaphorical, of course, because it implies a teleological meaning. And he suggests its replacement by the Spencerian word 'equilibration,' which, by the way, is obviously not less teleological. But I would urge that we are able entirely to free ourselves of teleological implications, when we say that by any particular variations an organism is 'fitted' to its environment. We do not mean, as Professor Ward would have us mean, that the organism, realizing that it was wanting in a certain particular, has straightway called forth that particular, satisfied its needs, and adapted itself to its surroundings.

Indeed no one, acquainted with the state of modern biological knowledge could admit the truth of this origin of variations. Nor could he help parting company with a psychologist who makes a so-called 'metaphorical' natural selection *subservient* to a 'real' subjective selection, where "the individual positively selects what is pleasant, that is what conserves, for appetition; and negatively selects what is painful, and so detrimental, for aversion. By such selection is constituted its proper and *specific* environment," (I, p. 297). Is it necessary in these days to point out that, so far as we know, the modifications, brought about by individual voluntary reaction towards the satisfaction of a given want, are *not* transmitted as inherited characters in the species? A man cannot increase the height of his progeny by stretching himself daily, nor their musculature by employing himself as a blacksmith. People may circumcise each other, or cut off the tails of their mice for untold generations, yet they never witness the least effect on succeeding offspring. Only in the direction of temporarily modifying the action of natural selection can subjective selection at present be considered. For example, if the positions of the torrid and frigid zones of the world were to be gradually reversed, naturally the greater part of the inhabiting animals would be induced to migrate from the one to the other zone; while with a smaller portion the psychical 'hedonic' factor would prevail, whose stay would be insured by the influences of custom, the devotion to family, the love of home, and so forth. Yet the changing environment would be fatal to this stay-at-home portion, unless the variations fortuitously occurring in their young were such as fitted them to their new surroundings. Can any one conceive that such animals, feeling, say, that they would be warmer with a longer coat of hair, could call forth their desired protection? Or has life this theosophist's power of 'materialising' psychical ideas? Only if it has this power, is Professor Ward justified in saying, "Thus, even if there were no natural selection of variations fortuitously occurring, and even if there were no struggle for subsistence, still—the will to live, the spontaneous restriction of each individual to so much of the common environment as evokes reaction by its hedonic effects

(with the increasing adaption and adjustment that will thus ensue), and, finally, the pursuit of betterment to which satiety urges and novelty prompts—these conditions, really implying no more than the most rudimentary facts of mind, will account for definite variations to an apparently unlimited extent" (I, pp. 299, 300).

Let us for the present leave aside the further consideration of these and kindred matters, and turn to a general aspect of Professor Ward's lectures. Their aim, as I have said before, is never for one moment disguised. The concluding pages of the second volume perhaps most clearly express it: "if we allow the conception of a Supreme Mind and First Cause to be valid at all, we shall not have God *and* interminable mechanism as His medium and instrument; really, fundamentally, ultimately, we shall have God only and no mechanism. It is verily a case of all or none; which we find, God or mechanism, depends upon our standpoint. . . . From the one standpoint, for rational reflexion, for philosophy, the conception of Nature as a pure mechanism is an obvious fiction" (II, p. 274). Accordingly, between teleology and mechanism, between spiritualism and agnosticism, the writer keeps a fierce battle raging, until in the end he gives victory to the former. He insists that we *know* we are not mechanisms, that mechanism cannot explain life and mind, and that we can measure but a very small fraction of the world. He considers that not only is mechanism of this limited application, but that it is always abstract, approximate, and incomplete. To abstract, argues Professor Ward, is successively to ignore essential characters. Applied to physics, abstract mechanics passes over the complications arising from apparatus, and merely abstracts its equations from the entire system. Mechanism is, moreover, approximate and incomplete, because by abstraction it proceeds to analysis, which is itself never complete until it has insured a backward synthesis from the previous analysis; and mechanism insures no such reconstructive process. The lecturer proceeds to demonstrate that the application of the abstract to the concrete is hypothetical, that the world is one of individuals, no two of whom are exactly alike, and that the concrete alone has reality

and individuality. Finally he draws the moral: Never let go the concrete for the abstract in speculation.

Mechanism thus driven from the field, teleology under the guidance of idealism makes its *début*. Why, we are asked, should monotonous uniformity be the only or the highest indication of the spirit of order, since with life and mind enters teleology where aim, direction, and worth supplant the blind regularity of mechanism? Professor Ward sees a teleological principle in vital activity; for all life would long ere now have ceased owing to the action of the second law of thermodynamics, were it not for the existence of a hypermechanical directive agency. He sees another teleological principle in evolution; for new species have originated because each individual mind of preëxisting species has always realized its changing wants, and conceived the means of adapting itself to its altered environment. Of course it is assumed throughout—to be “not a matter of theory but a matter of fact—that the characteristics of the side of life and mind are *prima facie* essentially teleological,” that life consists in “the guidance and control of the known forms of energy.” “The $\pi\omicron\tilde{\upsilon}$ $\sigma\tau\tilde{\omega}$ ” which natural selection “seems to demand” is hence furnished by the principles of subjective and hedonic selection, where the will to live and the pursuit of happiness and self-interest reign supreme as the teleological directive agency of evolution. Having thus gained a footing, teleology claims all as its own. Nature, which must conform to human intelligence in order to be intelligible, and is likewise amenable to human ends, is in both these respects teleological. Natural laws are teleological, in so far as they are hypotheses or postulates, a means of controlling or of interpreting nature. Finally, knowledge itself is teleological, “since it is prompted and sustained by practical motives.” Everywhere, the teleological underlies the mechanical. Everywhere, the reality of activity and choice in the one looms beyond the fiction of inertia and determinateness in the other. The subject takes the lead, mind works upon matter. Thus we arrive at the idealist’s monistic interpretation of the universe. For, “to a monism of some sort we must, no doubt, in the end come,” and a monism, free from the doctrine of psycho-

physical parallelism, would be worth having. "Calculation will never content us, rational insight, spiritual light, is what we want." Naturalism had assumed perceptual experience to be phenomenal, and, turning for guidance to agnosticism, was assured that mind is no more real than matter, that both are the expression of one Unknowable. This is Agnostic Monism. Idealism, on the other hand, finding everywhere the directive agencies of mind, sets up subject or spirit as the basis of its philosophy. This is Professor Ward's spiritualism. It sets up teleology everywhere and declares mechanism to be illusory. It declares the universe to be a life rather than a mechanism. We are a world of spirits, of subjects, of things in and for themselves. "It is only in terms of mind that we can understand the unity, activity, and regularity that nature presents. In so understanding we see that nature is spirit." Establish a world of spirits, and from that "to a Supreme Spirit is a possible step." Thus we reach that ideal of idealists, "that recognition of the intelligible by intelligence, that greeting of spirit by spirit." Without spiritualism the world must remain meaningless and empty!

I can see the upholders of idealism exclaiming that they require no more, and the upholders of naturalism rejecting me as a traitor among their ranks, when I declare my thorough satisfaction with Professor Ward's able proofs that mechanism in itself is inadequate, that experience is a unity within which is the duality of subject and object, and that mind makes nature. Nevertheless, I will ask both classes of readers to bear with me a little longer. For although I have just confessed the inadequacy of mechanism, I cannot bring myself to concede the all-sufficiency of idealism. The keynote of my theme is that neither the idealism of the teleologists, nor the naturalism of the mechanists is one whit the more real, the more adequate, or the more true than the other. Each, if pursued far enough, will be found to fall short in its own direction. Each is a creation of consciousness, of mind, or whatever term be used to denote that experience which consists merely in a duality of subject and object. The subjective and objective sides of this experience are responsible for the two sides which find expression in idealism

and naturalism. So, it is just when Professor Ward assumes that the results of one half of experience are to be exalted at the expense of the other half, that I find myself parting company with him. This is the gist of all that I shall have to say in the following pages, and indeed of all that I believe can and will be ever said on the matter.

I have no intention of recapitulating the arguments by which Professor Ward admirably establishes his thesis that experience is a unity within which is a duality of subject and object. This thesis—which he would call a fact, a reality, something that we know—I prefer to treat as a fundamental assumption, necessary as a starting point for further epistemological enquiry, and comparable to the Cartesian article of faith, *Cogito, ergo sum*. I think it may be advantageously expanded into the form : States of consciousness exist as a unity, which consists in a duality of subject and object.

Holding fast to the “strictly psychological standpoint” of individual experience (“my experience as it is for me,” not as it is for any one else), Professor Ward proceeds to prove the unreality of the objects of Universal Experience. Here again I will not represent the array of argument whereby he shows how through “the union of naïve realism, based on the notion of the trans-subjective, with the hypothesis of introjection or animism,” each of us comes falsely to believe that things exist apart from our individual experience of them. We arrive here at the Kantian maxim : the intellect makes nature.

Thus, quality and quantity, embracing the entire world of outside objects, vanish save when they are ‘really,’ ‘individually,’ experienced. Now let us turn to the entire world of outside subjects, and we shall here find no corresponding denial of their independent existence. Professor Ward states that the only things “of which we have positive knowledge are subjects with intrinsic qualities, things that are something in themselves and something for themselves” (II, p. 279). “We know best, the interaction of mind with mind” (*ibid.*). It is “fact, not analogy, albeit fact reached only by understanding” that “a large part of human activity consists in communication and coöperation be-

tween man and man" (II, pp. 263, 264). By this inter-communication, individual experience begets universal experience, perception is over-shadowed by conception, the concrete gives place to the abstract. And since "only thoughts admit of communication," Professor Ward seems reduced to the absurdity of proving that thoughts have resulted in two divisions of universal experience, the one being that intersubjective intercourse, "which we understand best," which is presumably not less *real* than individual experience, the other consisting of the relation of object to object, *i. e.*, the abstract *unreal* principles and assumptions of "modern science"! Have we not here an imitation of "the piece-meal fashion in which Kant was led to discuss experience"?

But Professor Ward must recognize that one is entitled no more to assert the real existence of the outside world of subjects or mind than to assume the real existence of the outside world of objects or matter. The truth is, we know "the interaction of mind with mind" no better than we know the interaction of mind with matter. From the agreed standpoint of individual experience, subjects are not more real than objects, outside mind not more real than outside matter. All that each of us has is his own unity of experience, one undivided continuum of states of consciousness, which gives him equally a subject—and an object—relation.

We have accepted Professor Ward's contention that experience is the unity within which is a duality of subject and object. Now it is certain that of this experience or mind in itself we can know nothing. No state of consciousness can ever be ours but that we immediately recognize an answer in it either to "whose consciousness," or to "consciousness of what." And while the materialists exalt the latter alternative, the idealists concern themselves with the former. So, more particularly, Professor Ward, having rightly supposed that experience is a unity consisting of a duality of subject and object, proceeds to the end of his lectures with a total disregard of this truth, and makes one term of the duality, the subject, supreme as a divinity to which the other must bow down, in and by which the other must find recognition and expression. He says: "Now the point on which

I have to insist is this: not only is subjective synthesis necessary before experience can really begin, but it is only by means of this synthesis, and the conative activity by which it is prompted and sustained, that experience can advance and unfold. To the subject belongs the lead and initiative throughout" (II, p. 255). Here we clearly discern the besetting sin of idealism, which, assuming that "something must be real," confounds the known subject—half of experience—with the unknown unity of experience. And we conclude that idealism is an abstraction just as much as mechanism, and that each neglects one or other of the equally known moieties of experience.

Indeed the idealist, who asserts that with mechanism all is easy-going so long as it confines itself to the obviously mechanical, is apt to forget that idealism appears no less preposterous when applied beyond the regions of consciousness. Mind raises the question 'why,' matter raises the question 'how.' Naturalism gives an answer solely to the latter question, idealism replies only to the former. So the idealistic solution of the world-riddle can never suffice us. Moreover, the activity of a "Mind that lives in the whole of things and the minds that are confined to parts" becomes unintelligible the moment when we attempt to figure to ourselves the mode of their action. How can we picture minds guiding "the material mechanism without the expenditure of work?" Where can we conceive guidance without work? Professor Ward tells us that "we can imagine finite intelligences disequalizing temperature and undoing the natural diffusion of heat, or assorting atoms and undoing the natural conglomeration of matter, and so reversing the downward trend, and even disturbing the final quiescence, to which the dissipation of energy or 'cosmic equilibration,' to use Mr. Spencer's term, inevitably leads. The conception of such intelligence we have in the 'sorting demon of Maxwell' as Lord Kelvin has called it" (I, p. 201).

Exactly so. We can imagine such finite intelligences acting in the manner just described. But the point is, can we imagine the performance of their actions (or of any actions whatever) without the expenditure of work? Can we do otherwise than locate

these intelligences in their own system, and infer that their activity means some transference of energy from one to another portion of their system? Is not mechanism our one intelligible 'how' of things? Let us briefly examine the nature of Maxwell's sorting demon. Clerk Maxwell—having proved that in any vessel the molecules of a gas at uniform temperature are moving with velocities by no means uniform, though the mean velocity of any great number of them, arbitrarily selected, is almost exactly uniform—asks us to imagine such a vessel "divided into two portions, A and B, by a division in which there is a small hole," and to imagine a being (the sorting demon "who can see the individual molecules") to open and close the hole, "so as to allow only the swifter molecules to pass from A to B and only the slower ones to pass from B to A. He will thus, *without expenditure of work*, raise the temperature of B and lower that of A in contradistinction to the second law of thermodynamics."¹ But my argument is that he does expend work. True, the work is not spent in the system within the vessel. It is nevertheless spent in the system within the sorting demon. For we can conceivably replace the psychical selecting activity of this demon by the physical sorting activity of a mechanism. We can just as well imagine a mechanical contrivance which only lets through the swifter molecules from A to B or the slower from B to A. Where now is work expended?

Says Professor Ward: We know that we have activity, we know that causes exist, we know that mind acts on matter. And he appears to conclude that this knowledge is necessarily true and real. Now what would a savage, nay an ordinary man in the street say, were we to tell him that color and sound have no independent existence outside ourselves? What would he say, were we to demonstrate the varieties of memory (visual, auditory, and tactual) among his fellowmen or expose to him a series of optical and tactual illusions? Yet for him his knowledge of the identity of his own with his fellows' mental working, and his knowledge of the existence of sound and color outside himself

¹The portions within inverted commas are borrowed from Professor Ward's quotations (I, p. 202). The italics are my own.

are as real as the knowledge of minds outside our own is for Professor Ward. If Professor Ward says that our activity and volition really exist because we know that we have them, he goes as far as the man who declares redness and blueness to be realities because he knows that he feels them. So—when he says that “we know best the interaction of mind with mind”—I reply that I recognize that what I feel I know may have to be corrected, if it falls counter to other parts of my knowledge. Certainly, we feel that we have volition, just as we feel that we see redness, taste saltiness, and the like. Yet, whether or not such feelings can be said to have reality must depend upon the extent of further experiences on which we base our reality. Our entire mental life is sustained as a unity, because conventionally certain experiences are posited as real to which all other incongruent experiences must subsequently be accommodated, either by being ignored or by being suitably assimilated.

So when Professor Ward asserts, “I know that I feel the activity of directive agency in one direction,” I would retort, “I know that I feel the passivity of mechanism in the other direction.” To me it is as real and as true that a torrent, falling from the mountainside, is conditioned mechanically, as that the thoughts, at this moment falling from my pen, are conditioned teleologically. When Lord Kelvin said that he could never satisfactorily understand a thing until he had made a working model of it, he merely confirmed the truth that the principles of mechanism are ultimately derived from the results of our individual handiwork. Not less surely than teleology, mechanism is the outcome of our individual experience.

However, apparently in opposition to this dictum of Lord Kelvin Professor Ward insists that, in applying mechanical principles to practice, we have never sufficient knowledge of the conditions of phenomena. In the simplest problems, for instance, molar mechanics passes the complications arising from apparatus over to experimental physics and merely abstracts its equations from the whole system under consideration. Professor Ward elsewhere compares this gulf between pure and applied mechanics to the gulf between the living and the lifeless worlds.

But can he not see that the difference between pure and applied science is merely a difference between the simple and the complex? Can he not see that in any great piece of machinery the wear and tear of every particle of steel or leather is truly a mechanical process and as calculable as the horse-power or steam pressure of the driving engine? Because we cannot predict upon which face the thrown dice will fall, are we to conclude that they are governed by hypermechanical laws? Surely, Professor Ward will not deny that, if we had adequate knowledge of all the conditions by which the dice were influenced in their fall, we should be able to foretell the result.

By this time, I can hear the idealists exclaiming, "To what have you now brought us? You have denied the reality of mechanism, and you have denied the reality of idealism. What do you now offer us? 'Something must be real.' 'To a monism of some sort we must no doubt in the end come'" (II, p. 35). Yes, something, I reply, must be real, and that something is the unity of states of consciousness which we have called mind or experience. This is the reality, where subject and object lapse not into the single subject-half of experience, which is idealism, not into the single object-half of experience, which is materialism, not (as Professor Ward describes naturalistic monism) into concomitant aspects of a single unknowable process which is "neither life nor experience," but into concomitant aspects of a single unknowable process which is *both* life *and* experience.

We have thus to conclude that neither idealism nor naturalism, neither teleology nor mechanism is in and by itself satisfactory—the former, because it is a notion gained from the contemplation of individual activity, and because we feel certain that there is much among phenomena determined in a purely mechanical fashion; the latter, because it is a notion gained from the contemplation of our own handiwork, and because it tells us, what we each feel certain is untrue, that we are conscious automata. We conclude that it is because of this essential inadequacy of idealism and naturalism that neither language succeeds in solving the world-riddle. The psychical terms of the one express the origin of phenomena, the physical terms of the other express the re-

lation of phenomena ; for teleology, cause spells 'why,' for mechanism, 'how.' And so the two languages remain now and always distinct. The universe may be ever viewed from two distinct standpoints. I may start from myself—my subjective individual feeling of the Inside, with its attributes of activity, will, purpose, and so forth,—and I shall arrive ultimately at the teleological aspect of things, the 'why,' only because subjectively I have no knowledge of the 'how.' Or I may start from my not-self,—my objective universal feeling of the Outside, with its attributes of passivity, order, uniformity, and the like,—and I shall, with equal certainty, deduce the mechanical aspect of things,—the 'how' only, because objectively I have no knowledge of the 'why.' From either standpoint the world is viewed in language by an 'I.' This 'I' is the unity of experience, whereof subject and object are the duality. Subject-relation and object-relation, each is an equal and equally potent half of experience, and the resulting systems of teleology and mechanism are equally real or unreal, satisfactory or unsatisfactory. Thus, monism based on unknowable experience, is at once the source and haven of all philosophy, while dualism must still "suffice for ordinary life." We shall still have not "God *or* mechanism" but "God *and* mechanism." As Professor Ward admits, "Mankind will be content to get along without a final philosophy."

Experience, divested of all knowable attributes, appears finally as a two-edged sword of which the subjective and objective relations constitute its two edges. Attempting to cut a way through the dark forests of the Beyond, the weapon presents either of its edges, each of which works in its own manner towards success. But the blade is so slender and the jungle-timber so thick, that one edge can never cut through any knot completely, unfollowed by the other ; nor are the two edges to be used at the same time before the same obstacle ; while the weapon itself remains as the one invisible, unknowable reality.

CHARLES S. MYERS.

THE DOCTRINE OF THE TWOFOLD TRUTH.¹

THE central problem of mediæval thought was the rationalization of dogma. Oppressed by the weight of ancient knowledge, the schoolmen felt no impulse to seek truth for themselves in the free field of nature. The ancients had found out the truth: they needed only to expound, explain, and systematize the teachings of the past. Submission to authority in both practical and theoretical matters was the spirit of the times. This spirit was manifest alike in Church and State, in theology and philosophy, in the schools of Christian Europe, and in the universities of Mohammedan Asia. The great intellectual effort of the age was to harmonize the philosophy of the Greeks with the theology of religious revelation.

The first of the great mediæval thinkers, John Scotus Erigena stated the problem. Philosophy, he declares, has nothing else to do but to expound the doctrines of true religion. There is no question in his mind as to the result. It is in fact assumed at the start. Philosophy, he says, is not one thing, and religion another. True philosophy is true religion, and true religion is true philosophy. He does not hesitate to take the stand toward the Church which alone can justify this identification. For he teaches that true religion is not necessarily identical with the doctrines sanctioned by ecclesiastical authority. In fact authority depends upon reason, and never reason upon authority.²

Passing over two centuries we find the weight of emphasis has shifted. With Erigena philosophy and theology are one, and that one is philosophy; with Anselm philosophy and theology are one, but that one is theology. In place of Erigena's *Auctoritas ex ratione processit*, Anselm makes the foundation stone of his thought *Credo ut intelligam*. Henceforward philosophy becomes the handmaid of theology. Anselm, however, has entire confidence that reason supports faith, that the dogmas of religion,

¹ A part of this paper was read at the Baltimore meeting of the American Psychological Association.

² Ueberweg, *History of Philosophy*, Vol. I, p. 360.

while they should be accepted on authority, may yet be proved by reason. He demonstrates on rational grounds not only the existence of God, but the Trinity, incarnation, and atonement. In the thirteenth century Albertus Magnus and Thomas Aquinas are still laboring at the same problem. But the failures of the past, and the better knowledge of Aristotle which they enjoyed, gave them a deeper realization of the difficulties of the question. In fact they are both forced to admit that there are some doctrines which reason cannot establish, but which must be accepted on the authority of faith alone. They can prove the existence and unity of God, but Albertus admits that creation is a miracle that cannot be comprehended by the natural reason, and Thomas reaches the explicit conclusion that there are only certain truths, which he calls "the preambles of faith," which can be demonstrated by the reason. The doctrines distinctive of Christianity such as the Trinity, incarnation, etc., are dependent upon revelation and a faith in its documents. These revealed doctrines, however, are not contrary to reason but rather above reason. Reason can confute arguments against them, and find out analogies and probable grounds for them, although it cannot demonstrate them from its own principles. Of course he makes a virtue of necessity and declares the indemonstrableness of the dogmas a source of merit attaching to faith as an act of confidence in the divine authority. Still the unity of truth is not broken. For as nature precedes grace and is not nullified but perfected by it, and the natural virtues are not superceded but perfected by the theological virtues, so the truths of the natural reason are completed by the doctrines of faith and not contradicted by them. It was but a step, however, to an assertion of the opposition of faith and reason, and even in the time of Thomas certain minor thinkers had already taken this step. Simon of Tournay at Paris about the middle of the thirteenth century is said to have demonstrated in public the doctrines of the church, and with equal facility to have shown their untruth in private. "It soon became a favorite practice with many," says Ueberweg,¹ "to distinguish between philosophical truth (or what was directly

¹ *Op. cit.*, Vol. I, p. 460.

inferable from Aristotelian principles) and theological truth (harmony with the doctrines of the church), which distinction in the presence of many unsustainable attempts to combine the two, had its perfect relative justification, but was a negation of the principle of scholasticism, was condemned by ecclesiastical authority, and failed in this period to become a ruling idea." The fact that the Pope John XXI, in the year 1276 officially censured the assertion that truth is twofold shows that the notion had by this time reached considerable prominence.

In the following century thinkers of the first rank and faithful sons of the church maintained the twofold truth. This was a natural step for Duns Scotus, who in holding the priority of will over intellect in opposition to Thomas came to the view that religion is essentially practical. Faith and reason accordingly deal with two distinct spheres—the one with the practical, the other with the theoretical. To the doctrines such as the Trinity and the incarnation which Thomas admitted could not be proved, Scotus adds the immortality of the soul. In William of Occam the evolution of the twofold truth is complete. He declares even the existence of God indemonstrable by the natural reason, and relegates all knowledge that transcends experience to the sphere of faith. Thus is all theology, as divine science based upon faith, authority, and revelation, separated from philosophy, as secular science based upon experience and reason. Things might be true in theology and not in philosophy, and *vice versa*. Thus the eternity of the world was proved by philosophy, and its creation in time given by faith.

One is impelled to ask, could men honestly hold such contradictory opinions? There were cases undoubtedly, as that of Pomponatius in the renaissance period who wrote a work (1516) to disprove the immortality of the soul, but made his peace with the church by declaring that he wrote philosophically and not theologically—there were cases of this sort where the twofold truth was a mere subterfuge to protect the free-thinker from the ecclesiastical censure, but I believe Windelband is substantially correct when he says of the doctrine of the twofold truth—"It is the adequate expression of the mental state necessarily brought

about by the opposition of the two authorities under which the Middle Ages stood, viz., Hellenistic science, and religious tradition; and while at a later time it often served to protect scientific theories from the persecution of the church, it was for the most part even in these cases the honest expression of the inner discord in which just the most important minds of the age found themselves."¹

Note the steps now by which this doctrine was evolved. First, faith and reason are completely identified. Then, they are recognized as two but easily reconcilable by a little logic. Then, one after another of the doctrines of faith is declared indemonstrable, and finally all. The mysteries of faith and the speculations of philosophy each form a separate and distinct system, and we have the twofold truth. In the absence of the sciences of nature and the presence of the overpowering majesty of the ecclesiastical structure that filled the imagination of the Middle Ages, we need not wonder at this development of so contradictory a doctrine. During the renaissance period the conditions remained much the same, and the twofold truth was a common attitude of thought.² The scientific spirit had not yet fully established itself, and theological interests could still control the civil power both in Catholic and Protestant countries. In the seventeenth century the doctrine was still held by many in varying degrees of explicitness. With some it was a matter of policy. A nominal submission to ecclesiastical authority secured an actual freedom for science and philosophy. To this class, it would appear, belong Descartes, Bacon, and Hobbes. Others again maintained the independence of religious truth from all support of the natural reason, in order to exalt the more highly the authority of revelation and the merit of pure faith. Preëminent in this class is Pierre Bayle, of whom Windelband says, "No one supported this standpoint more energetically . . . he worked systematically to show that all dogmatic doctrines were contrary to reason; he laid bare their contradictions with penetrating

¹ *History of Philosophy*, p. 320.

² In 1512 a Lateran Council condemned the distinction between two orders of truth and pronounced everything false which was in conflict with revelation. Ueberweg, *History of Philosophy*, Vol. II, p. 12.

keenness; he sought to prove that they were absurd for the natural reason. . . . He denied the cogency of the philosophical arguments for the existence of God and the immortality of the soul, and took special occasion in connection with the problems of theodicy to prove the inadequacy of the 'natural light.' . . . Religion is therefore possible for him only as positive revelation in contradiction with philosophical knowledge. He defends with all keenness the twofold truth."¹

By those who maintain with equal seriousness the validity of both religion and philosophy, the contradiction of the twofold truth has been avoided in several ways. One way is that of Thomas Aquinas and John Locke. Strange names to link together! But both the mediæval Catholic theologian and the modern Protestant empiricist agree in the principle that the doctrines of faith, while they may be above reason, and so, inaccessible by the natural light, are not contrary to reason, and there is no violation of the unity of truth. This might be called the logical method. A second method consists in distinguishing two spheres of reality—the sensible world and the intelligible world. Kant escapes the twofold truth of his antinomies in this way. The solution which he offers for the cosmological antinomies is based on the distinction of phenomena and things in themselves. Man is a citizen of two worlds. In his empirical character in the world of phenomena man is under the control of natural necessity, in his intelligible character in the noumenal world man is free. The unity of truth is indeed preserved at least formally, but at the expense of the unity of reality. We might call this the ontological method. A third is the practical method. By this, faith is declared to have to do with practice alone. All knowledge may be given over to reason. Let the intellect reign supreme in its sphere, but our ethico-religious sensibilities have their just claims. Kant again avails himself of this method in maintaining God, freedom, and immortality as practical postulates while denying them all theoretical proof. The Ritschlian theologians who declare religion to have nothing to do with metaphysics belong to this class; so do also certain pro-religious agnostics, *e. g.*, James in his *Will to Believe*.

¹ *History of Philosophy*, p. 494.

In spite, however, of these various methods of escape, and the modern freedom from theological restraint, the twofold truth is still with us. This is very clearly the attitude of Professor Münsterberg's *Psychology and Life*. The doctrine in its new form substitutes for the mediæval antinomy of philosophical and theological truths, an antinomy of truth for science and truth for life. As Münsterberg puts it at the conclusion of his volume, "We have the truth of life. Its realities are subjective acts, linked together by the categories of personality, giving us values and ideas, harmony and unity, and immortality. But we have, as one of the duties of life, the search for the truth of science which transforms reality in order to construct an impersonal system, and give us causal explanation and order."¹ The natural sciences, physics and psychology, give us a world of atoms, material and mental. The historical and normative sciences give us a system of will acts. The former deal with existing objects, the latter with reality. Existence for Professor Münsterberg, it should be observed, is the very antithesis of reality.² The two truths manifest their sharpest opposition in his view of the will. Psychology teaches that there is no will, life discovers that reality is nothing but will.

Such a conclusion is fatal to thought. Truth is valid knowledge. It is that thought of things which is at once self-consistent and all-comprehending. It is a view which holds not only for the present, but for the future, not only for an immediate glance, but for a reflective survey. It answers not only to my experience, but to the experience of all. It represents the individual both by itself, and in its relation to everything else. Truth is one as space is one, and time is one. As we speak of different spaces and different times, meaning thereby only parts of the one space and the one time, so we may speak of different truths meaning parts of the one truth universal, phases or segments of the one system of facts and laws which only in its wholeness constitutes truth. Such is truth as the ideal goal of all our intellectual striving. It is, indeed, an ideal that is as yet far from

¹ *Psychology and Life*, p. 281.

² See *Ibid.*, p. 24 ff.

any actual realization in human thought. But as the postulate of all logical effort, it cannot be denied without intellectual suicide. Whenever we are brought to halt by unrelated truths, as in the antinomy of Professor Münsterberg between the causal system of psychophysics and the teleological system of history, we should not assume that thought has reached its finis, and therefore truth is twofold. We should rather recognize that these are only partial truths and be spurred on thereby to make a more critical examination, which mayhap lead us to the underlying unity. It is not strange that the ancients should have fallen into the attitude of philosophical scepticism in the absence of any well-grounded body of scientific knowledge. Before the postulate of logical unity had been successfully applied to any considerable segment of reality, it is not to be wondered at if men sometimes lost faith in the postulate itself. The solid acquisitions of the scientific labors of the last four centuries, however far they still leave us from the intellectual goal, have nevertheless rationalized no inconsiderable part of our experience, and this gives us warrant for a belief in the rationality of the whole.

There are certain erroneous suppositions as to the nature of science which, it seems to me, are the sources of Münsterberg's dualizing view of truth. One of these is the idea that in order to perform its function of connection science must perforce take an atomistic attitude. Thus physics is bound to reduce the external world to a concourse of atoms, and psychology is bound to reduce the mental life to sensations. This leads to the paradox that while will for real life is an individual whole, for psychology as a science it is only a complex of sensations. But where is the warrant for making atomistic analysis the methodological presupposition of all science? Science is bound only to record and describe the facts of experience as given, and to offer such theories in explanation as most logically correlate the entire body of facts. The physicist does not abdicate his office when he conceives of the ether as an undivided continuum. He does not regard himself as any the less loyal to science in this than in his atomic view of the ordinary forms of matter. It is the duty of the psychologist likewise to describe the inner life as

he finds it—to analyze sensory complexes into their sensory elements, and to accept as integral wholes whatever mental factors are not thus subject to analysis. This aim is to reconstruct the *disjecta membra* of direct experience into an ordered system. This direction of thought is from the heterogeneity of common experience to the logical unity of reality. His only presupposition is that reality is not the heterogeneity it seems to be, but the logical unity that he means to construct.

This brings us to another of Münsterberg's misconceptions of science. It is the aim of science, he says, "to transform reality till the ends of causal ordering are attained."¹ This notion that it is the business of science to transform reality is a favorite one with Professor Münsterberg and frequently repeated throughout the volume. If truth is a transformation of reality in the interest of subjective ends, of course it is as arbitrary as those ends and maybe twofold or manifold as likely as not. In this view reality is the terminus *a quo* and some subjective interest is the terminus *ad quem*. As well might a merchant expect to make his business prosper by setting down a comfortable balance on the right side of his ledger each week irrespective of the unsympathetic rules of addition and subtraction. No. Science must start with the plain facts of experience and while loyally holding to these, transform them, if need be, in the direction of reality. Reality is the goal and not the starting point. One effect of this perverted view of science is illustrated by the criterion which he lays down for the truth of facts in science. "That a fact is true in the world of physical facts means that it is selected as fit for a special logical purpose; and if the telepathic facts, for instance, are not suited to that purpose, they are not true according to the only consistent standard of truth."² That is, the alleged facts of telepathy are not true because they do not happen to fit into our present theory of causal connection between mind and mind. This is *a priori* science with a vengeance. There is no question of evidence, no question of enlarging our views of intercommunication to fit the possibly new facts. If the facts don't

¹ *Op. cit.*, p. 275.

² *Ibid.*, p. 276.

fit the theory, so much the worse for the facts! Shades of Bacon, Hume, and Mill! But of course this is the proper procedure, if it be the business of science to transform reality for a subjective purpose. Those who had to make bricks without straw were allowed doubtless to select the kind of clay best suited to their purpose, and shall not the man of science be allowed to select such material as best suits his purpose and ignore all other facts?

But what is the purpose for which we engage in this scientific transformation of reality? We have seen above, the search for the truth of science spoken of, as one of the duties of life. This is further explained in two passages as the necessity we are under to anticipate the future in order to act. "Our life is will, and our will has its duties; but every action turns toward those means and obstacles and ends, those objects of appreciation which are the material for our will and our duties. . . . We cannot do the duties of life, that is, we cannot act on the objects, if we do not know what to expect from them."¹ As an essential to the performance of duty, this purpose of so transforming reality as to enable us to anticipate the future may seem to escape arbitrariness. But if arbitrariness is avoided in the form of the purpose, it appears only the more manifest in the method of its execution. The objects of will which are real only in relation to the subject must be removed from this relation in which their reality consists and regarded as independent. In this way they become existing objects (*i. e.*, the unreal objects of perception) capable of description, explanation, and finding a place in the causal series. It seems to be forgotten that the essential ground of our confidence in the ability of science to anticipate the future is that the objects be in reality independent of the will attitudes of the scientist. The absolute, universal will, if there be such, doubtless, would have to separate artificially objects from his own will action in order to make a science of them. But then the absolute would have no need of this roundabout method of science in order to know the future. Whatever be its relation to the absolute, nature is given objectively other to the finite sub-

¹*Op. cit.*, p. 28 and p. 206.

ject. This objectivity and otherness does not have to be created arbitrarily to suit our purposes. It is this given objectivity that makes science possible for the intellect and serviceable to the will. Our interest in truth is in proportion to our faith in its objectivity.

Below all these conceptions of science as necessarily atomistic, as involving a transformation of reality, and being the product of a subjective purpose, the ultimate source from which comes Münsterberg's view of truth is his metaphysical belief that reality is will, and that personality is nothing but a complex of will attitudes. This metaphysical standpoint is merely stated without discussion in the *Psychology and Life*, and there is no occasion to attempt a criticism of it here. It may be noted, however, that the metaphysics which finds no essential place for intellect in personality seems quite in harmony with the epistemology that makes science a side issue to life, and truth a self-destructive manifold. From a biological point of view it is true, of course, that the theoretical is subordinate to the practical in life. But the practical here means physical activities, and there is nothing in this to make us regard the cognitive attitudes of the subject as one whit less real than its volitional attitudes. If ever a valid idealism be constructed, it will not be on any one-sided basis of either will or intellect. Only the concrete personal spirit, which is equally real in all its functions of knowing, feeling, and willing, can ever prove sufficient for that purpose.

Kant distinguished sharply between the realm of appearances and the realm of things by themselves. He pushes this distinction to the verge of contradiction. And philosophy has been more or less familiar with some such split in reality from Parmenides and Plato to the present. This twofold reality is not so perplexing, however, as the twofold truth. Thought demands consistency. How then can we have one truth of science and another of life? How can we accept the conclusion of psychology that we have no will and the revelation of immediate self-knowledge that we are nothing but will? No chasm is so deep but it has a bottom, and that bottom will connect the two sides even if there be no bridge above. A cleft in reality may puzzle us and compel a suspension of judgment until we have time and

courage to penetrate to those depths where lies the ground of connection. But a cleft in the intelligence is a more serious matter. If truth be not a unity, then have we no goal for our intellectual strivings, no corrective for the wanderings of the finite mind. A philosophy which does not unify but dualizes knowledge completely fails of its purpose. No man can serve two masters—neither can he believe in two truths. Life, of course, is more than thought.

“Grau, theurer Freund, ist alle Theorie,
Und grün des Lebens goldner Baum.”

Scientific truth is only a part of the truth of life. My criticism of Professor Münsterberg is that he makes the truth of science and the truth of life both complete wholes without any essential relation to one another. The only escape I can see from the charge of the twofold truth lies in the view that science is no truth at all, only a piece of logical gymnastics, a game of chess, a Chinese puzzle which deals only with shadowy objects of unreal existence, but has nought to do with the reality of life. And certain passages would seem to bear out this interpretation.¹ But if we are to take science seriously, then I can see no escape from the conclusion that we have here a revival of the twofold truth. This modern instance is in fact deeply instructive. It shows that the old scholastic problem is by no means an arbitrary or merely historical difficulty. In the specific form which the problem took in the Middle Ages, the effort to reconcile Hellenic philosophy and Hebraic theology, the question seems one of accidental interest, a product of the chance meeting of two lines of inheritance from widely different sources in the past. As an attempt to reconcile the intellectual and the volitional demands of our nature, it is seen to be a problem of universal human interest, the deepest perhaps of all philosophical problems.

F. C. FRENCH.

¹ Whichever way the work be interpreted, it is a wholesome corrective to the, at present, somewhat widely extended doctrine of psychology triumphant (see *e. g.*, G. Stanley Hall in the *Forum*, Vol. 29). It is a satisfaction to find a psychologist of such eminence as Professor Münsterberg recognizing the limitations of his science and that it is not its business to supercede all other sciences and furnish a complete philosophy of the universe. This view is more elaborately expounded in his recently published *Grundzüge der Psychologie*.

THE DOCTRINE OF SPACE AND TIME.

IV. OF TIME.

THE seeming self-contradictions which have so often raised their menacing heads in the pathway of the philosopher who has had the temerity to discuss the nature of space, are reinforced by an ally of peculiarly truculent aspect, when it is a question, not of space, but of time. When we occupy ourselves with the infinity and infinite divisibility of time, we meet the same problems that confront us when we consider the infinity and infinite divisibility of space. But when we think of time as consisting of parts which are not simultaneous but successive, as made up of past, present, and future, the very ground on which we stand seems to sink beneath us and to leave us suspended in the void. We are discussing time, as though we meant something by the word; and yet, has the word really a meaning? Can there be such a thing as a consciousness of time? The problem is not a new one. It has been stated with such admirable lucidity by Augustine, that I cannot do better than to refer to certain passages in the *Confessions*:

“What, then, is time? If no one asks me, I know; if I try to explain it to one who asks, I do not know; yet I say with confidence that I know. But if nothing passed away, there would be no past time; if nothing were to come, there would be no future time; if nothing were, there would be no present time. Yet those two times, past and future, how can they be, when the past is not now, and the future is not yet? As for the present, if it were always present, and did not pass over into the past, it would not be time but eternity.”¹

Yet, says Augustine, we talk of a long time and a short time, though only in dealing with time past or future. But how can that which *is not* be long or short? We cannot, then, say of the past or the future, *is* long; but we must say of the one, *was* long, and of the other *will be* long. While present, the past had exis-

¹ Book XI, Chaps. 14 and 15.

tence, and so might have been long. But no! the past did not then exist; it was the present alone that existed. The present is the only existent, and, hence, if anything can be long, it must be the present.

We are, then, absolutely shut up to present time. Can this be long? We speak of the present century, year, month, or day, but evidently in a loose sense of the word 'present.'

"Even a single hour passes in fleeting moments; as much of it as has taken flight is past, what remains is future. If we can comprehend any time that is divisible into no parts at all, or perhaps into the minutest parts of moments, this alone let us call present; yet this speeds so hurriedly from the future to the past that it does not endure even for a little space. If it has duration, it is divided into a past and a future; but the present has no duration.

"Where, then, is the time that we may call long? Is it future? We do not say of the future: it *is* long; for as yet there exists nothing to be long. We say: it *will be* long. But when? If while yet future it will not be long, for nothing will yet exist to be long. And if it will be long, when, from a future as yet non-existent, it has become a present, and has begun to be, that it may be something that is long; then present time cries out in the words of the preceding paragraph that it cannot be long."

So much for the unreasonable nature of time as consisting of past, present, and future. The past really seems to be rather a bad one. Past time is not now, future time is not yet, and present time has no duration. We are reduced to a limiting point between two non-existents, and all our apparatus of years, months, days, hours—the quart-pots and pint-pots which we have prepared to measure our commodity—must, it appears, remain empty for lack of something to fill them.

From the persecutions of such metaphysical reflections there remains, of course, the refuge of common-sense fact: "Yet, Lord, we do perceive periods of time, and compare them with one another, and call some longer, others shorter."¹ "What,

¹*Op. cit.*, chap. 16.

then, is time? if no one asks me, I know; if I try to explain it to one who asks, I do not know; yet I say with confidence that I know." The position is well taken, but it is clear that, when one rests in this, the flight is from bad metaphysics to no metaphysics at all, from an unlucky attempt at analysis to a contented acceptance of unanalyzed experience. It is thus that the plain man rejects with disgust attempted proofs of the non-existence of an external world, or turns a deaf ear to the plausibilities of the solipsist. He does not see what is wrong, but he feels blindly that something must be wrong, and he elects to follow his instinctive feeling.

A reflective man cannot, however, contentedly abandon all metaphysical analysis. It is not enough to feel sure that we are somehow conscious of time as past, present, and future, notwithstanding the fact that the past and future are not, and the present is the only real existent. The question inevitably arises: What does all this mean? and the question presses insistently for an answer. An answer that is either too vague to convey any definite meaning, or too inconsistent to command the respect of the logician, is no answer at all. It should be rejected in the interests of a new investigation, whatever the array of authorities that may be drawn up behind it.

Augustine is too much of a philosopher to be content with a mere appeal to common sense. He tries seriously to meet the difficulty that stares him in the face. But the solution which he offers us consists in simply transferring the problem from the field of metaphysics to that of psychology. In the mind we find expectation, apprehension of the present, and memory. It is memory and expectation that we measure, and not time. Future time is not long, for it as yet is not; but a 'long future' is 'a long expectation of the future.' Nor is past time long, for it is not; but a long past is 'a long memory of the past.'

For example, Augustine is about to repeat a Psalm that he knows. Before he begins, his expectation extends over the whole. A little later, a portion of the Psalm is "extended along" his memory. Finally, all the expectation is exhausted, and memory covers the complete field. Through the apprehension

of the present, expectation passes over into memory, and memory and expectation can be measured, for they are not non-existent as are past and future. Thus we do not, strictly speaking, measure time, but we do measure memory and expectation, so that what we call measures of time are not without their significance.¹

This strikes one as rather ingenious, but it is not difficult to see that the problem is made no whit easier of solution by being transplanted to a new field. Expectation gives place to memory, as the future runs over into the past—the one diminishes, the other grows. But can changes take place in an indivisible instant? Are not at least two instants essential to change of any sort? Can the two instants exist simultaneously? If not, then, while the one is, the other is not; and we can at no time be conscious of succession of change, for we can only be conscious of what is existent. We may have, then, at a given instant, what I may call a 'variegated' consciousness, but it can hardly be a consciousness of past, present, and future, for past and future do not mean to us merely such and such elements in the consciousness of the present moment. The past means that which *has been present*. But when? At the present moment? No, at some past moment. But what is a past moment? Can we be conscious of it in the present, the only existent? It is clear that Augustine seems to himself to have solved his problem merely because he has carried it into a somewhat obscure region in which it no longer stands out as a problem. He unconsciously gathers up the past into memory, and the future into expectation, and makes both in a sense present, without letting them lose quite all their significance as past and future. Obscurity is a great reconciler of contradictions, and Augustine, like many another philosopher, believes that he has seen most clearly where the field of vision has been most faintly illuminated.

Thus Augustine has left the problem as he found it. How can we be conscious of time as past, present, and future? Can we be conscious of what does not exist? Can the consciousness of a punctual present be called a consciousness of time? Surely the problem cries out for an answer.

¹ *Op. cit.*, Chaps. 27, 28.

That a satisfactory answer can be found, and that we are not forced to accept as insoluble any of the antinomies that have been supposed to arise out of the nature of time, I think is reasonably clear. In treating of time I shall not be forced to enter so fully into detail as I should, had I not already discussed the nature of space. I shall first briefly criticise the Kantian doctrine; I shall then give in outline the opposing doctrine, which I have called the Berkeleyian; finally, I shall try to answer the objections which may be urged against the latter, discussing, among other things, the problem upon which I have dwelt in the pages preceding.

The Kantian doctrine of time as a 'necessary form' of intuition is open to the same objections as the Kantian doctrine of space.

It is palpably absurd to say that infinite time is given in an original intuition,¹ and it is only by playing upon the ambiguity of that word that the statement can be given the least plausibility. We are no more intuitively conscious of infinite time than we are of infinite space. The pretended proof that the assumption of the infinity of time is a necessity of thought, is the identical quibble which is used to prove space necessarily infinite; we cannot, it is said, conceive a time before which there was no time.² This means, of course, that we cannot conceive a time *in the time before which there was no time*. Manifestly we cannot, just as we cannot conceive a number the number before which was not a number; but it is foolish to attempt a foolish task, and foolish to find a profound significance in the failure to accomplish it. And the argument that the world must have existed through infinite past time because void time is not enough of a thing to limit the world's existence, is the creation of information out of nothing, already criticised in the case of space.

When we turn from the consideration of time as infinitely extended to that of time as infinitely divisible, we do not find the Kantian doctrine more satisfactory. The difficulties met with in

¹ *Critique of Pure Reason*, Transc. Aesthet.; Metaphysical Exposition of the Conception of time.

² Hamilton, *Metaph.*, XXXVIII; Spencer, *First Principles*, Chap. III.

discussing the doctrine of space, all present themselves once more. Are we *directly conscious* of time as infinitely divisible? Does a period of ten seconds *seem* to us to be composed of an endless number of lesser divisions of time? Do we *perceive* the succession of these constituent parts of the whole? And if not, what does it *mean* to say that the infinite divisibility of time is matter of intuition? Surely the word covers some ambiguity.

Furthermore, if time is infinitely divisible in such a sense that those ten seconds, of which I am conscious as they pass, are infinitely divisible into lesser divisions of time, how is it conceivable that any division of time whatever should come to an end? We have seen¹ that Kant passes very lightly over this difficulty: "I cannot represent to myself any line, however small, without drawing it in thought, *i. e.*, from a point generating all its parts successively, and thus alone producing the intuition. So it is also in the case of every, even the smallest, portion of time. In it I represent to myself only the successive progress from moment to moment, and this, by the addition of all the bits of time, finally begets a determinate quantity of time." That maddening "successive progress from moment to moment!" How is it accomplished? It seems so easy; and yet, to the Kantian, it is so hopelessly impossible. Has a moment parts? Yes, it is a "bit of time" (*Zeittheil*), and must not only contain parts, but even an infinite number of parts—"all phenomena are intuited as aggregates, as consisting of a multiplicity of previously given parts"—so that we cannot conceive any fraction of a moment which is not as much of a problem as the moment itself, or, for that matter, as a year or a century. How, then, does time pass? By the successive addition of moments? As well say, by the successive addition of centuries. In giving such an answer one has said nothing at all. No self-respecting Kantian *can* represent to himself "the successive progress from moment to moment," for the Kantian moment, which can only be completed by the successive addition of an endless number of parts, will never come to an end. "But," says the Kantian, "it *does* come to an end, and there is a successive prog-

¹ See the preceding article in this series.

ress from moment to moment." This can only mean that no moment is a Kantian moment. The inference is unavoidable.

I have said that, in writing the above description of our method of begetting a determinate quantity of time, Kant evidently forgot for the moment that he was a Kantian.¹ That he was capable of this lapse is made very clear by another passage in the *Critique*. He writes: "If we leave out of consideration the succession of many sensations, apprehension through mere sensation fills but one moment. As something in the phenomenon the apprehension of which is not a successive synthesis proceeding from parts to the whole presentation, it has, hence, no extensive magnitude; thus the absence of sensation in this moment would present it as empty, and, therefore, as = 0."² The moment of which Kant is speaking I am tempted to call a Berkeleian moment. It has no parts; it is not extended: yet it is not a mere nonentity, notwithstanding the fact that, deprived of its 'filling,' it is equated with zero. It is given in intuition; it is a unit, not an aggregate; and it may be 'filled.' This differentiates it from the mathematical point, which is conceived to be the limit of two spaces, and itself incapable of receiving any 'filling' whatever. A moment filled with sensation is not the theoretical limit of two times—a mere mathematical point in the line which represents time. It is an element in our intuitive experience of duration; and is the ultimate element. Given such elements in intuition, and the addition of them is not an inconceivable thing. But, then, there is no room for such in the Kantian philosophy. Our philosopher has lapsed into a truth which strict consistency would have denied him.

Thus the Kantian doctrine of a time given in intuition as infinite in extent and infinitely divisible is plainly untenable. It cannot be set forth in clear and simple language, stripped of verbal ambiguities, without revealing this fact. Since the doctrine runs out into palpable self-contradictions, we may be sure that no opposing doctrine can be more unsatisfactory. Hence, if we are wise, we will abandon the Kantian position without re-

¹ *Op. cit.*

² *Critique of Pure Reason*, Anticipations of Perception.

luctance ; setting out upon our voyage of discovery, not as unwilling exiles, facing the unknown with foreboding, but as cheerful emigrants, full of confidence that the extremest rigors of the possible future cannot exceed the hardships experienced in the past. For, indeed, than the Kantian doctrine, taken as it stands, it is quite evident that nothing can be worse. Can anything be more contrary to experienced fact than the statement that infinite space and infinite time are immediately given in intuition ? Are a round square, a triangular parallelogram, dry moisture or wooden iron, more repellant to the intelligence than an endless series that ends ? than the moving point on the Kantian line ? than the flight of Kantian moments ?

But here, as in the case of space, it is well to remember that the error in the Kantian doctrine can readily be eliminated by emphasizing an obvious distinction—the distinction between the crude intuition of duration given in a single experience, and the conceptual time which is built up out of such materials. The distinction is that between *appearance* and *reality*, and it is quite as important to lay stress upon it when treating of time, as it is when treating of space. If the Kantian will but bear in mind that the time which he may consider as infinitely divisible—the time of the movement of the mathematical point over the mathematical line—is ‘real’ time, and something quite different from the duration experienced in any intuition, he may lay the utmost emphasis upon the validity of the application of mathematics to phenomena, without involving himself in inconsistencies.

The doctrine which I shall take the liberty of calling the Berkeleian does take cognizance of this distinction, and avoids the pitfalls into which those who fail to recognize it are precipitated. It does not require us to believe any such startling statement as that we are immediately conscious of infinite space and infinite time, when we know very well that even the distance to the neighboring town, and the past three years of our lives, can be represented in consciousness only by means of the symbol, a skeleton representative never to be confounded with that for which it stands. It does not try to persuade us that the ten seconds during which we are listening to the tick of the clock are

given in intuition as composed of an infinite number of lesser bits of time, and that these come to an end notwithstanding the fact that they are endless. It recognizes the distinction between appearance and reality; and emphasizes the truth that our experiences fall into a system, that any single experience gains its significance from its place in that system, and that, when we speak of the 'real' in any but a relative sense, we are not resting in a single intuition as such, but are thinking of something more. The doctrine may be set forth as follows:

1. As there is a crude experience of extension which is not to be confounded with 'real' space, but furnishes its 'raw material,' so there is a crude intuition of duration which is the foundation of our notion of 'real' time. We may, if we please, call this a 'form' of our intuition; it is an element in our experience.

2. We are, thus, intuitively conscious of time past, present, and future.

3. The time of which we are thus intuitively conscious is not infinite. We mean something, it is true, when we speak of infinite time, just as we mean something when we speak of an infinite universe; but in neither case are we intuitively conscious of the infinity of that whereof we speak.

4. Nor is the time given in a single intuition composed of an infinite number of bits of time. We are not directly conscious of these subdivisions, and it is not reasonable to infer their existence. It is as absurd to assume it as it is to assume that a particular finite line, given in a single intuitive experience, is composed of an endless number of bits of line.

5. But it is of the utmost importance to remember that no such single experience of duration constitutes what we mean by 'real' time. 'Real' time, the time with which science deals, is the time occupied by the changes in 'real' things, and it is, of course, as remote from our immediate intuitive experience as are the 'real' things themselves. Even in common life, although we never think of raising the question of what is contained in pure intuition and what is only symbolically known, we distinguish between 'real' time and apparent; and we say that half-an-hour spent in listening to a prosy sermon *seems* long, just as we

say that the moon seen at the horizon *seems* large. The 'real' size of the moon, and the 'real' half-hour are standards arrived at only after the comparison with each other of a vast number of individual experiences, and an observation of the relations to each other into which these fall. It is this 'real' time, the time occupied by the change in 'real' things, that we may conceive as infinitely divisible. Just as the space occupied by an atom is something for science, although it lies far beyond the limits of the most discriminating sense-perception, so the time occupied by the vibration of an atom may be something for science, a something to be expressed by figures, a duration that may be halved or doubled, that may stand in all sorts of exact relations to the durations of which consciousness takes cognizance, yet it is not a something of which we may be directly conscious as duration. In the complex of experiences which is for us the real world, the symbol which stands for such periods of time is not without its significance. Indeed, the real world in time would be a thing very imperfectly ordered and explained, were processes in it not assumed to be divisible after this fashion. There is a close parallel between our cognition of spaces and of times. 'Real' space and 'real' time are something quite distinct from the crude extension and duration given in intuition. One may perfectly well hold them to be infinitely divisible, and yet maintain that the recognition of part out of part in any intuition can proceed only up to a given point, whether we are concerned with spatial or with temporal extension. It is only necessary to remember that the particular intuition with which one may be dealing is not, in itself, infinitely divisible, but that this experience may be made to stand as representative of a multitude of others. The moment given in intuition, the moment of which Kant has spoken as 'filled' with sensation, may thus be converted into the 'real' moment, which must never turn out to be a 'real' time, however short, but must remain an ideal limit between two times. This has its parallel in the mathematical point.

To the above doctrine touching the nature of 'crude' and 'real' time, there may be raised several objections :

1. It may be argued that it is impossible to conceive of a part

of time that is not itself time, *i. e.*, a something composed of parts. It may be admitted that, when we see a flash of lightning; we are conscious only of a blinding streak upon a background of leaden sky, and we are not conscious of the 'generation' of the parts of this wonder 'from a point.' As the direction of the bolt remains problematic, and it is impossible to distinguish between beginning and end, it is clear that the production of the path cannot be perceived to occupy time. Still, it may be insisted, whether the phenomenon *seem* to occupy time or not, one cannot think of it as not occupying time. It will be seen that this objection has already been answered in discussing space. *Thinking* about the experience means nothing more nor less than passing from appearance to reality, from the intuition to that for which it stands. Of course, one must think of the 'real' time represented by an intuited moment as extended and divisible, but that has nothing to do with the point in dispute.

2. It may be argued, again, that one can never manufacture time by simply putting together elements each of which has no duration at all—by the addition of the mere moments that Kant inconsistently recognized. This objection, too, has virtually been answered. I may remark, in passing, that is not an objection over which it is prudent for the Kantian to linger. For if a moment itself has duration, he cannot compass, as we have seen, his "successive progress from moment to moment"; and if it has no duration, he cannot by such a progress hope to 'beget' time. In either case he is reduced to 'marking time' on the same spot. But the fact is, that it is pure dogmatism to assert that moments without parts cannot, when added together, constitute time. The impulse to this error—a very natural one—lies in confusing moments given in intuition with the 'real' moments which we conceive as mere limits to periods of time, and which have their parallel, not in the *minimum sensibile*, but in the mathematical point.

3. In the third place, one may object that, if the duration of which we are conscious in a single intuition be not infinitely divisible, but divisible only into a finite number of ultimate elements, consciousness ought to be able to distinguish these elements and

give some account of their number. This third objection may be answered as I have answered the similar objection brought against the Berkeleian doctrine of space. What is in consciousness is not necessarily in a clear analytical consciousness, nor well distinguished from other mental elements. Were it possible, with the aid of direct introspection, to describe off-hand all that is to be found in consciousness, the psychologist and the epistemologist would have an easy task. When we bear in mind, moreover, that our crude intuitive experiences of duration hold much the same relation to 'real' time that our visual signs of distance and magnitude hold to 'real' space, we need not find it surprising that our immediate intuition of duration is rather a thing to be guessed at than a thing revealed to clear vision. Time *intuited* is a *sign* of time *thought*, and the mind does not rest in signs, but hurries on to something beyond.

4. Finally we come to a more serious objection. How can time—even 'crude' time—be given in intuition, when time is composed of moments no one of which can alone constitute time, and no two of which can exist simultaneously? This is the difficulty so acutely urged by Augustine. The past is not now; the future is not yet; the present is a mere point, and not enough, in itself, to constitute time. How can we, then, be conscious of time at all? Can we be conscious of what is not now, or of what is not yet? The single present moment which sums up our actual consciousness can give us no inkling of duration. If we admit that the past *exists*, it is not yet *past*, and if we maintain that it *does not exist*, it surely, as non-existent, is *incapable of being given with the present moment* in a single intuition. How can there be, under the circumstances, even the crudest intuition of duration?

It is safe to assume that there must be some way of escape from this difficulty, for we surely mean something by past and future. We are conscious of duration in time as certainly as we are conscious of extension in space. The question before us is only one of analysis, and though our attempts at analysis may seem to lead us into strange paths, we need not despair of the ultimate solution of the problem. We have seen that other anti-

nomies have arisen, not out of the very nature of things, but out of the infirmities of philosophers, and it is reasonable to believe that such must be the case here also. Two things appear indubitable : first, that we really mean something when we speak of periods of time ; and second, that we could not represent these even symbolically, were not something given in intuition that could furnish a content for our symbol. Something we must have to start with, or the symbol is a word in an unknown tongue ; it *means* nothing. A short line may represent a long one, for both have extension ; but a mathematical point cannot represent a line as extended. Even so, if no duration is given in any intuition, what is in mind when we say a month, a year, a century, cannot be *duration*. It would be quite impossible to represent symbolically the changes in a 'real' world were there no immediate consciousness of change.

The psychologists have described with some minuteness the rise in a consciousness of the notion of time. A sensation is present ; it fades gradually into a faint image of itself ; an idea is present, it develops the life and vigor of a sensation. In such experiences we have the discrimination of memory and expectation from actual sensation, and from such beginnings grows the consciousness of a world of things in time. With the analysis of the psychologists we can have no quarrel ; but it is of much importance to emphasize the truth pointed out earlier in this paper, namely, that no instantaneous photograph of a consciousness, whatever the elements it may contain, can yield the intuition of duration. This cannot consist in the mere presence in consciousness at any given instant of sensations and ideas. The past is not merely a mass of consciousness-elements fainter than sensations ; it is *what has been sensation*. Consciousness of the past as past implies consciousness of change, and consciousness of change cannot be given in an indivisible instant. The *span* of consciousness, if I may so speak, must include more than an instant, or there can be no consciousness of time.

But how can the span of consciousness be thus extended ? Is it possible for a past and a future, however brief, which are, nevertheless, past and future, and hence *do not exist*, to form

part of one intuition with present sensation? Can the non-existent be given in intuition? What seems the most natural answer to this question is the ancient one. Past and future do not exist, but they are present through their representative—the *thought* of them is present. It is plain from what has been said above, that this answer cannot be regarded as satisfactory. Nothing can truly symbolize change but change, nothing duration but duration. There can be no thought of time to a creature to whom no intuition of time is possible. If a consciousness embraces only the present, not the conventional present of common discourse—this day, this week, this year—but the timeless present of a moment, it can contain no possible complex of elements that can truly be called the thought of the past or the future. A consciousness that is to think time must embrace time, must cover more than a single instant. And the question thrusts itself upon one: Must not a state of consciousness, in order to do this, be an absurd compound of existent and non-existent elements? This sounds like nonsense.

With all due respect to some famous thinkers who have attacked the problem before, I venture to maintain that it is not insoluble, and at the same time, that its solution does not necessitate a recourse to those mystical speculations that solve one problem by sinking it in another. The difficulty is, I think, of our own making. When we say: How can you be conscious of the past and future which do not exist? Can one be conscious of the non-existent? what we really mean is: How can you, at the present instant, be conscious of the past and future, which, at this present instant, do not exist? Can one, at this moment, be conscious of what does not exist at this moment? To the question, as thus stated, there can evidently be but one answer. The past can certainly not be given in the present moment, or it would not be past. The present moment can contain only the present. But it should be observed that the question simply assumes that consciousness is limited to a single instant, and that the present one. If this position be denied, its force is quite lost. I can be conscious of a past and future, which do not *now* exist, if the span of my consciousness covers more than a 'now.'

The past and the future are non-existent, *from the point of view of the present*; but then the present must be regarded as non-existent *from the point of view of past or future*. To speak of the intuitive consciousness of duration as "a compound of existent and non-existent elements" is unreasonable, because the words suggest that the whole consciousness ought to be *now* existent—which is impossible, if it is to be consciousness of duration—and lead to the conclusion that, since it cannot all be now existent, it must be a compound of something and nothing, an absurdity over which you may weep or make merry according to your humor.

It will be observed that in the foregoing I have had no recourse to the *deus ex machina* of a timeless self, timelessly present at all times, and collecting the fleeting moments upon the impalpable thread of its own "immovable activity." How can I, asked Augustine, be conscious of a past that does not exist? Can I be conscious of the non-existent? The difficulty that presented itself to his mind lay in the fact that the very notion of the consciousness of duration seemed to be self-contradictory. As we have seen, there is a hidden pitfall in his question, and when this is discovered, it can be avoided. It is only necessary to take one's stand upon the fact that we really are conscious of duration, and to keep clearly in view what this implies. When we do this we find that there is no absurdity in the notion of a consciousness of duration. The apparent contradiction has arisen from the fact that such a consciousness has been affirmed and denied in one breath.

It is, thus, a sufficient answer to the Augustinian problem to show that there is nothing inconceivable in the fact of a consciousness of duration. In the foregoing, I have simply accepted the fact as a fact, and have made no effort to explain how it is possible that there can be such a consciousness. This latter task does not appear to me to fall within the legitimate province of explanation. We 'explain' certain experiences by referring them to others, as we determine 'where' a thing is by ascertaining its relations to other things in space; but to ask how it happens that there is a consciousness at all, or that it is constituted as it is, seems

about as sensible as to ask : Where is all space ? It is well to recognize that a 'how' and a 'where' may be so used as to lose all significance.

Nevertheless, certain philosophers have thought it necessary, not merely to accept the fact of a consciousness of duration, but to go further and to explain how such a consciousness is made possible. An incomprehensible something was (can I say *was* ?) timelessly present (*sic*) with the past, and is (can I say *is* ?) timelessly present (*sic*) with the present moment. This holds the non-existent past to the existent present, and makes possible a consciousness of duration.

Can any man conscientiously maintain that all this ghostly apparatus renders more comprehensible the fact of a consciousness of duration ? What is meant by timeless presence at all times ? How does an immovable activity manage to hold things together ? If we cannot expect clear information, at least we have a right to look for a hint. It is no explanation simply to say that an inconceivable something does something incomprehensible in an indescribable way. The fact is that this inconceivable something is not really any kind of a thing at all. The vague and inconsistent phrases in which it is described convey to the mind no definite meaning, and, to all appearance, are not intended to do so. I have criticised this timeless oddity elsewhere, and have given its pedigree,¹ so I shall not dwell upon it here. It is the shadowy survival of an ancient misconception, and its presence in philosophical systems can only be explained historically.

Finally, I feel justified in saying, touching this attempt to explain the possibility of a consciousness of duration, that it borrows what plausibility it may seem to have from the tacit assumption contained in the Augustinian query, *i. e.*, from the *denial* of the consciousness of duration. How can I be conscious of a past that does not exist ? asks Augustine. Can I be conscious of the non-existent ? We have seen that this assumes it to be self-evident that we can be conscious only of the existent—which means the at present existent, or, in other words, the present.

¹ See the *Psychological Review*, Jan., 1897.

Even so T. H. Green assumes that the consciousness of the present needs no explanation, and that the consciousness of the past as such is an impossibility. As he must accept the fact that there is somehow such a thing as a consciousness of duration, it only remains for him to open an unexpected door in the blank wall that confronts us, by making the past in some sense present—present to a something not itself past nor yet present, a something that exists simultaneously, so to speak, all along the line.¹ Such a thing is evidently a mere collocation of words, a series of marks on paper, not enough of a thing to be brought into court as a witness to the respectability of any other thing. But, by taking upon its shoulders the task of obliterating in its own person all temporal distinctions, it makes the past seem not quite a past and the present not quite a present.

Thus the past and the present seem in some vague way to run together. Time is rendered more incomprehensible than it was before; there may be a 'presence' that is not in the present, an 'always' that does not really mean at all times. Words have taken the place of thoughts, and clear vision no longer appears to be a desideratum. Surely it is better simply to accept the fact of the consciousness of duration, and to exercise such care in stating problems as not to create unnecessary pitfalls. Surely we are not compelled to assume gratuitously that different moments need to be 'held together,' and then to exercise our ingenuity in the invention of inconceivable entities to which we may assign this task.²

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¹ *Prolegomena to Ethics*, Chapter I.

² I have said in the first paper in this series (March, 1901), that I would try to show what we mean by the statement that space is infinite, and make clear the reason why it commends itself to men as a reasonable one. The same explanation is, of course, called for in the case of time. I have found it convenient to defer this for a little. I shall, however, discuss the matter in the REVIEW in the not distant future.

DISCUSSION.

PROFESSOR THILLY ON "INTERACTION."

IN the March number of this REVIEW there is an article by Professor Frank Thilly entitled "The Theory of Interaction," in which he maintains that mind and brain act upon each other; or at least that there is no good reason for denying that they do. The objections urged against the theory of interaction by those who hold that the mind processes and the brain processes are 'parallel' are considered, and are found to be without validity. The principle of the conservation of energy does not involve the impossibility of interaction; for, in the words quoted from Sigwart, the "truth of a principle within a closed circle of constant material causes does not justify us in the inference that material things must, under all circumstances, form a circle closed on all sides." Nor does the notion of causality conflict with interaction; it "does not demand that the effect be identical with the cause"; and, therefore, there is no reason "why a physical effect should always have a physical cause." Moreover, as a matter of experience, we find that since a cause is that phenomenon without which another phenomenon cannot occur, conscious states are actually causes of physical movements.

Professor Thilly may be taken as the representative of a large body of opinion. The theory of interaction is, as he says, the common-sense theory; it is the theory of such eminent psychologists as James and Ladd in this country; and it is gaining a large number of supporters in Germany.

The problem, of which this theory is an attempted solution, is the correlation of two distinct sciences, physiology and psychology. It may thus be regarded as one of the problems which meet us at the threshold of philosophy. It is one of the first duties of philosophy, or it is one of the preliminaries to philosophy, to criticise conceptions. Has Professor Thilly performed this criticism? He has subjected to scrutiny the principle of conservation of energy; he has also criticised the concept of causality. But criticism must be carried further.

The failure to criticise is not to be charged against the believer in interaction rather than against the upholder of parallelism. Both have neglected this duty. I think it can be shown that when criticism is applied, the problem disappears, or entirely changes its character.

In both theories it is assumed that psychology and physiology represent two series of facts, equally independent, equally objective. It is also assumed that the facts which physiology considers are generically distinct from those which are considered by psychology. It is true that Professor Thilly asks how we know that a state of consciousness is unlike a brain state ; and he remarks that heat is a sensation and motion is a sensation. But these suggestions do not seem to modify his main argument, which proceeds on the basis of the principle asserted by parallelism that "nature reveals to us two kinds of existence, mental and material, which are diametrically opposed to each other." The peculiar problem of the relation of mind and brain arises because they are taken as representing heterogeneous forms of existence. Is this view justifiable ?

The science of physiology presents the brain as material ; and the material is regarded by natural science as objective and foreign to thought. But what, after all, is this matter of which science speaks ? It consists of the conscious states of a percipient intelligence. So far, the theory of Berkeley, who was in the line of the great philosophical critics, is right. We do not at present consider the validity of Berkeley's denial that the matter present to the senses is a sign of a thing in itself. The matter which he had in mind was the matter which science treated as objective then, as it does now ; it was the matter which consisted of sensations experienced or anticipated, especially those of sight and touch. The brain consists of conscious states in a percipient's mind ; the color of it does not exist except for this percipient's vision, and its solidity has no reality save for his faculty of touch. Could the physiologist see the atoms of the brain, he would still have reached nothing but his own sensations.

It might possibly be said that these sensations of the percipient are copies of what is objective, that there is an objective color and an objective solidity, and that the atoms perceived are the counterpart of objective atoms. This is not, however, the view of science, for science believes that it is directly intuiting reality. And, apart from this, the supposition is beset by many difficulties. The influence from the object has to reach the percipient through many media ; and it is not probable that the sensation resulting from the operation of these media, will be identical in nature with the object from which the stimulus starts. Again, the sensation varies with the varying relations of the percipient ; which form of it represents the object ? But it does not specially concern us at present to refute this supposition. Were it granted, it would mean that the brain is a conscious reality or a set of

sensations; for to be the counterpart of the sensations in the percipient's mind, it must be a series of conscious states.

There is one important conception in the scientific account of the brain which has not been taken into account in the statements already made, to which, however, special attention is necessary. It is said that energy is associated with the matter of the brain as with the matter of the physical world in general, and, possibly, is not merely associated with matter, but constitutes its objective existence. It may, therefore, be said that it is this system of energy which is contrasted with conscious states; it may seem to be objective, and to be irreducible to the percipient's conscious states.

In one sense it is true that the energy of the material world does not consist of the percipient's states. Energy is not something given in his immediate sensations; he cannot by much searching with his senses find energy. It is something that is inferred. In this sense energy is a metaphysical entity.

But does science use energy metaphysically? It is not evident that science is in any way disposed to be metaphysical when it speaks of energy. It uses the conception simply for a symbol to present the order of the changes which occur in the phenomena of sense. This conclusion would not be invalidated were the theory accepted that matter consists solely of energy. The idea of such energy is introduced to explain the changes in phenomena, and though it may seem to be considered as abstracted from phenomena, all descriptions of it are nevertheless in terms of phenomena: energy is the power to do work, and it is measured in such terms as foot-pounds. Moreover, it is more than probable, according to Professor Tait, that "energy will ultimately be found in all its varied forms to depend upon *motion* of matter;"¹ and motion of matter means change in the phenomena of sense. In Professor Thilly's words, "Motion is a sensation." It is, indeed, unlikely that science will be seduced into metaphysical speculations. It is wise to restrict itself to an account of the relations of sense-data. From another point of view, this restriction is a veritable limitation, and, by reason of this limitation, science must renounce the claim to be knowledge of objects. Yet science has learned what great advantages are to be gained by keeping to the task of describing phenomena.

But a metaphysical treatment of matter is legitimate; let us therefore suppose that the metaphysics of science is taken seriously, and energy is regarded as an objective, independent entity. Energy is a

¹ *Properties of Matter*, p. 6.

concept that is purely animistic ; it is, like casuality, force, will, and other ideas, derived from our feelings of effort. But, whatever may be decided as to its origin, it is a *mental concept*. And to say that it is objective, is to say that matter is of the nature of thought. The metaphysics may be of little value, there may be no ground for thinking that the essence of matter is properly represented by such an idea as energy. Professor Thilly quotes Mach's warning against regarding the intellectual machinery, employed in the representation of the world on the stage of thought, as the basis of the real world. Yet, if energy is to be taken metaphysically, there is no escape from the conclusion that matter is, after all, of the same nature as mind. It may be added that if the older idea of substance be introduced, we are still dealing with an animistic idea or mental concept.

This criticism of physiology shows us that all the data of that science resolve themselves into conscious states. Most probably physiology is offering simply an account of immediate sensations, felt or anticipated ; the *esse* of its matter resolves itself into *percipi*. But should it claim to pass beyond immediate sensations and give an account of matter as objective, it represents matter as conscious.

Let the science of psychology be now considered. It need not be pointed out that the facts with which this science deals are facts of consciousness. It may, however, be necessary to call attention to the fact that the psychologist, in dealing with the conscious states of other persons than himself, is dealing with that to which he cannot have direct access. The psychologist may be called upon to consider his neighbor's brain ; at such a time he is occupied with his own sensations. But when he considers his neighbor's conscious experience, he is thinking of what is, as Clifford puts it, a thing in itself. We cannot enter directly into the conscious life of others. To quote Professor James: "No thought ever comes into direct *sight* of a thought in another personal consciousness than its own. Absolute insulation, irreducible pluralism, is the law. . . . The breaches between such thoughts are the most absolute breaches in nature."¹ It need not be maintained that such insulation is absolutely necessary. It has been suggested that "were our physiological knowledge and surgical manipulation sufficiently complete, it is conceivable that it would be possible for me to be conscious of your feelings. . . . let us say, for example, by connecting the cortex of your brain with that of mine through a suitable commissure of nerve substance."² What is to be

¹ *Psychology*, Vol. I, p. 226.

² Karl Pearson, *The Grammar of Science*, p. 60.

observed is that such commissures do not exist at present, and we are not likely to have them. Until we have them, insulation is the law of our spirits.

If the results of this analysis be considered, we find, first of all, that there are two, or, at most, three series of facts to be taken account of when the scientist is studying the relation of mind to brain. There is the series of the percipient's sensations called the brain of the person observed. Entirely distinct from this is the series of conscious experiences in the person observed, which cannot be directly intuited. Possibly a third series should be added; the forms of substance and energy may be, like the members of the second series, entities that are objective and metaphysical.

But the mystery of the interaction of mind and brain has disappeared. Let the third series be omitted for the moment, because it is doubtful how far science is in earnest with it. The objective series of conscious states and the series in the observer's mind—there is no heterogeneity here to make interaction mysterious. If these series were the only factors in the case, the one might very well be taken for the reflection or effect of the other; on this view, it would not so correctly explain the relation to say that one acted on the other, as to say that one produced the other in a percipient mind.

Suppose, however, that the metaphysical factors indicated by science were taken seriously, substance and energy would be interposed between the other two series. But there is still no heterogeneity. Substance and energy, as we have seen, are mental concepts; their laws are intelligible laws. They are therefore homogeneous with the two series; and that there should be causal relations connecting all the three series need occasion no special perplexity. It would have to be determined by observation what modes of interaction existed. While it is true that in a homogeneous sphere, such as the physical universe is believed to be, everything acts on everything else, it is also true that particular effects demand particular conditions, and it might prove to be the case that human minds were dependent on special forms of energy in such a way that only through these they could produce what are known as human actions.

If we proceed to take into account all that is regarded as coming between the brain of the person observed and the mind of the observer, nerve-fibers, end-organs of sense, and, it may be, an inorganic medium such as the luminiferous æther, we find that their objective constitution is similar to that of the brain. In the case of all of them science presents the data of sense along with the animistic concep-

tions of substance and energy. There is still no heterogeneity, and therefore no occasion for setting the special problem before us.

To this view no objection can be brought on the strength of the principle of the conservation of energy. This part of the doctrine of energy has undoubtedly reference to phenomena or sense data in a percipient's space form. It means that a given sequence of phenomena can in certain conditions be reversed. This doctrine is not affected if we decide that the causes of phenomena are conscious. The order of the universe is not less binding for any being because that being is conscious.

The problem has been stated above as it would present itself to a man who should study the mind and brain of another. The statement has thus been rendered more simple. Nothing of serious moment would need to be added should we consider the case of a man who studies the relation of his own mind and brain. He is never directly conscious of his brain. Into his most active consciousness there do not necessarily intrude any images of nerve cells. But it may be claimed that a man might conceivably see and touch his brain. He might; but only when he is related to his brain as an external percipient. The brain would be the brain of his sensations after the influence from it, or from his conscious states, had been propagated through various media. He would thus be an external spectator of himself. The character of the problem, therefore, is unaffected by the conceivable case of a man's perception of his own brain.

The merits and defects of the different theories of the relations between mind and brain can now be pointed out. Parallelism errs in treating the brain, in so far as it consists of the percipient's sensations, as an objective entity. It is right, indeed, when it has this brain in view, in maintaining that there are two series of facts. It is right, so far, even in its denial that the series affect each other; for the series called the mind and the series of the percipient's sensations called the brain, are not continuous and cannot in any way intermingle. But it is wrong in denying that there is any causal connection between the series called mind and the series of sensations in the percipient. The evidence points to the conclusion that they are parallel in the sense in which a series of events is parallel to a series of effects due to these events. Parallelism is wrong also in denying that the two series of entities independent of the spectator, the so-called mind on the one hand, and substance and energy on the other, are able to act on each other. For, so far as the showing of science goes, these two series are homogeneous.

The theory of interaction errs, even as parallelism does, in taking the brain of the percipient's sensations as an independent thing in itself on which the mind acts. It is right in affirming that the mind acts on the metaphysical entities, substance and energy. But when it gives as its reason for this affirmation, that energy, though a sphere by itself, may yet be accessible to influences from the outside, its contention cannot be sustained. For if matter and mind are heterogeneous, as the usual way of stating the theory of interaction seems to imply, the theory fails to be plausible, in spite of all that Professor Thilly and others have to urge in its favor. When the homogeneity of matter and mind is admitted, there is no difficulty in conceiving interaction ; the causal connection is in this case on a footing similar to that on which it rests in all other cases.

There is another theory, not referred to by Professor Thilly, at which it is desirable for various reasons to glance. This is the theory that matter and mind are two aspects of one reality. We can now see that, so far as matter consists in the sensations of a percipient mind, it is not to be described as an aspect of the mind observed. If it be said, on the other hand, that the objective entities, mind and energy, are two aspects of one reality, we are presented with an hypothesis that seems to be self-contradictory. The term 'aspect' suggests the view of a percipient mind. In this case, two such aspects are not parts or forms of the reality, but belong to two distinct perceptions. If this interpretation of the term aspect be rejected, and it be claimed that by double aspect two forms of reality, intimately connected, are indicated, it is obvious that the theory has simply resolved itself into the theory of parallelism.

The explanation of the whole matter to which all these considerations seem to point, is that there are manifold series of states of consciousness which we may call minds ; that matter is a reality akin to mind, though possibly removed from the mind of the animal by an interval greater than that which separates an amoeba from a Shakespeare ; that these minds are capable of producing changes in each other ; that these changes represent the condition of the mind affected rather than the object occasioning the change ; and that thus on the one hand, the brain of ordinary knowledge exists only in the percipient mind, and that on the other hand, between those various minds, including that indicated by energy, interaction is as natural as in any case of causality.

A number of possible objections may be considered. It may be said, energy must be different in nature from mind ; for it is spatial and is governed by mechanical laws, whereas to apply such principles to

mind must appear absurd. Such a view is often expressed in one form or another. But it is surely due to a lack of philosophical criticism. After all, to what do the principles of mechanics apply? To the sensations of the percipient. The matter which is described as moved about, consists of these sensations, and the space in which it is found is the space of the percipient's mind. But is not energy, it may be asked, independent of these sensations? Just so far as it is the laws of mechanics have no application to it that science can justify. They apply to what appears in space; and the space of these mechanical principles is the human percipient's form of thought. By their very nature, therefore, these principles apply to thought, and to thought only, and if we could succeed in justifying their application to a metaphysical entity such as the hypothetical energy, we should be far from showing that energy and mind are distinct; we should show, instead, that they are identical in nature.

Another objection may be made. It may be said by the idealist that we are not entitled to speak of matter and energy as objective, for they are only the thoughts of a thinker. It would take too long to attempt here a detailed examination of the contentions of subjective idealism. It does not concern us in any case to prove that there is a matter which is not mind. But when idealism asserts that the material world exists only in the states of a percipient mind, it looks as though it were guilty of sheer egotism. It is surely more reasonable to suppose that, as we believe in the existence of other persons through the sensations awakened in us, though we see not their souls, so we should believe in the objective reality of those existences we call material, though that objective reality is not known to us directly. Our concepts of substance and energy are as metaphysical speculations utterly crude forms of animism; but though they are crude, the principle of animism may be justifiable. We have not decided whether or not science means to use these conceptions metaphysically; but that the matter of the senses indicates a metaphysical realm, whether science is concerned with it or not, there is no satisfactory reason for doubting. It is reasonable to suppose that these objective realities represent many forms of mind, that the spirit manifest in human minds is not limited to human forms; and inasmuch as we can trace mind in forms lower than the human, forms which, only in the dimmest way, we can understand, we should not deem it strange if beyond or beneath these forms there are others, whose intimate nature is a mystery of darkness that is unilluminated for us now, and may ever remain unilluminated.

A third possible objection demands attention. It may be said that the material medium interposed between conscious spirits is something whose nature is altogether unlike that of thought, being not only unknown but also unknowable. This is not the matter of unreflecting common-sense. Nor is it the matter that science describes, for that matter is knowable. It might therefore be left out of account as not being the matter which the physiologist has in view, and which sets the special problem before us. Yet it is well to consider this hypothesis, for it is important to note that, if the objective existence of matter is conceded, this is the alternative to the hypothesis that matter is of the nature of thought. If matter is knowable, it is of the nature of mind, for like is known by like. If matter is utterly unlike mind, it is unknowable. Moreover, only when this theory is accepted can the problem of interaction present itself. For the problem would not arise with relative heterogeneity of substance. We do not make any special problem of the interaction of relatively heterogeneous forms of matter. It is only where there is absolute heterogeneity of two entities that the problem can perplex.

This hypothetical matter is unthinkable. It cannot be in space or in time, for space and time are thoughts. To it the term action, in any sense we can give it, may not be applied. Even existence can be predicated of it only in a remotely symbolic way. It is, indeed, doubtful if this theory can be presented without contradiction.

Further, this matter, though absolutely different from mind, is yet in intimate connection with mind, and determines to a large extent, if not entirely, the order of the conscious life. The hypothesis is offered as one of sheer dualism, but when the relations of the two entities are stated, the dualism seems to be abandoned. The inconsistency of maintaining an absolute dualism and asserting the correlation of the two entities is equally glaring whether the theory of parallelism or that of interaction is adopted.

Nor would the inconsistency be less were it said that mind is an effect or manifestation of this unthinking entity. It cannot be an effect, for causality is a thought relation, and we cannot speak of this unthinking entity as a cause. And, even if we could, such a generation of mind by an unthinking entity would fail to present any analogy to the other cases of causality found in experience, all of which point to homogeneity of cause and effect. Even when Professor Thilly contends that a mental cause may have a physical effect, it seems as if the argument gained what plausibility it had from treating energy as an intelligible part of an intelligible universe, of which uni-

verse conscious states are another part. But by the hypothesis we are considering, matter is utterly heterogeneous to mind. Mind, therefore, cannot be produced by matter; nor, again, can mind be a manifestation of this entity, for the two are supposed to have nothing in common.

Nor may appeal be made to the divine power and wisdom as explaining the correlation. This appeal would imply that matter is known and controlled by spirit, and, according to the hypothesis, this knowledge and intelligent control are impossible.

Let it be repeated, if matter exists objectively, this dualistic theory, contrasting mind with an absolutely heterogeneous entity is the alternative to the theory that matter is intelligible, and, therefore, in some sense, intelligent. There is no other theory possible.

It was suggested at the outset that what is indispensable to the solution of this problem is the application of the principle of philosophical criticism. The study of the subject has lent confirmation to this view. It is important to notice that this problem had its rise in pre-critical times. It need not, indeed, concern us at present to determine whether or not Descartes started the work of criticism; it is enough to note that he did not properly criticise the concept of material existence. He could distinguish clearly between the mind and the body, and he concluded that they were separate existences. He did not observe that he was thinking the two, that they were intelligible, and that therefore there was continuity between them. His followers likewise failed to see that both realities were intelligible or knowable, and attended only to their differences. Hence they declared it impossible for one of the forms of reality to act upon the other. It was no theory of an unknowable matter which led them to this position; it was the failure to analyze or criticise the concepts they employed. The hard antithesis of mind and brain is dissolved by criticism; and the problem of interaction disappears. It is, indeed, possible, as we have seen, to claim that matter is an unknowable entity; but, not to refer again to the inconsistency of this theory, it is evident that this is not the matter of Geulincx or Spinoza or Professor Thilly. The problem as presented by the Cartesians and by Professor Thilly is antiquated.

Let it be added that criticism has been applied in the present instance only so far as the purpose in hand seemed to require. What causality means, what is given in the fact of the action of one mind on another, are problems of great importance which demand the most thorough application of criticism. But it has concerned us here to deal only with the assumed heterogeneity of mind and brain.

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REVIEWS OF BOOKS.

Saint Augustin. [Les grands philosophes.] Par JULES MARTIN. Paris, Félix Alcan, 1901.—pp. xvi, 403.

The peculiarity of this book is that, while written by a priest, it seeks to treat Saint Augustine purely as a philosopher. Philosophy was only a phase of Saint Augustine's genius; it was only an instrument of his zeal and a stepping-stone in his salvation. Scarcely had it been born out of rhetoric when it was smothered by authority. That even in this precarious and episodical form it should have acquired enough sweep, depth, and technical elaboration to entitle its author to a place among "The Great Philosophers," is a sign of the man's prodigious endowment and energy. But the attempt to abstract this philosophic element from its non-philosophic occasions and functions, must necessarily sadly impoverish the representation of so great a mind; one which embodies with tragic intensity what is perhaps the most critical situation and the greatest moral revulsion through which the human spirit has passed in historical times. Of all this, however, l'Abbé Martin scrupulously abstains from speaking, and the result is that his book, while excellent within its assigned limits, gives no adequate picture of the man or of the thought with which it deals. The historical situation is scarcely appreciated, the philosophic contradictions pass unnoticed, their source in disparate intellectual and emotional tendencies is not studied, and we are simply told how judicious and acceptable Saint Augustine's opinions can still seem upon several detailed subjects.

The points recommended to our attention are gathered under three heads, doctrines concerning knowledge, concerning God, and concerning nature.

In respect to the first question we learn that Saint Augustine was a thorough Platonist, but that to reach that position he had to pass in his youth through severe mental struggles. The difficult triumph over the sensuous imagination by which he attained the conception of intelligible objects was won only after long discipline and much reading of Platonizing philosophers. Every reality seemed to him at first an object of sense: God, if he existed, must be perceptible, for to Saint Augustine's mind also, at this early and sensuous stage of its development, *esse* was *percipi*. He might never have worked himself loose from these limitations, with which his vivid fancy and not too

delicate eloquence might easily have been satisfied, had it not been for his preoccupation with theology. God must somehow be conceived; for no one in that age of religious need and of theological passion felt both more intensely than Saint Augustine. If sensible objects alone were real, God must be somewhere discoverable in space; he must either have a body like the human, or be the body of the universe, or some subtler body permeating and moving all the rest. But these conceptions all offered serious dialectical difficulties, and, what was more to the point, they did not satisfy the religious and idealistic instinct which the whole movement of Saint Augustine's mind obeyed. So he pressed his inquiries further. At length, meditation, and more, perhaps, that experience of the flux and vanity of natural things, on which Plato himself has built his heaven of ideas, persuaded him that reality and substantiality, in any eulogistic sense must belong rather to the imperceptible and eternal. Only that which is never an object of sense or experience can be the root and principle of experience and sense. Only the invisible and changeless can be the substance of a moving show. God could now be apprehended and believed in precisely because he was essentially invisible: had he anywhere appeared he could not be the principle of all appearance, had he had a body and a *locus* in the universe, he could not have been its spiritual creator. The ultimate objects of human knowledge were accordingly ideas not things, principles reached by the intellect not objects by any possibility offered to sense. The methodological concepts of science, by which we pass from fact to fact and from past perception to future, did not attract Augustine's attention. He admitted, it is true, that there was a subordinate, and to him, apparently, interesting region governed by "*certissima ratione vel experientia*," and, as l'Abbé Martin points out with insistence, he even wished science to be allowed a free hand within that empirical and logical sphere. A mystical and allegorical interpretation of Scripture was to be invoked to avoid the scientific puerilities into which any literal interpretation—of the creation in six days, for instance—would be sure to run. Unbelievers would thus not be scandalized by mythical dogmas "*de his rebus quas jam experiri vel in dubitatis numeris percipere potuerunt*."

Science was thus to have its way in the field of calculable experience, that region could be the more readily surrendered by Augustine because his attention was henceforth held by those ideal objects which he had so laboriously come to conceive. These were concepts of the contemplative reason or imagination, which envisages natures and eternal essences behind the variations of experience, essences which at first

receive names, becoming thus the centers of rational discourse, then acquire values, becoming guides to action and measures of achievement, and finally attract unconditional worship, being regarded as the first causes and ultimate goals of all existence and aspiration.

This purely Platonic philosophy, however, was not to stand alone. Like every phase of Saint Augustine's speculation it came, as we have said, to buttress or express some religious belief. But it is a proof of his depth and purity of soul that his searching philosophic intuition did more to spiritualize the dogmas he accepted from others, than these dogmas could do to denaturalize his spontaneous philosophy. Platonic ideas had by that time long lost their moral and representative value, their Socratic significance. They had become ontological entities, whereas originally they had been expressions of the rational functions of life. This hypostasis of the rational, by which the rational abdicates its meaning in the effort to acquire a metaphysical existence, had already been carried to its extreme by the Neo-Platonists. But Saint Augustine, while helpless as a philosopher to resist that speculative realism, was able as a Christian to infuse into those dead concepts some of the human blood which had originally quickened them. Metaphysics have turned all human interests into mythical beings, and now religion, without at all condemning or understanding that transformation, was going to adopt those mythical beings and turn them again into moral influences. In Saint Augustine's mind, fed as it was by the Psalmist, the Platonic figments became the Christian God, the Christian church, and the Christian soul, and thus acquired an even subtler moral fragrance than that which they had lost when they were uprooted by a visionary philosophy from the soil of human experience.

Saint Augustine's way of conceiving God is an excellent illustration of the power, inherent in his religious genius and sincerity, of giving life and validity to ideas which he was obliged to borrow in part from a fabulous tradition and in part from a petrified metaphysics. God, to him, was simply the ideal eternal object of human thought and love. All ideation on an intellectual plane was a vague perception of the divine essence. "*Intelligit autem rationalis anima Deum, nam intelligit quod semper ejusmodi est.*" . . . "*Deus beatitudo, in quo et a quo et per quem beata sunt, quae beata sunt omnia. Deus bonum et pulchrum.*" And he is never tired of telling us that God is not true but the truth (*i. e.*, the ideal object of thought in any sphere), not good but the good (*i. e.*, the ideal object of will in all its rational manifestations). In other words, whenever a man, reflecting on his

experience, conceived the better or the best, the perfect and the eternal, he conceived God, inadequately, of course, yet essentially, because God signified the comprehensive ideal of all the perfections which the human spirit would behold in itself or in its objects. Of this divine essence, accordingly, every interesting thing was a manifestation; all virtue and beauty were parcels of it, tokens of its superabundant grace. Hence the inexhaustible passion of Saint Augustine towards his God; hence the sweetness of that endless colloquy of prayer into which he was continually relapsing, a passion and a sweetness which no one will understand to whom God is primarily a natural power and only accidentally a moral ideal. Herein lies the chief difference between those in whom religion is spontaneous and primary—a very few—and those in whom it is imitative and secondary. To the former, divine things are inward values, projected by chance into images furnished by poetic tradition or by external nature, while to the latter, divine things are in the first instance objective factors of nature or of social tradition, although they have come, perhaps, to possess some point of contact with the interests of the inner life on account of the supposed physical or empirical influence of those superhuman entities over human fortunes. In a word, theology, for those whose religion is secondary, is simply a false physics, a doctrine about eventual experience not founded on the experience of the past. Such a false physics, however, is soon discredited and hopelessly contradicted by events; it does not require much experience or much shrewdness to discover that its supernatural beings and laws are without the empirical and physical efficacy which was attributed to them. True physics and true history must always tend, in enlightened minds, to supplant those misinterpreted religious traditions. Therefore, those whose reflection or sentiment does not furnish them with a key to the moral symbolism and poetic validity underlying theological ideas, if they apply their intelligence to the subject at all, and care to be sincere, will very soon come to regard religion as a delusion. But where religion is primary, all that wordly dread of fraud and illusion becomes irrelevant, as it is irrelevant to an artist's pleasure to be warned that the beauty he expresses has no objective existence, or as it is irrelevant to a mathematician's reasoning to suspect that Pythagoras was a myth and his supposed philosophy an abracadabra. To the religious man religion is inwardly justified. God has no need of natural or logical witnesses, but speaks himself within the heart, being indeed that ineffable attraction which dwells in whatever is good and beautiful, and that persuasive visitation of the soul by

the eternal and incorruptible by which she feels herself purified, rescued from mortality, and given an inheritance in the truth. This is precisely what Saint Augustine knew and felt with remarkable clearness and persistence, and what he expressed unmistakably by saying that every intellectual perception is knowledge of God or has God's nature for its object. Proofs of the existence of God are therefore not needed, since his existence is in one sense obvious and in another of no religious interest: obvious in the sense that the ideal is a term of moral experience, and that truth, goodness, and beauty are inevitably envisaged by any one whose life has in some measure a rational quality; of no religious interest in the sense that perhaps some physical or dynamic absolute might be scientifically discoverable in the dark entrails of nature or of mind. The great difference between religion and metaphysics is that religion looks for God at the top of life and metaphysics at the bottom; a fact which explains why metaphysics has such difficulty in finding God, while religion has never lost him.

This brings us, however, to the grand characteristic and contradiction of Saint Augustine's philosophy, a characteristic which can be best studied, perhaps, in him, although it has been inherited by all Christian theology and was already present in Stoic and Platonic speculation, when the latter had lost its ethical moorings. This is the idea that the same God who is the ideal of human aspiration is also the creator of the universe and its only primary substance. If Plato, when he wrote that fine and profound passage in the sixth book of the *Republic*, where he says that the good is the cause of all intelligence in the subject and of all intelligibility in the object, and indeed the principle of all essence and existence—if Plato could have foreseen what his oracular hyperbole was to breed in the world, we may well believe that he would have expunged it from his pages, with the same sad severity with which he banished the poets from his State. In the lips of Socrates, and at that juncture in the argument of the *Republic*, those sentences have a legitimate meaning. The good is the principle of benefit, and the philosophers who are to rule the state will not be alienated by their contemplations from practical wisdom, seeing that the idea of the good—*i. e.*, of the advantageous, profitable, and beneficial—is the highest concept of the whole dialectic, that in reference to which all other ideas have place and significance. And if we choose to extend the interpretation of the passage, retaining its spirit, into fields where we have more knowledge than Plato could have, we may say that the principle of the good generates essence and existence, in the sense that all natural organs have functions and utilities by which

they establish themselves in the world, and that the organism of these useful functions is the true essence or idea of any living thing. But the Socratic origin and sense of such a passage as this, and of others (in the *Timæus*, for instance) allied to it, was soon lost in the head-long idolatry which took possession of the Neo-Platonic school; and it was through this medium that Saint Augustine received his Platonic inspiration. The good no longer meant, as it did to Plato, the principle of benefit everywhere, but it meant the good Being; and this, for a Christian, could naturally be none other than God; so that the idea of the good being the creator of all essence and existence now assumed a marvellously Mosaic significance; here was one of those bits of primeval revelations which, "*Teste David cum Sibylla*," had survived in the heathen world. The hypostasis of moral conceptions, then, and of the idea of the good in particular, led up from the Platonic side to the doctrine of creation.

The history of the conception among the Jews was entirely different, the element of goodness in the Creator being there adventitious and the element of power original. Jehovah for Job was already a universal force, justified primarily by his omnipotence; but this physical authority would in the end be partly rationalized and made to clash less scandalously with the authority of justice. Among the Greeks, as was to be expected, the idea of justice was more independent and entire; but once named and enshrined that divinity too tended to absoluteness, and could be confused with the physical basis of existence. In the Stoic philosophy the latter actually gained the upper hand, and the problem of Job re-appeared on the horizon. It did not rise into painful and dazzling obviousness, however, until Christian times when absolute moral perfection and absolute physical efficacy were predicated of God with equal emphasis, if not among the people, who never have conceived God as either perfectly good or entirely omnipotent, at least among the theologians. If not all felt the contradiction with equal acuteness, the reason doubtless was that a large part of their thought was perfunctory and merely apologetic: they did not quite mean what they said when they spoke of perfect goodness; and we shall see how Saint Augustine himself, when reduced to extremities, surrendered his loyalty to the moral ideal rather than reconsider his traditional premises.

How tenaciously, however, he naturally clung to the moral in the religious, we can see by the difficulty he had in separating himself from the Manicheans. The Manicheans admitted two absolutes, the essence of the one being goodness and of the other badness. This sys-

tem was logically weak, because these absolutes were in the first place two, which is one contradiction, and in the second place relative, which is another. But in spite of the pitfalls into which the Manicheans were betrayed by their pursuit of metaphysical absolutes, they were supported by a moral intuition of great truth and importance. They saw that an essentially good principle could not have essential evil for its effect. These moral terms are, we may ourselves feel sure, relative to existence and to actual impulse, and it may accordingly be always misleading to make them the essence of metaphysical realities: good and bad may be not existences but qualities which existences have only in relation to demands in themselves or in one another. Yet if we once launch, as many metaphysicians would have us do, into the hypostasis of qualities and relations, it is certainly better and more honest to make contradictory qualities into opposed entities, and not to render our metaphysical world unmeaning as well as fictitious by peopling it with concepts in which the most important categories of life are submerged and invalidated. Evil may be no more a metaphysical existence than good is; both are undoubtedly mere terms for vital utilities and impediments; but if we are to indulge in mythology at all, it is better that our mythology should do symbolic justice to experience and should represent by contrasted figures the ineradicable practical difference between the better and the worse, the beautiful and the ugly, the trustworthy and the fallacious. To discriminate between these things in practice is wisdom, and it should be the part of wisdom to discriminate between them in theory. The Manicheans accordingly attributed what is good in the world to one power and what is bad to another. The fable is transparent enough, and we, who have only just learned to smile at a personal desire, may affect to wonder that any one should ever have taken it literally. But in an age when the assertive imagination was unchecked by any critical sense, such a device at least avoided the scandal of attributing all the evils and sins of this world to a principle essentially inviolate and pure. By avoiding what must have seemed a blasphemy to Saint Augustine, as to every one whose speculation was still relevant to his conscience and to his practical idealism, the Manicheans thus prevailed on many to overlook the contradictions which their system developed so soon as its figments were projected into the sphere of absolute existences.

But the horror with which an idealistic youth at first views the truculence of nature and the vanity and turpitude of worldly life is capable of being softened by experience. Time subdues our initial

preferences by showing us the complexity of moral relations in this world, and by extending our imaginative sympathy to forms of existence and passion at first repulsive, which from new and ultra-personal points of view may have their natural sweetness and value. In this way, Saint Augustine was ultimately brought to appreciate the Catholicity and scope of those Greek sages who had taught that all being was to itself good, that evil was but the impediment of natural function, and that therefore the conception of anything totally or essentially evil was only a petulance or exaggeration in moral judgment that took, as it were, the bit in its teeth, and turned an incidental conflict of interest into a metaphysical opposition of natures. In truth, all natures have a constitutive principle of order and excellence; all wills are nuclei of values accruing, in reference to those wills, to all surrounding objects. All being is therefore in itself congruous with the true and the good, since its constitution is intelligible and its operation is creative of values. Were it not for the limitations of matter and the accidental crowding and conflict of life, all existing natures might subsist and prosper in peace and concord, just as their various ideas live without contradiction in the realm of conceptual truth. We may say of all things, in the words of the Gospel, that their angels see the face of God. Their ideals are no less cases of the good, no less instances of perfection, than is the chosen ideal of our private bosom. It is the part of justice and charity to recognize this situation, in view of which we may justly say that evil is always relative and subordinate to some constituted nature in itself a standard of worth, a point of departure for the moral valuation of eventual changes and of surrounding things. Evil is accordingly accidental and unnatural; it follows upon the maladaptation of actions to natures and of natures to one another. It can be no just ground for the condemnation of any of those natural essences which only give rise to it by their imperfect realization.

The Semitic idea of creation could now receive that philosophical interpretation which it so sadly needed. Primordially, and in respect to what was positive in them, all things might be expressions of the good; in their essence and ideal state they might be said to be created by God. For God was the supreme ideal, to which all other goods were subordinate and instrumental; and if we agree to make a cosmogony out of morals and to hypostatize the series of rational ideals, taken in the inverse order, into a series of efficient causes, it is clear that the highest good, which is at the end of the moral scale, will now figure as a first cause at the beginning of the physical sequence. This operation is what is recorded and demanded in the doctrine of crea-

tion : a doctrine which would lose its dogmatic force if we allowed either the moral ideality or the physical efficacy of the creator to drop out of sight. If the moral ideality is sacrificed, we pass to an ordinary pantheism, while if the physical efficacy is surrendered, we take refuge in a naturalistic idealism of the Aristotelian type, where the good is a function of things and neither their substance nor their cause.

To accept the doctrine of creation, after it had become familiar, was not very hard, because the contradiction it contains could then be set down to our imperfect apprehension. The unintelligibility of matters of fact does not lead us to deny them but merely to study them ; and when the creation was accepted as a fact, its unintelligibility became merely a theological problem and a religious mystery, such as no mortal philosophy can be without. But for Saint Augustine the situation was wholly different. A doctrine of the creation had to be constructed : the disparate ideas had to be synthesized which posterity was afterwards to regard as the obvious, if not wholly reconcilable, attributes of the Deity. The mystery could not then be recognized ; it had to be made. And Saint Augustine, with his vital religion, with his spontaneous adoration of God the Ideal, could not attribute to that ideal unimpeded efficacy in the world. To admit that all natures were essentially good might dispel the Manichean fancy about an Evil Absolute engaged in single combat with an Absolute Good ; but insight into the meaning and the natural conditions of evil could only make its presence more obvious and its origin more intimately bound up with the general constitution of the world. Evil is only imperfection ; but everything is imperfect. Conflict is only maladaptation, but there is maladaptation everywhere. If we assume, then, what the doctrine of Creation requires, that all things at first proceeded out of the potency of the good—both their matter and form, their distribution and their energies, being wholly attributable to the attraction of the ultimately best—it is clear that some calamity must have immediately supervened by which the fountains of life were defiled, the strength of the ideal principle in living things weakened, and the mortal conflict instituted which not only condemns all existent things ultimately to perish, but hardly allows them, even while they painfully endure, to be truly and adequately themselves.

Original sin, with the fall of the angels and of man for its mythical origin, thus enters into the inmost web of Augustinian philosophy. This fact cannot be too much insisted upon, for only by the immediate introduction of original sin into the history of the world could a man to whom God was still a moral term of inward experience, be-

lieve at all in the natural and fundamental efficacy of God in the cosmos. The doctrine of the fall made it possible for Saint Augustine to accept the doctrine of the creation. Both belonged to the same mythical region in which the moral values of life were made to figure as metaphysical agents; but once the metaphysical agency of the highest good is admitted into our poetic cosmogony, it became imperative to admit also the metaphysical agency of sin into it; for otherwise our highest good would be deprived of its ideal and moral character, would cease to be the entelechy of rational life, and be degraded into a flat principle of description or synthesis for experience and nature as they actually are. God would thus become a natural agent, like the fire of Heraclitus, in which human piety could take an interest only by force of traditional inertia and unintelligence, while the continued muttering of the ritual prevented men from awaking to the disappearance of the god. The essence of deity, as Augustine was inwardly convinced, was correspondence to human aspiration, moral perfection and ideality. God, therefore, as the Manicheans, with Plato and Aristotle before them, had taught, could be the author of good only; or, to express the same thing in less figurative and misleading language, it was only the good in things that could be contributory to our idea of divinity. What was evil must, therefore, be carried up into another concept, must be referred, if you will, to another mythical agent; and this mythical agent in Saint Augustine's theology was named sin.

Everything in the world which obscured the image of the Creator or rebelled against his commandments (everything, that is, which prevented in things the expression of their natural ideals) was due to sin. Sin was responsible for disease of mind and body, for all suffering, for death, for ignorance, perversity, and dullness. Sin was responsible—so truly *original* was it—for what was painful and wrong even in the animal kingdom, and sin—such was the paradoxical apex of this inverted view of natural causes—sin was responsible for sin itself. The insoluble problems of the origin of evil and of freedom, in a world produced in its every fiber by omnipotent goodness, can never be understood until we remember their origin. They are artificial problems, unknown to philosophy before it betook itself to the literal justification of fables in which the objects of rational endeavor were represented as causes of natural existence. The former are internal products of life, the latter its external conditions. When the two are confused we reach the contradiction confronting Saint Augustine, and all who to this day have followed in his steps. The cause of every-

thing must be the cause of sin, yet the principle of good could not be the principle of evil. Both propositions were obviously true, and they were only contradictory after the mythical identification of the God which meant the ideal of life, with the God which meant the forces of nature.

It would help us little, in trying to understand these doctrines, to work over the dialectic of them, and seek to express the contradiction in somewhat veiled terms or according to new pictorial analogies. Good and evil, in the context of life, undoubtedly have common causes; but that system which involves both is for that very reason not an ideal system, and to represent it as such is simply to ignore the conscience and the upward effort of life. The contradiction can be avoided only by renouncing the meaning of one of the terms, either, that is, by no longer regarding the good as an absolute creator, but merely as a partial result or tendency in a living world whose life naturally involves values, or else by no longer conceiving God as the ideal term in man's own existence. The latter is the solution adopted by metaphysicians generally, and by Saint Augustine himself when hard-pressed by the exigences of his double allegiance. God, he tells us, is just, although not just as man is, *nor as man should be*. In other words, God is to be called just even when he is unjust in the only sense in which the word justice has a meaning among men. We are forced, in fact, to obscure our moral concepts and make them equivocal in order to be able to apply them to the efficient forces and actual habits of this world. The essence of divinity is no longer moral excellence but ontological and dynamic relations to the natural world, so that the love of God would have to become, not an exercise of reason and conscience, as it naturally was with Saint Augustine, but a mystical intoxication, as it was with Spinoza. Nor are the sad effects of this degradation of God into a physical power hard to trace in Augustine's own doctrine and feeling. He became a champion of arbitrary grace and arbitrary predestination to perdition. The eternal damnation of innocents gave him no qualms; and in this we must admire the strength of his logic, since if it is right that there should be wrong at all, there is no particular reason for stickling at the quantity or the enormity of it. And yet there are sentences which for their brutality and sycophancy cannot be read without pain—sentences inspired by this misguided desire to apologize for the crimes of the universe. “*Cur ergo non crearet Deus, quos peccaturos esse praescivit, quandoquidem in eis, et ex eis, et quid eorum culpa mereretur, et quid sua gratia donaretur, posset ostendere.*” “*Potentius et melius esse judi-*

cans etiam de malis bene facere quam mala esse non sinere," where the unscrupulous maxim of doing evil that good may come is robbed of its human excuse of necessity and established as the principle of divine morality. Repellant and contorted as these ultimate metaphysical theories may seem, we must not suppose that they destroyed in Saint Augustine that practical and devotional idealism which they contradicted: the region of Christian charity is fortunately far wider and far nearer home than that of Christian apologetics. The work of practical redemption went on, while the dialectics about the perfection of the universe were forgotten, and Saint Augustine never ceased, by a happy inconsistency, to bewail the sins and to combat the heresies, in the melodramatic punishment of which God's glory would have been so beautifully manifested.

These seem to be the main points which a historian of Saint Augustine should seek to disentangle and exhibit in their historical relations. L'Abbé Martin has been hindered by his preconceived attitude from dealing with them in all frankness; but he furnishes us with materials which could lead an unhampered critic to many instructive reflections on the genesis and inner structure of that system of thought out of which all the philosophy of Christendom has come, either as a sympathetic expansion or as a partial and hesitating criticism. A study of Saint Augustine's eclecticism, making exhaustive such an analysis as we have indicated above, would throw a very bright light on the history of modern philosophy, and on the possible solutions which still confront it. We should learn from it, I believe, that many of the problems which most puzzle us are perfectly artificial and not involved in science or in experience ingenuously considered; and we should learn at the same time to disentangle the religious instincts and genius of our great theologians from the unnecessary alliance they had contracted with pictorial metaphysics and fabulous history.

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Greek Thinkers; A History of Ancient Philosophy. BY THEODOR GOMPERZ. Vol. I, translated by LAURIE MAGNUS. London, John Murray; New York, Charles Scribner's Sons, 1901.—pp. xvi, 610.

The study of Greek thought has passed through various stages. Logically it begins by a study of the literary remains, which must be sifted, critically examined, and in some instances reconstructed. The philosophical literature, thus brought under control, is our record of

Greek thought ; in a sense it may be termed a history of it. Secondly, the system of each thinker is studied by itself as though it were an independent whole ; it is studied from the standpoint of the philosopher and his surroundings ; its development is traced, and its influence on those to whom it was imparted. No sharp line divides this stage from that in which the main end is the *explanation* of the tenets of each thinker by reference to his predecessors, to his physical and social environment, and to his own mental make-up. The assumption here is that the development of thought in a nation like Greece is a single process, of which the different threads reveal themselves gradually to the patient enquirer. It is treated like a process in the physical universe, and the proximate 'cause' of each step is sought. The 'natural science' method as applied to history may prove as unprofitable as it is insecure, except where genuine historical values are taken into consideration. To-day, Greek philosophy is studied far more widely than, e.g., that of China, not necessarily because the process of its development can be more accurately traced, but because the latter is far less fruitful than the former in what commands our esteem. It is hardly too much to say that *history* is written in terms of our own age and our own civilization. Its valuation of each term it considers is the valuation that the man of to-day places on that term. The history of philosophy, after it has criticized the sources, and sought to think anew for itself the thoughts of each great thinker, and studied the process of civilization in which these thoughts have become possible, not to say inevitable, necessarily goes on to judge each thought and each thinker by the standard of the student himself. In a word, this is no branch of antiquarian research. Like the study of biology, it is a study of what we are as thinkers, by investigating the manner in which we became what we are. And pedagogically it is the only genuine 'introduction to philosophy.'

These last statements hold good whatever the manner in which a writer presents the subject to his readers. Whether the writer takes up each system primarily from its own standpoint ; whether, on the other hand, he takes a series of concepts assumed to be fundamental and traces the history of these ; or whether with broader outlook he seeks to outline the "universal history of the mind of antiquity" (p. ix), his larger aim is essentially philosophical.

The peculiar interest of Professor Gomperz's *Griechische Denker*, the first volume of which now lies before us in an English translation, is its frank recognition of this aim. He "endeavors to do equal justice to the different tendencies of ancient thought, every one of which has

contributed its part to the complete structure of modern intellectual "life, "sundering as thoroughly as possible what is enduring and significant from what is indifferent and transient" (p. ix). Such a task makes peculiar demands on the writer, for he must be at the same time philologist and philosopher. Professor Gomperz has long been known for his brilliant criticism and emendation of Greek texts, and the present volume is sufficient proof of the breadth and truth of his philosophic insight. His discussion of the atomic theory (p. 353), or again, of the problem of sense perception (pp. 320 f.) is sufficient indication of the modern type of critical philosophy to which this history of Greek thought will serve as an introduction. Every chapter, moreover, shows a wide acquaintance with the results of modern science; in fact the book gives the first chapters in the history of science, just as truly as it does the first chapters in the history of philosophy.

I can conceive no more interesting task for the philosopher, not to say the scientist, than to trace the development of scientific thought in this period when it was rapid and successful. The Greek united keenness of observation with shrewdness in explanation to a remarkable degree. The early doctrines of the Ionic School seem at first to be very crude guesses at what the truth might be. But each guess starts with an observed fact, and the guess is never a stupid one. It should not surprise us, therefore, that the elimination of wild guesses was comparatively rapid; that when early science was started on a false track, it should soon be brought back to the right course; that as observation increased in breadth and accuracy, there should be constant progress toward a genuine knowledge of nature.

The peculiarity of Professor Gomperz's history of this process, as compared, *e. g.*, with Zeller's great work, is that he does not stop with an 'objective' treatment of the subject. Whether a purely objective treatment is possible, is another question. Beginning with Thales, the writer asks what elements of modern science were implicitly present in his doctrine that all things go back to water as their ἀρχή; and with each new section the question is asked afresh. The reader may have in mind the conception of *matter*. He learns first that these early thinkers recognized the unity of our world, and the fact that behind the wonderful complexity of phenomena we are to suppose a comparatively simple substratum. With Heraclitus's doctrine that "all objects are always moving, though their movements elude our observation" (Arist. *Phys.*, viii, 3), is compared the statement of Lewes (*Problems of Life and Mind*, II, p. 299), "modern science takes it for granted that the molecules of matter are always vibrating

or in movement, . . . though these movements are imperceptible." The doctrine that matter is unchangeable in quantity and in quality first comes out in the teachings of Parmenides (pp. 173 f.), and it underlies the thought of Empedocles no less than that of Anaxagoras or the Atomists. As taught by Parmenides, Gomperz calls it the "residue or deposit of the spontaneous disintegration of the doctrine of primary matter" (p. 171). At first a metaphysical hypothesis, it was made the basis of the 'science' of the successors of Parmenides, and the progress of science ever since has been "bound up with the growing belief in the permanence, quantitatively and qualitatively, of the contents of space" (p. 174). The next step in this history of the doctrine of matter was taken by Empedocles. In his writings "we are confronted for the first time with the three fundamental conceptions of chemistry: the assumption of a plurality, and of a limited plurality of primary elements; the premise of combination in which such elements occur; and, finally, the recognition of numerous quantitative differences or proportional variations of the said combinations" (p. 230). Finally we arrive at the enunciation of an atomic theory. "According to convention there are a sweet and a bitter, a hot and a cold, and according to convention there is color. In truth there are atoms and a void" (p. 320, from Democritus, ed. Mullach, p. 204). After a quotation from Galileo Galilei our author continues, "across the twenty-two centuries that stretched between these giants of thought, Democritus and Galilei (*sic*) were both fully aware that the so-called secondary qualities of things were more than mere arbitrary assumptions, conventional opinions, or appellations. . . . A true, solid, unchangeable object of cognition in the corporeal world has at last been gained, and persistent matter stood out as the genuine reality in opposition to the volatile and variable qualities of sensation which we call secondary. . . . The individual bodies, as the constituent parts of such matter, were distinguished from one another by their sizes and shapes alone, inclusive of their degree of capacity, determined by the size and shape to exert an effect on other bodies by impact and pressure" (pp. 321, 322).

To go on with the account of the conceptions of modern science as they were worked out in this period of Greek thought is foreign to my purpose. The reader of Professor Gomperz's book will, I am sure, be delighted with the way these questions are treated. The relation of the conceptions of matter and force for these early thinkers (pp. 343 ff.) ; the discovery of Pythagoras that sound is subject to a nu-

merical law (p. 102); the extension of the belief in strict causation by Heraclitus until it includes all nature (p. 73); the development of the theory of evolution, from the mere assumption that the world-process is a continuous one, from the attempt to explain this process as 'rarefaction' and 'condensation,' from the belief that it begins with fire and ends with fire (p. 65), while the planets are hurled off from the central mass in its rapid rotation (p. 218), until at length we come to the brilliant conjecture of Empedocles, which really anticipated Darwin's doctrine of the survival of the fittest in the struggle for existence (p. 244); the rise of astronomy, as first the roundness of the earth and the heavenly bodies was recognized (p. 111), then a movement of the earth equivalent to rotation (p. 113), and later the correct explanation of eclipses and the moon's phases (p. 220), until finally the Copernican system was taught by Heraclides and Aristarchus (cf. pp. 120, 121)—these and other steps in the development of science are very clearly outlined in the present volume.

No doubt certain thinkers who wish to claim every great discovery for their own day and generation will find many points to criticize in this exposition. To say that Empedocles "takes us at a bound into the heart of modern chemistry" (p. 230) will seem an exaggeration. And it is an open question whether Empedocles intended to base the survival of the fittest organisms on an actual struggle for existence; to say the least, this thought is grasped so indefinitely and presented in such a hazy manner that it made little impression on following thinkers. The attempt to make the "central fire" of Philolaus the "irresistible product of analogical inference" (p. 115) is hardly successful, though the thought is developed in an extremely interesting manner. And the appeal to the "facts of history" (p. 120), the statement that the theory of a central fire "promoted the progress of scientific research," for "in less than a century and a half *it engendered* the heliocentric doctrine," reads like an *ex parte* defence of a fantastic theory. Indeed, it seems to me a fruitless task to defend the value of any mere guess by pointing out that it was a stepping-stone to the discovery of real scientific truth.

So much seems really fantastic in the philosophy and the science of the pre-Socratic thinkers, that widely different opinions prevail as to the value of their work. The casual student of their systems feels first the large poetic element in them. That their eyes were open to the facts of the world about them, however, and that their imagination often grasped the facts of nature in a truly scientific spirit, has been abundantly shown by Professor Gomperz. It is no denial of the

value of their work to say that the truths they reached were soon forgotten, and that it remained for a much later age to sift the truth from the error. The only real question is whether the fruit of their imagination is just a series of lucky guesses, or whether it was reached by a process essentially the same as that employed by the scientist to-day. The net result of Professor Gomperz's researches tends to show that the latter is in reality the case.

Two other features of this treatise will attract the attention of the careful reader. Of these the first is the breadth of the writer's view. The history of philosophy has often been written as though philosophy were a stream following its own bed, receiving some little tributary here, and eddying about a rock there, but practically uninfluenced by other features of the social landscape. For Professor Gomperz the science and philosophy of Greece are integral parts of Greek civilization. The practical science of Egypt and the Babylonian studies of the heavens were appropriated by the Greeks along with the elements of material civilization and the beginnings of art (p. 95). The Pythagorean movement, so important for philosophy, drew its inspiration in a measure from these foreign sources, as Greece took her place in the military and commercial world which centered about the Mediterranean. Except for the peculiar social influence which tended to weaken the authority of religious belief, the search for scientific causes would hardly have arisen; and the same factors which stimulated the Greek mind to political activity, tended to rouse a curiosity in regard to the secrets of nature. Nor was the Greek philosopher a unique product of this civilization. Pythagoras was but one among many founders of socio-religious communities. The wandering Xenophanes was not the first epic poet to set before his audience philosophical speculation as the substance of his song, for had not Hesiod preceded him? Anaxagoras was one of a group of brilliant intellects gathered about Pericles. Empedocles, engineer, healer, and poet, as well as student of nature, can only be understood in the multifarious life of which he was a factor.

To write the history of Greek philosophy from this larger point of view is no easy task; but the fact that the attempt is made augurs well for the progress of our understanding of Greek thought. One result of it—and by no means the least important—is the attention that our author is led to give to the historians and to the physicians of the period considered. The chapter on the Greek physicians presents in attractive form very much that is new to the ordinary student of the history of philosophy, and it furnishes perhaps the most complete

justification possible for the wider view of Greek philosophy taken by Professor Gomperz. The history of criticism in Greece remains to be written. The foundations of its history, however, are pointed out in the present volume. "We have already made acquaintance with two of the sources from which the spirit of criticism derived its nourishment—the metaphysical and dialectical discussions practised by the Eleatic philosophers, and the semi-historical method which was applied to the myths by Hecataeus and Herodotus. A third source is to be traced to the school of the physicians. These aimed at eliminating the arbitrary element from the view and knowledge of nature . . ." (p. 276, cf. p. 313). The unfamiliarity of this part of the field is an adequate reason for devoting more space to this topic than perhaps it intrinsically deserves.

In attempting to give an account of philosophy as one side of Greek civilization, Professor Gomperz sometimes promulgates his views with such positiveness as to rouse opposition. Will "no one dispute the assertion" that "practically the entire fairy lore of the Occident is derived from India" (p. 95)? or that Aphrodite is Greek for Semitic Aftoret or Ashtoreth (p. 96)? The account of the 'smoke-soul', the *θυμός*, by which all difficulties which had arisen in regard to the psychology of the Homeric poems are so easily solved, seems to me particularly open to question. Some points about which the reader may have doubts, are discussed at length in the author's brilliant papers published by the Vienna Academy. In regard to others the brevity of the notes perhaps explains why we often have only results without the steps leading to the results.

In addition to this breadth in the author's method of treating the subject, the reader will be struck by the absence of purely negative discussion. For instance in the chapters on Pythagoras and his school we go on from one positive statement to another, and he who turns from Zeller's discussion of this topic to that by Gomperz, will perhaps miss the negative criticism which fills so much of the earlier book. This negative criticism was sadly needed half a century ago, and it was a large part of Zeller's work to clear the field of misapprehensions which had grown up both as to the sources of our knowledge and the way those sources should be used. The field once cleared, there is no less need of the critical spirit than before, but the results should be much more positive. It is these positive results which Professor Gomperz seeks to give, and if a question arises now and again in the reader's mind, it should not blind his vision to the extremely careful way in which the evidence has been sifted. Our knowledge

as to the relations of Greece to other and older civilizations has increased rapidly in the last quarter of a century, not to say in the last decade. Again, new data for a knowledge of the Orphic movement have been gained as the result of excavations in greater Greece, and the new facts place what was already known in an entirely new light. The discussion of this question in Germany has by no means ceased, and scholars are divided into two camps with reference to the age of portions of the Orphic writings. The English reader will welcome none the less this first clear statement in his own language of the newer view as to the history of this important movement.

The great charm of the German work is the graphic and picturesque manner in which it is written. (Cf. *c. g.*, pp. 155, 180, 295.) The writer seeks to "summarize the labors of a lifetime" in such wise that the result will appeal "to wide circles of cultivated readers" (p. ix); and certainly in America the German work has found a large and appreciative audience. To do justice to the translation is not an easy task. The examples which have already been quoted perhaps in themselves justify the statement that the translation is gracefully written, although if the reader is careful to get the meaning of each sentence he will not infrequently find it necessary to refer to the German original, *c. g.*, p. 19, l. 33; p. 276 end (a sentence which is incorrectly translated); p. 63, l. 24 (where *Bogen* should be translated 'arch'); p. 132, l. 12 ("by this means"?) and l. 15 ("were admitted to the freedom of the godhead or of the source of light" *sic*); p. 157, l. 34 ("the ideals of the people, their *masters*, and their sources"); p. 162, ll. 3 ff., etc. Professor Gomperz is not to be held responsible for the following remarkable statement (p. 149): "The air-hole in the ear, for example, he regarded as a resounding board"; or for the statement (p. 13) that writing material "was afforded by the pulp of the papyrus shrub, split into slender and flexible strips."

This last passage leads me to remark that it is unfortunate that the translator of such a work should be deficient in his knowledge of things Greek. The Greeks did not "mould statues" (p. 156); the winners' lists at Olympia are not "extant since 776 B. C." (p. 12), nor does Gomperz make any such careless statement; and such phrases as "familiarized the market with silver and gold" (p. 8), or "the [Greek] customer must often have surprised the merchant making entries in his account book" are, to say the least, much more picturesque than either the facts, or the German to be translated, would warrant. And on page 28 it seems odd to read of Mycenæan banquet-halls with their "plates of beaten metal . . . and their drinking-

cups of embossed gold," but in the German it is "banqueting halls adorned with sheets of metal" etc.

It is a thankless task to note instances where the original German has not been understood by the translator. In the first sentence (p. 3) he seems to have read *Beobachtung* for *Beachtung*; p. 5, l. 19 "sacrifice of national resources" is very different from *Opfer an Volkskraft*; p. 19, l. 3 "limited" experience misses the point of *vermeintlich*. The translator states that he has "discussed every doubtful point" with Professor Gomperz (p. vii); but anyone who takes pains to compare a page of the translation with the original will probably find some error; one must assume that these errors were not recognized by the translator as "doubtful points."

In his preface the translator expresses the hope that he has "not been entirely unsuccessful in conveying in English something of the brilliance and charm of style which the author's German readers recognize and admire in his own" (p. vii). In my opinion his use of poetic words (*dubietz* p. 354, *emperry* p. 128, *hearkening* as transitive p. 24), of archaic or obsolete words (*diminishment*, *ordinance* for "arrangement" as in Chaucer, *undistracted* for "unmoved"), and of unusual words (*multiscient*, *expiey*) does not help to reproduce the style of Professor Gomperz. It is rash to criticize the style of an Oxford literary man and poet, but one may note the use of plural noun and singular verb (p. 19), and the phrase "either by . . . nor by" (p. 309); I find no analogy for the use of "lucrative" on p. 332, nor for the phrase "abuts in" (p. 129). A note might be added to explain what is meant by a "drawing-block" (p. 59), for the dictionaries do not help one; nor can I understand "hole-in-a-corner mysteries" unless it is a misprint for "hole-and-corner."

The translator's effort to reproduce the brilliancy of Gomperz's style stumbles over more than one metaphor. What is one to say of "a yawning gulf" with "stepping stones" over it (p. 24)? or of the phrase "disperse gloomier aspects of belief, and clothe them with brilliance" (p. 30)? or of a man "so malleable and versatile that his joints seemed positively liquid" (p. 208)? Perhaps there is a closely veiled sarcasm in the statement by the reviewer of this book in the London *Spectator* for May 18, 1901, to the effect that "The translation is excellently done. . . . Such an excellent reproduction of so important a foreign work on one of the greatest of themes is an event in its way."

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Kant. [Les grands philosophes.] Par THÉODORE RUYSSSEN.
Paris, Félix Alcan, 1900.—pp. x, 391.

Although perhaps such a verdict should be pronounced with hesitation, it may be safely said that this new book on Kant thoroughly justifies itself. It is designed, to be sure, primarily for French readers; to do for them a work of historical exposition only imperfectly provided for up to this time by Cousin's book, and the two encyclopedia articles by Barni and Boutroux. But its merits will be none the less enjoyed by the universal philosophical public. These merits are the result of its author's strict adherence to the method and aim which he proposes for himself at the outset: the method of historical research and the aim of colorless exposition. Professor Ruyssen believes, as he announces in his preface, that textual exegesis and critical interpretation are sufficiently provided for elsewhere, the latter notably by Vaihinger in Germany and Boutroux in France. There remains the less interesting, but more timely and useful work of historical exposition. The author thus identifies himself with the plans of the editor of "*Les grands philosophes*," a series of which this volume and a similar account of Socrates by Clodius Piat have already been issued. It is Professor Ruyssen's aim, then, to be objective and impersonal, and he has succeeded to a remarkable degree. Most of the Kantian literature, as we know, contains an account of what Kant ought to have thought, and what he really thought without knowing it, and what he thought before or after he changed his mind. In this book Kant is not made responsible for anything that he has not clearly admitted in his own books. Indeed, Professor Ruyssen has gone so far as to omit all consideration of Kant's relation to posterity, and in so doing, as shall be maintained later, has decidedly limited the scope of his book as a piece of historical writing. But it has enabled him, free from all constructive bias, to stand chronologically where Kant stood, and see only what Kant saw. The book contains a convenient arrangement of the strictly Kantian thought. It is based upon a thorough acquaintance with Kant's entire philosophical writing and his correspondence, together with a wide knowledge of antecedent and contemporary developments of thought. This last resource enables Professor Ruyssen to include in the book two very interesting historical summaries: the second chapter, entitled "*Kant et son temps*," reviewing Kant's relation to the Enlightenment and to his general philosophical environment; and a part of the eighth chapter, showing the bearings of his religious philosophy. Kant's own internal development is very carefully elaborated, and much attention is given to the

interrelation of his different writings. At the end of the book the reader will find a very convenient chronological table of the principal events that occurred during Kant's lifetime; a list of his writings together with the more important editions and translations; and a valuable bibliography. The exposition is at times somewhat disappointing, largely, perhaps, because we expect so much in this respect of a Frenchman. Some of the more difficult portions of Kant's thought, as, *e. g.*, the Transcendental Deduction of the Categories and the general topics of Freedom and Teleology, are treated too literally. The author's very fidelity prevents the freedom and directness that are so requisite for a clear explanation. Nevertheless the features mentioned above, together with its comprehensiveness and well-balanced arrangement, make the book a valuable compendium for reference as well as a very interesting and trustworthy volume of historical reading.

From this general characterization of the book we may now turn to certain well-known problems of interpretation that it raises, in spite of its purely historical aim. Professor Ruysen announces that certain discussions are indispensable if one is to maintain, as he admittedly does, the unity, consistency, and progressive continuity of Kant's thought. Moreover the arrangement of certain parts of the book betrays an opinion respecting the systematic character of Kant's philosophy, that is neither obviously true nor universally accepted. Although their connection is close, there are involved here two questions of very unequal importance.

On the one hand, Professor Ruysen maintains successfully that Kant's inner history is the history of one growing mind. As is very generally agreed, he did not consciously experience any important changes of belief after arriving at maturity, and regarded what he said on various subjects and at different times as parts of a single comprehensive insight. By 1770 at the latest he has taken his stand in defence of the validity of the Newtonian science, and has accepted as his fundamental epistemological principle the synthetic activity of the understanding. He has recognized the *a priori* validity of duty and undertaken to resist the moral skepticism of his age. He has begun his speculations respecting the beautiful and the sublime, and recognized in his psychological three-fold division of the faculties the necessity of a critique of the judgment of taste. He has ascribed the sterility of the dogmatic method to its lack of an empirical content such as mathematics can provide for itself. And at the same time, as Caird has pointed out, he indicates his allegiance to the orthodox interpretation of the uni-

verse by the announcement in the *Dissertation* that the value of his *a priori* theory of space and time lay in its ridding the noumenal world of these determinations, and paving the way to a new metaphysics of things in themselves. By the time of the publication of the *Critique of Pure Reason*, Kant is prepared to announce a general plan which forecasts the *Critique of Practical Reason* and a metaphysic of nature and morals. These ideas dwelt together in the consciousness of Kant throughout his productive period, and they were all conscious of one another. Moreover, Kant meant that they should all be consistent with one another, which was equivalent for him to a determination to fit them all into a symmetrical and logical plan. We may agree readily enough, then, with Professor Ruysen's contention that there is a unity of spirit, method, and doctrine in the Kantian thought, in so far as he means that it was continuous and synthetically apprehended by Kant himself.

But a much more difficult problem awaits solution. Is there a real logical coherence between the different aspects of Kant's thought? Was he able consistently and progressively to realize his plans for a general system of philosophy? Or is there in Kant the inconsistency and vacillation that might wisely be expected of a great discoverer with conservative proclivities—one imbued with the traditional phraseology and ideals, and enthusiastically obeying a new insight that has not grown old enough to be one philosophy? As might be expected on general grounds, Kant reveals himself in his writings as one who cannot always anticipate the outcome of his own thought, and sometimes plans where he cannot fulfil. He is too near his greatest ideas to comprehend their full significance, and is constantly suggesting where he cannot state apodictically. Hence arises the inevitable criticism of the critical philosophy, the desire to introduce Kant to himself, and such criticism is up to a certain point indispensable. It is quite possible with Kant, as with Socrates, to be too clear and literal in exposition. You have not necessarily rendered a philosopher's thought when you have restated the contents of his books. Now upon reading Professor Ruysen's account one feels that it has to a certain extent failed by the very virtue of its accuracy. The arrangement follows the divisions of thought marked by Kant's separate publications, and the relations of these divisions to one another is conceived after the rather mechanical fashion suggested by one's first reading. As a consequence, one looks in vain for a synthetic interpretation of the Kantian *Weltanschauung*, or such an understanding of him as will satisfactorily explain the issuance from him of the inspired movement

of idealism. Such would doubtless threaten the consistency as it would deny the simplicity of the Kantian thought, but not without the gain of profundity and adequacy. To make good the objection to Professor Ruysen's treatment it is necessary that we should consider briefly Kant's relation to metaphysics.

Our author's treatment of the matter seems to be both non-committal and obscure. The book is arranged to conform as far as possible to Kant's programme as announced in the *Architectonic* at the end of the *Critique of Pure Reason*. The exposition of the first critique is followed by an account of the *Metaphysics of Nature*; and this in turn by the *Critique of Practical Reason* and the *Metaphysics of Morals*. The chapter on the metaphysics of nature is based upon Kant's publication of 1783, entitled *Metaphysical First Principles of the Science of Nature*, public lectures and short papers composed between 1775 and 1800, and certain passages from the three critiques. Kant's division into Ontology, Rational Physiology (Physics and Psychology), Rational Cosmology, and Rational Theology is followed and filled up as far as possible from these miscellaneous sources. But what does Professor Ruysen mean by Metaphysics here? It seems probable that Kant's idea of a metaphysics of nature was primarily a deduction of certain *a priori* principles of natural science. In the Preface to the *Fundamental Principles of the Metaphysics of Morals* we read: "We may call all philosophy empirical, so far as it is based on grounds of experience; on the other hand, that which delivers its doctrines from *a priori* principles alone we may call pure philosophy. When the latter is merely formal it is logic; if it is restricted to definite objects of the understanding it is metaphysic." (Ed. of Ros., Vol. VIII, p. 4; trans. of Abbott, p. 2.) Here and elsewhere in Kant's ethical writings metaphysics is divided into that which provides a system of *a priori* principles for natural philosophy, and which he commonly refers to as physics, and that which investigates "the sources of the practical principles which are to be found *a priori* in our reason." (Ed. of Ros., Vol. VIII, p. 6; trans. of Abbott, p. 4.) Since a metaphysics of morals does not claim to be a science of objective reality, but only of normative laws, its principles have the same validity within its own realm as the *a priori* principles of physics have in the realm of a metaphysics of nature. Both would be quite distinct from a theoretical inquiry concerning the supersensible. The only part of the programme for a metaphysics of nature that Kant avowedly carried out was the Rational Physics. This he treated in the *Metaphysical First Principles of the Science of Nature* and the incomplete *Passage from the Meta-*

physical Principles of a Science of Nature to Physics. He is here using metaphysics to denote certain specific *a priori* laws applicable to the phenomenal world. In order consistently to complete the programme, which he arranged to contain the traditional problems, he would necessarily have contented himself with demonstrating the impossibility of science in the other regions of inquiry there specified. Now as a matter of fact Kant never completed the negative metaphysics which he conceived upon this basis, and a very different conception appears in the *Prolegomena*, the second edition of the *Critique of Pure Reason*, and the *Essay on the Progress of Metaphysics since Leibniz*, all written between 1783 and 1791. Not only does he here propose to "put knowledge out of the way in order to make room for faith," but maintains that the superior merit of his own metaphysics to that of Hume and the dogmatists is its ability to achieve this positive result. (cf. Caird : *Crit. Phil. of Kant*, Vol. I, p. 241 ; and *Prolegomena*, ed. of Ros., Vol. III, p. 7). Moreover he definitely refers to the purpose of the transcendental philosophy "to advance from the sensible to the supersensible," "from the objects of experience to those objects which are beyond experience." (*Essay on the Progress of Metaphysics*, ed. of Ros., Vol. I, p. 489). It is necessary, then, in rendering a true account of the Kantian philosophy to take into consideration these two metaphysical programmes. There can be little doubt that Kant conceived them both, and that the latter gradually replaced the former.

Are we to believe, then, that Kant relapsed into dogmatism, or anticipated the later idealism, or elaborated a system of thought concerning the noumenal world that is characteristically his own? After quoting as above from the *Essay on the Progress of Metaphysics*, Caird points out the change of emphasis which it denotes, and finds it to indicate not a recoil "towards that common-sense realism which in the first edition he had left behind" but an advance toward "a more complete and consequent application of the principle of his transcendental deduction." (Caird : *Crit. Phil. of Kant*, Vol. I, p. 243, Note.) By this he means, as appears in the sequel, that Kant was gravitating toward the theoretical recognition of an absolute ego as the supreme implication of experience. This tendency on the part of Kant, and the fact that it was never more than a tendency can best be understood by distinguishing two different functions of the noumenon. In the first place, after reducing the object of experience to dependence upon the mind's activity, there is finally left over only its bare externality or givenness. But this very externality constitutes a claim to

genuine reality, dependence upon mind being regarded as degradation to an order of appearance or phenomenal existence. Knowledge of this thing in itself, then, is impossible because it is essentially an extra-mental object. The ideal of reason could not here be accomplished by the aid of the understanding. This is the purely agnostic Kant. When, on the other hand, we depreciate the above noumenon, because of its very inaccessibility, and emphasize the world of mind because of its cognitive value, we have a new ideal of reason. The world of experience falls short now not because it is dependent upon the understanding, but because it cannot be *completely* comprehended by that faculty. The reason is here clamoring not for less mind, but for a complete mental synthesis. Here the thing in itself is not that which is beyond mind, but that which is the consummation of mind. Now, Kant approaches idealism in so far as he regards the noumenal world more and more from the latter of these two points of view, but he is prevented from ever arriving at that metaphysics because he never forsakes the former. In his conception of the regulative use of the ideas he acknowledges the necessity of the thought of the completion of human knowledge in a self-determined totality. In his conception of teleology he admits the necessity of thinking the world as designed for our intelligences through the agency of an original creative intelligence. Finally, in his repeated allusion to the possibility of an intuitive intelligence, he suggests the overcoming of his own epistemological dualism. But because for the human understanding objective knowledge must always involve a given, the noumenal world would have to be given in order to be known. And because the noumenal or rational totality can never conform to the conditions of intuition, it must therefore remain inaccessible to the knowing subject. Consequently these speculations fail to arrive at the thought of an immanent universal self, and belong for the theoretical reason to the anomalous realm of 'necessary thoughts.' Kant is clearly not an idealist, because he lacks the great idealistic presupposition of an ultimate identity of thought and reality, and of the inclusion of subject and object in the organic unity of the self.

To be concise, Kant held that matters of fact can be known, and that the ideal can be known, but denied that the ideal can be known to be matter of fact. The ideal as matter of fact, however, can be systematically traced in nature, history, and religion. Moreover, since the rules for life are ideal, one will in conduct necessarily assume the actuality of the ideal. But Kant never finds the idealistic way of knowing the ideal-real.

If this be a fair representation of Kant's relation to metaphysics it will justify a criticism of Professor Ruysen's book in its totality. He does not afford his readers a glimpse of that *Weltanschauung*, of which Kant was rationally convinced, but upon which he put his own peculiar epistemological construction. He treats the topic of the metaphysics of nature too narrowly to represent Kant's general conception of metaphysics, while too broadly to suit his more specific plan. He announces at one point that Kant's metaphysical aim was the construction by reason of an ideal world, combined with the denial of the objective validity of this construction, but in another connection states that Kant's metaphysics is negative because it is concerned primarily with demonstrating the unknowability of the thing in itself, the proper object of metaphysics (cf. pp. 165 and 67). Professor Ruysen would have done better to have distinguished clearly the two plans as above, confining his treatment of the metaphysics of nature to Kant's deduction of the first principles of physics. He might then have brought together what he could not have found in any one book or essay, the *Weltanschauung*, to use Professor Paulsen's words, of *den ganzen persönlichen Kant*.

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The Limits of Evolution and other Essays ; Illustrating the Metaphysical Theory of Personal Idealism. BY G. H. HOWISON, New York, The Macmillan Company, 1901.—pp. xxxv, 396.

In his preface Professor Howison says of these essays "They all illustrate, each from the field of its own subject, the metaphysical theory which I venture to call Personal Idealism." It is this fact which renders the task of the reviewer of the book a somewhat difficult one. For the permanent value of each essay must necessarily depend very largely on the soundness and vitality of this underlying and informing philosophy, while the reader can hardly pass a fair judgment on the latter from such a piece-meal presentation of its claims. It is true that some help is offered by the author in a preliminary statement, also in the preface, of the main points of his metaphysical system ; but this as he admits is a mere summary, propounded for the reader's better appreciation of the point of view of the essays, but necessarily presented "in all its naked dogmatism." A hope is held out of a fuller treatment in some future work, but until this is fulfilled the author can hardly expect to make converts by the mere statement of a new form of idealistic ontology. None the less, the present

volume contains much that is suggestive and stimulating, while the moral elevation of its tone, and the candor and urbanity which are present throughout its pages, give it a charm not always to be found in philosophic discussions.

The general character of the metaphysics here summarized is that of pluralism as opposed to monism, and idealism as opposed to naturalism. The reality of the universe, on this theory, consists of minds and their experiences. All minds are in their essence timeless and non-spatial, their true existence consists in their thought-relations to each other and to God. God is not inclusive of other minds, nor yet is he their efficient cause. Efficient causation, indeed, is wholly eliminated from the world of reality. He is, however, the ideal by which their actions, in so far as they are rational, are determined; and the sole causal nexus which holds good in the rational sphere is that of 'final cause' or 'end.' God is not in the ordinary sense of the word the 'creator' of man nor is he directly creative of the world as each one of us knows it. Each mind is creative, and God and the other minds are reciprocally dependent, God's perfection resting on the recognition he gives to other minds, and each of the latter being real only through the reality of God as the ideal type of existence. The relation between God and man is thus "freely mutual" and God "only exists as *primus inter pares*, in a circle eternal and indissoluble."

In so far as criticism is possible of a doctrine merely summarized or only incidentally treated in comparatively brief essays, one can but object to this idealistic pluralism that it seems insufficiently supported in its main contentions by the implications of ordinary experience or by the results of philosophic inquiry. Idealistic monism, that of Hegel, for example, is the response of reflective thought to the demand for such a unity as shall render intelligible the apparently disparate elements of conscious experience;—all such experience, whether of the individual or of the race, whether pertaining to the fields of history, science, art, religion, morality, or philosophy itself, being regarded as the manifestation and explication of the one all-embracing and all-differentiating reason. Monism, in short, is the form which philosophy inevitably takes when it is treated as the final and highest step in the systematization of knowledge. Undoubtedly in any such philosophy there are pitfalls for the unwary. Monism, especially in the past century, has too often "made itself cheap"; and the Absolute has been used as a sort of transcendental limbo to which all incomprehensibilities and thought contradictions might be safely consigned. But if the reaction against hasty and uncritical conceptions of the one and the all leads

us to a mere pluralism, it becomes a relinquishment of the main problem of philosophy. It is true Professor Howison gains a certain unifying principle by the interaction between the minds that, for him, make up the real world, but the nature of this he fails to make clear. Nor, to the present writer, does his theory of the Divine Being serve to elucidate the facts of human life, nor does it appear to be either a necessary corollary from, nor a prerequisite to man's moral consciousness. This new presentation of the ontological argument seems as liable to objection as was its older form. Man has, and must have, an ideal, in art, in science, in the moral life. But because we have a conception of the true, the beautiful, and the good, it does not follow that truth, beauty, and goodness have an objective and personal existence. Professor Howison's doctrine of human freedom does not seem essentially different from Kant's and is open to the same criticisms. It has been pointed out, times without number, that a freedom of choice which pertains to the individual as noumenal, even if its existence be granted, cannot avail to lift his actions in the phenomenal world outside of the causal connection which there obtains; and that it is these actions, time and space conditioned as they are, for which we are supposed to demand 'freedom.' In the present work, however, the determinism which the writer seeks to reconcile with freedom is rather that of theology than of science.

Little space remains in which to refer to the essays in detail. That which gives its title to the volume will to some readers seem the least satisfactory. The subject has repeatedly been thrashed out, and one cannot but suspect that if the philosophy of evolution had been as vulnerable as its opponents have claimed, it must long ago have succumbed to the assaults of idealism. In "Modern Science and Pantheism" the author draws attention to a phenomenon familiar to every student of contemporary thought, the marked tendency toward a pantheistic philosophy that is found among those who are most deeply imbued with the spirit of modern science. The discussion of this is interesting and illuminative, though not every one will accept the judgment on pantheism, which makes it entail "the obliteration of freedom of moral life, and of any immortality worth the having." The essay on "Later German Philosophy" is an excellent criticism of the systems of Hartmann, Dühring, and Lange; and in the address on "The Right Relation of Reason to Religion" the author applies his own philosophic theory to the elucidation of this thorny subject with admirable suavity and no small dialectic skill.

E. RITCHIE.

Arthur Schopenhauer. Seine Persönlichkeit, seine Lehre, sein Glaube.

[Frommann's Klassiker der Philosophie]. Von JOHANNES VOLKELT. Stuttgart, Fr. Frommann's Verlag (E. Hauff), 1900.—pp. xiv, 392.

I believe it was Schiller who once said that he felt there was marrow in his bones for centuries to feed on. The thought expressed in this remark applies to all great men, and is perhaps one of the tests of their greatness. The world gauges a man by what he accomplishes, by the influence he exerts upon the generations that follow him. We are still feeding on the marrow in Kant's bones, and we do not seem to have entirely exhausted the possibilities of Schopenhauer's either. The great pessimist has been dead for many a year, and other heroes have found their way into the thoughts of men, but the interest in his life and work is unabated. His writings have been published in many editions, books and monographs have been written about him, and still the last word has not been said. The thinker who found it so hard to obtain a hearing among his contemporaries has become one of the great figures of the age. And his influence is not limited merely to the history of philosophy, it has extended far beyond the boundaries of metaphysics into the general world of culture; his significance is *kulturgeschichtlich*. His is the kind of philosophy that holds the mirror up to humanity, and his glass evidently reflects something that fascinates us. Schopenhauer is not a consistent, logical thinker, he does not represent the type of the German scholar, his philosophy is full of glaring contradictions, and everywhere the personal element shines through his work. But in spite of it all, this pretendedly calm, objective, scientific age of ours does not throw him aside in disgust, but actually reads him and finds much in him that appeals to it. Are we as scientific and purely intellectual as we pretend to be, is not our emotional and volitional nature silently and secretly asserting itself after all, are we not perhaps unconsciously struggling and protesting against a one-sided intellectualism? Is it not perhaps because we come face to face with a flesh-and-blood man in Schopenhauer that we turn to him? It seems so. Schopenhauer represents a reaction against the *Aufklärung* which we have always with us. Contact with him affords the same relief to us as witnessing a drama would afford to one who has been seeing and listening to nothing but figures in the counting room. It does one good after hearing the careful and accurate lecture of the methodical professor, who is afraid of making a statement without qualifying it in a hundred different ways, to be shocked and bullied perhaps, but healthily stirred up nevertheless, by a human being of Schopenhauer's ilk.

It is because Schopenhauer's philosophy is grounded upon his pronounced personality that a study of his system must include a constant reference to his human nature. We cannot understand the system without understanding the man, in this case. Professor Volkelt has done full justice to this personal element in his admirable book on Schopenhauer. He is right in declaring that "his philosophy is not exclusively the product of his thinking, but is deeply rooted in his pronounced personality," and that his system must be presented as an inner experience. And he is also doubtless right in asserting that Schopenhauer's philosophy represents a sum of intellectual currents, moods, and ideals which are coloring, influencing, and moving our modern spiritual life. Indeed, this is one of the reasons why his thoughts find such a ready audience to-day.

These ideas have already been brought out by Professor Paulsen in his book on *Schopenhauer, Hamlet, und Mephistopheles*. Schopenhauer is *Erkenntnissmensch* and *Willensmensch* at the same time. He could have joined Faust in his complaint :

Zwei Seelen wohnen, ach ! in meiner Brust,
Die eine will sich von der andern trennen ;
Die eine hält, in derber Liebeslust,
Sich an die Welt, mit klammernden Organen ;
Die andre hebt gewaltsam sich vom Dust
Zu den Gefilden hoher Ahnen.

His spiritual me, which yearns for the upper air, is often heavily weighted down by the material me, which clings to mother earth. He is a mixture of saint and sinner. These phases of his nature, the ideal side and the will side, are reflected in his system and help us to understand the same.

Professor Volkelt enumerates the different motive forces in Schopenhauer's philosophy, the main-springs (*Triebfedern*) of his thought. We find in it a pessimistic spring, an illusionistic spring (the world is my idea), a subjectivistic spring (no object without a subject), a voluntaristic and alogistic spring (the world is will), a harmonistic spring (the world is a well-ordered, purposeful whole), a pantheistic spring (there is one undivided, spaceless, and timeless principle), a romantic spring (expressed in the yearning for the transcendent), an æsthetic spring, and a moral spring (the world has a moral meaning). To these different tendencies are due the many contradictions in the system. It is no difficult matter to point these out. But we can understand them only by referring to the elements in the philosopher's nature on which they are grounded.

Another point worth remembering is that Schopenhauer's philosophy is metaphysical from beginning to end; all his ideas are permeated with metaphysics. Moreover, the method which he followed in his work is the method of intuition (*Anschaung*). Concepts are for him merely representatives of things perceived and experienced; "his thoughts are saturated with intuition and experience, they carry with them the odor of the fresh soil of experience," as Professor Volkelt puts it. But this intuition means more to Schopenhauer than the term might imply to us. It is a philosophic gift, like Schelling's intuition, the power to penetrate the veil of existence, to peer beneath the surface into the mysterious depths of the world. It is really an irrational mode of knowledge, a mystical faculty, one that transcends the principle of sufficient reason.

Professor Volkelt points out a number of characteristics in Schopenhauer's philosophy which have a value for us not because they are absolute expressions of the truth, but because they represent phases of life that must be reckoned with. "Let us not forget," he says, "that the worth of a philosophy is not solely determined by its consistency and correctness, but that its human and historical value must also be kept in mind." The system may be characterized as follows: (1) It is a synthesis of Kantian subjectivism and Spinozistic-Schellingian pantheism. (2) It is irrationalistic: the essence of the world cannot be exhausted by logic and thought. (3) It is tinged with individualism. (4) It is romantic pessimism, *i.e.*, a synthesis of pessimism and faith in redemption. (5) It is a union of world-affirmation (*Weltbejahung*) and world-denial (*Weltverneinung*). All these thoughts are valuable because they vividly express human feelings and needs, and great historical moods and currents of spiritual life. They are also valuable because in them a strong and typical individuality expresses its attitude towards the world and life.

Professor Volkelt has written a number of books, and every one of them is good. This one on Schopenhauer is not only one of his best, but one of the best ever written on that subject. The writer deserves the highest praise for his work, and will doubtless receive it.

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SUMMARIES OF ARTICLES.

[ABBREVIATIONS.—*Am. J. Ps.* = *American Journal of Psychology*; *Ar. f. G. Ph.* = *Archiv für Geschichte der Philosophie*; *Int. J. E.* = *International Journal of Ethics*; *Phil. Stud.* = *Philosophische Studien*; *Rev. Ph.* = *Revue Philosophique*; *R. I. d. Fil.* = *Rivista Italiana di Filosofia*; *V. f. w. Ph.* = *Vierteljahrsschrift für wissenschaftliche Philosophie*; *Z. f. Ph.* = *Zeitschrift für Philosophie und philosophische Kritik*; *Z. f. Ps. u. Phys. d. Sinn.* = *Zeitschrift für Psychologie und Physiologie der Sinnesorgane*; *Phil. Jahr.* = *Philosophisches Jahrbuch*; *Rev. de Mét.* = *Revue de Métaphysique et de Morale*; *Ar. f. sys. Ph.* = *Archiv für systematische Philosophie*.—Other titles are self-explanatory.]

LOGICAL AND METAPHYSICAL.

Un positivisme nouveau. E. LEROY. *Rev. de Mét.*, IX, 2, pp. 138–153.

This article is an exposition and defence of the Neo-critical philosophy, a system having birth, “at the threshold of the twentieth century in reaction to those tendencies whose development occupied the middle of the preceding century.” This philosophy takes the form of a new Positivism, more realistic, and more confident in the powers of spirit than the first. Thus it is superior to the Positivism of Comte, which was too utilitarian and prone to accept without criticism the attitude of common sense. The Neo-critical philosophy has been misrepresented chiefly in two ways. It has been made out to be on the one hand an abstract intellectualism, on the other a pure æstheticism. Interpreted as an intellectualism, it becomes a mere dialectic and play of concepts which may result in scientific scepticism. Understood æsthetically, it is transformed into a vague mysticism. But in reality the New Critique is a *spiritualism*, since in scientific knowledge it subordinates the lifeless materials which serve as tools and symbols, to the living thought-process itself for which the former furnish a transitory body whose dissolution is survived by the vital activity. This philosophy is a Positivism in that action is for it the supreme criterion. But this action is nothing superficial or external; it is the productive activity of free spirit. It is the living creative form which is operative in true philosophic intuition.

H. W. WRIGHT.

The Law of Historical Intellectual Development. J. S. STUART-GLENNIE. *International Monthly*, III, 4, pp. 444–463.

Comte's ‘Law of the Three Periods,’ the theological, metaphysical, and scientific, was merely an hypothesis. Subsequent inductive research has resulted in the discovery of the character of the primitive conceptions of nature, the conditions of the origin of civilization, and the stages of intellectual development. Man's primitive consciousness is characterized by

two sets of conceptions : those occasioned by sensations and synthetizing objects and persons, as sentient powers ; and those occasioned by emotions mythicizing the more impressive objects, persons, and events, as supernal (not as yet supernatural) beings. The classes of supernal beings are actual objects and persons with a mythical atmosphere about them ; personalized characteristics of objects, persons, and events ; and finally traditional objects and persons, in mythical shapes. Whether things are conceived as sentient powers or as supernal beings, they are regarded as subject to quantitatively undetermined influences. Progressive civilization originated as a result of the conflict of higher and lower races. In order to maintain their rule, the higher races were forced to devote their leisure to intellectual work. The history of intellectual development describes an advance from a quantitatively undetermined to a quantitatively determined notion of universal interaction. The conditions which gave rise to this movement gave rise also to magic. And magic in turn transformed the supernal into supernatural beings. The historical stages are first, the incipient development of the antagonisms latent in primitive panzoist conceptions ; secondly, the definite differentiation and determined conflict of the naturalist and supernaturalist conceptions, beginning with the substitution of moral for religious customs in the sixth century B. C. ; and thirdly, a stage marked by the victory of a more adequate naturalism distinguished by verified conceptions of a quantitatively determined universal interaction.

N. E. TRUMAN.

On Physiological, as Distinguished from Geometrical Space. E. MACH.
Monist, XI, 3, pp. 321-338.

The sensible space of immediate perception differs widely from geometrical space. Both spaces, it is true, are threefold manifoldnesses. To every point of geometric space, A, B, C , there corresponds a point A', B', C' , in sensible space, in such a way that if B lie between A and C , then B' lies between A' and C' . These two characteristics, however, exhaust about all that they have in common. Sensible space consists of a system of feelings evoked by physiological organs, and is best described as a sort of vague voluminousness in which our sense-impressions are located, and often very inaccurately located. It is a qualitative manifold determined at every point by reference to sensations in our individual bodies ; above differs from below, before from behind, and right from left. Experiences of untrammelled orientation and progressive movement in all directions enable us, however, to form the abstract notion of a space equal in all directions, infinite in extent, and identically constituted at every point. This is geometrical space ; not a simple sense-experience, but an abstract ideally accurate system of points, lines, and figures. Thus arrived at, however, geometrical space is never able to supplant sensible space in actual perception, and that simply because it is phylogenetically and ontogenetically older and stronger. Even in our abstract mathematical reason-

ing this is also true. The straight line, the plane, and the Cartesian coordinates, according as they are reckoned to the right or the left, upward or downward, are constructed with reference to our sensitive feeling bodies. This may not be necessary, but only convenient, but it is convenient only because of the primacy of sensible over geometrical space.' It was undoubtedly this fact of the primacy of sensible space which led Kant to regard space not as a concept, nor as a pure form of thought, but as a pure form of intuition. Kant did not see, however, that this basis is unquestionably inadequate to the development of geometry, inasmuch as concepts, and even concepts derived from experience, are also needed for this purpose.

IRA MACKAY.

Psychische Vorgänge und psychische Causalität. TH. LIPPS. Z.f. Ps.u. Phys. d. Sinn., XXV, 3, pp. 161-203.

Psychology is not alone concerned with the mere description of psychical phenomena; it is chiefly interested in establishing and formulating the laws underlying these phenomena and their relations to one another. These relations may be viewed from various standpoints. From the standpoint of a physiological materialism, the causal relation does not hold directly between the conscious process as such, but is mediated by brain processes. Whatever, says Lipps, the physiological substrate of the psychical process may be, we only know the psychical. Psychology is not physiology. The causal relation, so far as the psychologist is concerned with it, is a psychical relation. The author makes a distinction here between psychical processes and contents of consciousness. The causal relation obtains only between the former, and not between the latter. In other words, 'reals' may stand to each other in the relation of cause and effect, *i. e.*, all psychical causality belongs to the realm of the unconscious. The contents of consciousness, the elements which we find in consciousness, are sensations and feelings, and the ideas corresponding to these, the ideas of form and relation, and the relation between the object and the ego as directly experienced. Between these we cannot predicate a causal relation. The unconscious elements, which alone are the bearers of psychical causality are the processes underlying sensation and perception, the real temporal and factual relations of the same to each other, and finally the 'psyche' itself with its general condition and tendencies. Neither of these two classes of psychical factors is interchangeable. The psychology which goes beyond mere description builds from the 'real' factors a 'real' psychical causal relation.

CARRIE R. SQUIRE.

PSYCHOLOGICAL.

La mémoire affective : son importance théorique et pratique. F. PILLON. Rev. Ph., XXVI, 2, pp. 113-138.

It is by means of the memory that any sensations are conserved in order to be revived in the state of images (in the broad sense of the term). The

diversity of memory being granted, one is led to ask if there is not also an affective memory, as there is a visual or auditory memory. Such a memory has been recognized in greater or less degree, and has been explained in diverse ways by Spencer, Bain, Höffding, and Ribot. James attaches slight importance to it. Affective states undergo various degrees of abstraction. When abstract and general, the affective memory does not retain its affective nature, but should not be called false (Ribot). When concrete and vivid (as in the presence of objects), the affective tone is present in high degree. In this concrete revival there are three factors : (1) the visual sensation of the object, (2) images of the old sensations (association by similarity), and (3) images of old feelings recalled by the old sensations which accompanied these feelings (association by contiguity). The new and the old ideals may combine to form a new result (the illusion of Höffding). There is a distinction between voluntary and involuntary revival, the latter having the stronger affective value. Association is present in both, the latter again being stronger. When ideas are separate they are quite distinct ; when feelings are separated they become obscure, they are more dependent upon association, and are inseparably bound up with ideal sensations. Not only sensations but associations by similarity and contiguity may arouse affective memories (Ferri and Fouillée). Since feeling is a basis of mentality and since mind evolves, the affective memory must play a part in evolution. It is stronger in women than men, with whom memory is more intellectual. In religion the affective memory is a strong conservative force, and is again stronger in women than men. This is shown in the difficulty experienced in any change in religion where the new feelings can only gradually supplant the old. Religious and moral education is a training of the proper affective memories.

FLORENCE M. WINGER.

ETHICAL.

The True Significance of Sidgwick's "Ethics." F. H. HAYWARD. Int. J. E., XI, 2, pp. 175-187.

In this article the writer presents in brief the leading features of Sidgwick's ethical system, and indicates what he believes to be its fundamental inconsistency. In aims and sympathies Sidgwick was an empiricist of the traditional English line, ever refusing to associate himself with the prevalent idealistic movement. His preëminent merit was absolute fairness along with keen critical acumen ; his chief defect, absence of constructive power. This characteristic fairness failed in one direction only. With idealism he had little sympathy, and consequently treats it in a perfunctory and inadequate manner. He was by nature an eclectic, and endeavored to comprehend in his own system the grain of truth which he found in every other. In his synthesis he includes even elements of intuitionism. With Kant he interprets 'right' in the sense of 'rational,' and admits the notion of 'oughtness' to be ultimate and unanalyzable. Further, he

allows that reason can act as a motive of the will, and in his maxim of 'justice' approaches close to the Categorical Imperative. In all this, he is at direct variance with all consistent Hedonists. Nevertheless, he always remained a nominal Hedonist, clinging to the view that the *summum bonum* can be expressed only in terms of happiness. To determine Sidgwick's true position, we must observe what he considers to be the *motive* of action. The motive to the performance of an act he finds in its *reasonableness*. Moreover, his utilitarianism is based upon a formal principle of abstract reason. We may then conclude that Sidgwick was not a true Hedonist. This system he preferred, but such was his fairness and ability, that he refused to overlook its fatal inadequacies and contradictions. In the attempt to remedy these he introduced a rational element, which left his system no longer Hedonistic.

H. W. WRIGHT

Les principes universels de l'éducation morale. A. LALANDE. Rev. de Mét., IX, 2, pp. 237-249.

M. Lalande here attempts to defend the teachers of ethics against the popular accusation that divergence of opinion is too great among them to admit of the recognition of a common body of truth. He admits that professional moralists to an extent deserve the charge because of the tendency of each to emphasize his own original contribution to ethical theory. But the very fact that the great majority of moralists refuse to have recourse to the supernatural, testifies to the existence among them of a common body of doctrine over which there is no dispute, representing the moral principles common to Aristotle, Descartes, Kant, Spencer, and the other great thinkers, despite their difference in metaphysical theory. In truth, the principles of morality are not derived from metaphysical theory. Rather these theories are advanced as hypotheses to systematize those judgments of value immediately given. These judgments of value, universally recognized, constitute the basis upon which the metaphysical theory is constructed. An adequate metaphysics would supply the *ratio essendi* of these moral values, but it is the latter which are the *ratio cognoscendi* of the former. To furnish conclusive proof of his position M. Lalande endeavors to formulate a system of universal principles held in common by all moralists and recognized as self-evident by every one. These are presented in the form of ten personal qualities or virtues which the moral judgment holds to be necessary to any character which it approves. The fundamental and self-evident nature of these principles justifies the moral teacher in inculcating them in the mind of his pupil before he is able to appreciate their significance in the same mechanical manner by which the multiplication table is taught. In addition to these universal principles, there are other precepts which are dependent upon the natural and social conditions to which the individual must adapt himself. So the writer appends a list of seven of these principles dictated by national conditions. The relative nature of these principles forbids the use of the 'maternal' method of instruction ap-

propriate to the principles of the first category. When the pupil has acquired the use of his reason, these precepts should be presented by the teacher along with the arguments which recommend their acceptance.

H. W. WRIGHT.

The Ethical System of Henry Sidgwick. JAMES SETH. *Mind*, No. 38, pp. 172-187.

In the *Methods of Ethics*, Sidgwick attempts to reconcile the various conflicting views with a larger and more inclusive truth. He has endeavored to make Ethics a science, but not merely a science; it must be an art as well; and the business of the philosopher is to tell men what they ought to think rather than what they do think. Sidgwick's method and influences were distinctively English. His criticisms are from within—the system is made to criticise itself. The criticism is not merely destructive, it is for the sake of a later synthesis. Sidgwick finds several points of view implied in our ordinary moral judgments, and this plurality of standpoints, he thinks, explains the inadequacy of any ethical theory which is constructed from a single point of view. There are three fundamental methods of Ethics or ultimate points of view taken by the ordinary conscience, viz., Egoism, Intuitionism, and Utilitarianism. The result of Sidgwick's recognition of these three methods of Ethics as equally legitimate, comes to be by his treatment apart from his theological assumption, Rational or Intuitional Hedonism, rather than Rational or Intuitional Utilitarianism. With the theological postulate, it is in the last analysis Rational Egoism. If we invalidate Egoism, it is easy to reconcile Utilitarianism with Intuitionism and thus show the rationality of altruistic conduct. If the point of view of the individual and his happiness is once exchanged for the point of view of society and the general happiness, if the principle of prudence is subordinated to the principle of benevolence, or if both are subordinated to the principle of justice, the dualism and contradiction of ethical thought disappears, and Utilitarianism is seen to be the only rational principle of conduct, the only principle worthy of being called intuitive. The question of the validity of the hedonistic interpretation of the good still remains. Sidgwick's main interest was in regard to the distribution of the good, rather than in the nature of that good. His investigation of the problem of the good is much less satisfactory than his investigation of the problem of its distribution.

G. W. T. WHITNEY.

Les principes de la morale.—I. Le souverain bien. CH. DUNAN. *Rev. Ph.*, XXVI, 3, pp. 261-279.

There have been three conceptions of the moral ideal, and a fourth seems impossible. The Greeks, Scholastics, and Moderns, until Kant, held to that of the Sovereign Good. Kant insisted on the priority of Duty, and made the Good derivative. Finally, empirical systems have rejected the notion of an absolute, and made the completest possible satis-

faction of our tendencies the ethical end. The writer chooses of these forms the first, which involves the founding of ethics upon metaphysic, since the search for the Good involves the determination of what natural perfection is. Being is action, and therefore perfection is harmony of a being with itself, which involves harmony with its universal environment. The search for the Universal Good is therefore the search for the Absolute. The empirical ethicists would insist that we stop with the contingent. But Cyrenaic pursuit of passing pleasure had to yield to the doctrine of *utility*, which is only a halting compromise between Cyrenaic pluralism and the absolute solidarity already asserted ; as there is solidarity in the functions of an individual, so is there in his interests and those of his fellows ; so that for individual interest must be substituted general interest, and logic pushes this beyond even the limits of humanity to involve the whole universe. But the notion of *interest* and that of *universality* are incompatible, and thus the vicious abstraction of utilitarianism is apparent. Utilitarianism is also unable to conciliate egoism and altruism ; Bentham identified them, Mill opposed them to each other ; both positions are mistaken, for differing interests are *qua* interests irreconcilable. The relation between egoism and altruism can only be solved by solving the problem of individuation. The will to be, which underlies all our life, implies the will to be by and of one's self, a desire which is futile in a finite being. The necessary condition for the happiness of such a being is its union with all creation, or with God its soul ; to save one's life one must give it up to find it again in God. There is thus a true and a false self-love ; the false excludes, the true involves, love of others. One must see in his fellows co-members of the whole ; egoism and altruism are reconcilable only in the love of the universal, the love of God, which leads us to strive for the development of both our own personality and that of others. Thus, in morals as in the world and the process of thought itself, we find the apparent antinomy and real union of the Infinite and the Finite, the One and the Many, the Universal and the Particular. As we must not lose the individual person in the universal, neither must we deny its value to pleasure, which at first appears as opposed to the Supreme Good. Pleasure is not the Good, but it makes the Good 'multiple, sensible, and real' ; it results from the exercise of a particular function, but expresses the Good which consists in the subordination of this function to the whole. We must then insist on the hierarchy of functions and pleasures, as against the Utilitarians' atomistic equalization and isolation of functions ; Mill indeed recognized qualitative distinctions in pleasures, but in contradiction to his system which recognized no hierarchy of functions. True morality is—to prefer higher pleasures to lower. 'Virtue is to will one's self, but in one's true nature, which is through union with the Absolute.'

EDMUND H. HOLLANDS.

Les principes de la morale.—II. La conscience morale. CH. DUNAN. Rev. Ph., XXVI, 4, pp. 360–384.

The preceding article has defined the greatest good as the unity of a reasonable being with itself and the universe. This is to be sought under the guidance of conscience. Common sense defines conscience as a sort of revelation or light invariable in all men. Conscience is, however, a form of reason, and facts clearly disprove its invariability and infallibility. Its function is to point out the actions most suited to realize the unity of our own being and the universe. Spencer would also define morality and happiness as an adaptation as perfect as possible of our actions to the universal laws of nature ; but his universe is a sum of parts, without metaphysical unity. This lack of teleological unity destroys his evolutionary account of conscience ; it also reduces his appeal to experience to a position which is one with the utilitarianism of Mill, which, however, he disclaims. His empiricism can never found an universal morality. The remaining at one with oneself and with nature, is the formula of life as well as of ethics. Life is really a mutual subordination to each other of the living being and nature, and the problems of life and of ethics are one. Life is the more or less perfect unification, produced by the living being itself, of nature in one of its aspects. From the struggle between the various existent beings, and the consequent adaptations, arise time and space. The principle of life is thus both a conserving and a transforming principle. The unity of physical and mental life is certain ; but in consciousness we see two stages, the merely sensory in the animal, and the reflective in man. It is of the nature of the latter to form ideal concepts, and in the subordination of the senses to these ideals consists the moral life. The realisation of the relativity of the merely physical is, however, not the abolition but the perfection of life ; conscience is but a higher form of the vital principle. Its adaptations and unifications vary as do those in the physical realm ; it differs as the intelligence of its owner, and the demands of morality vary. Conscience, however, unlike mere instinct, is progressive, and the moral life must either rise or fall. There is much truth in the account of its evolution given by Darwin and Spencer, though not in their derivation of altruism from egoism. Morality being progressive, moral proselytism is commendable, but as morality is a varying adaptation, the conscience of another must be respected often when lower than that of the would-be adviser.

EDMUND H. HOLLANDS.

The Theory of Value and its Place in the History of Ethics. CHARLES GRAY SHAW. Int. J. E., XI, 3, pp. 306–320.

Except in the work of Lotze and of Nietzsche, ethics has not, like economics and theology, developed a theory of value. The ancient view of life was æsthetic ; good was an objective reality ; virtue a subjective attitude ; and no end was set before the ethical subject. The modern view of life is dynamic ; the world is a system of energies ; the ideal is perfect

functioning; and right is the method of attaining an undefined end. Where ancient thought perceived no problem, modern thought has found no solution. Present ethical tendencies are likewise in want of the valuational idea. Intuitionism has made ethics a distinct science, yet independent judgments of right are formal, and the motto "duty for duty's sake" vitiates the practical force of the method. The principles of Hedonism emancipated modern life. Moral conduct is regarded as desirable and there is an approximation to the idea of value. But, owing to a defective analysis of the affectional process, the development has remained incomplete. The value-principle however has had an influence in history. Bentham's system involved the idea; but his interpretation of value is a mixture of mathematics and traditional psychology. Kant showed how independent judgments of value may be made, but neglected the attendant psychological conditions. Psychologically, value and desire, though related, are independent of each other. Pleasure has reference to the present; desire to the future; value is not restricted by temporal limits. The value-principle determines the will; but its affinity for the two other forms of conscious life is expressed in judgments of value. Ethically, the 'desirable', if equivalent to the 'valuable', must not be interpreted in Hedonistic terms. Moral conduct should produce results. The end of life is to realize destiny. Metaphysically, both the subject and the object of valuation, the personal ego and the moral-world order, are essential. Value is actively concerned and ethical relations are constructive and real.

N. E. TRUMAN.

Current Sociology. SYDNEY BALL. *Mind*, No. 38, pp. 145-171.

The writer asks if sociology is really a science or only a name for a science which has not yet come into existence. He is of the opinion that sociology is a word which denotes a great group of problems waiting for solution rather than any compact and systematic body of doctrine. It will not stand Comte's test for a positive science, that is, the test of consensus and continuity. There seems to be no agreement as to the principles, province, or method of sociology, while the predictions of sociologists carry disagreement to the verge of incompatibility. Comte excluded psychology from the method of sociology. Modern sociology is psychological, abstract, and theoretical. The one thing that is common to the sociology that prevails is its emphatic rejection of the biological method. Society must be construed not as an organism but as a psychological organization. The American sociologists agree with the French and Germans in this. The writer thinks that there is loss as well as gain in this. "Whatever may have been the shortcomings of biological sociologists, they were at least aware of the difference between a mere juxtaposition of individuals, and that kind of coöperative structure we call a society; and it is just the idea of the social organism that imitation between individuals does not so much as even suggest." No merely psychological account of morality can sat-

isfy the requirements of theory. Morality is not a mere psychological process ; it depends upon a capacity for moral ideas which rest in the last resort on the growing recognition of an order or system of life which we do not make, which is greater than ourselves, and yet is what we ourselves most desire. The formation of such a view involves other agencies than imitation.

G. W. T. WHITNEY.

HISTORICAL.

Beiträge zur Erklärung Platonischer Lehren und zur Würdigung des Aristotles. RICHARD WAHLE. *Ar. f. G. Ph.*, XIV, 2, pp. 145-155.

The word 'idea' used to express changeless being is misleading. We understand by idea something known as an element in knowledge. Only when the *γένος*, *εἶδος*, and *ἰδέα*, are not absolute, but are in our consciousness, which according to Plato is seldom the case, are they ideas in the modern sense of the word. They were logical expressions which could be applied to all that had being. One must agree with Aristotle in the conclusion that the theory of ideas was occasioned by ontological and epistemological demands, notwithstanding the fact that it later attained a relation to ethics. The world was not created out of nothing. The Demiurge found the elements, earth, air, fire, and water, and the principles of becoming and differentiation already present. It is probable that the Demiurge is no real metaphysical power. Since Plato had all forms of being and becoming for the construction of the world and its soul, the Demiurge could be only the personification of the force manifest in the evolution of these forms. Plato did not regard the popular gods as real. More difficult are the expressions regarding the nature of the ideas ; yet we must conclude that his 'ultimate forms' have force and life. The world-soul is a permanent existence made up of the totality of ideas, types, or forms. Since the individual soul which is derived from the world-soul has consciousness, the latter must also have consciousness. Aristotle, contrary to common opinion, stands in complete dependence upon his teacher, and has introduced no new moment into philosophy.

N. E. TRUMAN.

NOTICES OF NEW BOOKS.

Avicenne. [Les grands philosophes.] Par LE BARON CARRA DE VAUX.
Paris, Félix Alcan, 1900.—pp. viii, 302.

No period of human history is quite so rich in dramatic interest as that 500 years during which the Treasury of Europe was in the hands of Asiatic keepers. And yet our knowledge of this period is woefully incomplete. One can almost count the works which deal with Arabic philosophy on his fingers, and in Arabic history, Arabic education, Arabic medicine, Arabic legislation, etc., almost nothing adequate has yet been accomplished. It is a fact for self congratulation that scholars of the present day begin to exhibit a very lively interest in tracing the influence of the Arabs on European civilization. In spite of the dogmatic negations of historians whose knowledge of Arabic was lamentably small, economists and political theorists are beginning to investigate anew the place of the Arabs in the commercial and political life of Europe. Historians of education begin to take the statements of Constantius Africanus with considerable salt, and to search for better explanations of the founding of universities than those which are commonly given, and students of the history of philosophy are inclined to place a higher value than heretofore upon the work of the ostracized Moslems who endeavored to possess themselves of the speculative wisdom of the Greeks. Danish, German, French, and Spanish scholars are busy with this subject, but their investigations have not advanced so far but that philosophers are being discovered whose works have been hidden for hundreds of years. In view of the general interest in this period, and the debt which present day civilization undoubtedly owes to the Moslem peoples, it is a matter for regret that English and American scholars have contributed so little to our knowledge of this subject. But it must not be forgotten that one of the greatest men of our time spent years upon it, and at the last was prevented by death from putting the results of his indefatigable labors at our disposal.

It is a pleasure to welcome the volume of Baron Carra de Vaux in which so many results of ripe scholarship are placed at the command of the reader with all the directness and charm of French prose. The book is, in reality, a much larger contribution to the history of philosophy than its title implies. Instead of confining himself to Avicenna alone, its author has given an outline of Arab speculation from the time of Mahomet to the death of Avicenna—a period of some four hundred years. He has stated the fundamental doctrines of the Koran. He has described the vast activity of theological speculation which the religion of the prophet called forth. The multiplicity of problems which arose forced the Moslem thinkers to consult the wisdom books of other peoples in order to solve their intel-

lectual difficulties. To this end, the learning of the Greeks, the Hebrews, the Syrians, and the wise men of Persia and India were requisitioned by the Arab thinkers, and five foreign literatures were translated into the Arabic. A period of unsurpassed intellectual activity began which continued for several centuries. At first, Jewish and Christian scholars furnished the texts and made the translations, but very soon their Arab pupils began to excel them in that work and the age of enlightenment was on. The details of the beginnings of this great movement are briefly but clearly stated in Baron Carra de Vaux's work. The passing of scholasticism from the Christian schools of western Asia to the theologically minded Moslems is of immense importance in the history of thought. In the second century of the Hegira, the great questions of the attributes of God, the freedom of man, the nature of good and evil, of the physical universe, of man's soul, and human knowledge, held the minds of a host of followers of the prophet, as completely as they possessed the theologians of the West three centuries afterward. The same religious need set identical problems for the thinkers of both churches, and the answers with which they satisfied themselves were drawn from the same pagan sources. 'Parallel lines' of human development are frequently but arbitrarily limited parts of the same line, and the evidence that oriental and occidental culture is one continuous whole, increases daily.

Not the least interesting part of the book is the chapter which treats of the life of Avicenna, for there one may learn something of the difficulties which beset the heterodox rationalists at the hands of their orthodox neighbors. The destruction of the library of Alexandria is charged to the fanaticism of the faithful, but the preservation of the wisdom books of the ancients was also the work of the followers of the Prophet. That result would not have been possible had there not been at all times a number of Moslem thinkers who prized the knowledge which the ancient texts contained, and strong forces in society which countenanced their labors. Yet the orthodox always hated the rationalists and lost no opportunity to turn and rend them. And it is one of the most amazing facts of history that a form of knowledge so generally despised and assailed was able to maintain itself through the chaos of civil and religious wars which make up Mussulman history. The fact is that the men who gave their lives to its preservation were of heroic mold, and the labor which they performed in the cause of civilization cannot easily be overestimated.

But they were more than conservers of knowledge. They built out its walls in many directions. Their study of the words of the Prophet required them to develop the science of grammar. Their study of grammar led them on to logic, for their study of words and sentences resulted in a study of terms and propositions. With them logic became the science of sciences, the study of method which must be pursued in all. Doubt of its constructive power was unknown to them, and they revelled in it as did the doctors of the Christian Church, but with more success than their Christian

co-laborers in keeping it within manageable form. The statements which are quoted from the *Nudjat* of Avicenna are clear cut and suggestive enough to indicate that the Arab scholars had mastered the wisdom books which they had borrowed from the Greeks.

In his discussion of the Physics of Avicenna, Baron Carra de Vaux calls attention to the fact that scholastic systems were not bodies of *a priori* opinion formed without employing observation, but that the imperfections of the systems were due to too great reliance upon a science which was very imperfect. The discussion of this chapter centers about matter and form, primary and secondary qualities of matter, the nature of force, of time, the evidence of a void, etc. Here again one marvels at the thoroughness and depth of understanding of this Arab thinker whose time and place were so unpropitious for philosophy.

The psychology of Avicenna is a study of the soul and of intelligence—the soul being regarded as an entity apart from experience. The familiar divisions of Aristotle are repeated in his discussion. The crude theory of knowledge of the scholastics is detailed. Avicenna endeavored to prove the independent reality of concepts, and proceeded to show that the soul is such a spiritual existence and therefore is immortal. The passages which treat this subject are to me the most interesting in the book.

The scholasticism which grew up inside the Moslem Church had for its object the synthesizing of the philosophical and the prophetic accounts of the being of God; the field of metaphysics therefore was its battle-ground, and a most interesting chapter is that in which the metaphysics of Avicenna is outlined. He, as all the thinkers who received their problems from the Neoplatonists, treats metaphysics as the science of God and of superterrestrial beings. His discussions center about the procession of being and the nature of causality. It seems to me that the treatment of these subjects by the ancients, when it attains the thoroughness that is here displayed, is of more than historical interest. The three lemmas which lead to the conclusion that all being is produced by one cause and therefore determined, form a very pertinent piece of reasoning. And Baron Carra de Vaux's account of the failure of philosophy to supply the demands of religion is indeed a suggestive bit of historical interpretation.

The last chapter of the book details the heroic struggle of a monotheistic optimist to comprehend the nature of evil. Evil is deprivation. It is lack of good. It is not a positive quality. To the Eternal all things are good. Nothing but the short-sightedness of the agent causes evil to appear. But even that which appears to be evil is not numerically and quantitatively equal to the good. Things entirely evil, or in which evil preponderates or is equal to the good in them, do not exist. Pleasure attends successful functioning, pain defective action. The function of the soul is to be rational, to know the eternal principles which underly the universe. The ends of the soul are more worthy than the things of time and sense, they pass away, but it reveals itself as fitted for eternity.

There is a breadth of interest, a vastness and a daring in the work of the great men of the past, which cannot fail to give strength to their far removed descendants. One unconsciously becomes catholic by consulting them. I commend this book. It is rare good fortune to have so satisfactory an approach to such an ancient mine of learning.

ERNEST CARROLL MOORE.

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Philosophia Militans. Gegen Klerikalismus und Naturalismus. Fünf Abhandlungen. Von FRIEDRICH PAULSEN. Berlin, Reuther und Reichard, 1901.—pp. viii, 192.

This is a collection of five able and interesting essays. The first, *Das jüngste Ketzergericht über die moderne Philosophie*, was called forth by Willmann's *Geschichte des Idealismus*, and was originally published in the *Deutsche Rundschau*, August, 1898. The second, *Kant der Philosophie des Protestantismus*, first appeared in Vaihinger's *Kantstudien*, in 1899. The third is a discussion of Hertling's work, *Das Princep des Katholicismus und die Wissenschaft*, and was printed in *Deutsche Stimmen*, September, 1899. The fourth, *Ein Gedenkblatt zu Fichte's Atheismusstreit*, appeared in the *Deutsche Rundschau*, April, 1899, and the last, *Ernst Haeckel als Philosoph*, came out in the *Preussische Jahresbücher*, July, 1900.

These essays have a common aim: the defence of modern idealistic philosophy against two powerful foes, clericalism and naturalism. Kant is the center of the attack, because he has annihilated both dogmatic supernaturalism and dogmatic naturalism. He has cut the very ground from under the feet of materialism, and has destroyed the supports of rational, philosophizing theology in human reason. In following Kant, modern philosophy repudiates the materialism of natural science, on the one hand, and the rationalism of theology, on the other, and renders unto science the things that are science's and unto religion the things that are of religion.

I suppose all but ecclesiastical philosophers will heartily agree with the principles laid down in the first four of these essays. The battle between scholasticism and free investigation has been fought, and the fruits of the victory won by science and philosophy will not be lost. The ideal of philosophy is the free pursuit of the truth, unhindered by external authority, and no one can really lay claim to being a philosopher who accepts any other ideal. The scholastic ecclesiastical ideal was a different one. The orthodox schoolman regarded it as his function to prove, so far as possible, the dogmas of the church; according to him the truth was already found. Thomas Aquinas believed in two sources of truth, human reason and divine revelation. But human reason cannot understand and demonstrate all truths; some of the dogmas are above reason (supra-rational), not against reason, and these dogmas are matters of faith. Reason is employed to support faith, and faith is called upon to confirm the reason. But faith is the guide and final judge, meaning by faith, faith in the dogmas

promulgated by the church. This is the position taken by the Catholic church and its philosophers to-day. Reason is subordinated to faith in the dogmas of the church. There can be no real disagreement between faith and reason ; wherever such a conflict appears it is not a conflict between faith and reason, but between faith and foolish opinion. The Catholic church, the Pope at Rome, is the highest and last authority ; the Catholic thinker is free to explore the territory of knowledge so long as he does not find anything contradictory of the dogma. Indeed, he cannot find anything that really contradicts the dogma, the mere fact that a proposition contradicts the dogma proves that it is wrong. *Extra ecclesiam nulla veritas*. Professor Paulsen is right in buckling on his armor and giving battle to this conception. We cannot accept the Catholic church or any other human institution as our ultimate authority in science and philosophy, and to contract beforehand not to discover anything not acceptable to the ecclesiastical authorities means death to knowledge and its progress. This is amply shown by the backwardness of Catholic science, a fact which has been deplored by Catholics themselves, though they are sometimes forced by the authorities to regret even their regrets. Professor Paulsen is right, "the climate of infallibility is not conducive to scientific research." "Between the principle of free research and absolute scholastic authority lies an impassable gulf. Whoever recognizes an absolute authority of this kind, for him there is no domain exempt from the direct or indirect influence of canonical decrees."

This semi-rationalism of the church was one of the chief objects against which the Reformation—for which nominalism and mysticism had paved the way—directed its attacks. Luther repudiated scholasticism and its attempt to prove the articles of faith. And Kant drew the logical consequences of the Protestant movement,—which, it is true, fell back again into rationalistic dogmatism after it came into power,—and may therefore be called the philosopher of Protestantism. In opposition to the church, Kant insists upon the autonomy of reason : reason is the final arbiter of what is true and false. This principle is indeed, as Professor Paulsen declares, the Magna Charta of Protestantism. Kant is also anti dogmatic. Reason cannot transcend the limits of human experience ; hence a rational theology in the old sense is absolutely impossible. Belief in God is an immediate moral certainty, however ; it is based upon our practical reason, upon the human will.

The recent remarkable spread of Catholicism and its mode of thought, Professor Paulsen explains as follows : Our age is characterized by a belief in power and by a lack of faith in *ideas*. The absolutism of the Catholic church inspires a respect among all who are opposed to political, religious, and intellectual anarchy. The infallible Pope now governs not only the church with its priesthood and monastic orders, but he also exercises an unusual influence over the thoughts of the laymen. The system of St. Thomas is the official philosophy of the church, while Protestantism is split

up into a host of opposing philosophical schools. Still, Professor Paulsen does not believe in the ultimate triumph of Catholicism. "The belief in power may for a time show an alarming growth; militarism and mammonism will have their day; according to the law of periodicity of historical life, the climax will be passed. The belief in ideas will again assert itself, the belief in external authority, after having culminated in the declaration of the infallibility of the Pope, will decline. Then Kant will again arise as the legitimate leader, for faith in ideas is the very heart of his philosophy, faith in freedom, truth, and justice, faith in the good, faith in reason as such."

After having defended philosophy against the attacks of the clericals who accuse it of undermining religion, Professor Paulsen turns his attention to the natural scientists who accuse it of despising science and promoting superstition. He takes up Haeckel's recent book, *Die Welträtsel*, and subjects it to a scathing criticism. Haeckel's work, he thinks, has no philosophical value whatever, but it deserves attention as a sign of the times. It represents the opinion of many natural scientists, who are not always as brave and honest as Haeckel in saying what they think. It shows what confusion reigns in the heads of men who have never made a serious study of anything but natural science, and that it is just as presumptuous for a biologist who has not studied philosophy to set himself up as an authority in this field, as it is for one ignorant of biology to offer suggestions to those who devote their energy to the examination of the phenomena of life. To Haeckel the biologist Professor Paulsen is ready to give respectful hearing; Haeckel the philosopher he rejects as a narrow-minded and dogmatic tyro, whose philosophy consists of nothing but negations. None of the sciences, except the natural sciences, Haeckel thinks, has made progress since the Middle Ages, and the problem of the present, therefore, is to create a new philosophy, which will take the place of that abstract and largely metaphysical science which is taught at our universities as philosophy. This philosophy he proceeds to create, and a curious creation it certainly is. I cannot much blame Paulsen, who is noted for his undogmatic temper, for flaring up and flying at the throat of Haeckel, after reading the latter's book. If Haeckel's production proves anything it proves how necessary it is to keep the fires of philosophy burning, and that to ignore philosophy means to fall back into the exploded errors of the past. There is only one corrective for such phenomena as Haeckel's *Welträtsel*, and that is an earnest study of the history of philosophy. The metaphysical conceptions of persons untrained in the philosophical branches are about on a level with the notions of persons who have never taken a course in physics, and who attempt to work out their theories independently of what has already been accomplished. If a man should ignore the results of physical science and try to do without help what it has taken the race several thousand years to do, he would make the same impression upon physicists which Haeckel's 'new philosophy' makes upon persons

who are familiar with the history of philosophy. Had the book been written by a man of less renown in his own field than Haeckel, it would not have received much attention or had any influence. But the standing of its author as a biologist, and the fact that a lot of smaller men have for years been incoherently muttering the views which this book boldly proclaims, makes it worthy of the attention which Professor Paulsen gives it.

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The Doctrine of the Will in Fichte's Philosophy. By JOHN FRANKLIN BROWN. [A Thesis presented to the Faculty of Cornell University for the Degree of Doctor of Philosophy.] Richmond, Ind., Cullaton and Co., 1900.—pp. 105.

In this book the author presents a study of Fichte's doctrine of freedom and a criticism of the same. He finds that the key to the great idealist's entire philosophical system is to be found in the words 'unity' and 'freedom,' that Fichte's craving for logical consistency led him to monism, and the demands of his intensely moral nature caused him to accept individual freedom, conceptions which as held by him are contradictory. In his psychological analysis, Fichte finds the essential nature of consciousness in activity, in will, as modern psychology does. "He does not believe in the existence of an Ego-in-itself, of a self apart from all conscious states; nor would he, on the other hand, resolve the self into either discrete mental states or a stream of consciousness. Rather would he say that the self is the persistent activity which is in all conscious states, but which is more than they. In so far, then, his psychology provides for a real individual self-hood, a personality, which is the only guarantee of individual freedom such as he describes." In his monistic metaphysics, however, the case for freedom is not so satisfactory. If we take monism seriously, and make the individual a manifestation of the absolute, it is hard to see how individual freedom is possible. If we regard the absolute as being resolved into the non-ego and the individual egos, we may perhaps retain individual freedom, but we lose the personality of the absolute and get pluralism. "It is," says Dr. Brown, "avowedly on ethical, or, as Fichte says, practical grounds that he decides in favor of freedom. The appearance of freedom in consciousness might conceivably be shown to be mere appearance. Disregarding ethical considerations, the reality of freedom corresponding to the appearance of it, can be neither proven nor disproven. The necessary consciousness of man that he has power over nature and over himself, that he is capable of vice and virtue, and conscious of opportunity and responsibility, that he has within himself the power to change the natural order of things,—this consciousness of his own peculiar dignity, as man, is the deciding factor in favor of freedom. It is not absolute demonstration, but it gives ground for a rational faith in the reality of that freedom for which man as moral most earnestly longs."

Dr. Brown's essay is good so far as it goes, but it does not seem to me to go far enough into Fichte's system. In order to understand Fichte, one must read him through to the end. His thought develops, his conceptions become clearer and more definite as he proceeds. His idea of God is an evolution, he works towards his standpoint by gradual stages, and it takes him years to complete his system. Dr. Brown does not seem to take account of those writings in which the conception of God reaches its completion. "The fiction of the pure Absolute as nothing but pure activity," he says, "as nothing but freedom to come to consciousness in individual consciousnesses, or to remain forever 'nothing,' does not impress one with the dignity of such an Absolute, for it is undoubtedly unconscious, merely nothing." But Fichte's God as conceived in such works as *Die Bestimmung des Menschen*, *Anweisung zum seeligen Leben*, *Thatsachen des Bewusstseins*, and others, is certainly not a mere nothing, a mere power to become conscious in individual consciousnesses, but a living reality. "It is His light through which we behold the light and all that it reveals to us. In our minds He still creates this world, and acts upon it by acting upon our minds through the call of duty as soon as another free being changes aught therein. In our minds He upholds this world and thereby the finite existence of which alone we are capable, by continually evolving from each state of our existence other states in succession. When He shall have sufficiently proved us according to His supreme designs, for our next succeeding vocation, and we shall have sufficiently cultivated ourselves for entering upon it, then, by that which we call death, will He annihilate for us this life, and introduce us to a new life, the product of our virtuous actions. All our life is His life. We are in His hand, and abide therein, and no one can pluck us out of His hand. We are eternal, because He is eternal."¹

On page 58 the German word *Stahlfeder* is translated by *steel pen*. This, however, is not the meaning of the word in this place, as the context shows. A *Stahlfeder* is a *steel spring*. The force of Fichte's illustration is lost by Dr. Brown's rendering. On the next page, the word *independent* should be *dependent*; "This is the nature of the thing, which is not at all *dependent* on it."

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FRANK THILLY.

Introduction to Sociology. By ARTHUR FAIRBANKS. Third edition, revised. New York, Charles Scribner's Sons, 1901.—pp. xvii, 307.

The changes in this edition are not such as to call for special comment; but the appearance of a third edition is a testimony to the value of the work, and also to the general interest in social studies among the students and thinkers of America. Dr. Fairbanks treats sociology as a single science, yet there is little if anything in this book that does not belong to

¹ *Bestimmung des Menschen* (Eng. trans.).

some special social science or to history. In some respects, his view of his subject is distinctly in advance of that held by some other sociological writers; in particular, he is emphatic in his condemnation of the attempt to treat sociology as a branch of biology, and maintains that it is a psychological science. He denies that society is an organism, as so many have sought to maintain, and also repudiates the social contract theory; while at the same time he recognizes that society presents analogies to a contract and also to an organism. He treats sociology mainly as a science of social functions, which originate in the desires of individuals. "All social activity," he says, "may be traced back to motives felt by the individual" (p. 120). He seems, however, to be a little uncertain as to the exact relation between society and the individual; yet his treatment of the various social functions, economic, political, etc., and of the most important social groups, shows that he has a clear grasp of his subject. He shows also that he knows the limits of his subject, and does not make the mistake, which so many others have made, of confounding social science with social reform.

This discussion contains many points of interest, but there are only two as to which I will say a word here. The author seems to have a very hazy idea as to the place and function of morality in the social scheme. Morality, as every philosopher knows, is the regulative factor in society; government is based upon it; and no social group can exist for any considerable time without it. Yet Dr. Fairbanks almost ignores it, and what little he says about it is of a very doubtful character. For instance, he says: "Truth means that the social mind, at a certain stage of its development, accepts some ideas and beliefs as absolutely valid. . . . Duty imposed by the social mind; an action is right, and is required, when the social mind sets on it the stamp of agreement with the norms and ideals which characterize this phase of society" (p. 118). According to this, there is really no such thing as truth and no such thing as duty; for the views of society in many of the most important subjects change from age to age, and a standard that is constantly changing is no standard at all.

In the concluding part of his book, Dr. Fairbanks discusses the progress of society, which he thinks depends on the "struggle for existence" resulting in the "survival of the fittest." If I had space, I might discuss the proposition that we cannot know whether society is progressing or retrogressing unless we have the true ideal of social life, and Dr. Fairbanks does not present such an ideal. But what about the "survival of the fittest?" Fittest is a moral term; those men are fittest who do the most for the benefit of the human race. Yet the struggle for existence has no tendency to make such men survive. If, however, we deprive the term fittest of its moral significance, the phrase 'survival of the fittest' reduces to the platitude that those survive that are fittest for surviving. This is virtually admitted by Dr. Fairbanks on his last page, where he says: "The doctrine of natural selection and the survival of the fittest in human

society represents simply the principle that those types best fitted to live are the ones that survive." Surely, living is the same as surviving ; and thus the famous 'law' is nothing but an identical proposition—a piece of pretentious trifling.

JAMES B. PETERSON.

Schopenhauer's Philosophie in seinen Briefen. Von ROBERT SCHLÜTER.
Leipzig, Johann Ambrosius Barth, 1900.—pp. 125.

Schopenhauer's letters, several collections of which have been published at various times, can hardly fail to be of interest because of the personality of their writer and his great power of expression. The author of *Schopenhauer's Philosophie in seinen Briefen* maintains as his thesis that the letters are not only interesting but of importance for a fuller comprehension of Schopenhauer's philosophy. He finds in them ample reason for rejecting the traditional denial of all development in Schopenhauer's doctrines, and succeeds in showing first from the letters, and then also from passages taken from Schopenhauer's published works that, however much Schopenhauer himself might deny any change, in reality his theories gradually lost most of the thoroughgoing idealism characterizing their early form, and became at bottom realistic. The same terms were used throughout, but the content ascribed to them underwent a radical modification.

Following Schopenhauer's own divisions of epistemology, metaphysics, æsthetics, and ethics, the book under discussion considers one by one the most important subjects treated in the letters. In some cases where Schopenhauer is defending theories questioned by his correspondents, the author makes a critical examination of the doctrines, the objections brought against them, and the replies, with a view to ascertaining their value for philosophy. This critical mode of treatment is especially prominent in the chapter on ethics.

If one must choose from the interesting material presented, perhaps the subdivision upon metaphysics offers as valuable suggestions upon the interpretation of Schopenhauer as any portion of the book. Here the question is chiefly that of the nature of the will, whether or not it really deserves to be called the thing-in-itself in the Kantian sense of the term. In the first volume of *Die Welt als Wille und Vorstellung*, the will is evidently just this, but later its significance becomes more limited. On the one hand, Schopenhauer maintained the entire separation of the will from the world of phenomena, from the idea ; on the other, he spoke in places of the ends of the unconscious will, of the false step that it makes in becoming the world, and of the power of the will to cease from willing. The difficulty in reconciling the two points of view led one of Schopenhauer's correspondents to propose a dilemma : either the will is a thing-in-itself, and in that case we can make no statements about it ; or the observations concerning its nature may be retained with the understanding that it has ceased to be the thing-in-itself. Schopenhauer's attempt to solve

this difficulty took the form of a modification of his original doctrine. He explained that the thing-in-itself was the will only in its relation to phenomena, and added: "The affirmation and negation of the will is a mere *Velle* and *Nolle*. The subject of them both is one and the same." Such a radical change in the conception of the will is fully expressed only in the letters, but Schopenhauer's later books also show a gradual approach to such an interpretation. At the same time the ideality of multiplicity and individuality are given up, and with the cessation of the absolute separation between the essence and manifestation of things, the essence or *Wesen* becomes immanent, where it has been transcendent. Side by side with this realistic modification of idealism, a change present in the other phases of Schopenhauer's thought no less than in the metaphysics, there is developed another difference of standpoint. Dogmatism is left behind, and in its final form Schopenhauer's philosophy ends with a question.

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GRACE NEAL DOLSON.

Friedrich Nietzsche und seine Herrenmoral. Von M. KRONENBERG. München, C. H. Beck, 1901.—pp. 35.

Dr. Kronenberg's monograph is a reproduction of an address delivered before certain divisions of the German society for ethical culture. Notwithstanding the modifications that the work has undergone to prepare it for a reading public, the essential character of the pamphlet seems to have been determined by its original purpose. Dr. Kronenberg wished to present to the society Nietzsche's message, to tell them what significance his writings have for real life. The practical side of Nietzsche's doctrines receives most attention; and although in their investigation the writer shows great impartiality, he always assumes that the altruistic standpoint, at least in a modified form, is the standard with which Nietzsche's system must be compared before any judgment can be passed upon it. The question is really not so much the nature of Nietzsche's ethics in itself, as its agreement or disagreement with the tenets of the society for ethical culture. Such a treatment is inevitably somewhat narrow in scope, but that fact need not constitute an objection to it. In the present case, Nietzsche is treated so sympathetically, in spite of his final condemnation, that one can hardly fail to find the discussion suggestive.

Dr. Kronenberg regards Nietzsche's philosophy as the logical conclusion of egoism, which would be a possibility only if the individual existed for himself alone. Egoism is no less self-destructive, he says, than pure altruism. In reality every action includes both elements. Nietzsche's *Herrenmoral* contradicts itself, for as soon as egoism is taken seriously and affirms only itself, it at the same time makes impossible the conditions of its own existence. Nietzsche's estimate of the prevalent system of morality is vitiated by his failure to distinguish between origin and value. He did not realize that the two are not identical, that a historical account is not at the same time an evaluation, although it may be of great assistance in de-

termining the latter. Nietzsche's greatest ability, Dr. Kronenberg concludes, was shown in his keen insight into obscure mental factors, and his most valuable work was the analysis of the unconscious conditions that lie at the basis of moral phenomena.

GRACE NEAL DOLSON.

WELLS COLLEGE.

Saggio sulle idee morali e politiche di Tommaso Hobbes. Per GIUSEPPE TARANTINO. Napoli, Giannini & Figli, 1900.—pp. 144.

This book offers us a concise, but thoroughly adequate presentation and criticism of the leading doctrines in Hobbes's ethico-political system. The genesis of his philosophy and the influences determining it are treated with admirable clearness, and the enormous importance of Hobbes's work on the development of English ethical thought receives due emphasis. In agreement with Croom Robertson, the author rejects the notion that Hobbes was in any sort a disciple of Bacon, and lays stress on his affiliation to Galileo, to whom it is pointed out that he stood in a relation similar to that which Herbert Spencer holds to Darwin. In treating of Hobbes's ethics, Signor Tarantino argues with great force against the commonly received view that his moral system is a purely institutional one. He does not, he claims for him, make morality a function of politics, but politics a function of morality. The comparison made use of in this connection is most suggestive. "It is true that in a hundred places the author of the *Leviathan* reiterates that the criterion of morality resides in the will of the supreme power of the state, but this must be understood in a sense analagous to that of the statement of the church of Rome, when it affirms that the criterion of truth is placed in the supreme head of the Catholic hierarchy. Truth does not emanate from the reason, or from the arbitrary will of the Pontiff; it is outside of and above him, and the supreme hierarch has only the privilege of being its infallible interpreter." So, he continues, is it in Hobbes's theory, ethics is not an arbitrary creation of the sovereign power, nor are its laws merely conventional and temporary. The moral law gives the rational means of reaching that end to which by nature we tend; it issues from reason, which has recourse to the creation of a supreme civil power in order to render possible the realization of its own dictates. This clear recognition of the rationalistic element in Hobbes's thought is of value; it is a happy phrase that for Hobbes "Morality is the rationalization of Egoism." While full justice is done to his keen logical vigor, the criticism of the psychological premises on which his ethico-political conclusions rest is acute and searching. The book may be confidently recommended to those interested in the work of our first great English philosopher.

E. RITCHIE.

Die transscendentale und die psychologische Methode. Von MAX F. SCHELER. Leipzig, Verlag der Dürr'schen Buchhandlung, 1900.—pp. 181.

A work on philosophical methodology is acceptable at the present time,

even if the division, perhaps more apparent than real, between the two philosophic tendencies of the day, viz., the transcendental and the psychological, is merely set forth in clear relief. The present booklet is an attempt to do this critically, and also to develop a view thereby which is more satisfactory than either.

The work is divided into three parts. The first part is an historical survey of philosophic method. The author points out that the methodological problem is characteristically a modern problem, not seriously raised by ancient or mediæval thinkers. Three standpoints cover the ground of methodology—the *mathematical* represented by Descartes, etc., the *genetic* which emphasizes the development of presentations and principles, and the *historical*, which has regard to the dependence of method upon the general culture of the time. The *mathematical* has been obsolete at least since the inception of the Kantian transcendentalism. The *genetic* can claim equally the Kantian transcendentalist and the psychological empiricist in different ways. The *historical* method has been only approximately employed by the two wings of the genetic method and is the valuable part of both. For practical purposes of discussion it is necessary then to examine only the methods of transcendentalism and of psychologism, since these cover the defective methods.

The second part is engaged with (1) a presentation of the cardinal features of transcendental method respecting space, time, personality, and causality, and with (2) a detailed criticism of the method respecting these categories, together with a general criticism of some characteristic features of the transcendental method. To this general criticism considerable space is devoted and several points are scored. (a) The author claims that the logical reductive procedure of transcendentalism has not the objective real value it purports to have. Its principles cannot constitute experience if they cannot be contradicted by it, *i. e.*, if they are *indifferent* to the content of experience. Such inquiry into the *logical* possibility must be supplemented by inquiry into the *real* possibility of experience as it resides in living personality determined by a historically defined status of culture. (b) Its claim to be critic of sciences cannot be maintained; much rather must any epistemology be subject to correction by the positive work of science. (c) The epistemological principles developed by the transcendental method are purely formal. They are too rich in content to be valid for all possible experience, as claimed. The laws of thought which formal logic gives are the only ones which will stand this test. On the other hand, they are too empty and barren to be of any actual use in the problem of life. (d) As to a starting-point it cannot be any definite 'given' whether of mathematics or of natural science, as the transcendental method makes it, but must include the total range of knowledge, unscientific values, and personal acts, the *Arbeitswelt*; and this forms the only well-grounded basis for philosophical procedure. (e) This general criticism is followed by sections of special criticism, very brisk and interesting, upon the trans-

centental treatment of the fore-mentioned categories, insisting upon the necessity of a broader statement of the problems of space, time, etc., than transcendentalism gives.

The third part is occupied with a presentation and criticism of the psychological method as represented by such men as Lipps, Laas, James, Avenarius, Cornelius. The author finds much of permanent value in this method whose explanatory principles are always more than formal, namely causal. But he also finds characteristic flaws. Psychology's claim to be the science of the subjective, the science of total experience, the science of the sciences, and the Wundtian claim that it is the science of immediate experience are passed in unfavorable review. He condemns the psychological method of starting from definite and original data such as "here and now given feelings" as a pure fiction, and charges the method with confusing mere psychic existence with living spirit as expressed in the concrete relations of society, in law, religion, etc., at any stage of culture.

He closes with a clear summary of results a work which is characterized by breadth of view and logical arrangement.

W. B. LANE.

MT. UNION COLLEGE.

Ancient Ideals: A Study of Intellectual and Spiritual Growth from Early Times to the Establishment of Christianity. By HENRY OSBORN TAYLOR. New York, Published for the Columbia University Press by The Macmillan Company; London, Macmillan & Co., 1900.—2 vols. pp. xi, 461, 430.

The volumes of Mr. Taylor described in the above heading cover a large and varied field, embracing such social and ethical phenomena as the Germans include in *Kulturgeschichte*. An immense tract of history is traversed from the earliest records of oriental civilization down to the culture of the Græco-Roman world in the Hellenistic period. Questions regarding the primitive savage state are not discussed. Only those races or nations are considered, which attained to some notable civilization as proven by their monuments. The author does not attempt to go beyond actual records and existing monuments, and such inferences as he draws are derived from data generally accepted by scholars. The subjects of inquiry vary with the genius of the several races; the ideals of different peoples differ, some giving expression to their highest spiritual life in religion, others in the various forms of art, literature, or science. The complex of civilization is regarded as a product of human endeavor in a theistically governed world. "The long course of human growth, that is to say, the evolution of those mental and spiritual qualities that distinguish man, is a process of attainment, which is wrought out ceaselessly by human effort, working within the power of God" (Vol. II., p. 377). Ethical and religious elements occupy the main attention of Mr. Taylor, and, these are treated with rare insight, often with a poetic touch, a bit of glowing imagery, that make the

book attractive as literature. Indeed, it is in the spirit of letters rather than of philosophy that the entire work is written. The writer is not, however, a phrase-maker. The volumes are a mass of well-digested and well-stated facts, systematically arranged, in which one rarely finds words or ideas illuminated. A very considerable addition is herein made to our literature on pre Christian conditions of civilization. Much of the matter comes from primary sources and amongst secondary sources the best have been used and used with singular thoroughness and appreciation. The author fills five brief chapters with the description of culture conditions in Egypt, with its "mighty power for toil," Chaldaea and China, with its "fetish of the past," India, Iran, and in Buddhism. The remainder of the two volumes is occupied with Græco-Roman civilization and with the Jews. The unprogressive conservatism, the relative intellectual credit, the sway of ceremonial, the power of mysticism, the genius for religion, and the weakness in scientific inference and in the statement of conceptual knowledge, are traits interestingly analysed out of the oriental racial life. In the treatment of Greece and Rome, which is the main part of the work, chief attention is given to ideals in art and ethics. This is all done with a skillful, though somewhat lavish, hand. My main grievances with the book are the excessively voluminous quotations and excerpts, which occupy immense space and interfere with the progress of the argument (they might serve a good purpose in footnotes or an appendix), and the excessively careless treatment of Greek citations. These blemishes should have been removed in the proof. The following misprints are noted here not as an exhaustive or even approximately exhaustive list, but as examples of exceedingly numerous errors of a similar kind: Vol. I; p. 146, *τειχιόσσαν* for *τειχιόσσαν*, *πολυκρῦσος* for *πολύχρυσος*, *Die* for *Das* . . . Epos, note 1; p. 149, *θεα* for *θεά*; p. 161, *νοός* for *νόος*; p. 164, *δυστήνοι* for *δύστηνοι*; p. 168, *αἰσμον* for *αἰσιμον*; p. 169, *ὑπερ* and *ὑπερ* for *ὑπέρ*; p. 173, *βουλή* for *βουλῇ* and *Διός* for *Διὸς*; p. 202, *μηδέν* for *μηδὲν*; p. 222, *Ακίνδονοι ἄρεται* for *Ἀκίνδονοι δ'ἀρεταί*; p. 247, *κακῶς* for *κακῶς*, *καλῶς* for *καλῶς*, *φρόνειν* for *φρονεῖν*; p. 287, *μμήσις* for *μῆσις*; p. 322, *θεῖα μοῖρα* for *θεῖα μοῖρα*; p. 336 and wherever used, *Nichomachean* for *Nicomachean*; Vol. II, p. 279, *ἀλαζονία* for *ἀλαζονεία*; p. 317, *ἱλασμός* for *ἱλασμός*, κ. τ. λ., κ. τ. λ.

W. A. H.

Politics and the Moral Law. By GUSTAV RUEMELIN. Translated by RUDOLF TOMBO, JR. Edited with introduction and notes by FREDERICK W. HOLLS. New York and London, The Macmillan Co., 1901—pp. 125.

The author of this work was engaged most of his life in educational work, though in 1848 he went into politics and joined in the unsuccessful attempt to found a new German Empire under the lead of Prussia. During the last years of his life he was chancellor of the University of Tübingen, and the work here translated is an address delivered at the University in 1874. The author's views, I must say, are not such as I can approve.

His doctrine is that though the moral law applies to politics as well as to all other human activities, yet the moral principles applicable to politics are entirely different from those of private life. "Politics," he says, "as all human action, is subject to the authority of moral duty, but the moral law which prescribes virtues and duties for the individual is not available in the conduct of public affairs" (p. 48). And again: "Moreover, how can the golden rule be applied to the relation of one state to another? None of the ties which bind man to man can join state to state" (p. 34). He then goes on to argue that though the state is founded on the very idea of justice, yet the ordinary principles of justice do not apply to the conduct of the state itself. Such doctrines, I confess, seem to me nothing less than immoral. Of course, the whole moral law is not applicable to politics, because the state does not cover the whole field of the moral life; it exists for certain purposes only, the chief of which is the maintenance of justice. But, so far as the activity of the state extends, it is just as much under the control of moral principles as the individual is, and the principles in both cases are the same.

Mr. Holls, however, evidently agrees with the author's views, for he quotes largely from an address by Lord Lytton in which he lays down the same doctrines as those of Ruemelin. Lytton says: "Of the class of obligations which constitute private morals, only one, namely, justice, has a place in public morals, and the sort of justice which finds its place in public morals is totally different from the justice which relates to individuals" (p. 111). Such doctrines are repugnant to every unbiased conscience; and I believe that the best men will concur in a remark by the late Edward J. Phelps which is quoted in this book, that the foreign policy of America "should have for its basis the opposite of the theory set forth by Lord Lytton. It should be founded in the highest morality and justice; it should prefer the right to the expedient, or rather should find in the right what is always in the end the expedient."

JAMES B. PETERSON.

The Origins of Art: A Psychological and Sociological Inquiry. By YRJÖ HIRN. New York, The Macmillan Company, 1900.—pp. xi, 327.

This important book is a delightfully definite, clear, and psychologically sound treatise on a subject in whose discussion the qualities just named have been sufficiently rare. Its problem is distinctly stated at the outset to be the investigation of the reason why works of art are created, not why they are enjoyed; and the author further discriminates between the utilitarian factors that have coöperated to produce works of art in the history of the race, and the art-impulse proper. His account of the psychological nature of this impulse is as follows: Every emotion tends to manifest itself in actions, which enhance its pleasure if it be pleasant and relieve its pain if it be painful, since activity is accompanied by pleasure and inhibition by pain. Out of this general tendency to active emotional expression the art-impulse grows through the introduction of a social factor:

the individual desire that others shall share his emotion, in order, primitively, that his own relieving or enhancing activities may be further stimulated by the sight of similar manifestation in others. "The work of art presents itself as the most effective means by which the individual is enabled to convey to wider and wider circles of sympathizers an emotional state similar to that by which he is himself dominated." The intrinsic features of all forms of artistic expression will then have this characteristic: they will be selected because of their fitness to propagate the artist's emotional state in the minds of others. Rhythm favors emotional contagion by its hold on the attention; dramatic representation, of course, through the tendency to imitate; sensuous beauty, again, by predisposing the attention favorably. The work of art acquires certain intellectual qualities, because in many cases the emotion cannot be transmitted to an outsider without, in the author's phrase, "accounting for it to his intellect"; and also because the transmission requires the focusing of attention on certain aspects or elements.

Such is, in outline, Professor Hirn's account of the origin of the pure art impulse. It will be noticed that he has made sensuous beauty a subordinate element introduced merely to conciliate the attention. He objects strongly to "the fatal confusion between art theory and the science of beauty" which has led Mr. Marshall, for example, to derive art from an impulse "to produce objects or objective conditions which should attract by pleasing;" and Professor Baldwin to speak of "self-exhibition" as a mainspring of the art impulse. The author's theory is that the artist attracts only to communicate. His objection to the term "self-exhibition," by the way, is not the one we should expect from him. He says: "It seems somewhat difficult to make this self-exhibiting—in a sense that implies an actual audience—the aim and purpose of, for instance, the most intimate and personal examples of lyrical poetry." Surely the term does not imply an actual audience any more than Professor Hirn's social theory of art does, and the latter requires reference to an imaginary audience as well for lyrical poetry as for any other form of art. The real difference between the two is that Professor Baldwin like Mr. Marshall makes the artist's main purpose the commending of himself to his audience, whereas for Professor Hirn the commending is secondary to the communication of emotion.

The relation of the author's theory to the intellectualistic view of art is also interesting. The fact, that in seeking to present the aspect or quality of a thing which shall best transmit the artist's emotional state, and by which he often hits upon that which best represents the thing's essential nature, has led, we are told, to the error of supposing that it is the province of art to represent the essential qualities of things.

In the second part of the book the writer turns from the psychological to the historical point of view, and investigates the part played in the concrete development of art by the various utilitarian motives involved in the com-

munication of information, in the making of historical records, in work, war, love, and magic. Especially full and careful is the discussion of the function of sexual selection in the development of art. Everywhere the distinction is carefully drawn between the pure art impulse, as Professor Hirn conceives it, and all other coöperating factors. He has certainly demonstrated that the desire to communicate emotion is fundamental in the psychology of art. Whether it is the sole element in the art impulse, or whether the desire to commend oneself by producing what is sensuously beautiful may not be coördinate with it, is largely a question of definition.

MARGARET FLOY WASHBURN.

The Child: A Study in the Evolution of Man. By ALEXANDER FRANCIS CHAMBERLAIN. New York, Charles Scribner's Sons, 1900.—pp. xii, 498.

Professor Chamberlain's work is, as the sub-title indicates, not a record of child study as such, but a treatise on the development of the child in its phylogenetic significance. The heading of one of the chapters, "The Child as Revealer of the Past" is applicable in a sense to all of them; throughout, the comparison is constantly drawn between the child and primitive man. The author's aim has been to collect statements and theories from a wide range of authorities and to present them mostly in the form of direct quotations. This method guards, he thinks, against the possibility of his misinterpreting the views of others; but it is a question whether he has not carried it to such excess as to give the contents of the book a somewhat undigested and bewildering look. Nevertheless, the book is a compendium of much information that would otherwise be widely scattered.

MARGARET FLOY WASHBURN.

Robert Mayers Auffassung des Causalprinzips und Begründung des Prinzips von der Erhaltung der Energie. Von J. W. A. HICKSON. Halle, 1900.—pp. 48.

This is a doctor's thesis presented to the University of Halle. In it the author shows, as Riehl has already done in his *Philosophischer Kriticismus* and in a recent article published in the *Sigwart Festschrift*, that Mayer arrived at the principle of the conservation energy by deducing it logically from the proposition: "A quantity, which arises from nothing, cannot be annihilated"; that is, from nothing nothing comes, and nothing goes into nothing. Hence every change must have its cause, and the effect must be equal to the cause. If the effect were, quantitatively considered, greater than the cause, something would arise out of nothing. It follows from this that the cause itself passes over entirely into the effect. Mayer also developed a satisfactory notion of force or energy. Force is something expended in the production of motion, it is mechanical work, a body's capacity for work. Forces are causes of changes. There is in

truth only one single force, for the different forces are transformed into each other. Whatever the different natural forces may be in themselves, the effects in which they express themselves are measurable mechanical actions. The notion of a force inhering in the things is a chimera. When we speak of the transformation of energy we use a figurative expression of a fact ; it means a constant numerical relation, nothing else. The question concerning the essence of force is futile.

The author also points out that the principle cannot really be proved otherwise than Mayer proved it. We cannot prove it from the mechanical conception of nature, nor can we prove the latter from the former. Nor can we prove it by experiments. As for the law of causality itself, it is a necessary presupposition of scientific experience ; it is not a law of nature, but a postulate and rule of natural research. The necessity of the causal principle and the interpretation of the causal notion are ultimately dependent on the principle of the quantitative immutability of nature.

The reason, in my opinion, why Mayer gets so much out of his fundamental principles is because he puts so much into them. His conception of causality contains more than we usually understand by that notion. Dr. Hickson sees no objection to this, but regards it as not only allowable, but necessary to examine and correct the notions that are handed down to us. That is all very true, but the question arises, Is Mayer's conception of causality really the correct one ?

FRANK THILLY.

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The following books also have been received :

The Works of George Berkeley ; Including His Posthumous Works. With Prefaces, Annotations, Appendices, and an Account of his Life. By ALEXANDER CAMPBELL FRASER. Oxford, at the Clarendon Press, 1901. In Four Volumes. Vol. I. Philosophical Works, 1705-21.—pp. lxxxvii, 527 ; Vol. II. Philosophical Works, 1732-33.—pp. 415 ; Vol. III. Philosophical Works, 1734-52.—pp. vi, 412 ; Vol. IV. Miscellaneous Works, 1707-50.—pp. viii, 611.

The Adversaries of the Sceptic, or the Specious Present. A New Inquiry into Human Knowledge. By ALFRED HODDER. London, Swan Sonnenschein & Co. ; New York, The Macmillan Co., 1901.—pp. 339.

The Evolution of Consciousness. By LEONARD HALL. London and Oxford, Williams and Norgate, 1901.—pp. 152.

Three Dialogues between Hylas and Philonous. By GEORGE BERKELEY. Reprint Edition. Chicago, The Open Court Publishing Co. ; London, Kegan Paul, Trench, Trübner & Co., 1901.—pp. vi, 136.

The Circulation in the Nervous System. By HERMAN GASSER. Platteville, Wisconsin, The Journal Publishing Co., 1901.—pp. 156.

- Contributions to a Psychological Theory of Music.* By MAX MEYER. [The University of Missouri Studies, Vol. I, No. 1.] Columbia, Missouri, Published by the University.—pp. vi, 80.
- Notes on Child Study.* By EDWARD LEE THORNDIKE. [Columbia University Contributions to Philosophy, Psychology, and Education, Vol. VIII, Nos. 3-4.] New York, The Macmillan Co.; Berlin, Mayer and Müller, 1901.—pp. 157.
- The Correlation of Mental and Physical Tests.* By CLARK WISSLER. [Psychological Review Monograph Supplements, Vol. III, No. 6 (whole No. 16); Columbia University Contributions to Philosophy, Psychology, and Education, Vol. IX, No. 2.] New York, The Macmillan Co., 1901.—pp. 62.
- Kants Lehre vom Genie und die Entstehung der "Kritik der Urteilskraft."* Von OTTO SCHLAPP. Göttingen, Vandenhoeck and Ruprecht, 1901.—pp. xii, 463.
- Das sittliche Leben: Eine Ethik auf psychologischer Grundlage.* Mit einem Anhang: *Nietzsche's Zarathustra-Lehre.* Von HERMANN SCHWARZ. Berlin, Reuther & Reichard, 1901.—pp. xi, 417.
- Allgemeine Ästhetik.* Von JONAS COHN. Leipzig, Wilhelm Engelmann, 1901.—pp. x, 293.
- Geschichtsphilosophie: Einleitung zu einer Weltgeschichte seit der Völkerwanderung.* Von THEODOR LINDNER. Stuttgart, J. G. Cotta'sche Buchhandlung Nachfolger, 1901.—xii, 206.
- Die Sprachstörungen geistig zurückgebliebener Kinder.* Von ALB. LIEBMAN. Berlin, Reuther & Reichard, 1901.—pp. 78.
- Die Entwicklung der Pflanzenkenntnis beim Kinde und bei Völkern. Mit einer Einleitung: Logik der statistischen Methode.* Von WILHELM AMENT. Berlin, Reuther & Reichard, 1901.—pp. 59.
- Gustav Theodor Fechner. Rede zur Feier seines hundertjährigen Geburtstages.* Gehalten von WILHELM WUNDT. Leipzig, Wilhelm Engelmann, 1901.—pp. 92.
- Klassicismus und Naturalismus bei Fr. Th. Vischer.* Von ERICH HEYFELDER. Berlin, R. Gaertner, 1901.—pp. 86.
- Thomas von Aquino und Kant, ein Kampf zweier Welten.* Von RUDOLF EUCKEN. Berlin, Reuther & Reichard, 1901.—pp. 44.
- Pascal.* [Les grands philosophes.] Par AD. HATZFELD. Paris, Félix Alcan, 1901.—pp. xii, 291.
- Les timides et la timidité.* Par PAUL HARTENBERG. Paris, Félix Alcan, 1901.—pp. xv, 265.
- L'évolution de la doctrine utilitaire de 1789 à 1815.* Par ÉLIE HALÉVY. Paris, Félix Alcan, 1901.—pp. iv, 385.

La jeunesse de Bentham. Par ÉLIE HALÉVY. Paris, Félix Alcan, 1901.
—pp. xv, 447.

L'année philosophique. Publiée sous la direction de F. PILLON.
Onzième année—1900. Paris, Félix, Alcan, 1901.—pp. 316.

L'opinion et la foule. Par G. TARDE. Paris, Félix Alcan, 1901.—pp.
vii, 227.

*Étude sur les origines et la nature du Zohar: Précédée d'une étude sur
l'histoire de la Kabbale.* Par S. KARPPE. Paris, Félix Alcan, 1901.—
pp. x, 604.

L'évolutionnisme en morale. Étude sur la philosophie de Herbert Spencer.
Par JEAN HALLEUX. Paris, Félix Alcan, 1901.—pp. 228.

Études de psychologie. (L'homme droit et l'homme gauche—Illusions
visuelles—Illusions de poids—Circulation et cérébration.) Par J. J.
VAN BIERVLIET.—Gand, A. Siffer; Paris, Félix Alcan, 1901.—pp. 201.

Pour la raison pure.—Les conflits de l'imagination et de la raison. Par F.
EVELLIN. Paris, Félix Alcan, 1901.—pp. 34.

L'éducation morale dans l'université: Conférences et discussions. Pres-
idées par M. ALFRED CROISSET. Paris, Félix Alcan, 1901.—pp. xii,
241.

La mente di Galileo Galelei. Per VINCENZO GRIMALDI. Napoli, Detken
and Rocholl, 1901.—pp. 122.

NOTES.

It is with regret that we announce the death of Professor Joseph Le Conte on July 6th. Although by profession he was not a philosopher, still by his large scientific outlook and by his deep interest in the theory of evolution and in the philosophy of religion, he won a prominent place among American speculative thinkers. He was born in Liberty County, Ga., Feb. 26, 1823, studied in Franklin College, and after his graduation there went to the College of Physicians and Surgeons in New York, where he received the degree of doctor of medicine in 1845. He spent several years in medical practice at Macon, Ga., but his intense enthusiasm for scientific research caused him to abandon the life of a general practitioner of medicine, and to go to study under Agassiz at Harvard. He received the degree of B.S. from the Lawrence Scientific School in 1851. In 1852 he became professor in Oglethorpe College; the next year he accepted a call to Franklin College, and in 1857 to South Carolina College. During the Civil War he was chemist to the Confederate government, first in the medical laboratory, and then in the Nitre and Mining Bureau. In 1869 he was made professor of geology and natural history in the newly-founded University of California, and there he remained till his death. His published works are: *Religion and Science, a Course of Sunday Lectures* (1873); *Elements of Geology* (1878), followed by subsequent editions; *Sight, or the Principles of Monocular and Binocular Vision* (1880); *A Compend of Geology for High Schools* (1884); *Evolution: Its Nature, Its Evidences, and Its Relation to Religious Thought* (1888) and (1891); in addition to a large number of articles that appeared in various journals. In philosophy he was an evolutionistic idealist. "If we could get behind the veil of Nature we should find . . . a person. But if so, we must conclude, an Infinite Person, and therefore the only Complete Personality. Perfect personality is not only self-conscious but *self-existent*. Our personalities are self conscious, indeed, but not self-existent. They are only imperfect images, and, as it were, separated fragments of the Infinite Personality—God." (*The Conception of God*, p. 68.) Physical and chemical forces are "a portion of the omnipresent Divine Energy in a *diffused unindividuated state*. Individuation of this Energy, *i. e.* self-activity, begins, as I suppose, with life, and proceeds, *pari passu*, with organization of matter, to complete itself as a Moral Person in man." (*Ibid.*, p. 76.) "On this view, spirit—which is a spark of Divine Energy—is a potential in dead matter, a germ in plants, a quickened embryo in animals, and comes to birth into a higher world of spirit life in man." This evolution is controlled by a purpose. "The sole purpose of this progressive individuation of the Divine Energy by evolution is finally to have, in man, something not only to contemplate but also to love and to be loved by, and, in the ideal man,

to love and to be loved by supremely." (*Ibid.*, p. 77.) "By this view there is a new significance in Nature. Nature is the womb *in* which, and evolution the process *by* which, are generated Sons of God. Now—do you not see?—*Without immortality, the whole process is balked—the whole process of cosmic evolution is futile.* Shall God be so long and at so great pains to achieve a *spirit*, capable of communing with him, and then allow it to lapse again into nothingness?" (*Ibid.*, p. 78.) This of course is not the place to dwell upon Professor Le Conte's scientific work, but it is a matter of general interest to know that his writings were one of the most influential factors in bringing about an early acceptance of evolution by the American layman.

E. B. MCG.

America lost another prominent thinker in the death of John Fiske on July 4, 1901. Mr. Fiske was born at Hartford, Conn., in 1842, and was graduated from Harvard University in 1863. From 1869 to 1871 he was lecturer on philosophy at Harvard, and from 1872 to 1879 assistant librarian. During recent years he has devoted himself to public lecturing and to writing. Although Mr. Fiske is more widely known as an historian than as a philosopher, his contributions to the philosophical interpretation of evolution attracted much attention. His principal philosophical works are: *Outlines of Cosmic Philosophy* (1874); *The Unseen World* (1876); *Darwinism and Other Essays* (1879); *Excursions of an Evolutionist* (1883); *Destiny of Man* (1884); *Idea of God* (1885); *Through Nature to God* (1899).

Mr. Fiske was an evolutionist and an idealist. The general attitude of his thought is well expressed in the following sentences from his latest philosophical book: "When we have once thoroughly grasped the monothestic conception of the universe as an organic whole animated by the omnipresent spirit of God, we have at once taken leave of that materialism to which the universe was merely an endless multitude of phenomena. We begin to catch glimpses of the meaning and dramatic purposes of things; at all events, we rest assured that there is such a meaning. . . . From man's origin we gather hints of his destiny, and the study of evolution leads our thoughts through nature to God."

Professor Charles H. Judd, recently of New York University, has been appointed professor of psychology and pedagogy at the University of Cincinnati.

Dr. Thomas H. Haines has been appointed assistant professor of philosophy in Ohio State University.

The newly established chair of philosophy in Tulane University has been filled by the appointment of Professor Edward E. Shieb of the University of South Carolina.

Consciousness, Self-Consciousness, and the Self.

The summary of the article by Mr. Henry Rutgers Marshall in *Mind*, No. 37, as published in the May number of the REVIEW, does not appear to

have been adequate or accurate, and at our suggestion Mr. Marshall has furnished us the following synopsis of his argument :

If we adopt the hypothesis that each special mental state in a given individual corresponds with a differentiation of process in that individual's nervous system, then 'self-consciousness' must have coincident with it some special form of neural activity. The neural process in man is the activity of an enormously complex neural system which itself is made up of minor neural systems : consciousness then under this hypothesis is naturally looked upon as a vast psychic system made up of minor psychic systems. As we speak of elements of a neural system so we may properly speak of the elements of a psychic system, but in both cases we are compelled to conceive of the specially active element as part and parcel of the related system. The element is what it is because it is an inherent part of a system ; and the system is what it is because it is formed of elements which may be the centers of newly appearing activities in the system as a whole. In the complex neural system as a whole, any increment of activity in any minor system will stand in contrast with the mass of activity of the complex system as a whole. The most ordinary presentations to the Self correspond with such special increments of neural activity ; hence we are led to ask whether the Self may not be that part of consciousness which corresponds with the mass of activity in the complex neural system as a whole. Under such an hypothesis the state of 'self-consciousness' would be explicable as the correlate of a special form of neural activity where (first) a whole minor system of the great complex system is aroused to a higher grade of activity than that of the complex system of systems as a whole ; and where (second) within this minor system a special part is raised to a still higher grade of activity than appears in the minor system itself as a whole. Thus, under this hypothesis the higher activity of this minor system as a whole, but excepting the still higher activity of its special part, has as its correlate what we call the empirical ego ; and the still higher activity of the special part of this minor system appears as a presentation to this empirical ego, the empirical ego and the presentation to the empirical ego together being a presentation to the Self, which Self corresponds with the activity of the mass of elements of the complex system of systems as a whole. The Self is thus part and parcel of consciousness but is unrepresentable. So far as an ego appears as an object of attention it becomes in that fact an empirical ego presented to the Self, and not the Self. Of the nature of this true Self we can therefore have only indirect evidence ; but we note that the Self in its fundamental nature cannot be diverse from the presentations to the Self. Indeed this Self can be little else than a vast bundle of 'instinct feelings' which are unemphatic and unified in the mass of the Self. But it is the Self which determines to a large extent what elements of its system shall be emphasized and thus become presentations to the Self. This view therefore has a special importance in relation to the problem of the relation of Belief and

Will. Belief is essentially an act of volition ; and is an effect from the Self. *We always will to believe.* In all cases of willing to believe the process is the same ; and consists in the appearance from within the Self of some influence which compels the resolution, in some one direction, of the conscious opposition involved in doubt.

HENRY RUTGERS MARSHALL.

We give below a list of articles, etc., in the current philosophical journals :

MIND, No. 39 : *Bertrand Russell*, Is Position in Time and Space Absolute or Relative ? *S. H. Mellone*, The Nature of Self-knowledge ; *Ellen Bliss Talbot*, The Relation of the Two Periods of Fichte's Philosophy ; *W. McDougall*, Some New Observations in Support of Thomas Young's Theory of Light- and Colour-Vision (III. Conclusion) ; Critical Notices ; New Books ; Philosophical Periodicals ; Notes.

THE PSYCHOLOGICAL REVIEW, VIII, 4 : *F. H. Giddings*, A Provisional Distribution of the Population of the United States into Psychological Classes ; *R. S. Woodworth*, On the Voluntary Control of the Force of Movement ; *W. M. Urban*, The Problem of a 'Logic of the Emotions' and Affective Memory, II ; *M. V. O'Shea*, The Psychology of Number—A Genetic View ; *E. L. Thorndike* and *R. S. Woodworth*, The Influence of Improvement in one Mental Function upon the Efficiency of Other Functions, II. The Estimation of Magnitudes ; Discussion and Reports ; Psychological Literature ; New Books ; Notes.

THE AMERICAN JOURNAL OF PSYCHOLOGY, XII, 3 ; *R. M. Ogden*, A Method of Mapping Retinal Circulation by Projection ; *Edmund B. Huey*, On the Psychology and Physiology of Reading, II ; *J. W. Slaughter*, The Fluctuations of the Attention in some of their Psychological Relations ; *R. W. Taylor*, The Effect of Certain Stimuli upon the Attention ; *W. B. Pillsbury*, Does the Sensation of Movement Originate in the Joint ? *Norman Triplett*, The Educability of the Perch ; *Norman Triplett* and *E. C. Sanford*, Studies of Rhythm and Meter ; Literature ; Correspondence ; Books Received.

INTERNATIONAL JOURNAL OF ETHICS, XI, 4 : *H. R. Marshall*, Our Relations with the " Lower Races " ; *R. A. Bray*, Unity of Spirit as the Basis of a National Church ; *C. M. Bakewell*, A Democratic Philosopher and his Work ; *J. R. MacDonald*, The Propaganda of Civilization ; *W. P. Ker*, Imagination and Judgment ; *E. C. Dexter*, Ethics and the Weather ; Discussions ; Book Reviews.

THE MONIST, XI, 4 : *James A. Craig*, The Earliest Chapter of History ; *Editor*, The Fairy-Tale Element in the Bible ; *J. H. Leuba*, The Contents of Religious Consciousness ; *Editor*, The Authenticity of the Tao Teh King ; Literary Correspondence ; Criticisms and Discussions ; Book Reviews.

VIERTELJAHRSSCHRIFT FÜR WISSENSCHAFTLICHE PHILOSOPHIE, XXV, 2: *J. W. A. Hickson*, Der Kausalbegriff in der neueren Philosophie und in den Naturwissenschaften von Hume bis Robert Mayer, III; *August Dünge*s, Das Problem des Todes, II: *O. Külpe*, Zu Gustav Theodor Fechner's Gedächtnis; Besprechungen; Selbstanzeigen.

ZEITSCHRIFT FÜR PSYCHOLOGIE UND PHYSIOLOGIE DER SINNESORGANE, XXVI, 1 u. 2: *A. Mayer* und *J. Orth*, Zur qualitativen Untersuchung der Association; *W. v. Tschisch*, Der Schmerz; *Arthur Brückner*, Die Raumschwelle bei Simultanreizung; *Richard Hohenemser*, Zur Theorie der Tonbeziehungen; *E. Storch*, Eine letzte Bemerkung zu Herrn Edinger's Aufsatz "Hirnanatomie und Psychologie"; Literaturbericht.

XXVI, 3 u. 4: *Karl Groos*, Experimentelle Beiträge zur Psychologie des Erkennens; *E. Wiersma*, Untersuchungen über die sogenannten Aufmerksamkeitsschwankungen; *E. Storch*, Ueber die mechanischen Correlate von Raum und Zeit, mit kritischen Betrachtungen über die E. Hering'sche Theorie vom Ortssinne der Netzhaut; *Julius Pikler*, Eine Consequenz aus der Lehre vom psychophysischen Parallelismus; Besprechung; Literaturbericht.

ARCHIV FÜR GESCHICHTE DER PHILOSOPHIE, XIV, 4: *Wilhelm Mann*, Causalitäts- und Zweckbegriff bei Spinoza; *A. Brachmann*, Spinozas und Kants Sittenleben; *Francis Mangé*, La liberté dans l'idéalisme transcendantal de Schelling (suite et fin.); *G. Jaeger*, Der Ursprung der modernen Staatswissenschaft und die Anfänge des modernen Staates (Ein Beitrag zum Verständniss von Hobbes Staatstheorie); Jahresbericht.

REVUE DE MÉTAPHYSIQUE ET DE MORALE, IX, 4: *G. Milhaud*, L'idée d'ordre chez Aug. Comte; *E. Le Roy*, Sur quelques objections adressées à la nouvelle philosophie; *L. [Brunschwig]*, La philosophie nouvelle et l'intellectualisme; *P. Landormy*, Remarques sur la philosophie nouvelle et sur ses rapports avec l'intellectualisme; Études critiques; Supplément; Revues.

REVUE PHILOSOPHIQUE, XXVI, 6: *L. Dugas*, L'entêtement; Étude psychologique; *Bernard Leroy* et *J. Tobolowska*, Sur le mécanisme intellectuel du rêve; *Ch. Dunan*, Les principes de la morale (3^e et dernier article); Notes et discussions; Analyses et comptes rendus; Correspondance; Revue des périodiques étrangers.

XXXVI, 7: *E. de Cyon*, Les bases naturelles de la géométrie d'Euclide. *F. Le Dantec*, La méthode déductive en biologie (1^{er} article); *Edmond Goblot*, La musique descriptive; Revue générale; Analyses et comptes rendus.

RIVISTA FILOSOFICA, IV, 3: *E. S.*, Giosuè Carducci; *G. Allievo*, Concetto generale della storia della pedagogia; *G. Villa*, La psicologia e la storia; *N. Fornelli*, Le fondamento dell'esperienza nella pedagogia herbartiana (cont. e fine); Rassegna bibliografica; Bollettino bibliografica; Un nuovo scritto di A. Fouillée; Notizie; Cenni Necrologici; Sommari delle riviste straniere; Libri ricevuti.

THE PHILOSOPHICAL REVIEW.

THE DOCTRINE OF SPACE AND TIME.

V. THE REAL WORLD IN SPACE AND TIME.

THE preceding papers¹ have, I hope, made it clear that the real world in space and time is not a something given in intuition, but is a construct from what is thus given. The real world is, as it is sometimes expressed, a conceptual world. It is of no small importance to realize just what this statement means, and to avoid drawing from it unwarranted conclusions.

Are we justified in holding that space and time are conceptions? That depends upon the meaning that we give to the term conception. The statement that they are conceptions may very easily be misunderstood. In trying to make clear in what sense the statement may be accepted as true, I cannot do better than go back for a while to that wonderful little old philosopher of Koenigsberg, whose sagacity often led him to hit upon truths which his followers would see with clearer vision could they overcome the amiable weakness of turning him into a fetish, and could they consent to criticize him with the same freedom with which they criticize living writers who propound epistemological theories.

Kant strenuously maintains that space and time are not conceptions, but are intuitions. Now, we have seen¹ that he uses the word intuition in two senses, one of which is a very dubious sense, and the other not applicable to *real* space and time at all.

¹ See the PHILOSOPHICAL REVIEW, March to September, 1901.

² *Ibid.*, March, 1901.

And those who read him with discrimination will see that when he comes in certain passages to contrast intuitions and conceptions, he uses the word intuition in what may with justice be regarded as a third sense, and one of such importance that it should be distinguished with accuracy. The passages to which I refer are the following :

“Space is not a discursive, or, as it is called, a general conception of the relations of things, but it is a pure intuition. For, in the first place, we can represent to ourselves but one single space, and when we talk of many spaces, we only mean by the expression parts of one and the same space. And these parts cannot antecede the one all-embracing space, as constituents out of which it can be built up. They can only be conceived as in it. Space is essentially one ; the manifold in space, and, hence, too, the general conception of spaces, depends wholly upon limitations.”¹

“Time is not a discursive, or as we say, a general conception, but is a pure form of sense-intuition. Different times are but parts of one and the same time. But a representation which can only be given through a single object is an intuition.”²

There is contained in these extracts a truth which nearly every one will be heartily inclined to accept. I stand at my study window and look out upon the roofs of the city. The world in space seems to be spread out before me. My body, my window, the nearer roofs, the more remote, the steeples in the distance, the faint blue curve of the river, the shadowy woods beyond—all these have their places in the same one space. They are neighbors who divide the ground between them, and what one gains another must lose. To speak of any one of them as in a space of its own independent of and unrelated to the space occupied by the others is absurd. I am looking at a whole composed of parts, and no part is independent of that whole. Each thing has its place ; a thing may be conceived as changing its place, but only in the sense that it leaves one place and moves into another which is there waiting for it. However individual things in this

¹ *Critique of Pure Reason*, Metaphysical Exposition of the Conception of Space.

² *Ibid.*, Metaphysical Exposition of the Conception of Time.

field may move about, they must belong to the field. They may change, but they cannot lose, their relations to all other things in it. Thus this whole expanse seen from my window may be regarded as, in a sense, a single thing. It is like the desk which I see when I turn my head. I could not see a desk, in any intelligible sense of the words, if one part of it were in one space and another in a space unrelated to the former. Similarly, I could not enjoy a view, if my body, my window, the several roofs, the steeples, the river, and the distant wood, really belonged to different spaces which did not take their places as parts of a whole.

Nor do I conceive the space occupied by the things I have enumerated to be, even when taken as a whole, an independent and unrelated thing. Beyond those woods there must be something. I believe that there are other objects more or less similar to those that I see; and I conceive of them as occupying spaces related to the spaces occupied by the things that I see, as the latter are related to each other. When my thought sweeps a wider circle, I am ready to affirm the same thing of the sun, the moon, and the stars. The things just before me are in the one space-system with the remotest of the heavenly bodies, and form a part of a perhaps boundless universe of matter, all of which lies in the one space—which does not, of course, mean that all material things are in the same place, but merely that they are really in *places*, *i. e.*, are related to each other as one part of this desk is related to another.

It is possible, then, to regard the physical universe as, in a sense, a single thing, an individual, of which all that lies before me in my present experience is but a very small fragment. The distinction between what is individual and what is general, or, to use the old terminology, between *intuition* and *conception*, is a commonplace of the traditional logic. This man walking in the street below me is an individual; he is a thing occupying a definite place and time in the material universe, and is thus a constituent part of that universe. Man, the abstract rational animal of the text-books, is general, not individual; a something which cannot be placed in the street below me, or, indeed, any-

where else ; a something without local habitation, which cannot be regarded as part of the material universe at all.

I shall not here enter into the immemorial dispute touching the object of the general name. It is enough to point out that we do constantly distinguish between man in the abstract and this or that particular man. Upon this distinction Kant falls back in the extracts above quoted, and he insists that space is an intuition, a something given as an individual thing, and not a concept or general notion. Space, he insists, is not a mere name for all individual spaces, as man is a name for all individual men. It includes them, as man does not include men. It is a single object, and "a representation which can only be given through a single object is an intuition."

That Kant is quite right in his contention that space is not a conception in the sense of the word above indicated, there can be no doubt. We do conceive of the whole physical universe as in one space, and of individual things as occupying portions of that space. The learned and the unlearned are agreed upon this point. It would be mere nonsense to speak of a *universe* of physical things not thus related. But when we call this one space an intuition, we should be most careful to make clear to ourselves and to others just what one has a right to understand by the word.

It is evident that even what I claim to see when I stand at my window is not really given in intuition in the strict sense of the word. At a given moment I am intuitively conscious of a certain complex of color-sensations. This I interpret in terms of tactual and motor sensations, and thus *perceive* a certain number of tactual things. But it must not be overlooked that even the visual sensations that represent the things seen from my window are not all intuitively present at any one moment with that vividness and definiteness that admits of their satisfactory interpretation. The eyes must move about and gather up the view bit by bit, or things remain virtually unseen. And if it is impossible for all the visual sensations to be present in usable form at a single instant, one is tempted to say that it is doubly impossible for the full meaning of these sensations, their interpretation in

terms of touch and movement, to be intuitively present to consciousness at any one time. To imagine for a moment that I can represent to myself the world of things as seen from my window, just as completely as I can a single letter written down on this paper before me, seems almost as foolish as it would be to suppose that I can really pass in thought over the distance from my window to the sun, and hold intuitively before the imagination the amount of movement which would be necessary to measure it.

The world as it lies before me is, then, not a thing directly given in intuition, even if I stop at the world of common knowledge, and refuse to follow the scientist into the unseen region in which atoms and molecules disport themselves in a space infinitely divisible. What is intuitively present in consciousness is not enough to constitute such a world. It can only represent it. It is, indeed, the *symbol*, and the world is the thing symbolized. If there is reason to believe this to be true even of the scrap of a world seen from my window, there is the more reason for believing it to be true of the great whole of which this is a part. To believe that all this is intuitively present in consciousness is simply absurd. We *think* it, that is to say, there is intuitively present in consciousness that which represents it, but that is all that we can say.

The same reasoning may be applied to time. It would be absurd to maintain that time, the one real time in which we conceive all the changes in the material universe to take place, is a concept or general notion. As space is made up of spaces, so time is made up of times. The hour which has just passed is distinct from every other hour, and has its definite place in the series. The changes which have been taking place during that hour are not changes in general, but have their fixed position in the whole series of changes which we conceive to make up the life-history of the universe. The conception of that life-history as a whole is not a general notion applicable indifferently to many things; it is the notion of a single life-history, the one constituted by these individual occurrences.

Now it must be evident to any one who will reflect upon the

matter for a moment, that it is impossible to be intuitively conscious, in the strict sense of the words, of the whole content of any considerable portion of time. I seem to be able to bring before my mind with some detail the occurrences of the past hour. But it would be absurd to suppose that I can summon before me in retrospect every single view in this panorama, and it would be preposterous to maintain that I can sum them all up and hold them before my mind as though spread on one canvas and illuminated by a single flash. I can *think of* the occurrences of the past hour, and, in doing so, I am, of course, intuitively conscious of something; but that something is a mere symbol, and is vastly less rich in content than that which it represents. It is the merest skeleton, the barest outline, the blur of blue that represents the leafy wood with its numberless effects of light and shade.

And just as *real* space does not mean to me merely the space over which I can sweep my hand, the space which at least *seems* to be intuitively given, but means rather the space of the *real* world, the space regarded by science as infinitely divisible, the space of atoms and molecules and their imperceptible motions—so *real* time does not mean merely the duration which presents itself as such intuitively in consciousness. The passing second can be measured in the laboratory in thousandths of a second, and occurrences which do not present themselves to any human consciousness as having successive parts can be proved to have such parts. As the vibration of an atom takes place in *real* space, so its frequency can be measured in *real* time. Neither this space nor this time can be given in intuition. They are known only symbolically. Thus, in order to prove that the content of a given period of time cannot be given in intuition, it is not necessary to choose so long a period as an hour or a day; a minute or a second will serve the purpose. On the absurdity of maintaining that all time—all the occurrences in the whole life-history of the world—can be given immediately in intuition it is surely unnecessary for me to dwell. No one who has not been led into error by the ambiguity of the word intuition could seriously support such a doctrine.

It is, then, clear that what is given in intuition in the strict sense of the word is but a symbol of the real world in space and time, and should never be confounded with it. We conceive the real world in space and time to be infinite and infinitely divisible. What is given in intuition is not either. But the world in space and time, the object of our symbol, is an individual, not an abstraction. That is to say, the expression 'the world' does not mean to us that which many individuals have in common. When we use it we refer to the one great complex made up of all the real things we know and many more which we assume to exist. Whether one will elect to call this an individual or not, will depend upon his taste in the use of terms. Certainly it is not marked out from other individuals by constituting, with them, a part of a larger whole; for there is supposed to be no larger whole. It is not sensible to ask: Where is all space? or: When did all time begin? But when we discuss the world, we treat it as an individual in that we concern ourselves with the parts which constitute it. We act as though we were dealing with a 'thing,' not with a class of things, and, to use the terminology of the old logic, our division is 'physical' or 'metaphysical,' never 'logical.' Since space and time are in this sense individual, Kant applied to them the term 'intuition.' There can be no great harm in using the term thus, provided we are careful not to be misled by it. Of course there is always a danger in using the same word in two or three different senses, for it is so fatally easy to slip insensibly from the one to the other. The danger is the greater when, as in the present instance, the several senses are rather closely related. That Kant did not keep the different uses of the word distinct is sufficiently evident.

It has probably been noticed that, in the foregoing, I have passed from space and time to the things in space and time and *vice versa*, as though it mattered little of which I was speaking. And yet my right to pass in this way from the one to the other would be disputed by many. As we have seen,¹ Kant maintains that infinite space and time are given in intuition, but finds it necessary at the same time to offer some sort of proof of the infinity

¹ See the *PHILOSOPHICAL REVIEW*, March, 1891.

of their content. This means that we immediately perceive that space and time are infinite, but must discover some evidence that the world is infinite, has existed endlessly, and will endlessly exist.

The notion that our knowledge of space and time is thus independent of our knowledge of things is a venerable error, and it would be interesting to trace its history. More than two thousand years ago Melissus of Samos argued that Being must be infinite, on the ground that if it be finite, it must be limited by the void, which is not an existing thing, and, hence, is incapable of limiting anything. In this argument he both denies existence to empty space, since he cannot regard it as a thing, and he assumes that it is infinite, or how could he affirm that limited Being must lie in the void? His argument is identical with that of Kant, and owes its existence to the same impulse that moved the German thinker.

We can sometimes detect the presence of this impulse even in those who make a show of denying the infinity of space or time. For example, St. Augustine supposes the question to be raised: "What was God doing before he made heaven and earth?" To this question he magnanimously decides not to return the evasive answer: "Making hells for those who pry into mysteries"! He will answer it seriously; and he does so by taking the position that, before heaven and earth were created, time did not exist. It is, hence, foolish to ask what was then taking place, for there was no 'then.'¹ But it is easy for the reader to detect that he does really recognize a 'then,' and pieces out the deficiencies of time with the aid of 'eternity.' Like Melissus, like Kant, like Hamilton, like Spencer, like a host of others, he assumes an infinite as self-evident; and in this he is actuated by the same motive that inclines us all to assent to the statement that space and time are infinite, even when we regard it as at least uncertain whether the same thing may be said of the world that lies in space and time.

Here it may be objected that in the very use of the contrasted expressions 'space and time' and 'the world that lies in space

¹ *Confessions*, Book XI, Chaps. 12 and 13.

and time'—expressions in common use and which seem eminently natural—I am suggesting to the mind that the frame and its content are in some sense independent things and may conceivably be treated independently. If space is one thing, and the real world another, why may we not know space to be infinite whether we know the real world to be so or not? If time is one thing, and the series of real changes which make up the life-history of the universe is another, why may we not know that time is infinite even when we are ignorant of the extent of the life-history which we conceive as lying in it?

But this view of space and time makes them something very like 'things,' and upon reflection we find that we are not really willing to accord to empty space and time the dignity of being 'things' in any unequivocal sense of that word. Democritus did, it is true, wax very bold, and maintain that "thing does not more really exist than no-thing,"¹ but few have had the courage to take this position, with all that it seems to imply. Space and time have, as we have seen, inconsistently been treated as things and yet not things, shades that must remain inarticulate until some reality has been put into them by the draught of blood which put new life into the friends of Ulysses.

We may, then, freely admit that men seem naturally inclined to believe that they have a knowledge of space and time independently of their experience of the real world, and we may as freely admit that expressions in common use seem to suggest that space and time are independent quasi-entities. But we should, at the same time, point to the incoherencies and absurdities which arise when one embraces such beliefs or is misled by such suggestions. We should point out how such misconceptions come to exist. We should show why it is that men welcome rather hospitably the statement that we intuitively know space and time to be infinite, and shake their heads over the corresponding statement that we know the world to be limitless and eternal. We can perfectly well explain this tendency without having recourse to ambiguous uses of the word intuition, or advancing pretended arguments which shamelessly assume in

¹ Μη μάλλον τὸ δὲν ἢ τὸ μὴδὲν εἶναι.

the premise what is to be triumphantly exhibited in the conclusion.

As I pass my finger across the *grille* of carved wood that composes the back of my oaken chair, I have what I recognize as successive experiences of filled space and empty space. The bits of wood are 'things,' and they seem to be separated by empty spaces. Reflection reveals that the 'things' of which I am thus conscious are complexes of tactual sensations combined with, or measured in terms of, motor sensations, while the empty spaces are given to consciousness as certain quantities of motor sensation taken alone. This rather primitive experience of things separated by spaces lies at the foundation of, and makes possible the more elaborate conception of, larger objects separated by larger spaces—of a universe consisting of the earth, the planets, the sun, and all the rest of the innumerable company of heaven, which we do not conceive to fill space continuously, but to swim in the void at distances from each other which it wearies the imagination to strive to grasp even through the symbol. And when we turn our thought from the space of common life to the space of science, the fine-spun space of atoms and molecules, we carry over to it the same experience. We conceive that this seemingly continuous bit of paper is not really continuous, but consists of a swarm of atoms in rapid motion and separated from one another by distances great in proportion to the size of the atoms themselves. Whether we speak of worlds or whether we speak of atoms, the distinction between filled space and empty space remains to us the same. It is the distinction between sensations of movement which measure sensations of touch, and sensations of movement which do not measure sensations of touch, but serve to measure the relations between groups of touch sensations.

Thus the real world as it seems to present itself to us is a vast complex of tactual things standing to each other in relations which are measured in terms of sensations of movement. It is, in other words, a world of things separated by distances. But it is one thing to say that the world seems to us to present this contrast of filled and empty spaces, and quite another to say that

any given spaces are really empty. We have in our everyday experience abundant evidence of the fact that spaces which seem empty at one moment may at the next, as when the sun-beam pierces the blind at the window, be observed to be not empty at all. It is clearly not for the metaphysician, by juggling with apriorisms, to establish the non-existence of a vacuum in nature, but for the scientist, by the use of the approved inductive-deductive method, to prove or disprove the existence of matter in what seems to present itself as void space. Whether there are empty spaces between the real things which constitute the world, or whether these spaces are to be regarded as filled with something—with ether or what not—is something to be proved in somewhat the same way as it is sought to prove that there are atoms and molecules.

Nevertheless, it is perfectly possible to *conceive* that between the real things which constitute the world there are void spaces, and it is also possible to conceive that the universe of matter is limited in extent and is surrounded by empty space. It is necessary, however, to understand clearly what one means by such statements, and to avoid giving them an interpretation which is plainly erroneous.

Let us first consider the statement that it is possible to conceive of things as separated by void spaces. The question will at once be raised: Do not these void spaces really exist? and must they not, then, *be something*? This is the old problem that perplexed the Eleatics.

To the question whether the void spaces are real, we may answer: Yes, if we mean by this only that things really stand to each other in such and such relations; or in other words, that they are at such and such distances from one another. No, if we mean that the relation is to be turned into a real thing that is supposed to remain when the things between which it obtains are taken away. The real world which we build up out of our experiences is a world of things of a certain kind; it is a world of extended things separated by distances, and the things influence each other in definite ways which cannot be described if the relations of the things—their distances and directions—be left

out of account. It is one thing to recognize the relations between things as real, and it is quite another to turn those relations into things of an unreal and equivocal sort. It is one thing to recognize that things are at a distance from each other, and another to turn the distance itself into the ghost of a thing.

But, it may be objected, when we speak of space we mean *more* than the actual system of relations which obtains between extended things. I answer, we undoubtedly do; we mean, not merely the actual system of relations, but the system of all theoretically possible relations as well. The actual relations of things are constantly changing, and the relations which happen to exist at any moment may be regarded as merely representative of an indefinite number of other relations which might just as well have been actual. We have seen that *real* things are never given in a single intuition, and that what may be thus given can, at best, be regarded as merely representative of an indefinite series of possible experiences which in their totality express the nature of the thing. In the same way we may say that *real* space, which is the whole system of relations of a certain kind between real things, cannot be the object of a single intuition. By real space we never mean only this particular distance given in this particular experience. We mean all the actual and theoretically possible space-relations of real things in the real world.

About time one may reason in precisely the same way. Space and time are, thus, abstractions. They are the *plan* of the real world with its actual and possible changes. But this plan is not a something of which we have a knowledge independent of our knowledge of the world. This ought, I think, to be clear to any one who has followed the reasonings of the paper on the Berkeleyian Doctrine of Space. We certainly do not perceive immediately that space and time are infinitely divisible. Subdivision speedily appears to result in the simple in each case. Why, then, do we assume that they are thus divisible? No conceivable reason can be given save that, in our experience of the world, such a system of substitutions obtains—a system within which the seemingly indivisible intuitive experience takes its place as the representative of experiences that are divisible, and, magni-

fyng its function, sinks into individual insignificance. The plan stands out ; the particular experience is lost sight of so completely that many able writers are capable of wholly misconceiving its nature. The plan is, then, abstracted from our experience of the world of things ; but when we have the plan we can work more or less independently of the experiences from which it has been abstracted, and we can satisfy ourselves, by verifying our results from time to time, that we are not wandering in the region of dreams, but are doing something that has a meaning within the realm of nature. But what meaning could a millionth of a millimeter or a thousandth of a second have to one who had never had the complex series of experiences which reveals real things and real events? They are not given in any experience except symbolically, and the only thing that can give significance to our symbol is the series of experiences in which a real world is revealed.

Hence, to the question whether a vacuum can be conceived to exist within the world, I answer : 'Undoubtedly it can. But please do not substitute for the meaning : 'exist as a vacuum,' the very different meaning : 'exist as some kind of a thing.' It is easy to slip from the one meaning into the other, and philosophers have done it again and again. Space and time are the *plan* of the world-system. They really exist in the only sense in which such things can exist, *i. e.*, they really are the plan of the system. The difficulties which seem to present themselves when men inquire whether they have real existence arise out of the fact that this truth is not clearly grasped.

Kant thought it possible to conceive of a vacuum within the world, but impossible to conceive of the world as lying in void space and time. "Space filled or void," he writes, "may be limited by phenomena, but phenomena cannot be limited by an empty space without them."¹ One may, of course, object to this that if void space is enough of a thing to have a real existence within the world, it ought to be enough of a thing to have a real existence beyond its limits. But we do Kant an injustice if we fail to recognize that at least a seemingly plausible

¹ *Critique of Pure Reason*, First Antinomy, Observations on the Antithesis.

reason may be given for the invidious distinction which he draws. As we have seen, the real world seems to consist of tactual things separated by distances. The reality of the distances, their existence as actual aspects of being, appears to be guaranteed by the fact that they are the actual distances between real things. Now, if the universe be limited, can we say that any distances beyond its limits are in the same sense actual? The earth and the sun are, at a given moment, a given distance apart. Whether they be separated by filled space or void space, does not effect the question of the reality of this relation. But can we say that some cosmic body on the confines (if there be such) of the universe of matter stands in a similar relation to a material thing beyond that universe? Manifestly not. Can, then, anything whatever beyond the universe of matter be regarded as really existent? Can it be an 'aspect' of that universe? The distances which we may, then, conceive to lie beyond the ramparts of the world are not real distances. They are not real relations between real things.¹

This argument is not, I think, without some plausibility, but its weakness is sufficiently evident. I have said that when we talk of space we do not mean by it merely the existing relations of distance and direction in which things stand to each other at any given time. We include all *possible* relations as well. But it is theoretically possible that a real thing should exist beyond the limits of the finite universe that I have assumed, and another beyond that one, etc. Hence, there can be no objection to saying, even in the absence of real things, that there is space beyond. We have already thought this in thinking a 'beyond' at all. It is with space-relations as it is with numbers. If only 50 real things existed in the universe, we could still say with truth that $50 + 50 = 100$. This does not mean that 100 things exist, nor does it mean that numbers are shadowy existences which are independent of things, and can be affirmed to be, before we know anything about things. It only means that our number-system admits of such and such a legitimate extension, and that, hence, if there are 50 things and 50 things, there must be 100 things.

¹ Cf. *op. cit.* First Antinomy, Proof of the Antithesis.

It does not matter one whit to the arithmetician whether there actually exist 100 things or not. He is, indeed, ultimately concerned with things, or his number system would be a mere play of fancy, and would have no bearing upon reality; but he is only indirectly concerned with things, and he may in much of his work leave them out of account.

Thus, when men declare space to be infinite, as they are usually very ready to do, they are not *affirming an existence*, but are *recognizing a possibility*. They are recognizing the fact that there is no theoretical limit to their freedom of imagining extensions to a supposed limited universe. They are extending their space-system as his number-system is extended by the arithmetician. That this is what they mean when they pronounce space to be infinite is sufficiently clear from the repugnance which they exhibit at the thought of granting to space such an existence as they grant to things in space. If they do not realize clearly what they really mean by space, they are in danger, as we have seen, of making it a quasi-thing, a thing and yet not a thing, a thing too real to be banished and yet not real enough to be capable of standing alone, an insistent but feeble-kneed spectre. But those who wander cheerfully thus far upon the path of error, are unwilling to go a little further and make space consistently a thing. Time and number, about which one may reason in the same way, are still less in danger of being 'reified,' for they seem to be instinctively felt to be less robust and independent.¹ It is impossible to doubt the fact that men discern dimly, even when they are groping their way in rather a heavy fog, that, in dealing with space and time, they are not really dealing with things. *It is just because they do perceive this* that they are willing to declare space and time infinite, when they know perfectly well that space and time as infinite do not fall within their experience at all, that they are not conscious of infinite space and time.

¹ It has been my experience that the average undergraduate, in his primitive simplicity, is not loth to regard space as something very like a 'thing'; he is much slower to admit the same of time, and he is usually ready to deny flatly that it can be true of number. I suppose that my classes are not peculiar in this matter.

Such being the nature of space and time, and such the significance of the statement that they are infinite, there can be no serious objection to making that statement, if it be properly understood. Indeed, it would seem odd to deny the statement, for it would be a virtual denial of an undoubted truth. But there must be no misconception. Space, for example, must not be turned into a thing or even into half-a-thing. Possible relations must not be made actual, and then things arbitrarily assumed to exist in order that they may stand in all these possible relations and bolster up their dubious being. It is palpably absurd to first assume unlimited ivy and then assume unlimited oak upon which to wreath it. It will not do to extort from a mere misconception such significant statements of fact as that there can exist no vacuum within the world-system, and no outer limit to the same system. These are dreams, not serious arguments, and they tend to bring metaphysics into disrepute with men of scientific mind.

I hope it is clear from the foregoing that the use of the contrasted expressions 'space and time' and 'the world in space and time,' does not imply that the world is one thing, and space and time independent entities of some sort. The real world in space and time is a vast complex of tactual things standing to each other in certain relations of distance and direction, and passing through a series of changes. The plan or system of its actual and theoretically possible relations and changes is what we mean by space and time. In this plan we have the 'form' of the real world. And just as the real world is not given in any single intuition, but is a construct of great complexity, and implies many intuitive experiences built into a system, so its 'form' is not the 'form' of any single intuition, but the plan of the whole system of experiences in which the real world is revealed. Thus it is because the real world is what it is that space and time are what they are. They are abstractions from the real world, isolated aspects of it, and are in no sense known independently.

It is clear, then, that neither space, time, nor the world of real things, can be regarded as given in intuition in the first and strict sense of the word; but all three may be regarded as intuitions in

the third sense—intuitions as contrasted with conceptions, the individual as contrasted with the general. But they are not independent intuitions, for the first two are abstracted from the last ; and the real significance of much that Kant tells us touching the nature of space and time becomes apparent only when this is clearly apprehended.

Perhaps I should touch briefly upon one more point before closing this discussion. It is possible that the objection may be urged that, after all, when we try to conceive empty space, we do not really conceive *empty* space ; that, when we think we are dealing with the void, we are really dealing with a sensation-content. Have we not seen that our initial experience of empty space is an experience of sensations of movement uncombined with sensations of touch ? Are not these sensations something ? And if so, can we say that space, as we conceive it, is not a thing in any sense ?

Now, those who are inclined to regard the distinction between 'form' and 'matter' as ultimate would probably maintain that, although we gain our first experience of empty space in the consciousness of movement-sensations, and although every attempt to bring before the mind any space necessitates the imagining or feeling of some quantity of such sensations, yet the consciousness of space is not identical with the consciousness of this content simply. In this content they would distinguish between 'matter' and 'form,' between the sensational elements themselves and their arrangement, maintaining that the properly spatial element in the experience is the latter, and that it is possible to fix the attention upon this to the temporary exclusion or partial suppression of the former. This element, they would claim, is not a *content* in the ordinary sense of the word, though it is undoubtedly an element in consciousness. Those, on the other hand, who do not regard the distinction between 'form' and 'matter' as ultimate, would probably admit that empty space presents itself in our experience as simply movement-sensations uncombined with tactual sensations.

But whether one embrace the one position or the other, it by no means follows that one is forced to admit that we cannot con-

ceive empty space. Empty space is not synonymous with 'nothing at all ;' it is empty space, and is quite distinguishable from empty time. The conception 'thing' (when the word signifies real things in a real world) and the conception 'nothing at all' do not exhaust all possibilities between them. What is meant by real things I have tried to show in the foregoing, and I have strenuously insisted that space and time must not be turned into such things. But this does not mean that their real existence—not as things, but as space and time—must be denied. By the distance between two things we do not mean a third thing ; but neither do we mean nothing at all. The apparent difficulty clearly lies in the ambiguity of the word *thing*, and the facility with which one may pass from the broader sense in which it is used to the narrower. In its narrower sense we contrast *things* and the *relations between things* ; we are concerned with the material world and its aspects. In its broader sense we contrast *thing* with *nothing*, and we, of course, see that no element in consciousness can be regarded as nothing at all. It is manifestly illegitimate to slip in any discussion from the one meaning of the word into the other. It is absurd to argue that, because something is in consciousness when we think of empty space, therefore we cannot really be thinking of *empty* space, but must be thinking of a *thing*. In the foregoing discussions, when it was denied that space and time could be regarded as things in any sense, reference was had, of course, only to the narrower meaning of the word. This is the only meaning in which it is worth while to raise the question.

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THE TRUTH IN ASCETIC THEORIES OF MORALITY.

THE negative or ascetic element in morality receives scant treatment in the naturalistic ethics of the present day. In current discussions, development is made the keynote of the moral life, and the significance of discipline is almost wholly overlooked. The Good, we are told, consists in the satisfaction of all the desires of man in their due proportion. We should strive "*dass in möglichst vielen und in möglichst grosser Fülle und Harmonie die Fähigkeiten und Triebe entwickelt werden.*"¹ Moral discipline with its demands for self-mastery and self-sacrifice savors too much of the thoroughly discredited ascetic ideal of the Middle Ages to merit serious consideration. Nature wants "big, strong, hearty, eupeptic, shrewd, sensible human beings" and has no use for a "bilious, scrofulous, knock-kneed saint."² Overflowing energy and superabundant vitality are advantages too requisite for successful living to admit of their being weakened by rigorous discipline. Better far that on occasion a clamorous impulse should lead into forbidden paths than that its suppression be attended by a decrease in vital force. Rather we should endeavor to gratify every natural impulse to that extent which the due gratification of all the other impulses will allow.³

The facts of the moral life do not justify this neglect of its negative aspect. To the healthy moral consciousness, the path of virtue may be much more accurately described as a bitter and continuous struggle with rebellious tendencies, than as a peaceful coördination of them into a well-ordered whole. 'Harmonious development' is a well-sounding expression by which to describe our growth in moral grace, but in using it we should not forget the struggle and repression which is so important a feature of the moral life. We are keenly aware of an element in our nature that balks us when we seek to walk according to our ideals.

¹ Höffding, *Ethik*, p. 381.

² Stephen, *Science of Ethics*, p. 409.

³ *Ibid.*

Our good intentions come to naught because the desires of the 'natural man' demand immediate satisfaction. We recognize that if our great purposes are to be realized, we must gain perfect control of the random impulses and hold them in a grip of iron. Such mastery can be gained by practice only ; consequently there is undertaken that discipline which, by the systematic repression of the natural impulses, makes them amenable to control. Effort and pain are conditions indispensable to moral progress. The most perfect moral characters we know are those which have been developed through suffering and self-sacrifice. It is of the very nature of the moral ideal to call us out of our narrow selves to the recognition of larger values. These values are not to be estimated in terms of the well-being of the self ; indeed, they often call for its complete sacrifice. Of the evolutionary moralists Mr. Leslie Stephen shows his superior appreciation of the facts by admitting explicitly that the requirements of the moral law transcend the well-being of the individual agent. " By acting rightly, I admit, even the virtuous man will sometimes be making a sacrifice ; and I do not deny it to be a real sacrifice ; I only deny that such a statement will be conclusive for the virtuous man. His own happiness is not his ultimate aim, and the clearest proof that a given action will not contribute to it will therefore not deter him from the action." ¹

The ascetic element in morality presents itself in two forms, usually designated as self-mastery and self-sacrifice. By self-mastery we understand that warfare which is waged within the individual self against those impulses and tendencies which hinder its symmetrical development. By self-sacrifice is meant the sacrifice of the well-being of the self as mere individual to a greater good, be that a social or an absolute good. Whatever may be the pronouncements of ethical theory, it cannot be doubted that self-mastery and self-sacrifice are fundamental features of actual morality. Since the moral struggle has always accompanied morality, we may in consequence expect to find it a leading factor in determining the earliest forms of ethical theory. The Socratic synthesis of virtue and prudence could not long persist. Ethical

¹ *Op. cit.*, p. 431.

theory took two opposing directions in accordance with two predominant and radically different types of human character. Certain men saw in the requirements of virtue only a means whereby the sum total of pleasure could be increased by the regulation of the various impulses. In Hedonism, therefore, moral discipline occupies a subordinate place, and self-mastery is transformed into a prudential calculus. Other men of a sterner sort were attracted by the very severity of the struggle attendant upon moral progress. This warfare of ideal against inclination became for them the whole of morality. Thus in rationalism the significance of discipline and negation is fully appreciated. But the resulting theory is singularly unsatisfactory. Human nature is split into two hostile divisions. Reason and sensibility are declared to be at war, and morality to require that the conflict be fought to a finish.

Plato discusses the problem of self-mastery in a well-known passage of the *Republic*,¹ giving to it the rationalistic explanation. There Socrates remarks upon the paradox involved in the word, and says it can be explained only by supposing two 'principles' to exist in human nature a 'good' and a 'bad.' The 'good' he declares to be the rational principle, the 'bad' the irrational principle. Self-mastery will then consist in the control of the sensuous inclinations and wilful impulses by reason. The ideal of practical virtue Plato finds in the harmonious adjustment of all the parts of human nature according to the dictates of reason. In order to attain this harmony, a struggle is necessary in which Reason, availing herself of the aid of the spirited element, reduces the insatiate appetites to order and submission. But Plato goes still farther. Reason is the divine element in man. The body, with its desires and impulses, is only its prison-house. Consequently, the highest Good will consist, not in a harmony of the sensuous impulses, but in that pure contemplation which suppresses all that is earthly and sensuous. The philosopher, who has feasted his soul on pure ideas, will not return willingly to practical activity. If the good principle in man is reason, and the bad principle sensuous impulse, we cannot but admit that the final goal of the moral struggle is speculative absorption. ✓

¹ Bk. IV., 431 A.

Plato's conception of the moral life as a harmony prevents him from developing his rationalism to its logical consequences. Hence his ethical theory has all the merit and plausibility of moderate rationalism. But there are present the essential principles of rationalism, developed in all its rigor by subsequent moralists who forced the same premises to their logical conclusions. These thinkers deserve praise for doing full justice to the ascetic, the disciplinary aspect of morality. The importance of the struggle in the moral life is fully recognized. But in each case it is reason and sensibility that are doomed to struggle in the moral arena. The ethical system of the Stoics is an example of this extreme rationalism. In Stoicism the stern and rigorous rule of duty was held to be the essence of morality. Duty required of man the unqualified submission of sensibility to the law of reason. The Stoic maxim, *Live according to nature*, meant, *Live according to that rational order fundamental to all things*. Through reason we may adjust ourselves to the order of the universe, and thus attain to independence and peace. In order to accomplish this, sensibility, the lawless and capricious element within us, must be sternly repressed. Through feeling, man is made the prey of circumstance and the creature of fortune. Freedom and perfect virtue can be attained only when reason has emancipated herself entirely from the influence of sensibility. Such is the nature of the moral struggle. Its goal is the life of reason, sufficient unto itself. Quite self-contained and raised above the tide of circumstance, the Stoic sage would commune with the eternal verities of reason.

The rationalistic interpretation of the moral struggle is illogical and unsatisfactory. We can follow Plato in believing that the paradox of self-mastery can be explained only by supposing two principles existent in human nature, a higher and a lower principle. But when he goes farther and identifies these principles with reason and sensuous impulse respectively, we cannot follow. The conclusion seems inevitable that moral development is conditioned by an active opposition of tendencies in the nature of man; but to explain this opposition upon the basis of an ultimate psychological distinction between two human faculties seems quite

erroneous. Human nature thus divided against itself can never be brought together again. The dualism thus introduced is irreconcilable and beyond the possibility of an ultimate unity. The conflict can be concluded only by the annihilation of one combatant by the other. But morality aims at complete realization and not one-sided mutilation. The departments of human nature exist in indissoluble connection, and if morality demands the suppression of one by the other it demands a distortion of human personality. Moreover, such a dualism is actually impossible. Taken in separation the one from the other, reason and sensibility are but abstractions of psychological analysis. Reason can enforce her laws only when feeling furnishes the motive-power. The direction of intelligence is necessary even to insure a maximum of sensuous gratification. Worst of all, this doctrine of rationalism tends to take morality out of real life and center it in the intellect of the individual. The world of feeling and of doing becomes but an empty show, and the individual seeks in contemplation to draw near to eternal reality. The seclusion of the cloister or study is preferred to the faithful performance of the duties of one's vocation in the work-a-day world.

The conflict between opposing tendencies in the nature of man is so essential a feature of the moral life that those who do not recognize it give proof thereby that they have not sounded the depths of moral experience. Particularly open to this accusation are those moralists who, wishing to include human conduct in a single process of natural evolution, refuse to admit an opposition in human nature which might seem to break the continuity of this process. The ethical theory which results is unsatisfactory simply because it does not explain the facts in its province. In criticism of the position, we have only to call attention to a commonplace of human experience which this theory entirely ignores. Plato, although the originator of a daring philosophical theory, dealt squarely with the facts. So we must regard his conclusion as indisputable, that the 'paradox' of self-mastery can be solved only by supposing two principles, mutually opposed, to be resident in human nature. But the error of the ethical theory, which would designate these opposing principles as reason and sen-

sibility, is equally apparent. So great are the inconsistencies of rationalism that it is not surprising that it should have become thoroughly discredited. In the past century we have come to view human nature in a new light. We see man as the result of a steady and uniform development from the single cell. We see his faculties gradually unfolding in response to the requirements of existence. There can be no more talk about certain parts of his nature being of divine creation and others of material origin. If we are to provide for the facts of disciplinary morality in our ethical theory, we must give a more satisfactory account of the conflicting tendencies than did rationalism. Moreover, we may learn from the errors of rationalism that it will not answer to identify these opposing tendencies with departments of human nature taken in abstraction; and if it is necessary, as we believe, to assume a real and intrinsic opposition in the nature of man to account for the facts of the moral life, it must not be an opposition beyond unity, but rather be shown to be an opposition which conditions a higher unity which it is our ideal to achieve. Brief notice of the contention of recent naturalistic ethics upon this subject may enable us to proceed more intelligently in an attempt to determine the real nature of these opposing principles.

The question is raised by moralists of this school as to why we assume any such opposition in the nature of man. Morality is based upon man's desires. These have been developed in the course of a natural process. Of the same origin, all are equally legitimate, and each has its right to satisfaction. We may not call some higher and others lower, indulging some and suppressing others. It is our business, however, to see that each keeps its proper place. Our conduct should be so regulated that our life shall be the most satisfying possible under the conditions. Morality stands for the interests of the whole against any part. Our task as moral beings is to bring about a proper adjustment of these natural desires, so that the whole self may be developed harmoniously.

Study of the genesis of morality should not blind us to the plain facts of the moral life. The meaning and significance of a thing is not exhausted when we have explained how it came into

existence. The fact that morality had birth in a natural process is no reason why its values should be estimated in terms of that process. Granted that moral conduct is like all other conduct in being an 'adjustment of acts to ends,' this does not require us to go farther and argue that, along with other conduct, it finds its true end in the promotion of the fulness of natural life. As a matter of fact, the distinguishing feature of that conduct which we call moral is that it does recognize other and higher values than those to be reckoned in terms of natural existence. Throughout the whole organic realm, in so far as it is included in a single process of development under the law of natural selection, the object of action—although unwittingly pursued—is the preservation and promotion of life. In the struggle for existence the one end instinctively followed by the individual organism is its own safety and welfare. If we were to regard man as merely the most highly organized of natural creatures, we might, with reason, expect that the supreme end of his conduct would be individual welfare also—his intelligence only giving him the advantage of forethought and deliberation in the attainment of this end. But it is most obvious that many of the ends toward which human conduct is directed must be put in an entirely different category from this, the uniform object of natural life. Men give the effort of a lifetime and sacrifice all they possess to altruistic objects, and it is only a shallow sophistry which would attempt to base their conduct upon egoistic motives. Consideration of individual security might account for the existence of a respect for the life and property of one's neighbor, but not for the maintenance of institutions of philanthropic relief and ideal culture destined to influence distant peoples and coming generations.

With human personality, therefore, a new factor enters the natural order. Through its agency, conduct is directed toward ends which are ideal in character, and absolute in worth. Not only does this new principle supplement the law of organic development, but in many cases seems directly opposed to it—in so far as the latter would confine effort to the promotion of individual welfare. But yet it is with man alone of all the creatures of nature that individual welfare can become an object consciously

chosen and intelligently pursued. Thus he is peculiarly fitted to succeed in that struggle which is the condition of development in the organic world. From these considerations, it is evident that the presence of that distinctively human principle, which makes moral attainment possible, involves an opposition of tendencies in human nature. For man is both a creature of nature and a moral agent. The existence of such opposing principles we have heretofore found reason to believe a necessary deduction from the facts of moral experience. It is now evident that the possibility of such an opposition depends upon the introduction into the world, along with human personality, of a new principle that is different from, and in frequent conflict with, the law of natural development operative throughout the organic realm, but first coming to intelligent expression in man. We look then to the implications of self-conscious personality for an understanding of that opposition of principles in human nature which is the cause of the moral struggle and the condition of moral attainment.

What is the significance of the advent of self-consciousness in the natural world? In the first place, there comes with self-consciousness a recognition by the self of its own individuality as distinguished from the whole of objective reality. The stream of animal instinct and impulse is interrupted, and the individual comes forth, aware of himself in the independence of his personality. Since it is only by self-conserving activity that the physical organism maintains its existence against the disintegrating influences of the environment, the distinction that the individual recognizes between himself and objective reality receives additional emphasis. It is keenly felt even as an essential opposition between the interests of the self and the external world. That struggle for existence, waged by blind instinct in the animal world, takes on new significance with the consciousness of self. Appreciative of the meaning of his own individuality, the self-conscious being has the aid of a contriving intelligence in the promotion of his own welfare. In addition to those capabilities developed by natural selection in response to the requirements of the environment, intelligent forethought enables such an individual to prepare himself to meet an emergency as his interest dictates.

Thus with self-consciousness a mere instinct of self-preservation is raised to a persistent and intelligently directed tendency to seek individual well-being.

But the consciousness of self brings with it more than this recognition and accentuation of individuality. In so far as the self is able to recognize itself as individual, it transcends the limits of its individuality, and identifies itself with absolute reality. Along with the principle of individuality first coming to intelligent expression in self-consciousness, there appears a universal principle under which the particularity of individual character is subsumed, and in relation to which it receives its meaning. That very distinction between the self and the external world which is the basis of individuality, is at the same time a positive relation by which the self is joined in organic union with other reality. Within the experience of each individual who knows himself as such, there exists this principle of universality as the unifying agency which gives the self a place in its world. The presence of this universal principle involves the recognition by the individual of other persons like himself, and a conception, more or less adequate, of a humanity which includes the self and others in one order of conduct. Along with this idea of human nature in its universality, comes a recognition of the dignity and worth that attaches to human personality as such. Applying to all individuals in virtue of their humanity, this idea is effective as an ideal in the life of the individual agent. Thus the individual is moved to identify himself in functional relation with a social order, in which the supreme end is not individual welfare, but an ideal of personal worth which is universal and applicable to all men alike. It is through this universal principle in his nature that man is enabled to appreciate values which are not estimated in terms of his own well-being, and to enter a higher life in which the attainment of character becomes an end in itself.

The implications of self-consciousness justify us, therefore, in maintaining that there are in man two selves struggling for the mastery in the form of two opposing tendencies, the one that of natural individuality which would turn all to purposes of in-

dividual satisfaction, the other that of self-determining personality whereby the individual is led to make the good of others an end of action, and to identify himself with a social order in which all humanity is united in the realization of a common good. It appears, therefore, that it was a correct understanding of the facts of human experience which led so many of our great moral teachers to emphasize the existence of the 'natural man,' the suppression of whose desires and inclinations is necessary to moral development. But the great mistake was to identify this insubordinate element with sensibility, and thus to lend countenance to an asceticism which discouraged effort and distorted character. The 'old Adam' which the moral ideal demands that we discipline with ascetic severity is more than an abstraction of psychology; it is a tendency very real and very persistent within us. Just such a concrete, living force we make it when we understand it as that will-to-live present in all organic life, transformed through the advent of self-consciousness into a wilful egoism, an enlightened selfishness. Sufficient attention to the conditions of individual health and well-being is of course a condition of human as well as animal life, but when individual welfare is deliberately pursued as the supreme end, such conduct is truly described as the 'natural wickedness of man,' and it is the source of a great part of the misery and suffering in the world. In actual experience this principle of individuality presents itself in many forms—as a calculating prudence, a persistent tendency to seek individual welfare, a self-love which is the ruling motive in conduct.

Although we admit that in man a natural instinct becomes a vicious inclination, yet it is with human personality that a new, a spiritual principle, enters through which there is opened to man the possibility of a life higher than mere natural existence, a life of free self-realization in accordance with a chosen ideal. For a self-conscious being, who recognises and passes judgment upon the element of individuality in his character, is more than a mere creature of nature. There is in him an ideal, a universal principle, which distinguishes him from the creature of time and space and identifies him with eternal reality. The possibility of moral attainment through the realization of ideals is based upon this uni-

fyng principle peculiar to self-conscious personality by which the self is organically joined with other selves in one 'kingdom of ends.' This is the ideal principle which in the moral life opposes the natural tendency to self-centered individuality—in Hegelian language, the 'universal' principle in the 'particular' individual giving active witness to the presence in him of that one rational life realizing itself in the universe. The 'good' principle which in the moral life must conquer the 'bad' is therefore not to be confused with reason. This principle, as well as the other, finds concrete expression in actual life as an agency efficient in determining conduct. It appears as an intelligent appreciation of a human society in which the individual and his fellows are included in bonds of mutual obligation—as a self-determining will which, finding its potentialities unrealized in an individual sphere, seeks expression in the accomplishment of ideal and altruistic ends—as a feeling of restless yearning which reaches out beyond individual isolation and seeks satisfaction in the love and fellowship of other selves, and which ultimately finds perfect satisfaction only in union with the divine.

There is then a deep-rooted contradiction in human nature. But instead of issuing in an irreconcilable dualism, this difference of tendency is the condition of a higher unity which it is possible to attain through moral endeavor. It is this very contradiction which is the impelling force in the moral life, prompting the individual to continued effort, in order that with the attainment of a more perfect character the contradiction should be removed. Man finds two opposing tendencies in himself, the one directed toward individual welfare, the other seeking to ally him with a universal good. The principle of individuality is actual within him as a natural being and the product of a natural process. The universal principle is at first present as an ideal, representing the sum of his possibilities as a self-conscious being in implicit relation to a society of persons like himself. The opposition can be transcended, and the contradiction removed, only in the course of a process in which the limitations of individuality are negated, and the potential relations of universality are actualized in such a way that when the universal is made concrete it shall in-

clude the element of individuality, and by so doing shall give it new meaning and significance. Thus human conduct, in so far as it is guided by the moral ideal, seeks to overcome the contradiction by developing strong individual personality, which finds expression in the realization of a universal good. But without such a contradiction in human nature there would be no cause for the effort and struggle which is so prominent a feature of the moral life. Were man a mere natural individual, his conduct could have but one end, individual satisfaction, and duty would be unmeaning to him. Contrariwise, if man were so perfectly adjusted to the moral order of the universe that its realization was a spontaneous expression of his character, there would be no call for effort or sacrifice on his part. It is only because there are two selves, contradictory in their tendencies, that man is called upon to do battle for his ideals, and submit himself to the stern law of duty.

Although the impulse to individual gratification has the strength of a natural law, it cannot silence the voice of conscience nor deprive the ideal of its power. No compromise between these opposing principles in their original form is able to effect a permanent reconciliation. They remain unalterably opposed. Only at a higher stage, reached through protracted effort, can this reconciliation be accomplished. If the universal principle in his nature is to raise man into a new sphere in which the Good is supreme, it must be through the transformation of the principle of natural individuality. This transformation is rendered more difficult by the fact that this latter tendency has been actually ingrained in man's nature through the experience of his extended ancestry, while the universal principle is peculiar to his self-conscious personality and exists in him for the most part as an ideal. Deep-rooted in human nature, the force of individual inclination offers a well-nigh insurmountable obstacle to the realization in individual character of an ideal which would identify the self with the interests of others, and unite all in the realization of an absolute good. The resistance of a stubborn individuality must be overcome before the self is fitted to discharge its function in the moral order. This can be accomplished only through rigorous discipline and the continual repression of natural impulse. So far from being a

discredited relic of barbarous times, an asceticism intelligently directed is the *sine qua non* of moral progress. Since the element of individual assertiveness is part of the existent nature of the self, while the ideal is yet unrealized within it, the discipline of the moral life must always seem a real self-sacrifice. To doubt this is to invalidate the facts of experience. The Good appears as something external and opposed to the interests of the self. Duty is a stern law demanding the suppression of inclination. The individual feels that his own good is ruthlessly sacrificed to a higher law, the nature of which he ill understands. But because it is right he sacrifices his own pleasure to the call of duty. At the time he is unable to see how with the greatest self-sacrifice he is advancing rapidly in moral development. But by the suppression of a narrow self he is realizing a larger self which is his true self, the complete expression of his personality. Indeed, it seems necessary that the individual should be ignorant of the true significance of his sacrifice, else it would fail in its efficiency. Consequently, it follows that the ascetic aspect of morality is no passing phenomenon, but an essential element necessarily involved in a process which consists in the adjustment of the individual into a larger whole.

We may thus recognize the truth of Kant's doctrine that moral obligation comes to us in the form of a "Categorical Imperative," as contrasted with the force of natural inclination. We would not agree with him, perhaps, that the object of *all* natural desire is individual satisfaction, while it is the essential characteristic of moral obligation to assert itself in opposition to natural inclination. Nevertheless, it is true that moral development requires of us, as the first step upward, the hard duty of negating the self as mere individual, in order that we may become one with the moral order. But in submitting ourselves to the law of duty we acknowledge ourselves as more than individual, and assert our citizenship in the spiritual world. It is our ultimate goal in moral endeavor to identify ourselves with the moral order so completely that the performance of duty will be but a spontaneous expression of character. But that beatific stage is the goal of moral development and not its beginning. The opposition must

be keenly felt before the identity can have true meaning. The individual self must be negated and suppressed. Thus only can it be taught that its 'other' is but its other self. Thus only can it be fitted to embrace those relationships which are the birthright of a spiritual being, and in which it can find complete self-expression.

From this standpoint, it is easy to see how Fichte could believe that the essence of morality was to be found in the lifelong struggle itself. The finite Ego for him is infinite in its possibilities. But its whole nature can be realized only by the accomplishment of an infinite task. This task consists in the overcoming by the Ego of the barrier existing between the Non-ego and itself. The Ego is both finite and infinite. As finite individual, its reality depends upon the preservation of the limit set upon it by the Non-ego. As infinite spirit, it knows no limit and would include all of reality within itself. Morality lays upon the finite Ego the duty of overcoming the limit and pushing it ever further back. Thus the limitations of individuality are transcended, and in the Non-ego the finite Ego comes upon its greater self. In this technical fashion, Fichte gives expression to a profound comprehension of a fundamental aspect of morality. The 'infinite task' is laid upon all moral beings. The barrier which individuality has erected between the self and others must be overcome. The 'limit' of the 'finite Ego' must be suppressed. In union with the Non-ego the individual is destined to realize all the possibilities of his true self.

Those who are averse to allowing morality its own distinctive principles of explanation, attempt to explain the moral struggle in terms of the natural life-processes. The 'conflict' and 'negation' they admit to be present in morality, but say that they are natural and inevitable features of conduct that is part of an evolutionary process. Evolution is accompanied by a continual readjustment and readaptation. The natural conditions change, and the organism must meet the situation by a readaptation. Man can attack the problem with a contriving intelligence. Nevertheless, the readaptation is often a hard matter. Certain habits and faculties have been developed by conditions now past, and their exercise

has become easy and pleasant. But the change in situation renders them useless, and demands new modes of action. These new activities must be performed by an organism habituated to other modes of action. A tension and a conflict arises between habits developed to suit conditions now past, and those activities demanded by the present environment. "Just because the acts of which these promptings and impulses are the survival were the fittest for bye-gone days, they are not the fittest now. The struggle comes, not in suppressing them or in substituting something else for them, but in reconstituting them, in readapting them, so that they will function with reference to the existing situation."¹ The environment is becoming constantly more socialized. This is the natural situation to which man must adapt himself. His habits and tendencies are, many of them, relics of a lower and less social stage. These must be overcome and others more suitable to the environment substituted for them. Here lies the moral struggle.

All this is quite true as far as it goes. The moral order has become actualized in the institutions of government and society. It finds definite expression in custom and public opinion. In this form moral requirements are part of the natural situation to which the individual must adapt himself. And this may call for a readaptation involving the suppression of habits and tendencies whose existence points back to a time when law and order did not exist. In such a process of readaptation the tension above described must surely occur. A man may experience considerable difficulty in restraining his predatory instincts, and keeping his hands off his neighbor's property out of regard for the strong arm of the law. No doubt this is the nearest approach many men make to a moral struggle. If such conduct is moral at all, it belongs to a very low order of morality, and we condemn the motive as positively bad. No real self-sacrifice could come out of such a process. It is essentially self-conserving, and individual well-being remains the supreme object. As long as this is true, and individual welfare is the end, no real self-sacrifice is possible. A man may root out his strongest passions to save his

¹ Dewey, "Ethics and Evolution," *Monist*, Vol. 8, p. 383.

neck, and still be adapting himself to his environment. But the willing sacrifice of well-being and of life itself to a distant and ideal end could hardly be called an adaptation to a natural situation. Duty comes to the child first in the shape of a tension between natural inclination and the requirements of the home or society. But the child has not developed true moral character until he has recognized the external demands as obligatory upon him from their very nature, and apart from means of enforcement.

The tension accompanying individual adaptation goes but a little way, then, in accounting for the struggle in the moral life. In so far as this adjustment requires the suppression of momentary impulse in the interests of individual welfare, it involves that degree of discipline and self-control which is the first step in moral development. But the profound significance of the moral struggle is grounded upon a discord deeper and more thoroughgoing. It is not a struggle of opposing 'faculties,' reason battling against sensibility. It is a discord between two tendencies, elemental to human nature, and originally ill-adjusted, one of which would preserve and promote individual well-being, the other of which would ally the self with the welfare of others, and the order of the universe. Consciousness of self brings with it a consciousness of the separateness of the individual, and his opposition to all that is objective comes out in full force. But along with this consciousness of individuality comes a recognition of the unity which includes the opposing elements, the individual and his world. A greater good is superimposed upon the individual, a good which is not to be measured in terms of his own well-being. This Good he recognizes as his *good*, in that he feels it his *duty* to realize it. It comes to him not as a condition of his individual welfare; but as an obligation to the discharge of which this welfare must be sacrificed.

We can now appreciate with some degree of fairness the truth contained in ascetic theories of morality. That the negation and conflict with which these theories are chiefly concerned has a place in actual morality cannot be doubted. Everyday experi-

ence gives us abundant evidence of the discipline and sacrifice which the moral ideal requires of the individual. It must be admitted, moreover, that in such theories a superior insight is shown when it is maintained that the incidence of struggle and suppression upon the performance of duty is not the result of a temporary maladjustment, but due to the very nature of duty and of the moral ideal itself. It has been our effort to show that this disciplinary aspect of morality is no transitory effect of circumstantial conditions, but an essential element in a process whereby a universal ideal transforms a character subject to the limitations of natural individuality. Two considerations must be borne in mind, however, the neglect of which by the ascetic theories of the past compels us to qualify the indorsement which we would otherwise give them. (1) True moral discipline can never result in the mutilation of human personality, or the withdrawal of the individual from the natural field of moral activity. Because the asceticism recommended by the extreme Rationalists and practiced by many mediæval Christians was based upon an unnatural division of human nature, it resulted in monasticism and distortion of character. In consequence, it is universally condemned as an inconsistent and harmful theory. (2) Positive development must always accompany discipline and negation, or the latter are worse than useless. We should mistake if in our emphasis upon the ascetic aspect of morality we found in it the whole of the moral life. Taking such a position we should neglect entirely that positive development which is the ultimate aim of all moral endeavor. With much truth Kant and Fichte may be accused of thus over-emphasizing the purely disciplinary aspect of morality. As Hegel says the stage of 'ought-to-be' was never passed by Kant and Fichte. In emphasizing the opposition between the claims of the ideal and the tendencies of the actual, these thinkers overlooked almost entirely the union which the faithful discharge of obligation is constantly effecting between these two opposing factors in the moral life. The ideal thus separated from the actual is robbed of its reality, and becomes something visionary and fanciful, a mere 'ought-to-be.' Thus for Kant conduct had moral value only when performed in the face of opposing inclination. Fichte

found in the strenuous activity put forth by the Ego in overcoming the opposition of the Non-ego not only a means of development but the end of the moral life. A profound comprehension of the facts of morality prompted these two philosophers to lay especial stress upon the absolute imperative imposed by moral obligation upon the natural impulses. And if thus they were led to neglect the synthesis achieved in the moral life, it was because the circumstances of the time and the prevailing modes of thought demanded that the opposition be brought out in full force. It is evident, however, that the true significance of the moral struggle can be appreciated only when the opposition from which it originates is seen to condition a higher unity which it is possible for individual effort to attain with an increasing degree of completeness. The synthesis of ideal and real thus achieved is gained, not by ignoring their difference, but by overcoming it with increasing perfection of character, and in the course of a steady development. In this process, the ideal is constantly being realized, and the character of the individual growing into more complete accordance with it. Thus, although discipline must always remain an indispensable condition of moral development, its repetition is not a fruitless repetition of sacrifice and suffering. It is rather attended by results of supreme value; for through this discipline the agent frees himself from the bonds of a narrow individuality, and in the realization of a universal good rises to true self-expression.

H. W. WRIGHT.

THE CONCEPT OF THE SELF.

SENSATION is the result in consciousness of a mental interaction between subject and object. But there is no such subject and object in pure sense experience. The sensation is the sensing consciousness itself as immediate. The experience is not broken into subject and object. There are no conscious distinctions and relations. In this sense experience, consciousness is pure immediate activity. It is hardly consciousness proper, for consciousness usually means a consciousness of ideas. To be conscious, strictly speaking, is to be conscious of something as an object; whereas in what we have called sense experience the consciousness is just the immediate sensing activity itself. This experience is not conscious of having or owning the sensation; nay, it is not conscious of the sensation itself as such. The psychologist, in his work of description, may ascribe the sensation to the subject, or to the object, or to both, but this involves ideal construction that does not exist in sense experience. That sensation presupposes a consciousness of the sensation, as the phrase was used by Green, though it served well enough to refute the sensationalism of Hume, is, in itself, only a barren reasoning in a circle. Indeed it is much worse than this; for the sensation ceases to mean anything. The result is that consciousness, deprived of all actual content, ceases to have any history and passes into an abstraction. The truth at the heart of Green's contention is simply that sensation itself somehow implies an activity of will. But this will most certainly need not be self-conscious. Green's reply to Hume that sensation implies self-consciousness, if true, would make psychology useless and absurd.

With greater complexity of psychic experience the span of consciousness enlarges. The attention is, as it were, directed to more than one thing. Experience is discriminated, broken into parts, ideal. We have here not immediate sense experience, but a perceptual consciousness which is more than a mere activity of sen-

sation under the form of structural response to environment. In this impulsive consciousness activity is immediate, but it takes place through the medium of an idea. This idea is fused with the feeling but it is there. The perceptual consciousness then resembles the instinctive experience in that its activity is immediate, but differs from it in that, though responding immediately to its object, it does so through the presence of an idea. There is no consciousness of this idea as such, for it is fused with the dominant feeling, but it is present as a conscious element in the impulsive act. The feeling is the ruling factor, but the idea serves to differentiate and idealize the feeling.

But now let this idea become prominent, and the feeling sink into the background—in this case the idea and not the feeling is the dominant factor in consciousness. A relation, not the immediate feeling, is now focal in consciousness. The experience is now not impulsive but ideational. The span of consciousness is spread over an ideal, relational field. These discriminated parts now compete with each other for the exclusive attention ; but this is impossible, for the ‘object’ before this consciousness is no mere immediate and therefore sensed fact. No ; the discriminated aspects of this ideal whole stand out in baffling contrast. And consciousness is always impulsive ; it must take sides : but now it cannot. To the merely instinctive experience no such wavering is possible ; for sense experience itself is the spontaneous response to the presented object. It is this experience itself which is the sensation. But to this ideational consciousness no such immediate response is possible and, therefore, no such pure sensation can exist. Instead of a mere sense experience, we now have a conscious activity baffled, impeded by a dualism, or, perhaps, a multiplicity of aspects in the presented object. We said a moment ago that in sense experience we have immediate activity, because there is no consciousness of subject and object. Consciousness is here just the immediate sensation itself. The experience is, we may say, single. In the case of this ideational consciousness it is far otherwise. In the former, there is properly no consciousness of an object, as such, at all. In the latter, the idea reveals an object. This object is

discriminated, broken into parts. And now what happens? Just this, that consciousness, in its very nature impulsive, is impeded, feels itself checked by this dualism in the object; for the object has a multiplicity of aspects upon any one of which it might act; that is to say, it might take any one of them to be 'real.' Consciousness, therefore, halts and trembles—it is divided against itself at the competing solicitations of these discriminated parts, aspects, or qualities of the object. All of these perceived qualities are real, because experienced. But *which* ones are in the object and which ones are in the subject? And, asking this, consciousness is now seen to be beyond the stage of perception, which is simply the experiencing the qualities in their relation. Now it is the relations themselves that consciousness is dealing with. The qualities are all in relation, but what about these relations themselves. We are now in the realm of ideas. Perception is the aspect of consciousness which lays hold upon the quality. Ideation is the seeing this quality in such a system of relationships as to constitute it an aspect of an object of thought.

Now the coming of the idea into consciousness is the ushering in of a dualism—the dualism of subject and object, the I and the not-I. It gives us the negative aspect of self-consciousness, the mere awareness of self. The perceptual consciousness deals with the quality in its relation to the object. But now this quality has broken apart from the object; it has other relations as well. It has relation to the subject. When consciousness comes to deal with this relation, as such, we have not perception, which ascribes the quality to the object, but intellection, which deals with the relation itself. The idea is now abstracted from the object and regarded as standing alone.

But this idea cannot remain aloof from the object to which it in reality belongs. Consciousness is active, and as long as the idea upon which it must act is such a pure indeterminate idea, consciousness is painfully baffled. Through the presence of this idea, therefore, consciousness becomes aware of its activity as impeded; in other words, just as the idea, standing, as it were, alone revealed to consciousness an object, so, in the same way, has

it revealed to consciousness a subject. It has revealed consciousness to itself. This abstract idea standing free, as it were, between consciousness and its object has revealed to consciousness the dualism of a subject in consciousness, and an object known as other than itself. This is the negative aspect of self-consciousness, the mere awareness without any further understanding of self.

There is here a painful consciousness of the ideas as such. They stand out between consciousness and its object. There is an unmediated dualism in consciousness. Which is the true idea, it asks, which is the real idea? And this very idea of truth implies the recognition of a dualism between the idea and its object. But this suspense has still a more painful aspect than the recognition of a dualism between the idea and its object. The idea standing aloof from the thing signified is only half the story; for if the idea may be false, the subject must get one that is true; and what this means is nothing less than the fact that the subject has become conscious of himself. In the mirror of this idea as abstracted from its object he sees the image of himself. In the immediate activity of sense experience and impulsive consciousness, consciousness was just what it was, mere activity. In ideomotor activity the experience was simply consciousness of ideas. Now it is the consciousness aware of itself; it is self-consciousness. The battle of the ideas among themselves was a question of an 'it,' but the conflict between these ideas and consciousness itself, is a question of an 'I.'

It is just this floating of the idea between the subject and its object which brings about self-consciousness in its negative form. In impulsive consciousness, and in purely ideomotor consciousness, the idea is present, but it is fused with the dominant feeling. The activity is here immediate. There is, therefore, no consciousness of self or of not-self. Consciousness glides immediately into the new idea. If it does not, the mutual inhibition of opposing ideas is nevertheless experienced as a conflict between these ideas themselves. But consciousness does not long regard the conflict of these interacting ideas as a purely objective affair. This very conflict soon comes to be felt as involving a choice on the

part of consciousness itself. It cannot simply see the thing go on when it itself is the thing that is going on. It is this feeling which marks the very dawn of self-consciousness.

Now a review of the stages of consciousness which we have chosen to mark out as (*a*) instinctive or immediate, (*b*) impulsive or ideal, (*c*) ideo-motor, and (*d*) self-conscious, in the light of what we have just said, will throw in a still clearer light the psychology which underlies self-consciousness in what we have called its negative form. In immediate activity, there is no abstract idea present. Here we have pure sense experience. In impulse, there is an idea present, but it belongs to a particular object so that it does not stand out abstractly alone before consciousness. This is simple perception. But now in ideo-motor activity the idea stands out alone just because it is in strong contrast with other ideas. It stands out as a particular between consciousness and its would-be object. Through an idea standing out in clear consciousness the will might become a self-conscious will. But an idea as an unlocalized particular cannot be willed. Activity has become subjectivity, the will negatively self-conscious, yet activity is impossible. This is the psychological explanation of self-consciousness in its negative form, the bare awareness of one's own existence. To will is present, but the object of that will is absent; a wretched consciousness this is indeed.

It is hard to see how with any real meaning we can call a consciousness subjective, how we can speak of a subject in any positive sense, unless, contrasted with its present will-act there be some clearly defined object to give the act a meaning. There must be more than a dumb consciousness of the mere onward flow of one's own psychic content.

Now there are two types of self-consciousness, the negative and the positive. The former is the Hindoo, the latter, the Christian type. The problem is the profoundest that affects our human life, and therefore merits our utmost endeavor to gain a clear conception of the issue. The usual, and one might say almost the only conception one hears of the self is a negative conception. The statement is this, that self-consciousness is a consciousness of one's acts and ideas as one's acts and ideas.

One must remember an act as one's own is Locke's way of putting it. The more usual statement is a passive reiteration of Hegel that the self is subject and object at once. Romanes's statement is that it is the knowledge of our consciousness as our own.

Now this is simply no conception of the self at all. It is simply the bare awareness of the onward flow of our own life. You know yourself as existing, this is what it is to be a self. And here it ends. To say that you do not exist is like one's saying that one is not at home. Now to know that one actually exists may seem to the children of Hume a very positive doctrine. As a matter of fact, however, if the consciousness of self be just this bare awareness of one's act as one's own, it is anything else but positive. Such a self-consciousness is in fact negative and destructive. It is the consciousness that renders the otherwise graceful person awkward. It is the thwarted Hamlet consciousness "sicklied o'er with the pale cast of thought." It is the consciousness that brings confusion and pain. Consciousness that is normal moves on; now with the unerring exactness of instinct, now with the heightened pleasure of impulsive activity struggling through a host of competing ideas, yet always on. But let the idea be abstract, let it stand alone, let it float *in vacuo*—here we have no longer the perfect directness of the instinctive consciousness nor the immediate response of impulse. For in instinct there is no idea that could impede. In impulse the idea is present, but it serves only to reveal and light up the way. The idea belongs to some presented, tangible object. Consciousness is simply perceptive. Its way is lightened up, not thwarted. But let this idea stand alone. Here it does not belong to any particular object. It ought to belong to some definite object but it cannot. It seems to stand out as a disowned particular. Such an idea consciousness cannot recognize as part of any ideal whole. The result is that purpose is absent and action thwarted. Evidently this is a negative form of consciousness. If this bare awareness of an act as one's own be a sufficiently clear and satisfactory conception of the self, then whoever wishes for this form of consciousness may find it in its analytic perfection in the sacred texts of Buddhism.

Evidently, then, the trouble with this negative self-consciousness is its inability to interpret the meaning of the idea which gives to consciousness its object. That which constitutes a self is a universal idea which individuates or, which is the same thing, universalizes the will. The will as immediate activity and the object are simply two aspects of this universal, individuating idea. There is no self at all, in any positive sense, unless the idea includes the object within itself as part of its content. The truth is, that unless there be some clearly defined object looming up in a conceptual consciousness, toward which the otherwise merely subjective act may be directed, and which gives to the act an ideal significance—in short, unless the act have an object which is at the same time the subject itself, there is certainly no positive consciousness of self. And here we meet with the well-known paradox: the self is that which is subject and object, and both at once. But how can this be? This is why Herbart declared that the self did not exist; because it is in its very essence a contradiction. For a self is that which is both subject and object; that is, it must be that which it sees as well as that which does the seeing. But that it cannot be two things at once is clear. Yet this is what must happen if the self is to exist. Therefore, it does not exist. Now we have ourselves come upon this problem. The question is: How can the subject be an object unto itself?

Our problem is really intelligible only after we have seen what it is that constitutes a self, and what the principle of individuation is. The idea gives to consciousness reality under the form of the 'object,' and this idea now stands between consciousness and the object. When consciousness wills this idea, it knows itself as a subject. Here we have a dualism of subject and object, the idea standing between. This is the negative aspect of self-consciousness. But now this idea has two readily distinguishable aspects. There is the will as the immediate deed-act, the this-now aspect of the subjective will-activity. This will as act is a moment in the realization of an ideal whole. The subjective aspect of the self we represent thus: act + idea. But this idea besides being something which the subject wills, has, as idea, a

reference to something beyond itself. This something beyond is its 'object.' We may represent this objective aspect of consciousness thus: idea + object. Hence these two aspects have the idea in common, thus: act, idea, object. We should rather say that the idea as a universal belongs to both subjective act and object or ideal meaning. This is the positive aspect of self-consciousness. Here the idea is no particular standing between two other particulars, the subject and the object. And the positive self is just that reality which is an object unto itself. For, the object is no longer a something over against the subject as an other. It is a content of the individuating idea, which is just that ideal whole that constitutes the reality of a self. All immediacy philosophies such as the Brahmin, and all mere activity philosophies such as the Fichtean, fail to interpret the meaning of this idea. Subject is set over against object as an other; and hence the doctrine of limitation.

To make the only object the subject's own past activity, as Fichte does, is to reduce the self to a mysterious unknown act. That which is not an object of thought can only be inferred to exist. And to infer one's own existence is mysterious indeed. It only shows that absolute or pure subjectivity is meaningless for thought. It is mere particularity. Subjectivity means absolutely nothing on any mere activity plane. Subjectivity and objectivity are, as such, aspects of that thought-process which can take place only through the individuating idea.

The will, as will, is just immediate undifferentiated activity of consciousness. We cannot call it pure subjectivity, as Fichte did, for subjectivity without objectivity is impossible. It is only when through the universal individuating idea this immediate activity of consciousness is polarized into subjectivity and objectivity, it is here alone that the will activity ceases to be mere impulsive activity. It is here alone that true subjectivity can be said to exist.

If now this idea floating between the subject and the object be a mere particular, then this conscious subjectivity is, so to speak, only a bent or switched-off form of instinctive will. In this case individuality is impossible. But to regard this idea as a mere

particular psychical content would be to make it synonymous with sensation. Now an idea as psychical content is of course something particular. But it is not a mere particular; for over and above its bare factual content it has a meaning, an objective reference beyond itself. Were the idea a mere particular, it, as content, would be without this objective reference. It would cease as soon as it began to be. But this is what we mean by a sensation. The sensation is just this momentary aspect of consciousness. Consciousness itself is no such momentary thing. It is a stream, not a chain. And self-consciousness is more than this sensuous streaming flow. This is a consciousness of an idea as standing between the subject and its object. And this idea means, refers to, belongs to the object, and, at the same time, is, as content of consciousness, a form of the activity of the subject itself. This idea is, therefore, no mere particular.

The object then is the subject itself. The self must say that just so far as the 'objects' it aims to realize are not realized, it, as subject, ceases just so far to be real. With our principle of individuation clearly in mind, we are so far from feeling the objection of Herbart that we do not see how the self could be anything else. The self is that which in its act as subject is at the same time through the individuating idea an object unto itself. Without this idea, which gives both subjectivity and objectivity, there is no self. Every act of a self has an object, and this object is no foreign other, but the subject itself as realized. A self, then, in so far as it truly exists, is ideal through and through. There are within this ideal whole, no reals, no brute facts, no merely instinctive acts. A self is object to itself in every act. It is its own world. For this ideal whole is present in every act, if, as we have said, the act be in truth the act of a self. The body as a lump, a bodily act as instinctive act—neither this nor any other mere fact can, as simple brute fact, exist within the conscious self. The object is the ideal or unrealized aspect of the individuating idea of which the subjective will-act is the this-now aspect. The 'object' is the idea as realized. There is no mere subjectivity. The object is not an 'other.' The object is what the self is to become. The idea is a concept. The activity of consciousness is here self-conscious purpose.

In instinct, consciousness is the sensation itself. In impulse there is a consciousness of the sensation. In ideo-motor consciousness there is a consciousness of the idea. In negative self-consciousness there is a consciousness of the object as revealed through the idea as an 'other' over against the subject. In positive self-consciousness, the subject is conscious of the object as content of the individuating idea. The individuating idea then is a specific type of idea. It has a specific kind of meaning. It does not simply refer to an object. This is what we might call a thing-consciousness. Nor does it merely contrast with the subject some object to be done, thus leading to a bare consciousness of self. Far from it. For this type of idea includes the object as content within its own ideal meaning, which ideal whole of meaning is only a more complete form of the subject itself. The object which the self sets out to seek is just the subject itself. It is not any idea that individuates the will. No, nor any merely 'universal' idea, but such a concept as contains, as an aspect, the object one wills, if this object be the subject itself.

By physical object we mean nature-will under the form of an idea. It grows, changes, develops independently of the subject. It is objectified will. By ethical object we mean the reality of consciousness itself under the form of an idea. The object here is not merely something common to all, like the physical object. Will here is not nature-will as independent of the subject. It is the immediate activity of consciousness itself. Hence, the idea here does more than merely objectify. The object which is consciousness itself is an aspect of an idea to be willed. This is self-consciousness. The idea here then individuates the will. This is what we mean by a self. In self-consciousness the will turns, as it were, upon itself. Nature-will is through the idea simply objectified. But the activity of consciousness is through the idea not only objectified, for this is only half the story, but individuated; that is to say, this object is consciousness itself under the form of an idea. This object, then, although ideally definable to others, as the physical object and indeed every object must be, is more than an object; for it is the subject itself. The uniqueness

of the self does not consist in the fact that it is not ideally definable, for this is not so ; it consists in the fact that it is more than a mere object ; for the reality objectified is here the subject's own will. An individuated will is the subject's own will ; whereas the will-activity underlying the physical object is not the will as individuated but will independent of the subject. It is objectified, not individuated will.

J. D. STROOPS.

TRANS-SUBJECTIVE REALISM AND "HEGELIANISM."

A CONSIDERATION of the attack made recently¹ by Mr. A. K. Rogers upon 'Hegelian' thinkers in England and America, falls naturally under two heads. Mr. Rogers's criticism is from the epistemological standpoint made familiar to us by Professor A. Seth under the title "Trans-Subjective Realism,"² and is intended to show that the "school of Professor Green" is guilty of subjective idealism. Inasmuch as Mr. Rogers feels that the trans-subjectivist position has been misrepresented, and inasmuch, also, as many students of 'Hegelian' doctrine are convinced that the opinions of Professor Green and others have been entirely distorted, an adequate treatment of the question presupposes, first, an examination of trans-subjective realism, and second, an exposition of the main lines of 'Hegelian' epistemology.

I.

Trans-subjective realism rests upon what, at first thought, appears to be a natural assumption with reference to the character and relations of subject and object. These are regarded as separate existences,³ possessed of specific thing-hood, yet falling within the unity of the single system which is the world. Individually considered, 'things,' both of subjective and objective order, are exclusive; the reality of one cannot become the reality of any other; existentially they are and must remain absolutely distinct. And yet, these exclusive existences are bound together and are organically related in the world's system.

From this basis the trans-subjectivist proceeds to the definition of knowledge.⁴ As an existence, it is confined absolutely to the subject within which it occurs; as a representation, its significance carries it out of and beyond the subject-knower and to the

¹ PHIL. REV., Vol. X, pp. 139 ff.

² *Ibid.*, Vol. I., pp. 137 ff.

³ *Ibid.*, Vol. I., p. 505.

⁴ *Ibid.*, Vol. I, p. 513; cf. Rogers, *Modern Philosophy*, pp. 270-272.

object (or subject) known. Thus the nature and relations of the 'things,' beyond the individual knowing subject, are revealed in and to that subject, while at the same time these 'things' maintain themselves as they would if the specific knowing subject were non-existent. Subject and object are alike real; knowledge is representation. Just how the exclusive subject-construct can reveal the equally exclusive external thing, is the 'problem' of the trans-subjectivist. Each subject and object is, as it were, shut up in a room existentially. Knowledge, although confined to subject constructions, still represents what is different from and existentially exclusive to the room.

Having acknowledged the mystery which envelopes the primal assumptions of knowledge, the trans-subjectivist divides its process into two forms.¹ (a) There is immediate, instinctive knowledge. (b) There is also reflective, constructive knowledge.

(a) Underlying the constructive activities of thought, is an inexhaustible fund of immediately revealed 'facts.'² This is a datum beyond which we cannot go. It is the sure and firm foundation of rational existence. To deny it is to assert it. Scepticism destroys itself upon this adamant rock of primal certitude. It is instinctive³ for the reason that as direct, immediate experience it is a postulate and not an outgrowth of individual acquisition. Furthermore, in this most direct of experiences, the factors of complete knowledge are entirely present—subject immediately experiencing and directly representing the externally existent 'thing.' So direct in fact is this reference that the sensation which serves as the vehicle for the representative construct is submerged in the *given* significance,⁴ and is brought to mind only by a later process of reflection. The subject is not first aware of sensational states, and then by a process of inference concludes the presence of an external thing. The awareness of the object's presence and character is the original experience. Perception in fact is immediate; we cannot get beyond subject and object as immediately revealed and related. On

¹ PHIL. REV., Vol. I, pp. 508-9; cf. *ibid.*, Vol. X, p. 152.

² Rogers, *Modern Philosophy*, pp. 319-20.

³ *Ibid.*, pp. 246-248.

⁴ *Ibid.*, p. 246.

this point the trans-subjectivist believes himself to be entirely at one with common sense. The line of distinction between them is drawn in reflective knowledge.¹

(b) Man is essentially a reflective being, and, accordingly, cannot rest in the immediately given. He must examine, analyze, reconstruct what immediate experience has revealed. Thus reflective knowledge has grown up. Reflection, however, may be of two kinds, and these must be clearly distinguished one from the other. On the one hand, analysis and reconstruction may be indiscriminating and unsystematic, giving rise to confusion, contradiction, distortion. Thus opinion arises, and to this unreliable form of reflection much common-sense knowledge belongs. In it there is a sure basis of immediately certified 'fact,' but this is overlaid with a mass of intellectual rubbish. On the other hand, reconstruction may be discriminating, systematic, scientific. In this way, experience is rationalized and knowledge becomes a self-conscious possession. Distinction is made between the reliable and the unreliable; the rubbish of mere opinion is cleared away; the solid core of the given is laid bare for both subject and object; piecemeal results are woven together into a consistent harmonious whole, in which 'fact' agrees with 'fact,' and confusion and contradiction are removed; subject and object are brought forth into the sun-clearness of reflective knowledge. Thus the worlds of science and philosophy are constituted. Based on the solid foundation of immediate knowledge, these disciplines appear at last as structures which tower to heaven because they have been fairly founded on the earth. The critical thinker no longer appears as the despoiler and mutilator of air reality, but as her interpreter and freedman.

In estimating the doctrines of trans-subjective realism, we shall begin with the superstructure and work down to the foundations.

1. Reflective knowledge involves the separation of fact from fiction, of truth from opinion. According to the trans-subjectivist, this is accomplished in two directions²—in determining the connection *between* facts, and in determining the *real na-*

¹ PHIL. REV., Vol. I, pp. 510-11.

² Rogers, *Modern Philosophy*, pp. 317-22.

ture of the facts themselves. In neither case is any attempt made to ascertain whether the construction of reflective knowledge corresponds to, correctly represents, in short, copies the external original. Unless such a correspondence actually exists, knowledge is vain, and with it both science and philosophy. But the dire results of every attempt to compare a 'copy' with a non-obtainable original have been pointed out so frequently and so thoroughly that the trans-subjectivist apparently has no desire to validate knowledge after such a fashion. In fact, he has emphasized the mutual exclusiveness of subject and object so strongly,¹ that it would have been a matter for surprise, had he endeavored to defend, even in a modified form, a strictly representative theory of knowledge. And yet, although the trans-subjectivist cannot (and knows that he cannot) compare the knowledge construct (which is entirely a subjective existence) with the external thing, such a correspondence, even to minutest detail, is implied in the truthfulness of this theory.² Trans-subjective realism must seek its criterion in some other source—and so it does. This criterion is found in the direct deliverances of intuition.³ For reflection, there remains the work of harmonizing and rationalizing the immediate data.⁴ To harmonize is to find the connection between rationalized facts, to find the consistent place of each in an ideal whole; to rationalize is to find for the reflective consciousness the real nature of the facts revealed in intuition. Harmony does not construct content. It can do no more than use it with consistency. Therefore, the ideal whole which appears to present a criterion for the reflective consciousness, really fails to do so. It has value only in so far as the factors which constitute its parts are trustworthy. The trans-subjectivist must, accordingly, fall back upon the process by means by which he rationalized 'facts.' Here he draws a line between essential and unessential parts.⁵ But, on what basis the distinction between the two, is really made, he fails to

¹ PHIL. REV., Vol. I, pp. 514-15.

² Cf. Rogers, *Modern Philosophy*, pp. 245-6.

³ *Ibid.*, pp. 319-21.

⁴ *Ibid.*, pp. 320-330.

⁵ PHIL. REV., Vol. I, p. 511.

inform us explicitly. One has a feeling that, for the trans-subjectivist, the development of experience and the process of scientific investigation gradually separate the wheat from the chaff, so far as 'fact' is concerned. And it may be quite true that these are great agencies in developing fact. But so far the trans-subjectivist cannot avail himself of their aid. He must first show how these agencies distinguish between the true and the false. In other words, we require a criterion as to how and when a fact is 'rationalized.' The answer may be given, that each fact is 'rationalized' when its nature as a reflective construct is identical with its nature as an immediately given reality. This again may be quite true, but it does not help us unless we are *already* certain of the 'fact' by intuition, and in that case its help is not needed at all.

2. We are now led to raise the question of the real gain for the trans-subjectivist of the distinction between intuitive and reflective knowledge. The question would seem to resolve itself into this. If intuition gives clear, distinct, and certain knowledge concerning 'things,' there would appear to be no room for opinion or error. All should be sun-clear. But in such a case there would appear to be no call for 'rationalizing' knowledge. Everything should be 'rational' in intuition. A sphere, however, would remain for 'harmonizing' knowledge, inasmuch as the deliverances of immediate experience are piecemeal and fragmentary. Reflection should, therefore, confine its activity to the construction of consistent systems of knowledge. If, again, intuition does not give clear and certain knowledge, the trans-subjectivist is without a criterion entirely. His data resolve themselves into blind guides, his reflective constructions into chimeras. The truth would seem to be that the trans-subjectivist rests in the certainty of the 'fact,' as a given reality whose nature is immediately and directly revealed, but whose inter-connections with other 'things' is discovered by reflection.

Thus finally knowledge rests upon faith.¹ Ultimately there can be no question of 'proving' the conformity of subjective representation with objective existence. We are brought back to

¹ Rogers, *Modern Philosophy*, p. 247.

our starting point by a circular process. Trans-subjective epistemology rests upon an unproved (and to it an unprovable) assumption. On such a basis we are nowhere, philosophically.

3. The trans-subjective realist's fallacy may be exhibited in another and more general form. Whatever is 'fact' is for him fixed and given. He, as it were, draws a circle about 'fact,' proclaims everything within sacred, and forbids investigation. The 'plainest distinctions of common sense' are used as potent arguments¹ against opponents, although he himself has assured us that 'unrationalized' common sense is untrustworthy.

Now 'facts,' no matter what their character, are not fixed, but fluent things. The innermost structure of subjective and objective existence has changed within the history of man. Every age produces a modification and leaves a deposit of its own. What is 'fact' to-day is not 'fact' in the same way to-morrow. Scientific observation just as truly constructs 'fact' as interpretation generalizes it. In short, as modern logic has made quite plain, what is 'fact' at any time involves two distinct factors—'existence' and 'content.' 'Existence' alone is given and it tells us absolutely nothing of anything beyond itself. To 'content' belongs all reference and implication, but it is to the very core reflective, constructive, and mediate. It is a transformation, an enlargement of the immediate, and must justify its procedure by presenting criteria for the distinction between the true and the false. Whatever, therefore, about 'fact' appears fixed is blind, and whatever is significant is fluent.

4. Furthermore, trans-subjective realism involves us in contradictions with reference to perception and conception. In consistency with trans-subjective doctrine, perception must be considered a matter of intuitive knowledge, and conception an affair of later reflective construction. But when we examine closely the nature of the meanings involved in percept and in concept, they are found to be identical. The distinction between the two processes is not one of meaning, but of the use to which the same meaning is put. Meaning embodied in some limited portion of space or time is perception. Meaning used freely and

¹ Cf. *PHIL. REV.*, Vol. 10, p. 155. Note 1.

as possibly embodied in many portions of space or time, is conception. As meaning grows, so do perception and conception develop. It also would appear to be impossible to bring the trans-subjectivist's theory of perception into agreement with contemporary psychology. To the trans-subjective theorist, percepts must appear as complete, ready-made revelations of externally existing 'things.' No genetic factor whatever would appear possible. Nevertheless, psychology has shown that every determinate characteristic of perception is a matter of definite growth.

Criticism, therefore, cuts the grounds away from under trans-subjective realism, and necessitates a new formulation of the problem of knowledge. And it is such a formulation that the Hegelian endeavors to make.

II.

"Hegelian" is nowadays a title of very uncertain application in any strict sense of the term. Inasmuch, however, as it has been used by Mr. Rogers to denote certain important philosophic thinkers in Great Britain and America, it may be allowed to stand as indicative of a general agreement in attitude among these idealists.

As the trans-subjective realist rests his epistemological argument upon a specific assumption with reference to 'fact' in general, and subjective and objective 'fact' in particular, so the Hegelian proceeds from a base, but a base which embodies a reasoned persuasion. Convinced by investigation that 'fact' is fluent, and that the 'content' which constitutes its distinguishable features is, throughout its fabric, a product of reflection, he finds it impossible to explain knowledge in terms of that which is a product of knowledge. Subject and object (and with them every determinate aspect of existence) are embodiments of content. They thus arise within knowledge, and are not limits set to its function.

Once this point has been apprehended, it is apparent that any theory of knowledge must be metaphysical, and that in the most fundamental way.

The ultimate presupposition of thought, the presupposition which absolute scepticism cannot deny, is not, as the trans-subjectivist affirms, an immediate knowledge of subjective and objective realities, but thinking and its indeterminate content. Doubt may be raised concerning every determinate aspect of existence, its 'what' or 'content,' and proof of their validity may be demanded; but existence as indeterminate (the undiscriminated 'that') is beyond destruction. Doubt cannot exist as or in a vacuum, and there remains, therefore, as real beyond question, what, from one point of view, may be described as an indeterminate thought-content, and from another, the thought-activity which finds in itself the ultimate criterion of reality. Reality, in other words, is undeniable: the only question which doubt can raise concerns the 'what' of reality. 'Existence,' therefore, is the final presupposition both of doubt and of reflection: 'content' must be taken, in every case, as material for criticism of which a satisfactory account must be given before positive knowledge emerges. Indeterminate 'existence,' the fullness of the world taken immediately and without determination is the presupposition and datum of knowledge. Reflection, and reflection alone, provides the criterion; for only through reflective criticism is it possible to pass from the indeterminate to the determinate, from mere acquaintance with and blind participation in reality to certified knowledge and conscious participation.

For the Hegelian, the criterion of determinate reality emerges in the critical process itself. He recognizes that the presupposition of thought is an unstable quantity. 'Existence,' when examined, changes in the thinker's hands, and reveals, in its every aspect, a determinateness of character. This discovery—that indeterminate 'existence' universally passes over into determinate existence—reveals the criterion of knowledge and validates its 'objectivity.' The contention of the Hegelian, therefore, is that knowledge is 'objective' and actual, not because a subjective construction corresponds to an external or extra-mental reality, but because the indeterminate reality, which includes the whole round of creation and is the postulate of the boldest scept-

ticism, cannot maintain itself but universally passes over into determinateness. Reality emerges as the determinate existence implicit and immanent in all indeterminate existence. Knowledge is the function in and through which this determinateness is revealed.

A final point is to be noted in this connection. How does the distinction between subject and object arise in knowledge? For it has been maintained that the trans-subjectivist makes his initial mistake in supposing that it is given to and arises outside the process of reflective knowledge. The point, so far as the Hegelian is concerned, may be explained in this way. Among the changing 'facts' which make up the web of determinate known reality are those which are self-conscious. As 'facts' among other 'facts,' knowledge distinguishes two factors in them. First, is the 'existence,' the *immédiate* psychic states in which their individualities are realized. These constitute, on the one hand, a direct participation in reality, and, on the other, the novel expression of the real which gives to each nature its individual and peculiar characteristics. The second factor is the 'content' which embodies the 'objective' determinateness which the wealth of each individual existence reveals. Add now to this the quality of self-consciousness (itself a matter of growth), and the origin of subject and object becomes plain. As self-conscious 'facts,' individual natures become participators in knowledge, and are made aware both of the immediate character of their several 'existences' and of the 'objective' significance of the same. Thus, with the development of reflection or self-consciousness, arises necessarily the distinction of subject and object. 'Existence,' rendered self-conscious, becomes 'subject'; 'existence,' taken in its determinateness, becomes 'object.' Or, otherwise, although every 'existence' participates immediately in reality, there are portions of it which become self-conscious and recognize for themselves their meaning in the determinate whole, which is immanent in every part. Such recognition is knowledge—but it must be reflected in two ways. If the meaning is reflected back into the part, the 'subject' emerges. If, on the other hand, the meaning is reflected toward the whole, the system of 'objects'

emerges. For this reason it is plain that every determination of knowledge must, at one and the same time, be a revelation of subject and object alike. Their development is thus correlative.

Finally, it must also be plain that for the Hegelian the following conceptions must appear to be true. (*a*) Trans-subjective realism would substitute an outward and mechanical conception of the relation of subject and object in knowledge. Such a substitution fails of the vital participation in reality which knowledge really demands. (*b*) Hegelianism may admit that for an indeterminate point of view there is nothing known as real which does not appear as mere psychic existence. (*c*) But it is also true that all 'existence' reveals the immanent presence of a determinate order which is the real. (*d*) Thus every 'empirical synthesis' rests in a 'transcendental synthesis' which embodies its 'objective' significance.

If the above exposition be correct, how can the trans-subjectivist justly accuse the Hegelian of being a subjective idealist? As a matter of fact, the Hegelian cuts below any reduction of object to subject. For him all objects and subjects are real in the most thoroughgoing sense of the term. Nothing in fact is false except in so far as its inner determinateness is misapprehended.

Concerning the quotations made by Mr. Rogers from the writings of Hegelians the following may be said. It is a canon of criticism that authors are to be judged not by isolated sentences torn from their environments and emphasized as the interpreter sees fit. Such 'proof-texts' (no matter what the 'scripture') generally falsify the real meaning. And this is certainly true of Mr. Rogers's version of the sayings of the school of Professor Green. By emphasizing words which the Hegelian context does not justify, but which apparently express the fixed idea of trans-subjectivist subjectivity, Mr. Rogers succeeds in developing for Professor Green and other Hegelians a meaning which no average student, whether a believer in Hegelian doctrine or not, can find in their systems.

It would appear therefore, that, if Hegelian epistemology is

to be successfully attacked, some other method must be adopted than that pursued by the trans-subjective realist. And such a method has been pointed out by members of the Hegelian school itself, and particularly by Mr. F. H. Bradley. This, however, is a different question.

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REVIEWS OF BOOKS.

Das Sittliche Leben. Eine Ethik auf psychologischer Grundlage.

Mit einem Anhang: *Nietzsche's Zarathustra-Lehre.* Von HERMANN SCHWARZ. Berlin, Reuther and Reichard, 1901.—pp. xi, 417.

This work is a sequel to the author's *Psychologie des Willens*, which was reviewed in last January's issue of this journal. In that volume Schwarz attempted to work out a psychological basis for ethics. In this volume he raises a superstructure on that foundation. The two titles would naturally lead one to expect something scientific. What one finds is almost pure unadulterated dogmatism. The psychology of the will turns out to be an advocacy of an *a priori* faculty of preference or choice, exercised by the metaphysical entity called "the person." This person is sharply differentiated from his states and conditions and has the infallible faculty—which, however, he often allows himself to be cheated out of using—of discovering and choosing the empirically better of two voluntary actions. In case neither of two volitions is empirically better than the other, the same faculty makes one better than the other by an act in accordance with an *a priori* norm. This norm differs from Kant's *a priori* maxims of practical reason in that it is a *will* norm and not a norm of reason. We have then an ethical system analogous to that of Kant, but called by its author a "voluntaristic apriorism, which complements the rationalistic apriorism of Kant." "The synthetic preference-norms," says he, "cast the light which illumines at a stroke all moral life. With every other explanation, the concept of the morally better suffers, and loses its purity. Heteronomous elements, elements foreign to the will, attach themselves to the concept and crush it. It is only in the process of synthetic preference, that the concept of the morally better finds firm support" (pp. 45, 46). In the expression, elements "foreign to the will" (*willensfremde*), we have the keynote of this voluntaristic apriorism. Our feelings are wrought in us by natural compulsion. They represent the bondage of the natural man to mechanical law. Now, unless there is in us something absolutely free from this law, there can be no morality. We are thus regarded as beings of a dual nature. We have, on the one side, an autonomous will and an autonomous reason; on the other side, we have psychic contents forced in on us from without. These latter are utterly alien to the will.

This is faculty psychology of a very extreme sort. The way in which the details of the whole system are worked out would be worthy of some devout scholastic, only that there is perhaps more torturing of scripture to suit the purpose of the system than any scholastic would venture upon. Just one instance of this exegetical tendency need be given. In a footnote we read: "Cf. Matt. 25, 29: 'Unto every one that hath shall be given, and he shall have abundance; but from him that hath not shall be taken away even that which he hath'; *i. e.*, out of the unselfish inclinations that are present there grow, under the impulse of the norm, natural virtues and a sense which cannot do enough for itself therein. But whoever should wish merely to imitate another in these virtues for virtue's sake, when he has not the corresponding inclinations, or when he only uses them to gain a merit for himself, must have denied to him just that virtue of which he boasts" (p. 287).

The system can best be presented to the reader in a short sketch of the 'psychology' upon which it is based. The most fundamental and original will-act is liking or disliking (*Gefallen* or *Missfallen*), which must be carefully discriminated from feelings of pleasantness and unpleasantness. "They are evaluations, appreciations or depreciations (*Wert- oder Unwerthaltungen*), the simplest and most original stirrings of the will, the firstlings in the realm of will" (p. 32). These elementary will-acts are directed upon all sorts of objects. Such objects, because objects of will, are values, and fall into three classes, "occasional values (*Zustandswerte*), personal values (*Personwerte*), and foreign values (*Fremdwerte*). The occasional values are any of our own states or conditions of feeling, exclusive of astonishment (*Staunen*) and admiration (*Verwunderung*). Thus, pleasure is an object of liking and therefore an occasional value. The personal values are "the bearers (*Träger*) of all the so-called states and acts." Every one has a "liking for himself as a person with a soul." Schwarz gives as instances of this liking for our souls, our liking for our own beauty (!), cleverness, power, etc." (p. 37). These are, it is true, not the highest instances, but the only other instances given are ambition to be regarded as beautiful, clever, rich, etc., while "that moral dislike of one's own person called remorse," together with ugliness (*Hässlichkeit*), infirmity (*Schwäche*) and sickness (*Krankheit*) are *Personunwerte* (p. 37). In the third and last group of values (foreign values) are included (a) the objects of our "love, friendship, reverence, and admiration" (including God), (b) human totalities (*Gesamtheiten*) such as family and nation, and (c) the true, the beautiful, and the good. Values under sub-group (a)

are called altruistic foreign values; sub-groups (*b*) and (*c*) are inalteristic. The objects embraced under (*c*) are called ideal foreign values (p. 38). This classification of values is of the utmost importance in Schwarz's ethics, as will soon appear.

Our likings are of various degrees of saturation (*Sättigung*). "We call every liking unsaturated (*ungesättigt*), which fills us with desire (*Wünschen*), every liking saturated, wherein desire disappears" (p. 32). The instances given are our likings for a merely imagined successful drawing in a lottery, and for an actual successful drawing. We like both kinds of successful drawings, but the former kind fills us with desire, the latter does not. The former is therefore unsaturated, the latter saturated. These saturation-differences (*Sättigungsunterschiede*) depend upon various circumstances, *e. g.*, in the above instance, on the difference between an object possessed only in imagination and one possessed in actual fact. All these circumstances are alien to the will; they are the result of external causes. But though thus foreign, still an *a priori* faculty has a function to perform with reference to them. "Were it not so, there could be neither hard and fast laws nor acts of preference. We should merely imagine that we choose. Everything called choice would take place mechanically." Fortunately things are not so. "For we experience particular acts of preference; likewise the circumstances under which we experience them point to the fact that these acts are directed by their own autonomous laws" (pp. 39, 40). There are two sorts of acts of preference, called analytic and synthetic, respectively. In analytic preference we choose the more saturated liking. This choice would seem to be determined by merely external causes, inasmuch as it is determined by degrees of saturation which in their turn are determined by external causes. But this would make preference heteronomous, and heteronomous it must not be. Hence heteronomous it is not. The faculty *freely* chooses that which it would seemingly have to choose anyway, even if it did not choose to choose it, and by making a virtue of necessity it saves its autonomy. But after all, analytic preference is "comparatively paltry and unfruitful" (p. 42). Synthetic preference is the great thing, for it makes distinctions instead of merely finding and freely recognizing them.

In analytic preference we choose the better, because it is empirically the better; in synthetic preference, what we choose is the better, just because we choose it. Now, when does this creative act of preference take place? The answer is that it takes place when we have, as alternatives for choice, objects lying in different

value-groups. Thus, between occasional values (*Zustandswerte*), analytic preference chooses that which more completely saturates our liking. But when we have a choice between an occasional value and a personal value, or between a personal value and a foreign value, degrees of saturation have or should have—Schwarz is not certain whether they always have or only ought to have—nothing to do with the case. There are *a priori* will-norms which tell us what to choose. These norms find expression in two laws. "They command us to place the willing of personal values higher than the willing of every occasional value, and the willing of unselfish [=foreign] values higher than the willing of every selfish value" (pp. 43, 44). In a conflict between such values "we cannot but always place the willing of personal over that of occasional value, always the willing of foreign value over that of all selfish value" (p. 43). Now morality consists in obeying these laws (p. 46). As there are two laws, there are two spheres of morality, the morality of personal values or of self-assertion, and the morality of alien values or of self-denial. The casuistical treatment of moral questions under these two heads constitutes the bulk of the book. And delicious tit-bits of casuistry it is, that are served up to us here in splendid mediæval fashion. For instance, these norms are applied to the case of an inconsiderate churl who insists on smoking in a hot hall where a mixed company of men and women have assembled to hear a lecture. The fellow sins against the second norm in preferring his own pleasure to the comfort of others. But what ought his companions to do, and why? It would seem that in accordance with the second norm they ought to submit. But no. "As if they were not moral and spiritual beings and had not the same natural right to consideration as those to whom they accord the right! More: in weakly giving in to another's selfishness, they sin against themselves; for they deny the ideal of a kingdom of true human dignity. They should feel themselves as representatives of all moral beings in like predicament, and lay down their veto. They should maintain their own true personal worth and that of others against the occasional value of the selfish fellow. Instead of which they allow others to toy with their good-natured person, in order to—enjoy a pleasure!" (pp. 279, 280.) Why not, if the second norm commands the subordination of one's own personal values to foreign values including the occasional values of others? (Occasional values of others are foreign values, p. 38.) The general principle that we should not subordinate personal values to the occasional values of others (p. 212) is inconsistent with the second

norm. The theory will not work, and a casuistical reference to the duty of acting as representative of others in like predicament is lugged in to patch up the trouble.

The whole volume appears like a belated product of some past century. True, there are references enough to Wundt and to Nietzsche, to Lipps and to Von Ehrenfels, but these do not serve to modernize the performance.

- E. B. MCGILVARY.

Experimental Psychology: A Manual of Laboratory Practice. By EDWARD BRADFORD TITCHENER, Vol. I. Qualitative Experiments: Part I, Student's Manual, Part II, Instructor's Manual. New York, The Macmillan Co., 1901.—Part I, pp. xviii, 214, Part II, pp. xxxii, 456.

A first-rate text-book in a new department of science is an achievement of which anyone may well be proud; and when the book is a laboratory manual, in which every statement must rest upon actual, and often on many times repeated, trials, it represents an outlay of patience and industry that is not apt to be realized by anyone that has not tried the task himself. The difficulties are not lessened when, as in experimental psychology, there is small consensus as to what the aim of such a course should be. Professor Titchener has done a service to teachers of the subject, not only in gathering an excellent list of tried experiments, but also in stating clearly at the start and insisting throughout that the purpose of laboratory practice is to train in rigid methods of introspection, as well as to give first-hand knowledge of the methods and results of experimental psychology. All points considered, the work is unquestionably the best manual of the subject yet published.

The two parts now ready deal with qualitative experiments only, and are to be followed by others on the standard quantitative experiments. The entire course is planned for a year's work with third-year college men who have already had one year's lectures on general psychology. Thirty-seven major experiments are described, twenty-six upon sensation, affection, attention, and action, and eleven on perception, ideas, and association of ideas. These major experiments are themselves frequently divided into several stages, and attended by subsidiary or alternate tests in considerable number, so that the full tale of separate experiments is much greater than the thirty-seven indicated by the table of contents. The scope and arrangement of the course may be inferred from the titles of the major experiments. Part I, Chap.

I (Visual Sensation): Laws of color mixing; Distribution of color sensitivity over the retina, campimetry; Phenomena of visual contrast; Visual after-images. Chap. II (Auditory Sensation): Phenomena of interference, beats; Pitch difference of the two ears; Combination-tones; Pitch and clang-tint; Analysis of simple clang, overtones. Chap. III (Cutaneous Sensation): Temperature spots; Temperature sensitivity; Areal stimulation; Pressure spots; Pain spots. Chap. IV (Gustatory Sensation): Distribution of taste sensitivity over the tongue; Taste reactions of single papillæ; Number of discriminable taste qualities; Taste contrasts. Chap. V (Olfactory Sensation): The field of smell; Olfactory qualities; Method of exhaustion; Olfactory qualities, compensations, mixtures, contrasts. Chap. VI (Organic Sensation): Sensation of muscular contraction. Chap. VII (Affective Qualities): Method of impression; Method of expression; Involuntary arm movement; Method of expression, muscular strength; Method of expression, bodily volume. Chap. VIII (Attention and Action): Attention; Simple reaction. Part II, Chap. IX (Visual Space Perception): Stereoscopy; Pseudoscopy; Geometrical optical illusions. Chap. X (Auditory Perception): Degrees of tonal fusion; Rhythm; Localization of sound. Chap. XI (Tactual Space Perception): Localization of a single point upon the skin; Discrimination of two points; Stimulation of parts whose relative position may be changed. Chap. XII (Ideational Types and the Association of Ideas): Ideational types; Association of ideas.

The student's manual begins with an excellent section upon the conduct of experimental work in general, and most of the chapters are introduced by sections on the general relations of the matters to be considered. Most of the major experiments are also followed by questions intended to enforce a genuine comprehension of the work done.

The instructor's manual, about double the size of the student's, takes up the same topics in the same order, gives additional suggestions and precautions, fuller descriptions of apparatus (including standard instruments as well as the simpler ones chosen for the text), sample results, answers to questions, related experiments, and the most important references to literature. The introductory section, containing hints to the instructor, is full of the best pedagogical suggestions and carries in every paragraph the marks of the author's personal contact with the difficulties of laboratory teaching. Both manuals are fully illustrated,* especially the instructor's, and both are furnished with full indexes and lists of material. The instructor's manual contains also

three appendixes: one, giving selections from the Cornell examination questions on this qualitative portion of the course; the second, a list of the books and periodicals regarded as most important for the topics considered; the third, a list of approved manufacturers and dealers in apparatus and supplies. No single book in any language contains half as much of what every laboratory director must know, and in the past has had to pick up as best he could.

In a work of this kind there is, of course, more or less that a reviewer might himself have wished to do differently. Each instructor will have experiments or variations of arrangement that seem to him preferable. Some of the experiments on taste and smell, for example, might be replaced by others upon vision or association, or by some on sensations of rotation, which last are passed over entirely. Professor Titchener feels that "it is not advisable, even if the resources of the laboratory permit, to set the whole class to work upon the same problem." The experience of the reviewer has led him, however, to the diametrically opposite position. It may be questioned also whether in the time usually available, it would be possible to take a class through the whole list, even the major experiments, with the care and thoroughness that Professor Titchener rightly recommends. These are small matters, however, and every competent instructor may be trusted to deal with the course according to his own needs. With the value of the work as a whole they have little or nothing to do. For the essential features—the assignment of its proper place to introspection, the insistence upon care and thoroughness at every stage, and upon a real comprehension of the meaning of the experiments, the mass of general laboratory information gathered, and the author's fairness to other psychological views than those held by himself—for these there can be nothing but unqualified praise.

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Malebranche. Par HENRI JOLY. Paris, Félix Alcan, 1901.—pp. xii, 296.

In his preface M. Joly gives several reasons to explain why he undertook to write a book about Malebranche. Excellent as these reasons are, the book itself is a better one. It is not only a clear and systematic account of Malebranche's philosophy, but the reader is made to feel that any amount of enthusiasm on the subject is abundantly justified. One of the most valuable characteristics of the work is the attention paid to the relation between Malebranche and his contem-

poraries, especially those with whom he carried on his numerous controversies. The importance of Malebranche's additions to philosophic thought, both for his own and for later times, becomes more manifest in the light of this comparative study ; and if M. Joly always speaks of Malebranche with a tenderness that is almost affection, no one can deny that his comprehension of his subject is the deeper because of this sympathy.

Those who wish to understand Malebranche, says the first page of the chapter entitled *Le Métaphysicien*, must begin with his metaphysics, which forms a universal basis, being logically prior even to theology. The principle from which all search for truth should begin is that of the particularity of individual creatures and the universality of the reason. Particulars change and depend upon varying circumstances, the reason is immutable and independent. The diversities of men are peculiar to themselves, their sensations are their own, but through their participation in the universal reason they can all comprehend the same truths. The reason belongs to no man, but is the common light for all. Malebranche repeats again and again, "*L'homme n'est pas à lui-même sa propre lumière.*" The relation between the universal and the individual reason is the same as that between universal being and its particular manifestations, or rather no distinction can be made between reason and being. What may be said of the one is applicable to the other, for they are the same ; and this reason or being is infinite, that is, God, whose essence necessarily includes his existence. If one may make use of the ontological proof, which perhaps has fallen into even greater disrepute than it deserves, Malebranche's version of it is as convincing as could be expected—at least of the ontological proof. He starts out with the fact that we have ideas of infinity, which cannot be gained from ourselves nor from our knowledge of particular things, in the idea of which there need be no union between essence and existence. The infinite being, however, cannot be represented as possible ; if one thinks of it at all, one regards it as existing, and therefore the existence of God is the most certain of all truths, even excelling in clearness Descartes's famous proposition, *cogito ergo sum*. M. Joly praises the constant assumption made by Malebranche that infinity is also perfection. If the two are separated, he says, infinity becomes merely quantitative and loses all living reality. This is doubtless true, if one means by perfection something qualitative as opposed to mere quantity ; and although Malebranche is confused on this point, such an interpretation is possible. Yet if one rules out all moral implications from the word *perfection*, may modern thought justly be accused of making a separation between it and infinity ?

Be that as it may, the sum of these perfections and their relations to one another constitute the universal order or eternal truth. They are of two kinds, those of quantity, and those of perfection, which in this connection certainly contains a moral implication and is the equivalent of comparative value. The two relations constitute scientific knowledge on the one hand, and religion and morality on the other. The problem of the nature of their union with God is treated at some length, both because of its importance for Malebranche's own system, and because of the radical opposition here between his views and those of Descartes. According to Malebranche, truths are universal and immutable in themselves; they had no need of a decree of God before becoming so. The eternal order is not naturally connected in thought with the idea of cause, even the most divine, for it has no cause. On the contrary, it is necessary and independent. Not even God by an act of will can make two plus two equal to five, nor the body of more value than the soul. Such a position has been criticized on the ground that it subjects the divine will to a necessary and eternal order; but Malebranche explains that this order exists in God's own nature and is co-eternal with it. God is not subjected to something outside himself. It is a lower conception of God that makes him arbitrarily choose between indifferent alternatives, and thus act without motives; while to say that God creates his own perfections is meaningless. Such a standpoint, midway between Descartes and Leibniz, and on the road that led to Hegel, may aptly enough be described as *sage*, but one wonders how M. Joly justifies the adjective *hardie*, which he also applies to it. Malebranche's position is practically the same as that of Saint Thomas Aquinas, and possibly was reached as a result of study of the latter's writings. In spite of Malebranche's impatience with scholasticism, he often mentions individual doctrines with approbation. Moreover, he did not become acquainted with Descartes's views until after he had spent some time in the study of earlier thinkers. In his own books there is much that may be characterized as bold and daring, and much that his contemporaries felt to be so; but surely his theory of the nature of truth does not belong in that category. The most orthodox philosopher may agree with Saint Thomas Aquinas.

The relations which together form the living order or truth Malebranche declares to be the divine ideas. Their presence in the essence of God is the presupposition of vision in God, which is probably the best-known of Malebranche's theories, certainly that which has been most fully discussed by historians. M. Joly takes exception to the method usually employed by the latter, of proceeding directly from the general presup-

position to its remote consequences, and affirms that before we can know how we see everything in God we must know how everything *is* in God, how God sees it, and how he partly realizes it outside himself. Malebranche frankly confesses that the union in God of simplicity of nature and of multiplicity of perfections or ideas is incomprehensible ; but nevertheless he goes on to describe some of its characteristics. Corresponding to the distinction between unity and multiplicity is a division of God's attributes into absolute and relative. The former are those that we clearly see belong to the idea of the infinitely perfect being, for instance, infinite perfection, independence, immutability. The latter are those relative to creatures, namely the intelligible ideas of all possible things. Of course this does not imply the existence of possibility in God, who is actuality itself, but merely that among the degrees of his infinite perfection some are more and others less communicable outside of him. Possibility exists in God merely in relation to the world.

For further light upon the vexed question of the relation of the creatures and the divine ideas one must go to the discussion of a specific case, that of intelligible extension. For a good Cartesian like Malebranche, extension is the essence of all matter and so of all mechanism. If the human soul with its immaterial contact with God is excepted, the entire universe can be described and explained in terms of mechanism or extension. Now what is the relation, on the one hand, between God's substance and intelligible extension, and, on the other, between the latter and material or sensible extension? Malebranche is explicit in distinguishing intelligible extension from God's immensity, which indeed is named as one of the absolute attributes. God's immensity is his substance present everywhere in its entirety, and not to be explained nor understood. Intelligible extension, on the contrary, is the substance of God so far as it represents bodies, and may be participated in by them with their limitations and imperfections. Intelligible extension is the idea or archetype of body, and is so far from being incomprehensible that it is the most intelligible of all things. Ideas such as these are evidently not to be confused with perceptions. They are not modifications of the mind, but are present only in God, and are known to us in so far as we share in the universal reason. Dependent in its turn upon intelligible extension is material extension, which it is in God's power to create but which is not his substance. One may almost leave it out of account altogether, for there is no way of demonstrating its existence, which is known to us only through divine revelation, and which is so little essential to an understanding

of the world that its destruction could not possibly be known to us, save by similar supernatural means.

Such, in brief, is Malebranche's theory of intellectual extension. That it explains the problem of the relations between God and the ideas, and between the ideas and the creatures can hardly be maintained, but at least it presents the difficulties more clearly than the general position can do. On the whole, in spite of the radical differences, these seem to be much the same as those that confronted Spinoza. Even if one omits the consideration of material bodies, as one may surely do if their existence is purely a matter of belief, there is still the transition from the intelligible extension or idea in God to the particular idea based upon perception, and present in any finite mind. Such a difficulty, however, is inevitable in any constructive ontology, and in the writer's opinion has been given too large a place in criticisms of Spinoza. Still more is this true with respect to Malebranche, who so freely admits the difficulty, and with no attempt at demonstration, strives to convince his readers of the truth of his position by the general harmony of his results. Aside from common difficulties, the resemblance between the two philosophers, which has been so much insisted on, is little more than that found in all Cartesians, and its unimportance is so plainly patent to M. Joly, that it is almost one of his fundamental assumptions.

To return to his discussion of intelligible extension, after the more general account of the theory itself, there follows a somewhat detailed description of Malebranche's more important controversies on the subject. These were with Arnauld, who accused him of attributing corporeal extension to God, and with Dortous de Mairan, whose objections were made from the Spinozistic standpoint, and who reproached Malebranche for not deifying nature. Malebranche's answers are, as M. Joly says, *très-nettes*, and those written to Dortous de Mairan contain the gist of the difference between Malebranche and Spinoza. Both accepted the doctrine of a single substance, but for one that meant pantheism; for the other, no necessary relation to individuals, and so, if the latter are to exist, as they do, a creation.

The discussion of the manner and ends of creation, which includes preservation, with its principle of God as sole mover to the exclusion of secondary causes, is, if the preliminary assumptions are admitted, one of the most convincing portions of Malebranche's philosophy; and the logical relation of the different parts to one another has lost nothing in M. Joly's exposition. What is especially to be commended is the recognition accorded to the æsthetic element in Male-

branche's theories. God's choice of worlds and of modes of government was determined by a desire for the harmony of the whole, one might almost say, by a desire for the most beautiful whole. Over and over again in justifying the presence of evil or the ways of providence, Malebranche emphasizes these ideas of proportion and harmony. The epithet of optimist does not fit him as well as that of artist.

Of much that is interesting in the remainder of the long chapter on metaphysics, perhaps the portion that shows most originality of interpretation is the defence of Malebranche against the charge of determinism, which received its strength from the theory of God as the only cause of both physical and psychical changes. Malebranche's position is described as follows: Although God brings about all action in us, he does not cause our consent, which remains free, and which, whether given or refused, God himself is obliged to realize through the laws that he has established. God executes the acts that we seem to accomplish, but only because we will them. In this way, the action of our will, although immanent, is none the less in our power, and the responsibility for it is entirely ours. To be sure, God inspires each one of us with love for the good in general, and the amount of this inclination always remains the same; but the determination of love for the good in general toward the particular goods rests with us. We are always able to suspend our consent, and seriously to examine if the good we are enjoying is the true good. The relation to God is exactly the same as that in reasoning. All our wisdom comes from God, we see our ideas in him, but it is in our power to consent to obscure ideas or to refuse to do so. The cause of deception is in ourselves. Such moral causality appears to M. Joly to compensate for the lack of physical causality, and more than any other distinction to keep individuals from being annihilated in God's infinite substance.

In the writings of Malebranche, theology and metaphysics are so far from being in conflict that each completes the other. It is to theology that Malebranche owed his theories upon the freedom of the will, the teleological quality that he gave to the universal mechanism, and in fact, every advance that he made beyond the doctrines of Descartes. Much space is devoted to the contention, successfully maintained, that he was never a Jansenist and that his so-called retractation was a forgery.

The limits of this review will not permit even a brief account of the exposition, suggestive as it is, of Malebranche's psychology and ethics. The concluding chapter of the book is almost entirely devoted to the views that Malebranche might be supposed to take of modern philo-

sophical tenets. His system as a whole is given a high rank as being more comprehensive than that of Descartes, and more a unity than that of Spinoza. It is characterized as perhaps the purest type of constructive philosophy, in which the experimental and natural element is as much reduced and subordinated as possible. Its right to be called idealism is denied; one does not altogether understand why, unless M. Joly confines the term to the type that he describes as contemporary, in which everything is explained as the action of the human mind. Instead, Malebranche's philosophy is described as a variety of realism of divine origin, essence, and value.

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SUMMARIES OF ARTICLES.

[ABBREVIATIONS.—*Am. J. Ps.* = *American Journal of Psychology*; *Ar. f. G. Ph.* = *Archiv für Geschichte der Philosophie*; *Int. J. E.* = *International Journal of Ethics*; *Phil. Stud.* = *Philosophische Studien*; *Rev. Ph.* = *Revue Philosophique*; *R. I. d. Fil.* = *Rivista Italiana di Filosofia*; *V. f. w. Ph.* = *Vierteljahrsschrift für wissenschaftliche Philosophie*; *Z. f. Ph.* = *Zeitschrift für Philosophie und philosophische Kritik*; *Z. f. Ps. u. Phys. d. Sinn.* = *Zeitschrift für Psychologie und Physiologie der Sinnesorgane*; *Phil. Jahr.* = *Philosophisches Jahrbuch*; *Rev. de Mét.* = *Revue de Métaphysique et de Morale*; *Ar. f. sys. Ph.* = *Archiv für systematische Philosophie*.—Other titles are self-explanatory.]

LOGICAL AND METAPHYSICAL:

Imagination and Judgment. W. P. KER. *Int. J. E.*, XI, 4, pp. 469–481.

Moralists and poets have usually treated the imagination as a vain and cruel thing. And the imagination is commonly thought of as an enemy to sound judgment. The writer, however, finds some exceptions. Wordsworth teaches that the possession of imagination frequently makes men stronger than sound judgment alone would. We also have Coleridge, Blake, Burke, and Carlyle showing, in their respective ways, the importance of imagination. A kind of imagination is essential in order to grasp the living particulars of experience on the one hand, and to gain a lofty and comprehensive vision on the other. There is a kind of imagination that is not opposed to judgment, but which is rather the ground and source of right judgment. It is a habit of mind that is both comprehensive and definite, both long-sighted and minute. It seems permissible to denote as imagination the power of realizing what one is speaking and thinking about. You cannot estimate other people's motives without the use of imagination. It is not necessary to say that great harm may be done by the imagination when it takes the wrong turning; this is a well known fact. But there is a kind of imagination which does not disable ordinary perception and judgment. "The mind attains its proper freedom through the imagination" "A sort of imagination is required for all right action, and there are few good actions but might be improved by a little more of it."

G. W. T. WHITNEY.

The Nature of Self-knowledge. S. H. MELLONE. *Mind*, No. 39, pp. 318–335.

Self-knowledge relates to some form of inner life, as a personal characteristic, a tendency of human nature, or a philosophical generalization. It is, in any case, a fundamental function of intelligence determined by one principle. Knowledge is a relation involving a distinction between the knowing and the known. But in self-knowledge, to compare the knowing subject to the eye does not describe the distinction. Where the difference

between mental phenomena and noumenon is emphasized, the eye-theory of thought forbids all knowledge of personality. The difficulty, though obviated neither by the intuitional assumption that subject and object are identical, nor the view that knowledge of the self is inferential, is fictitious because the distinction of subject and object is an inadequate statement of the problem. The eye-theory, apart from any agnostic bias, regards knowing as a formal process with no essential relation to what is known; but its most fatal defect is the implication that ultimate truth can be attained by careful observation. Rejecting the notion of a pure and an empirical self, one must remember that thought exists only as the thought of a thinker, and that what is known cannot be identified with knowledge itself. Whether reflection is on mental states or the objective world, the reference is direct, but indefinite and incomplete. The difficulty of psychological induction is increased because the observations are individual and their verification is indirect. The incomplete character of self-knowledge can be estimated only by a consideration of the element of immediacy, feeling, or anoetic consciousness, which is correlated with thought. Self-knowledge grows in truth when something present in consciousness becomes also present to consciousness. Self-consciousness includes an awareness of the processes by which our consciousness of the world is realized. It brings to light ideals of physical knowledge, of goodness, and of beauty. With reference to psychological questions raised by Mr. Bradley it may be said of 'the correlations of the known with the experienced' that, to exist at all, anything must be capable of presentation as an object within experience, but that nothing is itself presented as an object identical with the knowledge of it. The conception of phenomena is unstable and does not provide a clear principle of 'division between psychology and metaphysics.' But the question of limits is important only in analytical and genetic psychology and is settled there by compromise. The relative validity of the 'analysis of consciousness' into intellection, pleasure-pain, and conation, is in accord with the view that the anoetic element is present in all conscious life.

N. E. TRUMAN.

Factors in the Efficiency of Religious Belief. H. BARKER. Int. J. E., XI, 3, pp. 329-340.

The power of the traditional creed lay in the combination of a great spiritual content, the conception of a suffering saviour-God, with a belief in the reality of a system of supernatural but historical events. When faith was vivid, the supernatural history was profoundly significant; when faith was weak, the belief in the events remained. Yet there was no sharp division between the true faith and the lower belief. The two factors were not distinguished until the historical science of the nineteenth century began to investigate the actualities of Christian history. To destroy the efficiency of the combination, the supernatural events need not be disproved

but only reasonably doubted. The problem of the preacher is to find some means of presenting religion, as a reality in human life, without appealing to supernatural events. A solution is possible only through the medium of history. The reality of faith does not depend on supernatural events ; it is seen in the lives of heroes and saints, and as a great spiritual force in the life of the race. The truth of religion is found only in the content of religious conceptions. The power of religion in history is not a proof of its truth, but, like supernatural events, is a verification of it, and an aid to the imagination. By far the most of those who have shown the power of faith in their lives have been believers in supernaturalism. But the preacher, by dealing with historical subject-matter, can train his hearers to distinguish the enduring substance of faith from its passing forms. When all religious belief is seen to be a blending of truth and error, it may be asked if there is any enduring truth. The answer must be that the absoluteness of religious doctrine passes away with the old supernaturalism ; but absolute truth is not so important as a faith that is sufficient for our needs.

N. E. TRUMAN.

La philosophie nouvelle et l'intellectualisme. L. BRUNSCHVICQ. Rev. de Mét., IX, 4, pp. 433-478.

In this article we have a defence of intellectualism against the views expressed in M. LeRoy's essay, *Un positivisme nouveau*, recently published in the same journal. The question is asked : Does one refute intellectualism by applying to it the process of dissociation ? From the very beginning of his dialectic M. LeRoy refuses to consider intellectualism in the form of critical idealism. Dissolving the synthetic unity of thought, he holds that if there is a truth it must be found either in the evidence of reason or in an intuition of reality. Thus he finds it necessary to resort to the transcendence of the action in order to unite experience and reason. But as intellectualism takes the synthetic unity of thought as its starting-point, these criticisms made against it are hardly applicable. On the contrary, it may fairly demand an explanation of the grounds of this new philosophy. "For the new philosophy discursive thought exists, and it suffices to account for scientific development ; . . . for intellectualism the notion of discursive thought is a monstrosity, because the existence of language presupposes the immanence of a thought not subject to the exterior laws of speech, but which has its principle in the synthetic reason." By adopting an *a priori* hypothesis, M. LeRoy has misconceived the synthetic unity of thought. In defining the imaginable scheme and the logical function as "the first, synthetic, but contingent ; the second, necessary, but analytic," he has, as it were, imprisoned himself in this, his abstract formula. From it arises that contradiction from which springs the new philosophy.

GEORGIA BENEDICT.

Dieu et la nature d'après Aristote. C. PIAT. Rev. Néo-Scholastique, VIII, 2, pp. 165-181.

This article aims to show, "how Aristotle arrived at his conception of God, what idea he had of Him, and in what manner he conceived of His action upon nature." A principle of physics—that a moving force, internal or external, is presupposed in all movement—formed his starting-point. But this chain of cause and effect could not extend to infinity. Hence Aristotle found it necessary to assume a first or prime mover, itself motionless, because in moving it would cease to be a force and would become an act; indivisible (for all division presupposes a passage from power to action); and simple, at once the best and the most beautiful—sovereignly perfect. But perfection implies, first of all, thought; and since the thought of the prime mover cannot admit of any intermingling of power and action, the prime mover itself must be thought—the pure thought which is the pure action. We have, therefore, an absolute unity in which the prime mover thinks itself, and, externally possessed of itself, is absolutely happy. Now if this is the nature of the prime mover, how can it move the world? Certainly by no mechanical impulsion. But if the prime mover knows not nature, nature is not unconscious of it. Back of matter dwells a soul which is eternally desirous of freeing itself from matter. The prime mover is, then, an end toward which all things else gravitate, and, as an end, it remains immovable in the midst of the movements which its attraction provokes. Yet this soul in nature is itself the prime mover. Progress does not exist. In the beginning is the perfect, and the perfect is the end. Nature is but a simple accident of being, a series of phenomena whose reality consists in their participation in the nature of God; but as such nature becomes a living being containing in itself the rule and principle of its actions—an artist inhabiting and fashioning its work from within.

GEORGIA BENEDICT.

ETHICAL.

Die Voraussetzungen des Problems der Willensfreiheit. R. MANNO. Z. f. Ph., 117, 2, pp. 210-224.

If philosophy is to go beyond the work of historical and critical research and as a science claim a content peculiar to itself and of value to mankind, it must solve before all other problems that of Freedom of the Will. Preliminary to this there is necessary a thorough explication of the concept of 'mechanism' and the mechanical world theory; for these furnish the basis of philosophical determinism. According to its concept, a mechanism supplies a given action *A* required if another action *B* is to follow. Two characteristics are to be noted: (1) The succession of events mechanically determined has an order absolutely uniform and unalterable. Here the concept of mechanism differs from that of causality. According to the lat-

ter, it is necessary that the event *B* be preceded by some other event *A*, while according to the former, the event *B* is preceded by a certain other event *A* with which it is linked in fixed and unalterable succession *according to rule*. Hence it is only the concept of mechanism and not that of causality which contradicts the freedom of the will. (2) A mechanism is a closed unity, cyclical in its action. Hence if it is to furnish a cosmical theory, the members of the system must be definitely known and seen to constitute an independent unity. Because of the impossibility of this the upholders of the mechanical theory have no right to fall back on the infinite causal *regressus* if they are to be logically consistent. The theory of parallelism, which seems to militate against a belief in freedom, is based upon two presuppositions: (1) That the physical and psychical are series independent and mutually exclusive, and (2) that interaction is possible only between like phenomena. To the first it may be objected that the separation of physical and psychical is a methodological abstraction having no place in actual experience. To the second it may be said that although interaction presupposes a certain likeness, just as much it presupposes a certain unlikeness, that the synthesis of interaction always involves two members joined in a unity which exists in spite of their difference. To make place for the ethical demand for freedom, it is only necessary to degrade the mechanical theory from a position of absolute to one of relative value.

H. W. WRIGHT.

The Ethics of the Koran. MARY MILLS PATRICK. Int. J. E., XI, 3, pp. 321-229.

The Koran is a book of little imagination or beauty. It presents, as a standard of morality, absolute justice unmodified by the softening influences which are found in the teaching of Plato and of Jesus. Mohammed gives no trace of deep spiritual experience. In the Koran the naïve utilitarian motive is strong. The believer must do right in order to gain paradise. Although the belief in the power of God is a little exaggerated, the Koran teaches absolute freedom of the will. Submission to the divine will is enjoined on the ground that God is just and merciful. Charity, honesty, and faithfulness to trust, especially in reference to orphans, are commanded. Lying, alcoholic drinks, and games of chance, are forbidden. Prayer, fasting, and reciting the Koran, are obligations of practical morality. Since the value of worship consists in its outward expression there can never be insincerity. Sociologically the Koran was an attempt toward reform by means of laws rather than principles. Although polygamy and free divorce are recognized, a soul is attributed to woman. Laws of inheritance give her a one-half portion; and after marriage she has full control of her property and a dowry in case of divorce. The influence of the Koran tends to develop a generous and democratic spirit. The key of its power is the

simplicity of the categorical imperative, the justice displayed in the details of the law, and the despotic character of the religion.

N. E. TRUMAN.

Les principes de la morale.—III. *La loi morale.* CH. DUNAN. Rev. Ph., XXVI, 6, pp. 594-624.

Duty must be defined, for our as for any other rationalistic system, as Kant defined it; but can such a conception be reconciled with our treatments of morality as the utmost possible development of all the vital forces? The will to be is duty, since the realization of the higher life implies the subordination of the lower with its instincts; but in willing to live we will the functions of life, and thus duty gains the content which it lacked with Kant. As life is the only existent, in it, as we have seen, noumenal and phenomenal are identified; the transcendent and identical character of the Kantian notion of duty is retained, and the difficulty of its application to concrete cases removed. Happiness is necessarily connected with morality, which is the perfection of life. Since this doctrine is rationalistic, it agrees with Kant in some points; but as it is also naturalistic, it differs from him in others. Duty is indeed absolute, since the commands of reason in any given case are unconditional; but Kant's notion of invariable moral law we must reject, in the concrete at least. Yet there may be generalizations, even universal laws, in moral as in physical science. Our doctrine, like Kant's, is autonomous, for it founds moral obligation on the reason of man, and in the last resort the will is always free, however pressed by threat of penalty. Since God is both immanent and transcendent, self-imposition of the moral law and imposition by God are the same thing. Belief in his personality is perfectly consistent with this position, and, if he exists as a person, we offend him in transgression as we do our fellow men. We must accept Kant's teaching that good intention is the very essence of moral action. To say that an action is agreeable to reason is the same as saying that it is done with a right intention. As rational beings we cannot rest content with the merely objective rationality of instinctive life; what we do not consciously do for good, we do for evil; there is no middle ground. Practical reason is a relative thing, and no action of really good intention can be evil under the circumstances of the agent and his place in the scale of moral and social development, for there can be no conflict between natural and moral good. The moral struggle arises from the opposition of inferior and physical life to a due subordination to that moral and rational life which is its development and perfection. We cannot, of course, accept the dictum of Kant that accompanying sentiment, with the arbitrary exception of respect, destroys the value of moral action. Here, as elsewhere, the noumenal and phenomenal are one; sensibility is the phenomenal aspect of rational will; rational will is the synthesis of desires. To sum up, we think with the ancients that ethics has for its end the organization of life in union with nature, but in union with a nature which is the nou-

menal synthesis of all its fragmentary aspects—i. e., the Absolute. The notions of duty, conscience, sin, are thus recreated. In brief, the naturalistic ethics which prevailed before Kant, pushed to its logical consequences, develops into what is generally considered its antithesis, "a doctrine of duty which while not that of Kant, is still a doctrine of duty."

EDMUND H. HOLLANDS.

La valeur sociale de l'art. G. SOREL. Rev. de Mét., IX, 3, pp. 251-278.

There have been many philosophies of art because there are many points of view in the appreciation of the beautiful. In our day the subject has been considered from the standpoints of history, of psychology, and of sociology. It has been held that a work of art is the result of an explosion of latent forces slowly accumulated in the mind of its author under the influence of the general sentiment of his time; that art is a source of special enjoyment, appealing to a primitive æsthetic sense—later connected with the state of tonicity of the internal organs; and that art is a social and moral power, often misused, but capable of infinite service under the guidance of the ideas of the true and the good. This latter point of view implies the proposition that there can be a true and a false art. Tolstoï holds, for instance, that art is only true when it becomes a pioneer of progress. But in this case, what shall we call true art to-day? Modern life is above all industrial. We have given the idea of work an importance which it has had at no other epoch. We are, indeed, an overworked society, and in our need of rest is found alike, perhaps, the explanation of our love of ballets and of wild scenery. But the most interesting form of modern art is that which endeavors to unite the beautiful with the useful. "The idea is born of the action," says Proudhon, "and must return to the action, under penalty of loss to the agent." Modern art is becoming more and more the revelation of the spiritual aspect of labor. Its mission is to ennoble manual toil. All the objections which moralists have brought against it, apply only to an art meant merely for amusement, or appealing but to one class, which is not the art of a laboring people.

GEORGIA BENEDICT.

PSYCHOLOGICAL.

Eine Konsequenz aus der Lehre vom psychophysischen Parallelismus.

JULIUS PIKLER. Z. f. Ps. u. Phy. d. Sinn., XXVI, 3 u. 4, pp. 227-230.

Professor Pikler warmly commends Storch's recent article, "*Haben die niederen Thiere ein Bewusstsein?*" and proceeds to draw from it an inference to which Storch did not refer. Storch discussed the object and subject sides of matter, and concluded that to attribute consciousness (and consequently memory) to inert matter is the simplest means of avoiding the difficulty of explaining how consciousness came into being at some point in the evolutionary scale. Pikler maintains that from this conception the

following conclusions logically follow: The changes of consciousness of the same individual, accompanied by the memory of previous states of consciousness, and combined by this memory into a unity: the unity of the same consciousness, of the same ego—all have their physical correlate in changes of movement of the same elementary material particles. In other words, the physical correlate of the fact that I recognize all my states of consciousness as my own, the physical correlate of the identity of the same individual during all the changes of consciousness of that individual, consists in the identity of the changing material particles in all the states of consciousness of the same individual. Thus, for example, the sensations furnished by the various senses of the same individual would have their correlate in changes of movement of the same particles of the central nervous mass. Even if experimental results could lead us to see that sensations from different senses are conditioned by the presence and stimulation of different central parts or cell-groups, still a further condition for the occurrence of each sort of sensation (accompanied by self-consciousness) would consist in the fact that the movement of these central parts set in motion other central parts, which get into motion with all sorts of sensations and thereby ensure the consciousness of changes in one and the same consciousness.

J. W. BAIRD.

Der Schmerz. W. v. TSCHISCH. Z. f. Ps. w. Phys. d. Sinn. XXVI, I u. 2, pp. 14-32.

Richet's paper read at the Third International Psychological Congress stated that pain is caused, on the one hand, by strong stimuli (*excitations fortes*) and, on the other hand, by all abnormal conditions (*tout état anormal*). Professor Tschisch objects that this statement lacks clearness and is, moreover, not in accord with fact. Strong stimuli are not all painful; weak stimuli are not always painless nor do abnormal conditions necessarily cause pain. Professor Tschisch's positive conclusions are: Pain is caused only by such mechanical, chemical, thermal, and electrical stimuli as destroy not only the individual but the living tissue itself. Such stimuli excite pain only in so far as they destroy living tissue; if their action be too weak or of too short duration they produce no pain provided they destroy no living tissue. Pain-exciting stimuli act in a similar manner upon all living creatures. Such stimuli give rise to indistinct sensations accompanied by a specific feeling—pain, the sensation arising sooner than the pain. The more intense the feeling of pain the more indistinct the sensation associated with it. Pain cannot be vividly pictured to the mind, because the sensations arising from pain-exciting stimuli are indistinct and indefinite. Pain, no matter of how slight intensity, has always a definite duration, for the changes in the external world which give rise to it leave behind material traces in the organism. In distinction from all other stimuli, pain-exciting stimuli invariably produce more or less marked

changes in the organism. Pain remains but a short time in memory, for the sensations which are aroused by pain-exciting stimuli are indistinct and indefinite. Though pain has so great a power over us, it possesses in itself no educative value, because it is so soon forgotten ; for this reason it is incapable of materially influencing our conduct. Though physical pain is easily forgotten, moral suffering is not, and it is to this circumstance that the higher impulses owe their triumph over the lower. As a punishment, then, pain is cruel, useless, and unwholesome.

J. W. BAIRD.

HISTORICAL.

Kant's Bestimmung der Moralität. R. SOLOWEICZIK. Kant-Studien, V, 4, pp. 401-443.

The purpose of the author is to defend Kant's ethical doctrine against the criticisms which have been passed upon it. He admits that Kant has made himself liable to misunderstanding by lack of clearness and by the failure to define his concepts exactly ; and he recognizes also some errors in Kant's exposition ; but he maintains that in its essential features the Kantian ethics is sound.

Morality, as distinguished from legality, has to do with the intention rather than with the consequences of an action. In a good act, Kant says, the intention must be determined not by inclination, but by regard for duty. Inclination, in the sense in which Kant condemns it, is pleasure (in a person or thing) which determines choice. He is right in saying that an action thus determined is not moral ; for inclination results sometimes in good acts and sometimes in bad ones, while in moral actions, as distinguished from merely legal ones, the determining power must be one which will *always* produce good. Inclination "is a *subjectively* conditioned valuation of an object." For morality, it is necessary that all the conflicting motives be arranged according to their *objective* worth. Hence we may say with Kant that the principle of morality is purely formal, since it has to do with the order in which the various motives are arranged. Kant's first formula for the moral law is simply a test for determining whether our motives are arranged according to their objective worth. ▼To say that I can will that the maxim of my action shall be universal is equivalent to saying that my volition would remain unchanged even though all the subjective, individual circumstances of the case should vanish. This concept of objectivity enables us to furnish a deduction of Kant's moral law. Kant himself did not emphasize the concept sufficiently. He makes a further mistake in introducing the concept of logical consistency ; the question is not whether a given maxim can be *thought* as universal law, but whether it can be *willed* as such.

We must now examine Kant's conception of duty. Hypothetical imperatives rest upon the conformity of things to law ; willing the end logically involves willing the means. When we actually will the means, we

have a feeling of "acting rightly" (*Richtighandeln, Rechthandeln*), "of objectivity." Such an act of will is an "objective volition." When I will what is likely to defeat my end, I make a "subjective volition." A conflict between the objective and the subjective volition gives rise to the feeling "of passivity or compulsion." In the case of the categorical imperative, the feeling of objectivity becomes the consciousness of duty. Kant sometimes uses *duty* in the sense of *feeling of objectivity* and sometimes in the sense of *feeling of compulsion*. He never says, however, that duty in the second sense is essential to morality. In fact, he maintains that the ideal is the disappearance of this feeling. His rigorism consists only in the doctrine that this ideal is unattainable. Kant defines duty as the necessity of an action arising from respect for the law. But this respect for the law is really respect for one's own personality. I feel contempt for myself, if under certain subjective circumstances my inclination leads me to make a resolution which but for these circumstances I should not make. Hence Kant's later formulation of his law in terms of personality is quite justifiable. Personality is the absolute end; the opposition between inclination and duty is the opposition between the worth of objects and the worth of personality.

ELLEN BLISS TALBOT.

Kant und Spinoza. FRIEDRICH HEMAN. *Kant-Studien*, V, 3, pp. 273-339.

In this study the author tries to determine how far it is possible to reconcile the philosophical systems of Kant and Spinoza. First, he seeks to find out what Kant himself thought as to the relation between the two systems, and then he considers how far Kant's verdict should be accepted. In the controversy between Jacobi and Mendelssohn with regard to Spinoza, Kant was appealed to for his opinion, but declined to give it on the ground of his slight acquaintance with Spinozism. It is evident from the criticism of the mathematical method in philosophy (in the *Kritik d. r. V.*) that at this time he knew something of Spinoza at first hand; but probably his distrust of the Spinozistic method made him feel that it would be hardly worth while to study the system carefully. In his later works we find criticisms so discriminating as to indicate that he must subsequently have made a thorough study of Spinoza. An examination of the numerous passages in which he discusses Spinozism shows clearly that he was not conscious of any close relation between this doctrine and his own. His attitude toward his predecessor is far from sympathetic. His two main grounds of objection are Spinoza's dogmatic method and his identification of God with substance. Attempts have recently been made to reconcile Kantianism with Spinozism; in point of fact, however, the two doctrines are very dissimilar, as Kant himself believed. For the one, God is identical with nature; for the other, he is a being, possessed of will and intelligence, who is the cause of nature. For the one, the material world is as real as the

thought world ; for the other, it is a world of phenomena. For the one, man is a mere product of nature ; for the other, he is a moral being, destined to an eternal life. These differences are so great that it is futile to hope to unite the two systems in an eclectic fashion. But both appeal so strongly to us as to stimulate us to seek for a new solution of the two great problems which they present—the problem of the divine immanence, and the problem of the theory of knowledge.

ELLEN BLISS TALBOT.

NOTICES OF NEW BOOKS.

Essai critique sur le droit d'affirmer. Par ALBERT LECLÈRE. Paris, Félix Alcan, 1901.—pp. 263.

M. Leclère's system professes to be a return to Eleaticism. It is an attempt to build up, on the basis of the bare fact of affirmation in thought, and under the sole guidance of the logical principle of identity, a dogmatic metaphysic, which is absolutely independent of experience and the empirical consciousness. Probably it can be predicted that to most readers this program will not appeal strongly. But one may think that the whole method is mistaken, and still admire the ingenuity with which the attempt is carried through, and especially the very considerable skill which it displays on the critical side.

It is not easy to give the full force of the author's position in a brief compass, but if I understand it correctly, it is substantially this: All reality for us is the objectification of an idea; the real is the true. The problem of being thus comes back to that of knowledge; and knowledge is *affirmation* (p. 6). "Affirmation is an act of the subject, whose immediate result, inseparable from the act which produces it, is the idea that the subject is in possession of the truth" (p. 5). Affirmation of truth, and so of being, is involved in the possibility of thought; it is required even for the positing of a problem. Its only mark is inevitableness (p. 13).

This is dogmatism, but it is not the ordinary dogmatism, relating to certain particular beliefs. It has to do only with the abstract form of belief. It is a matter of instinct, going back of all reflective judgment and logical criteria (p. 25). Accordingly, there is no way of setting up any further test to distinguish between true and false beliefs in the psychological realm. What is the justification, then, of belief? Simply the fact that one finds himself believing. When a man really believes, he needs no further justification. It is thus a fact essentially individual and incommunicable (p. 23). The only possible rule for thought is: Think, and wait for faith in your thought. When you believe, if that good fortune comes to you, you will know that you are justified in believing. Certainty is the price of effort (p. 30).

But now psychologically this seems to be depending on a feeling which often has proved to be mistaken. And yet we cannot fall back upon scepticism, for, again, even scepticism involves affirmation. At least the sceptic affirms his own personal scepticism. There is only one metaphysic which helps us out of this dilemma. In order to hold to the ultimate right of affirmation as the necessary condition of thought, and to the practical rule of thought apparently following from this, which makes belief independent of any further criterion, and at the same time to avoid

the difficulty from the side of psychological experience, it is necessary to make such affirmation a "thought in itself," and to deny altogether the empirical consciousness, and the existence of particular psychological beliefs. It is not always easy to interpret this "thought in itself," which is the characteristic position of the author's metaphysics. Apparently it is intended to be equivalent to Kant's transcendental conditions of experience in a still more abstract form (p. 12; cf. p. 4). Such a thought in itself is testified to even by the empirical consciousness (supposing this to exist); every affirmation seems to be impersonal, and to affirm itself in us, not to be made by us (p. 11). But it seems very doubtful whether the metaphysical use to which this conception is put is consistent with any interpretation given of it; or whether indeed it is interpretable at all. The fact for which it stands is, however, the necessity of affirmation in thought. Of this abstract thought there can be only one test—the ability to affirm itself without self contradiction; if it contradicts itself, it ceases to be thought or affirmation.

If now the practical rule of thought is to be carried out without contradiction, the diversity of beliefs cannot be regarded as applying to a single real world, and the empirical world must be denied. After a brief account of the system of Parmenides, the third and fourth chapters are devoted to getting rid of the reality of this world by means of the principle of identity. The third chapter deals with the empirical consciousness and the idea of phenomenal existence. The criticism of consciousness is based upon the conception of this as a collection of conscious states, and of knowledge as identical with the conscious state of knowing. On this basis it is not difficult to show that consciousness must be known by an idea which is itself a part of that which is to be known, and so no longer knowledge. If it is objected that in demanding an idea of consciousness to know consciousness, we are setting up an infinite series, this is itself a proof of the unreality of the supposed fact which leads to such a result. The attempt to ignore the idea, and to grasp consciousness in itself, involves its own contradictions. Similarly the idea of phenomenal existence—being to which is lacking that which is necessary to deserve the name of being—is shown to be contradictory. Both in relation to the subject to which it appears, and to the object, it necessitates an impossible combination of being and not-being.

The fourth and longest chapter is a further criticism of science, whose foundation has already been taken away by the annihilation of the empirical consciousness. If the supposed results of science also turn out to be full of contradictions, this will further demonstrate the unreality of the object to which they refer. Then follows a long series of acute criticisms, of which there is space here to indicate only the main drift. All possible phenomena are temporal, and also spatial. But space and time are full of contradictions, and cannot have even a subjective existence. So there is at once necessary interdependence and contradiction between space and time, and number; phenomenality and spatiality, etc. A second inquiry

shows the flaws in the methods of science. Instead of reaching the individual which alone is real, all phenomenal thinking whatever involves generalization, and also the reality of genera in nature, which latter, however, cannot be maintained. Still another set of difficulties grows out of the numerous contradictions implicit in the individual sciences, and in the relations of the sciences to one another.

At the same time it is possible to give science a certain justification. In the first place, our criticism of science has to be recognized as just as unreal as the science it criticizes. A true metaphysic must ignore science, not criticize it; and, therefore, science can exist before it (p. 199). But there is a more positive justification. Let science deny the world—the object of thought—and take itself simply as acts of the spirit, to be justified by success in arousing conviction, and the difficulties disappear. Since they do not mean to refer to the same object, there can be no contradiction between ideas; they become simply facts, and it is only ideas, not facts, that can be called contradictory (p. 207). Let the scientist, then, ignore criticism, and follow out without hesitation his instinct to know, from all conceivable points of view, as a means to the richest possible development of spirit (p. 209).

The author is now ready to build up his own metaphysical system, which consists in those further propositions that connect themselves with the affirmation of being without self-contradiction, and in a way to compel belief. Being is *in* itself. This renders contradictory the conception of substance and attributes, and leads to the substitution for attributes of *modes of action*. Being is thus a sum of activities. Again, being is *for* itself; it thinks itself, and it thinks only itself immediately. It is *by* itself—its own cause, and so free. But now an intermediary is needed between thought and liberty, contemplation and action; and this is found in *love* (p. 223). These three forms of being interpenetrate, and imply one another; together they constitute *personality*. The apparent diversity does not, however, involve self-contradiction, if we regard them not as attributes, but as groups of actions. There is no contradiction in supposing, in a single being, such groups of acts with irreducible differences, since being is nothing apart from actions, but only their sum or unity. Absolute unity, indeed, would be absolute poverty (p. 228). Not even the elements which constitute such groups are absolutely simple; they could not exist in isolation, for they imply one another.

From this standpoint, the possibility of a plurality of beings is already established. There is no contradiction, if time is denied, in the notion that a being may have received the power to posit itself from another (p. 231). If there are imperfect beings, they must thus have received their power from a perfect being, of whom there can be only one. Such beings must be in a real sense distinct from God, but not to the exclusion of a certain identity (p. 236). They are in the Absolute in so far as they are positing themselves, since the power to posit themselves comes from him,

and their act is also a divine act ; in so far as posited by themselves they are distinguished from the Absolute. "The Absolute who posits them, but posits them only in so far as they are positing themselves, remains distinct from them, in so far as they are, and also in so far as the Absolute posits himself, and is himself positing himself" (p. 237). By means of this identity, God and other beings can act upon each other, whereas imperfect beings cannot do this directly, but only through the medium of God.

But does such a plurality of beings actually exist? We can deduce their necessary existence from the idea of duty. Duty is essentially bound up with the affirmation of being (p. 343). Affirmation is necessary, and this can be only a moral necessity—the duty to be. The essence of thought is to act for ends, and therefore is moral. Existence is posited as a means of realizing ends. This demands not only God, but also, his absolute character being given, it demands that there should be no limit to the realization of the good, and therefore that there should be the greatest possible number of imperfect beings moving towards perfection in all possible ways (p. 250).

The obvious criticism on M. Leclère's whole position goes back to initial unintelligibility of an absolute denial of the empirical consciousness. It is not enough to admit that his own criticism shares this unreality ; that is logical, but there is no use in being logical if it is merely in words, and the whole position conveys no realizable meaning. When, however, he is untrue to his own paradoxes, as he necessarily is throughout, he is often very suggestive. Both on its critical side, and in its attempt at construction, the book shows a power and originality of metaphysical thought which one would like to see in the service of a more fruitful method.

A. K. ROGERS.

BUTLER COLLEGE.

Kant contra Haeckel: Erkenntnistheorie gegen naturwissenschaftlichen Dogmatismus. Von ERICH ADICKES. Berlin, Reuther und Reichard, 1901.—pp. 129.

This book is a destructive criticism of the position of Haeckel as stated in his *Monism* and *Welträtsel*. Haeckel is, Dr. Adickes declares, a materialist rather than a monist, and no materialism can withstand the attacks of the Kantian epistemology.

The importance of Haeckel's work is readily admitted. That a book of such abstruse character as the *Welträtsel* should have been received with a popular favor commonly accorded to the latest novel is a fact which itself demands an explanation. But if we seek the reason for this popularity we shall find it, not in depth or cogency of argument, but in the fact that Haeckel stands forth as the advocate of certain tendencies which dominate the more unreflective thinking of the present time. These are (1) an overestimation of the achievements of natural science, (2) a popular philosophizing which seeks unity and certainty without that self-criticism which might prepare

it for the task, (3) a radicalism in economic and social theories, and (4) an hostility to the church. For all these Haeckel speaks and so he must be heard.

In opposing Kant to Haeckel, Dr. Adickes does not claim to say either what Kant did say or would have said; rather it is upon certain epistemological principles which have been derived from the Kantian position and which are now universally accepted that he relies in the work of destruction. This distinction is worth remembering when, as often happens, Haeckel seems much closer to Kant's own statements than does his critic.

Haeckel is, we are told, a materialist. He calls himself a monist and disavows all intention of dealing with the 'thing-in-itself.' But his theory is only a sham monism. It finds no significance or meaning in the world process, it regards human life as merely an incident in the greater movement of material change, and it makes the mind dependent upon, even a function of, the cortical mechanism. These are the marks of materialism and they leave no doubt as to where Haeckel stands.

Such a materialism Dr. Adickes finds little trouble in destroying. It can never, he tells us, give an adequate account of consciousness. In the first place, Haeckel has no consistent statement of the relation of consciousness and brain-process; sometimes consciousness is a property of the brain; sometimes it is identified with motion; sometimes it is an effect of brain activity. These statements are both contradictory and false, as is shown by well-worn arguments. Secondly, no Kantian can make mind dependent upon matter for matter is only "my idea," and my mind cannot be made to depend upon its own idea.

Having thus refuted Haeckel, Dr. Adickes gives a statement of his own monistic theory. The true monism is, he says, a universal parallelism. Reality is made up of centers of force which have two modes of existence—an inner and an outer. The outer is the spatial, with which the scientist deals. The inner is the conscious world within which falls the finite mind. In the relations of this finite mind to the universal consciousness are to be found all the meaning and significance which religion asserts and which Haeckel fails to discover because, as a scientist, he is concerned only with the outer world of motions. It is to be noted that this monism loses nothing of that continuity in the development of the world which Haeckel has so strongly emphasized.

As regards that further knowledge of the inner world which is desired by the metaphysician, Dr. Adickes speaks with all the caution of a good Kantian. What one believes in this realm is, he thinks, largely a matter of temperament. The religious man needs belief in God, freedom, and immortality, and hence he holds to these beliefs. Haeckel does not need them and hence does not take them. He is wrong, however, in attacking the faith of others; of that faith there is neither refutation nor proof; it is accepted by religion on faith just as is the principle of causation by

Haeckel himself. The attempt to disprove either religious belief or scientific postulate is pure dogmatism possible only to one who is ignorant of the most obvious principles of epistemology.

The discussion as a whole presents little that is new or especially convincing. It is largely dominated by a religious interest, as is seen in the definition of materialism. The passages which discuss the significance of scientific results for religious belief are by far the strongest and most subtle in the book.

Another important line of thought is summed up in the assertion that within its own sphere natural science is the sole judge of truth and falsehood. In the knowledge of the 'outer' world neither religion nor philosophy may interfere; here the scientist is at home and his word is law.

The main contention of the work is the statement of universal parallelism as defining the realms of science and philosophy, the studies of the 'outer' and the 'inner' worlds respectively. As a solution of the problem which is said to be so difficult for materialism, this contention can hardly be regarded as satisfactory. If it be the work of natural science to deal only with the 'outer' world then one would like to know with what the science of psychology is to deal. Is it to be the science of cerebral processes, or if this be the field of physiology, is there to be no science of psychology at all? And again, one can hardly escape the problem of the relation of mental to brain process by declaring the latter to be phenomenal. As Kant would say, both brain and mind as we know them are phenomenal, and the nature of their relation within our phenomenal world is one which demands an answer. Dr. Adickes tells us that consciousness is not a property, nor an effect, nor identical with motion, but in place of these he gives no intelligible statement which the modern psychologist might take as a working principle. At this point he seems far less in sympathy with Kant than is Haeckel. Kant, when he discusses the question at all, as in the Paralogisms, seems to make consciousness a determination, *i. e.*, a property of matter. That this position is untenable, the arguments of Dr. Adickes do not prove; it is in fact doubtful if any arguments can destroy the position if it be taken as a principle of natural science. What is needed here is a careful definition of terms which shall tell us what it means to make consciousness a "property" of the brain, or to "identify it with motion." The simplicity of Haeckel's account of the world-process shows how desirable is such a terminology if it might be substituted for the unwieldy doctrine of concomitance; the resulting advantage to psychology would certainly justify the endeavor.

ALEX. MEIKLEJOHN.

BROWN UNIVERSITY.

Questions de Morale. Leçons professées au collège libre des sciences sociales. Paris, Félix Alcan, 1900.—pp. vii, 331.

This volume presents in part the public lectures offered in the year

With regard to the matter of the book, I cannot speak very favorably. Most of what the author says is unobjectionable, but some of it is hardly appropriate to an introductory work, and the omissions are very serious. The substance of the work, in fact, consists mainly of the psychological fads of the last quarter-century. After a brief introductory chapter we are treated to an account of the nervous system, and then come reflex action, sensation, 'reaction,' etc., but very little about mental life. The subject of judgment is indeed touched upon, but only touched, and no one who got his knowledge of it from this book would imagine that it was the leading form of intellectual activity. As for reasoning, inductive or deductive, the author seems to have forgotten that there is such a thing. The moral nature, too, is very insufficiently treated, neither the nature of morality nor the moral sentiments being described. There is, indeed, a peculiarly hazy chapter on the freedom of the will, and there are some good remarks on the formation of useful habits. Dr. Thorndike seems to me to exaggerate the power of education in the moral life, for he thinks that "truth-telling, diligence, attentiveness, integrity, unselfishness, charity, and the like are all probably characteristics acquired after birth. Speaking broadly, *civilization*, including morality, is in each human being an acquisition, not an inherited trait" (p. 186). Now it is true that habits, whether good or bad, are acquired after birth; but surely each person inherits a certain disposition, which has a great influence in deciding what habits he will form.

Dr. Thorndike accepts Professor James's theory of the emotions, which is too well known to the readers of this REVIEW to require comment. Of course, hypnotism and suggestion come in for treatment, and are fairly well described. One of the most disagreeable things in the book is the constant repetition of the term 'reaction' as applied to all the activities of the mind. The term as used of late by psychologists has a quite different meaning from that given it by Newton, when he stated the law that action and reaction are always in opposite directions. Moreover, in the new sense of the word every event in the universe is a 'reaction,' and the only 'actions' in the whole world of being are those of the First Cause. Some other points in Dr. Thorndike's work might call for remark if space permitted; but I have said enough to show its general character, and both its merits and its defects.

JAMES B. PETERSON.

Nouvelles recherches sur l'esthétique et la morale. Par J.-P. DURAND (de Gros). Paris, Félix Alcan, 1900.—p. 275.

This book, written a third of a century ago, and its author, have much of human as well as scientific interest. The warmer interest is aroused, not alone by the recent death of the author, on November 17, 1900, nor wholly by the contrast between the attention his biological and philosophical writings now receive, and their comparative neglect at the time of

their publication, but by these facts in conjunction with the patriotic purpose apparent on every page.

In France, thinks the author, "the confusion, the breakdown (*la débâcle*) of opinion on the question of the beautiful and the good . . . verges already on the last limits," and threatens "a speedy catastrophe, fatal (*suprême*) at once from the spiritual and from the material point of view" (p. 2). Positivism, even when aided by "struggle-for-lifism," cannot avert this fate; and eclecticism is equally impotent. The Roman Church might succeed, but would demand in return the sacrifice of all rights of reason. Nor can the Latins accept inconsequent Protestantism, "*cette religion bâtarde, hétéroclite mixture de raison rebelle et de foi obéissante*," though it has furnished the Germanic peoples with "an accepted and undisputed morality, which has firmly maintained among them the social bond, while leaving his free initiative to the individual" (p. 10). "For us I see but one serious chance of reascending the current that draws us towards the abyss; I see it in a truly and largely scientific solution of the religious problem, of the moral problem, and of the social problem" (p. 12). It is thus in the hope of providing a sound and scientific treatment of esthetic and moral problems, at least in foundation and skeleton outline, that the author has at length published a book written so long ago.

The book indeed is, and is intended to be, suggestive rather than conclusive. The author proposes a method of inquiry, which, he is convinced, will, if carried out, place esthetics and ethics on a solid foundation. This method he does not himself apply, chiefly because of our ignorance of large numbers of necessary facts, but he explains his views with incidental introduction of much interesting matter, and argues against a number of well-known theories inconsistent with his own.

M. Durand begins by pointing out that we have direct experience only of sensations and sentiments (*sentiments*), the ground facts, and of the ideal structure superimposed upon them with a view to explanation. Now, these basal facts require a triple explanation, the psychological, which deals with the subjective 'causes' of sensations and sentiments, the physiological, which deals with their organic causes, and the physical, which deals with their objective causes. This triple explanation is to be applied to all kinds of sensation, to pleasure and pain, and to such sentiments as admiration, approval, respect, obligation, etc. Of the three inquiries the physical or objective is the most important, and within that field the vital problem is that of the "normal or specific agent." A visual sensation, for instance, may be aroused by a blow on the head, by pinching, pricking, or burning of the optic nerve, by chemical action, by an electric current, etc., but only when aroused by ether waves do visual sensations *play a useful rôle in the vital economy*, by giving us valuable information regarding distant objects. Ether waves then are the normal or specific agent of visual sensations. And in one field we know the normal agent of feelings of pleasure; we have in the theory of music, thinks the author, a mathematical description of the

characteristics of the air waves that excite harmonious sounds. If only we could obtain an equally objective account of the normal agents or the feelings of esthetic admiration and of moral approval, an account of the agents that arouse these feelings in us on occasions when they lead to notions and actions "useful to the vital economy," either of the individual or of society, then the problems of esthetics and ethics would be solved. The main purpose of the book is to show that the discovery and objective description of the normal agents in the fields of art and morals would solve all problems in these fields. In this opinion the author is no doubt largely right, and, moreover, he has given a good and fresh account of the problems that writers on esthetics and ethics have endeavored to solve. But it is not probable that the normal agents will ever be described in anything approaching mathematical or even very accurate terms, nor is it easy, either to discover what agents stir us to admiration and approval for the good of the vital economy of man or the state, or to attain to satisfactory conceptions of what 'vital economy' precisely means in either instance. In short, the author urges scientists to put forth all efforts to discover and give objective descriptions of the means that best serve the esthetic and the moral ends.

Incidentally there is not a little interesting matter in the book; discussions of the relations of the beautiful and the useful, of the esthetic theories of Taine and others of his day, of naturalism in art, of diversities and anomalies of taste, etc. And in the ethical half of the book the author sets down very wholesome ideas on such subjects as theological morality, love *vs.* passion, the value of modesty, the nude in art, the duty of man to woman, the freedom of the will, etc. The two concluding chapters give a "formula of happiness," and an "ethnological anthology," the latter a curious collection of pithy sayings on the general range of subjects earlier discussed.

SIDNEY E. MEZES.

UNIVERSITY OF TEXAS.

Le problème de la vie: Essai de sociologie générale. Par LOUIS BOURDEAU. Paris, Félix Alcan, 1901.—pp. xi, 372.

The author's plan is perhaps best indicated by the associated title *Essai de sociologie générale*. We might put the ideal thus: to construct a sociology, not only of the human group, but of the world-group (pp. i, ii), and then, from the ethics implied in such a cosmology, to deduce rules for a special case; that of human society (p. iii). Thus in Book I we start with the human individual, and making an analysis both of his body and of his mind, arrive at certain elements, "ether particles," the author calls them (pp. 39 ff.), endowed with a "rudiment of psychism . . . taking the power of motile sensibility which disposes them to realize certain groupings by an accord of their respective activities" (p. 74). In Book II we start again with the human individual, but now as an element in synthesis. Thus we rise to larger and larger groups, considering successively the symbiosis of human beings (ch. 1), of living being (ch. 2), of a planet (ch. 3), of the

planets and the whole material world (ch. 4); finally we view this world in its evolution (ch. 5). A cosmogony is nothing but a story of the changes that come to pass in our universal ether. The fact that changes do take place and that they have a direction is evidence that the whole is presided over by a mind. "The order of development implies a mind whose initial principle must also reside in the ether. We must recognize in it, together with the universal basis of reality and the cause of all modes of energy, a basis of psychical potentiality which manifests itself in various degrees of actuality in the series of beings" (p. 242).

The picture presented is that of ultimate elements grouped into larger wholes. But this 'grouping' is not a mere matter of aggregation; the wholes formed are 'organisms' and 'individuals.' The mark of an individual is that its activity tends toward an end, and that end the author expresses as the extension of the individual's life—whence the struggle for existence. "From this double law of association which unites beings, and of individuation which places them in opposition, result all the goods and all the evils of life: good when harmony is established between the parts and the whole; . . . evils when either between the associated parts or between them and the whole antagonisms and conflicts are produced" (p. 282). Yet this conflict of aims is a constantly diminishing source of evil: it would be possible to avoid it by a better adjustment of relations between finite beings. The disorders of which this conflict is the consequence are capable of being reduced little by little, and toward such an end the universal intelligence seems to tend (p. 317). The rules which establish the proper relation between individual and universal ends are objects of search for the science of ethics. In his final chapter the author presents his ethical conclusions in a law of the subordination of duties: "The unique rule that can be posited as general is to prefer the superior duty to the inferior, that which assures more life to that which would produce less" (p. 354). "Ethics is then required to fix limits within which egoism is necessary and legitimate, others within which altruism becomes useful and obligatory. . . . The self should maintain its personality in face of all and against all. . . . It is a duty for the series (of higher unities) themselves not to infringe on this primordial right of individuality. . . ." But "the guaranteed conserving selfhood once assured, whatever there is that is discretionary in our personal development should be subordinated to the function of social life" (pp. 362 ff.). And similar reflections can be made respecting the duties of each unit to itself and toward the larger whole of which it is a part.

EDGAR A. SINGER, JR.

UNIVERSITY OF PENNSYLVANIA.

Studi sulla Filosofia Contemporanea. Prologomeni, La filosofia scientifica. By FRANCESCO DE SARLO. Roma, Ermanno Loescher & Co., 1901.—pp. viii, 242.

This work is a criticism of current scientific theories in their relation to

philosophic principles. The men chosen as types are Du Bois Reymond, Helmholtz, and Darwin. Du Bois Reymond is chosen as the representative of mechanism, Helmholtz of modified sensationalism, and Darwin of evolutionism.

For Du Bois Reymond, the universe is to be explained in terms of physical laws. Force, matter, and their relations are what we know, and the problem for man is to discover and formulate the laws that determine them. We can have no knowledge of the fundamental nature of the principles. To all questions of that kind we must return the one answer, *ignorabimus*. Professor De Sarlo criticizes this view on the ground that it is as easy to acquire knowledge concerning these problems as of scientific truths. Human reason is the main reliance in both fields. To deny it validity is to deny validity to scientific truths. If we are willing to trust it in reference to the teachings of science we should abide by its conclusions in respect to the more fundamental problems as well.

Helmholtz is in advance of Du Bois Reymond in that he endeavors to find an explanation of experience, but wrong in so far as he insists that the principles of explanation are to be found within experience itself. For this reason his theory of space is a failure, for space must involve *a priori* as well as sensational elements if it is to be intelligible, and space is intelligible. Experience in general requires for its elaboration laws and logical presuppositions, without which it would be inconceivable, and these laws cannot be given in experience itself. They are the contribution of the human reason.

In much the same way, although not so specifically, nor at so great length, it is urged that Darwin's work constantly implies more fundamental principles than those which he takes into account. Evolution raises the problem of purpose, and progress of time, and thus the purely scientific treatment of the biological problem leads on to a discussion of principles which Darwin omits to consider and which can only be settled rationally, by philosophy.

The volume contains a long appendix in which the modern Italian representatives of positivism, Ardigò, Rosmini, and others are discussed at some length entirely in the spirit of the earlier part of the work. The treatise as a whole is a criticism of the modern scientific standpoint in the spirit of Kant. One feels that the knowledge of more modern men which the author's citations show that he possesses in no small measure has not appreciably modified his point of view. The work has all the advantages and disadvantages of that standpoint.

W. B. PILLSBURY.

UNIVERSITY OF MICHIGAN.

Shakespeare, Voltaire, e Alfieri, e la tragedia di Cesare. Parte Prima.

PER LUIGI DE ROSA. Camerino, Tipografia Savini, 1900.—pp. xiv, 389.

This book belongs to a class of essays, at once literary and philosophical, wherein Italian writers do excellent work, and of which the motto prefixed

to the present volume, *Le critique est le naturaliste de l'âme*, sufficiently indicates the scope. It is difficult to say anything of Shakespeare which shall sound fresh to English ears, but the comparison here drawn between the tendencies of which Voltaire and Alfieri respectively were the mouthpieces and the more objective outlook of Shakespeare, due at once to his extraordinary personality, the racial qualities he represented, and the spirit of his time, is strongly and clearly drawn. There is a full and valuable discussion of Voltaire's attitude toward Shakespeare, and of the influence of the former upon the development of the French drama, and there is a briefer, but not less interesting account of the art of Alfieri, and of the movements of which it was the outcome and the expression.

E. RITCHIE.

Einführung in die Philosophie. Eine Uebersicht der Grundprobleme der Philosophie und ihrer Lösungsversuche. Von RUDOLF EISLER. Leipzig, Verlag von Siegbert Schnurpfeil, 1900.—pp. 160.

The purpose of this little book, which is satisfactorily carried out, is to acquaint the educated public with the problems of philosophy and the attempts which have been made to solve them, and to point out the direction in which the solutions seem to lie. Four great problems are considered: (1) The epistemological problem, under which head are discussed the problem of the origin (rationalism, empiricism, criticism), and the problem of the object of knowledge (realism, idealism, ideal-realism); (2) the problem of being (dualism, monism); (3) the cosmological problem (pluralism, henism (pantheism), mechanism, and teleology); (4) the problem of worth (ethics). The author's standpoint agrees largely with Wundt's and Paulsen's.

FRANK THILLY.

UNIVERSITY OF MISSOURI.

Grundlagen der Erkenntnisstheorie. Von RUDOLF EISLER. Leipzig, Verlag von Siegbert Schnurpfeil, 1900.—pp. viii, 173.

This is a clear and brief introduction to the theory of knowledge, intended for readers who find it impossible to make a more comprehensive study of the subject. The book discusses the following topics: The nature and method of epistemology; consciousness and being; knowledge; the categories as conditions of knowledge; belief. According to the author epistemology is the science whose function it is to become fully conscious of the nature and import of knowledge and the known objects. It is psychology in so far as it describes the functions of the process of knowledge and seeks to explain the fundamental forms of knowledge genetically. It is criticism in so far as it examines the nature of knowledge with reference to its validity and limits. The conclusion is reached that our knowledge of things is relative. "Absolute knowledge takes place only in self-consciousness, where we immediately apprehend ourselves as what we are,

and are what we apprehend ourselves to be." The objects of knowledge are not mere ideas, however they are known only in and through our ideas, but they are things. As such they act as we do and persist as we do, that is, they have causality and are substances.

FRANK THILLY.

UNIVERSITY OF MISSOURI.

The following books also have been received :

A History of Philosophy, with especial reference to the Formation and Development of its Problems and Conceptions. By W. WINDELBAND. Translated by JAMES H. TUFTS. Second edition, revised and enlarged. New York, The Macmillan Co.; London, Macmillan & Co., 1901.—pp. xv, 726.

Proceedings of the Aristotelian Society. New Series.—Vol. I. Containing the Papers read before the Society during the Twenty-second Session, 1900-1901. London and Oxford, Williams and Norgate, 1901.—pp. iv, 239.

Individuality and the Moral Aim in American Education. The Gilchris, Report presented to the Victoria University, March, 1901. By H. THISELTON MARK. London, New York, and Bombay, Longmans, Greent & Co., 1901.—pp. xiii, 298.

The Wisdom of Passion, or the Motives of Human Nature. By SALVARONA. Boston, The Mystic River Book Co., 1901.—pp. 248.

A Student's History of Philosophy. By ARTHUR KENYON ROGERS. New York, The Macmillan Co., London, Macmillan & Co., 1901.—pp. ix, 519.

An Introduction to Psychology. By MARY WHITON CALKINS. New York, The Macmillan Co., London, Macmillan & Co., 1901.—pp. xv, 511.

Self-Control; or Life Without a Master. A short treatise on the rights and wrongs of men. By J. WILSON. Newark, N. Y., Courier Publishing House; New York, Lemcke & Buechner, 1898.—336.

The Meditations, and Selections from the Principles of Philosophy of René Descartes. Translated by JOHN VEITCH. Chicago, The Open Court Publishing Co., 1901.—pp. xxx, 248.

Kant's Theorie der Kausalität, mit besonderer Berücksichtigung der Grundprincipien seiner Theorie der Erfahrung. Eine historisch-kritische Untersuchung zur Erkenntnistheorie. Von M. WARTENBERG. Leipzig, Herman Haacke, 1899.—pp. viii, 294.

Das Problem des Wirkens und die monistische Weltanschauung. Mit besonderer Beziehung auf Lotze. Eine historisch-kritische Untersuchung zur Metaphysik. Von M. WARTENBERG. Leipzig, Herman Haacke, 1901.—pp. 256.

NOTES.

PROFESSOR STRATTON'S REVIEW OF MY PSYCHOLOGY.

In the July number of the PHILOSOPHICAL REVIEW Professor Stratton published a paper which is announced as a review of my recent volume *Grundzüge der Psychologie*. In the essential point I heartily agree with Mr. Stratton: if anyone ever had defended such absurdities as those which Mr. Stratton attacks, he would deserve all the contempt which Mr. Stratton justly displays. In one point only I disagree, and that point seems to me not quite unessential: not one of those absurd statements and theories is mine. They are not even caricatures of my ideas, they are mostly the direct opposite of what my book contains, and I insist with my full scientific responsibility that not a single sentence of Mr. Stratton's criticism refers to the real contents of my book. No one appreciates serious criticism more than I do, as I believe that progress in philosophy results from discussion, but if a critic makes me responsible for ideas against which I am fighting, and ridicules me for absurdities which he alone has invented, then it becomes my duty to protest—not against the arguments but against the method.

My book itself cannot be responsible for the eccentric distortions, as it has been welcomed among the German philosophers with unexpected warmth, and no one of the many other critics has so far fallen into such errors; and while Mr. Stratton finds the account of my philosophical views so "meagre" that he can only "gather" what I mean, the extensive discussions of them in Germany show clearly that others have understood them quite well. On the same day on which I noticed Mr. Stratton's paper, I received the program of the University of Bonn, in which the well-known Dean of the Theological Faculty, Otto Ritschl, devotes the entire hundred pages merely to a discussion, not of the psychology, but of the philosophy of the book. What Ritschl examines in a hundred pages Mr. Stratton settles in a few lines by a joke and an argument. The joke is that I call reality indescribable and yet give a description of it; as a matter of fact, I have so defined description that according to my definition my account of reality is certainly not description at all. But the argument is a much better joke. I have shown by a full discussion that the world of science, the world of describable and explainable objects, is logically dependent upon certain subjective categories; only in so far as reality is conceived under these categories, does it become nature. And now, one hundred years after Kant and Fichte, Mr. Stratton answers that according to my philosophy the scientific account of reality is "absolutely fictitious," and that the scientist does not give the truth but has "to lie about the whole matter," as the "facts" do not "warrant" his account. Mr. Stratton thus definitively

crushes with a few words not only my poor book, but incidentally also the *Critique of Pure Reason* and every other epistemological effort.

After this victory, he turns at once to the psychological problems, and discusses how psychical facts can be described and explained. My amusing theory of psychological description is, according to Mr. Stratton, as follows: Firstly, "facts or no facts, all must be reduced, willy-nilly, to complexes of sensations," as I imagine that sensations are describable. But after that is done I discover that it is in vain, as I must secondly "acknowledge" that sensations are not describable at all. Thirdly, to escape this difficulty, I describe the sensations "by the accurate account of the physical processes which accompany" them. It is one of Mr. Stratton's truest insights when he remarks, after his account of my theory, that "if he had planned a conception of mental life that would make it *undescribable*, he could not have done better."

My real theory, to which I have devoted the whole ninth chapter of eighty pages, is exactly the opposite. I do not proceed, urged by an irresistible caprice, to work over the content of consciousness into sensations, and discover afterwards that even the sensations are indescribable and thus useless for my purpose: no, the impossibility of describing directly any mental state whatever is, on the contrary, the starting point of my whole discussion. Directly describable is the physical world alone, which is the common object for all. To make mental contents at least indirectly communicable, they must be linked with physical objects. I find then that only one such connection is epistemologically necessary, that between the psychical sensation and the physical object which is *meant* by the sensation; and therefore I come to the conclusion that mental objects are indirectly describable only in so far as they can be understood as complexes of sensations. The view that mental contents have to be considered for the purposes of psychology as sensations is, therefore, not the beginning but the end of my theory, and the idea that sensations are to be described by an account of the physical processes which "accompany" them, is exactly the absurdity against which I again and again protest. If the account of accompanying processes had the slightest value for the description of mental contents, the whole analysis into sensations would be superfluous. My whole theory is based on the claim that the accompanying processes are not means of description. Mr. Stratton simply leaves out the "not" and then begins to demonstrate my foolishness.

It is hard to believe, and yet the distortion of my theory of explanation is still more grotesque. According to Mr. Stratton, I explain mental life through the actions of the brain because "the brain is a hidden possession." "The consciousness of poor Bertino whose brain was open to inspection by Mosso, would according to Professor Münsterberg's theory be left without any physical means of support. And the transparent jelly-fish must either find some covering for its simple nervous system or give up all claim to a psychic existence." With indignation he exclaims;

"Come to earth again!" Let me rather beg: come to my book again. I am unable to sketch in a few lines my real theory, which I have developed in the long eleventh chapter of my book. It is enough to say that in it everything depends upon the fact that the brain is never the object of inner perception for that subject whose mental states are to be explained, while the fact that it is hidden to others nowhere comes in question. More than that: I repeat again and again that the brain which is the possible object of outer perception, as such never comes in question for a philosophically clean psychophysical theory. I call it the chief fallacy of materialism to consider the mental states as related to the brain which the anatomist describes; I even twice use italics to warn beginners against the absurd misunderstanding that my theory refers to the brain which the outsider would find behind the skull—and yet all in vain, as Mr. Stratton's jellyfish attests.

My theories of description and explanation are so central to the whole system that anyone who has succeeded in substituting for them sheer nonsense is prevented from understanding anything else in the book. It is thus merely consistent that the critic reverses my opinions in all the minor points with the same completeness. When, for instance, he speaks of my psychophysics, he proves its impossibility by showing that it leads to two possibilities only which are both equally unacceptable to me. "In the one case we should be as far as ever from a solution of the problem; in the other case we should have taken refuge in an apperceptive act . . . and this the author's psychophysics abhors." He has not the slightest suspicion that this second position which I am said to abhor is just the one which I uphold throughout my whole discussion. Exactly the same happens in the case of my time-theory, or my feelings of unity, or my analysis of psychical forms, or my theory of identity; everything is at first transformed into a fairy tale and then shown up as absurd. It seems almost as if Mr. Stratton had retained from his experiments on inverted vision the tendency to see everything upside down.

He succeeds even in turning the polemical tendency of my book into its opposite. I have called it a book of battle, and Mr. Stratton interprets the remark as if my chief enemy were Wundt. With delightful irony he tells us: "the protagonist himself never admits a scratch, while James suffers severely, and Wundt is of course well nigh slain." The fact is that the philosophy of my book stands perhaps nearer to that of no one, unless it were Fichte's, than to that of Wundt. The question is not whether Wundt would acknowledge this himself; a teacher naturally feels more strongly the points in which his pupils differ than those in which they agree. But non-partisans see clearly that among all the pupils of Wundt I am about the only one who has fully accepted his voluntaristic view of reality, and that my philosophy is thus more Wundtian than that of any other psychologist. Only as to the definition of psychology do our ways diverge. No, the battle is not waged against James or Wundt, but against those psychol-

gists who do not see at all where the epistemological problems lie, who fight, with arguments fit for university extension-courses, for the "facts" against the "deductions," and who can triumph nevertheless over the philosopher by distorting his arguments.

Mr. Stratton closes with the hope that my book will be translated into English; I suppose he wants it as a warning example to American youth. I have declined all such requests so far because I believe that translations are desirable for popular writers, but that a really scholarly book ought to appear in English or French or German only. I am inclined to change this opinion after Mr. Stratton's review. If I change it, I shall allow the translation for the special purpose of showing even to those who avoid books in German that not a single argument which he attacks and ridicules has any similarity with the ideas of my book.

HUGO MÜNSTERBERG.

HARVARD UNIVERSITY.

PROFESSOR MÜNSTERBERG'S CRITICISM OF MY REVIEW.

Before taking up Professor Münsterberg's main charge that I have totally misrepresented his views, I cannot but express my extreme regret at the impression my review has made upon him, and perhaps upon others, that I was treating his work with contempt. It would certainly be an unbecoming attitude in anyone, and I feel the more pained in that I am personally and intellectually indebted to him in many ways. I sincerely sympathize with many important sides of his thought, and should wish to treat with courtesy even those of his doctrines with which I am unable to agree. I cannot too strongly express the wish, therefore, that I might recall whatever in my review gives an impression of disrespect.

It seems probable, however, that Professor Münsterberg has seen disrespect in passages which another would consider innocent enough. For instance, in explaining why he chooses the brain rather than some other part of the physical world to be the *quasi* cause of mental phenomena my review reads:

"Its logical appropriateness is consequently the decisive point in favor of the brain; it partakes of the nature of the physical world and yet is a hidden possession like our consciousness. Here, come to earth again, is practically the good old reasoning about the pineal gland and its simplicity and central position as appropriate to the unitary and unextended soul."

The expression 'come to earth again,' it is needless to tell an English reader, simply means that something like the pineal-gland argument here reappears among us. Mr. Münsterberg sees in this quiet phrase an *indignant exclamation* (addressed, apparently to our author himself) to come back to earth; and he retorts by begging me to come 'back to his book! So much depends upon the tone of a paper, that where he even once mistakenly attributes to me such *gaucherie* it must change for him the whole temper of my remarks. And it brings home to me this also, that if such

linguistic gulfs separate us when the reader has had seven or eight years of residence with us, what misinterpretations are not probable when one with much poorer opportunities deals with a book in a foreign tongue. So that in general I am quite ready to admit that in reading his large volume misunderstandings must have occurred.

But Mr. Münsterberg's charge against me is so sweeping, so wholesale, that it lacks the internal evidence of sobriety and judgment. If he had said that in several cases I had missed his point, I should feel inclined to answer, *peccavi*. But that not a *single* sentence of my criticism refers to the real contents of his book—that not a single argument that I attack has any *similarity* to the ideas of his volume—this I should hesitate to believe of any review whatever; and I shall certainly hesitate to admit it in my own case, where a painstaking effort was made to understand the author, where every page of his volume was read carefully, and read after a thorough study of his *Psychology and Life* (which is in our own language and expresses many of the leading ideas of his latest book), and also after a reading of his *Willenshandlung* and much of his *Beiträge*. So that taken in connection with the specific evidence I shall furnish later, it seems to me probable that Professor Münsterberg's charge against me would have been quite different if the regrettable impression of disrespect could have been avoided. This, I am afraid, has so irritated him that I cannot be sure that he is in a mood to judge with calmness how far my criticisms are well-founded. If, as Professor Münsterberg holds, Wundt would not be a trustworthy witness in regard to the faithfulness of his pupil, we might well believe that an author who feels that his doctrines have been treated with derision would be certainly no less inclined to magnify points of divergence, and to overlook the fundamental agreement between his own work and the account by his critic.

And now for the particular instances which he adduces in support of his general thesis. A considerable group of charges in regard to 'description'; its place with reference to sensations; that I jauntily bowl over the *Critique of Pure Reason*, and the like, are best answered by quoting at length one of the opening paragraphs of my review, where I am trying to present Professor Münsterberg's thought:

"But there comes a (logical) time when reality can no longer be merely valued and sympathized with, but must be communicated. And the only way to communicate it is to regard it as an object and to describe and explain it. The will therefore sets itself the task of describing and explaining that which in its very essence will not permit such treatment. It therefore becomes necessary to resort to artifice and force. Since reality is indescribable, the will—illustrating anew the adage that where there's a will there's a way—*makes* it describable. It takes the world of its own ultimate activity, and 'works it over' into a form that can be dealt with in a scientific manner. It first 'objectifies' reality, and then adopts the fiction that these objects are composed of elements. The physical world is

consequently treated as a system of atoms, the psychic world as made up of sensations, or even still simpler elements called psychic atoms. If one asks the author whether the facts warrant this atomic view of mind, he acknowledges that his whole conception is absolutely fictitious; the real mental process is not sensational or atomic in the least. He, personally, like Mr. Spenlow, would gladly have it otherwise, but his wicked partner, Logic, will not listen to the proposal. The inexorable logic demands explanation and description, and describe and explain we must even though we have to lie about the whole matter."

It is here evident that what I say is "absolutely fictitious" is not (as Professor Münsterberg reports me) the general scientific account of the world, but rather his own particular atomic view of consciousness. There is nothing in the *Critique of Pure Reason*, so far as I know, that is especially affected by this remark. And the word 'lie' that sounds so ugly when detached from its context is part of a jocose reference to the immortal Jorkins. A remark just preceding the quoted paragraph, that was really intended seriously and in which our author sees a joke—namely, that the 'real' world is supposed to be indescribable and yet he describes it—is one that, I have since found, has been seriously urged against him before.

It is also clear from my quotation that I do not (as he claims) make the transformation into sensations the starting point of his system, nor say that is due to caprice. On the contrary, I distinctly state his logical motives for working over the contents of consciousness into sensations—namely, that communication, by means of description, might be established. The need of communication and the impossibility of describing any 'real' thing is the logical beginning, in my account, exactly as in his protest. And the transformation into sensations which he makes me put 'firstly,' and criticizes me therefor, is really in my account, as in his protest, a logically subordinate thing. And, finally, I nowhere state, either in this paragraph or elsewhere, that the author starts out with the notion that sensations are describable, and later discovers that this is vain. When I say that he acknowledges that his ultimate psychic elements are indescribable, this is a plain statement of fact; for he does so acknowledge, both in his *Grundzüge* (p. 334) and in his present protest. His errors in these respects are the more striking since inexactness is what he is complaining of.

My criticism implies exactly, then, that all this elaborate artifice to bring about a scientific psychology ends in failure. As a science of mental processes it naturally should describe them. But since our mental acts are declared to be indescribable in their original 'reality,' and are then artificially transformed into sensations that are also indescribable, psychology is supposed to busy itself describing—something physical. If I made any error in my report, it was in identifying the particular physical thing whose description is to be called by courtesy psychological description. Professor Münsterberg seems to object to my calling it "the accompanying physical process," and would say, rather, "the physical object meant by the sensa-

tion." Waiving the point that a sensation just of itself never *means* anything, and where a person comes to mean something by it, its object is often not *physical* at all, his objection would seem to amount to little more than that the stone offered us for bread is not the kind of stone I supposed. For the force of my criticism this does not matter in the least. My thought was, that since the reduction to sensations is confessedly a device, and results in nothing better, after all, than an '*indirect*' description of the mental world, why not adopt a device that will permit the description to be *direct*? If sensations are indescribable, why reduce things to sensations: why not reduce them to something better—say, to a composite of sensation and relational activity, which is as directly describable as anything physical? The transformation into sensations thus defeats our very aim. The whole machinery, as I said in my review, seems to work as though planned to confirm the psychic world in all its original unintelligibility.

In regard to my "grotesque distortion" of 'explanation' in his system, he speaks almost exclusively of a side-illustration I used. I shall give later what was the kernel of my account of his doctrine. The basis for my reference to Bertino and the jelly-fish is a number of passages in the *Grundzüge* like the following:

"An *überindividuelles Objekt* can never stand in an unequivocal relation to an individual idea . . . The brain . . . is something absolutely individual, and as such it is well fitted to be brought into connection with individual ideas" (p. 427).

"If the organs of the head are thought of as objects of perception, as such they are as unsuited for the explanation [of psychic processes] as the arm or leg or moon or the stars" (p. 425).

It now turns out that by 'brain' he does not mean what Mosso and scientists generally mean by this word, but something that neither the person himself can perceive, nor can it ever possibly be perceived by "outsiders." It seems intended as a scientific fact, since it is made the basis of all scientifically explanatory psychology, and yet nobody can examine it either living or dead. I confess that I misunderstood him at this point.

But, as I have already implied, I feel that this was a side issue as far as my account of his doctrine of explanation is concerned; the heart of it (entirely passed over in his protest) which I mainly criticize, appears in the following passage from my review, against which I set a passage from his volume to show whether I have essentially misrepresented his account:

My review (p. 420).

The mental occurrence is left in the embarrassing situation of having been forced ('for purposes of explanation') into a world of things explicable, and is then denied *à priori* the very possibility of explanation.

The Grundzüge (pp. 430-431).

Psychic elements are not only without causal connection with one another, but even the connection between psychic element and brain process is entirely misconstrued when taken as a causal connection.

Its fellow psychic phenomena, according to Professor Münsterberg, do not explain it, because there is no causal connection amongst them. Its physical correlate, on the other hand, does not explain it, since there is no causal connection between mental and physical. To say, finally, that it is 'correlated' with something that is explicable is little more illuminating [etc.]. . . . The relation between sensation and brain-process is a 'purely logical' relation.

. . . If physiological psychology would always clearly understand that her right to correlate a sensation with a brain-process is derived from the correlation of this sensation with the sensed element of the object in the outer world, the purely logical character of this relation would come out more distinctly.

The main thing that I criticise in his view, therefore, is not that a perceptible or an imperceptible brain is selected, but that consciousness is so curiously 'transformed' for purposes of explanation that it is, if possible, even more inexplicable than at the beginning. My criticism would seem to be even more to the point if the final causal process that is supposed to explain indirectly the mental process, is lodged, not in the brain as understood by anatomists and physiologists, but in some brain that no one can inspect.

In regard to 'apperception' and its place in his psycho-physics, my full remark, which Professor Münsterberg abbreviated, was that if apperception (as the bond between mind and body) be taken as an "*act belonging to the indescribable world of ultimate reality*," this is abhorrent to his psychophysics. My objection is in no wise met by Professor Münsterberg's avowal that he personally does so take it; this would not prove that it was entirely consistent with his psychophysics as a science. For this 'real' apperceptive act is by Mr. Münsterberg's hypothesis indescribable and incommunicable, and therefore he introduces a (for him) indescribable and inexplicable bond between mind and body where science requires that the relation of the two be so stated that it may be 'communicated' and scientifically understood.

And finally, my mention of James and Wundt as having suffered in the fray was never intended to mean that the polemic was aimed chiefly at these. It would be wicked and disrespectful, I fear, to say that one does not have to read far in the volume to see that it is aimed chiefly at people with extension-lecture arguments. But, nevertheless, James and Wundt, although usually without being mentioned by name, catch some hard blows, and I reported the fact. James's sympathy with the psychical researches, and his idea that will can make an irruption into the course of natural law, as well as Wundt's doctrine that the higher apperceptive processes are an exception to the general parallelism that exists between brain and mind—these,

to give a few instances, are certainly hit, although it would now appear to have been done unintentionally.

These, I suppose, were the points in my review that Professor Münsterberg found most objectionable. There is a significant absence of disavowal of the very doctrines that I deal with most prominently in my paper. The first of these is that psychic processes are *timeless*. This, I point out, gives difficulty at every turn, but especially in carrying out his 'parallelism,' since the mental phenomenon is not only without causal connection with its 'corresponding' brain-process, but cannot consistently be said to have even any time-connection with it. The 'parallel' between the two thus becomes exceedingly difficult to follow. The other doctrine is that all mental processes have to be regarded, for psychological purposes, as *sensations* merely. What seem to me to be the objections to this procedure are pointed out at greater length than in any other case. Because of the very prominence of these in my review, Professor Münsterberg could have done his greatest execution by simply showing that these were not his doctrines at all. That he does hold them, of course no one can doubt who has followed his writings or the criticisms of them from various quarters. But for completeness, and as part of the documents of the case, I give the following :

In regard to time ;

"That which is psychic exists *an und für sich* neither in space nor in time." (*Grundzüge*, p. 267.)

"Psychic atoms are consequently non-spatial and timeless." (*Grundzüge*, p. 268.)

"Presentations themselves, as psychological facts of consciousness, are quite as little of long or short duration as they are rectangular or star-shaped ; and are quite as little temporally before or after each other as they are spatially enclosed in one another or piled on top of each other." (*Grundzüge*, p. 247.)

For his sensationalism ;

"Everything psychic consists of sensations and of nothing but sensations." (*Grundzüge*, p. 429.)

"It is one of the tasks of psychology to give a scientific description of psychic contents. We are now aware that this is possible only in so far as these contents are composed of sensations. If psychology is to accomplish its task it must accordingly postulate that this is actually the case, and that even those processes that are not presentations consist of sensations. To satisfy this postulate, there is necessary a series of transformations and substitutions that will meet these requirements. . . . [Psychology] therefore, ceaselessly transforms psychic objects conceptually so that they become complexes of sensations, and believes in doing so that through this analysis it lays bare merely what is actually there." (*Grundzüge*, pp. 331-332.)

I leave the reader to judge whether a single one of the statements and theories that I criticize bears any resemblance to the contents of the book.

GEORGE M. STRATTON.

UNIVERSITY OF CALIFORNIA.

PROFESSOR STRATTON'S REJOINDER.

In a manner which honors him and for which I am grateful, Mr. Stratton retracts fully whatever in his review gave an impression of disrespect, and as he seems ready to acknowledge that disrespect is shown to a serious book wherever it is ridiculed and treated as an absurdity, he practically withdraws his whole review. If he had closed his rejoinder with that first paragraph, I should not have added a further word to the discussion, inasmuch as my criticism was not a debate of arguments, but a protest against a method. But as he goes on through several pages to show that he was after all not so far wrong as I made it appear, I am obliged to add a few remarks in regard to the matter itself.

Whoever will take the trouble carefully to compare my protest and Mr. Stratton's explanations, cannot have any doubt that he acknowledges every point which I have adduced as a misunderstanding. This is, in some cases, at first glance, not perfectly apparent. In the case of "description," for instance, he says that the thing he attacked is indeed not my opinion, but that my real opinion he would attack too. "The stone offered us for bread is not the kind of stone I supposed." This manœuvre is in this case the less fortunate as his objection now results merely from a play with the word "indescribable." This play reaches its climax when he accuses me of "striking errors." I was absolutely correct in my statement, and even the page which he quotes shows it unless the reader too confuses "indescribable" and "not directly describable."

In other cases he makes his retreat less apparent by saying that his erroneous statements referred to side issues. That is a mistake every time. In the case of "explanation" for instance, if he came to understand my brain theory, which seems to him the side issue, his whole difficulty with the "main thing" would at once disappear. But I can really not clear up here in a few lines what I wrote a large book to explain. And in the same way I cannot repeat here the reasons why I dissolved ideas into sensations, and not, as Mr. Stratton suggests so casually, into sensations and "relational activity." This one suggestion is sufficient to show me that my whole book is still closed to my critic; the proof that relational activity cannot be used for psychology might be called the one central thought of my whole volume. And all this is not a possible linguistic slip like the one which Mr. Stratton has discovered on my side; it refers to misconstructions of whole chapters, not of words.

The third refuge of Mr. Stratton is to insist that there are some paragraphs in his review which I did not show up as distortions of my meaning. That is true; I did not discuss the "time-sense" and the "sensation" question—simply because it was impossible to do so in a few lines where I needed whole chapters in my book, but I did not overlook them. I stated in my criticism especially that his rendering of these smaller points is just as mistaken as in the chief cases. The quotation of a few detached

sentences does not mean anything; any philosopher, even a materialist, can quote from my volume some lines which seem to uphold his system. If I denied to Mr. Stratton's expositions any similarity with my ideas, it was not a certain external similarity of words but the inner similarity of thoughts, and I regret that I am quite unable to withdraw a syllable of my sweeping statement. May I add that "the internal evidence" does not render this less likely, as my book is meant as a unity, and whoever misunderstands its chief issue must necessarily misunderstand every single part, and I see in this fact, in all seriousness, the best excuse for my critic, whose work in the field of experimental psychology I have always highly appreciated.

HUGO MÜNSTERBERG.

TO THE EDITORS OF THE PHILOSOPHICAL REVIEW:

In your notice, in Vol. X, 5, of Professor Yrjö Hirn's able and valuable *Origins of Art*, I find that your reviewer follows Professor Hirn in an erroneous interpretation of my views. This I might allow to pass without remark but for the request made by Professor Hirn in the letter quoted below. Your reviewer says "Mr. Marshall makes the artist's main purpose the commending of himself to his audience"; and in general gives to the reader the impression, as Professor Hirn also does in his book, that I conceive of the 'Art Impulse' as leading the artist to act through a *conscious desire* to attract by pleasing.

I cannot but be surprised at this misinterpretation, inasmuch as I have distinctly argued in opposition to such a view, which indeed is evidently incompatible with my contention that artistic production is due to an inherited instinct: for, as I have elsewhere argued, thoroughly established instinctive reactions are independent of conscious determination.

My position in this respect is made clear, *e. g.*, on page 100 of my *Pain, Pleasure, and Æsthetics*, and in my *Æsthetic Principles*, pages 61 (where I use the phrase "blind as to the end in view") 63 and 67 ff.

I have always spoken of the unconscious end of artistic activities as the production of *objects* and *objective conditions* which will attract by pleasing; and hold that countless generations of artists have been producing such objects altogether careless of, and unconscious of, their sociological function or of their immediate significance.

Some time since, I wrote to Professor Hirn calling his attention to his misapprehension of my view in this particular, and have from him a letter in which he says "I felt very sorry indeed, when I saw that I have given a false representation of your views about the art-impulse . . . I ought, of course, to have referred to your passages on p. 100 in *Pain, Pleasure, and Æsthetics* and on pp. 51 ff. in *Æsthetic Principles*."

"I do not think there is much hope of an early new edition of my book, in which I might be able to correct my misapprehension on p. 25. But the *Origins of Art* will perhaps be translated into Swedish, and in that case I

shall make a point of correcting the passage in question. If you should write anything on the subject, I hope you will mention that I fully admit my mistake."

I transcribe this last paragraph of Professor Hirn's letter with especial satisfaction because it serves so well to show the fine fiber of the man.

HENRY RUTGERS MARSHALL.

At the time when the review of Professor Hirn's book was written, direct reference to Mr. Marshall's own account of his theory, which might have prevented the use of the misleading term 'purpose' was unfortunately impossible. The reviewer did not, however, think that Mr. Marshall's explanation of the art impulse referred to a deliberate intention; in fact, an earlier sentence in the review distinctly points out Professor Hirn's misunderstanding of the Baldwin-Marshall theory as demanding an actual audience to be 'attracted by pleasing.'

MARGARET FLOY WASHBURN.

We give below a list of articles, etc., in the current philosophical journals:

THE PSYCHOLOGICAL REVIEW, VIII, 5: *J. R. Angell* and *Warner Fite*, Contributions from the Psychological Laboratory of the University of Chicago: I, Further Observations on the Monaural Localization of Sound. II, New Apparatus; *C. Lloyd Morgan*, Further Notes on the Relation of Stimulus to Sensation in Visual Impressions; *J. H. Bair*, Studies from the Psychological Laboratory of the University of Michigan: Development of Voluntary Control; Psychological Literature; New Books; Notes.

INTERNATIONAL JOURNAL OF ETHICS, XII, 1: *J. S. Mackenzie*, The Use of Moral Ideas in Politics; *Thomas Davidson*, The Task of the Twentieth Century; *Charles S. Devas*, Monopolies and Fair Dealing; *Eliza Ritchie*, Women and the Intellectual Virtues; *G. E. Moore*, The Value of Religion; *A. L. Benedict*, Has the Indian Character been Misjudged? Discussions; Book Reviews.

THE MONIST, XII, 1: *G. Sergi*, Some Ideas Concerning Biological Heredity; *R. M. Wenley*, Philosophy of Religion and the Endowment of Natural Theology; *Cesare Lombroso*, The Determining of Genius; *Ludwig Boltzmann*, On the Necessity of Atomic Theories in Physics; *Editor*, Kant's Significance in the History of Philosophy; Literary Correspondence; Discussions; Book Reviews.

KANTSTUDIEN, VI, 2 u. 3: *W. Kabitz*, Studien zur Entwicklungsgeschichte der Fichteschen Wissenschaftslehre aus der Kantischen Philosophie. Mit bisher ungedruckten Stücken aus Fichtes Nachlass; *F. Marschner*, Kants Bedeutung für die Musik-Ästhetik der Gegenwart, II; *A. Vannérus*, Der Kantianismus in Schweden; *P. Natorp*, Zur Frage der logischen Methode. Mit Beziehung auf Edm. Husserls "Prolegomena zur reinen Logik";

F. Krueger, Eine neue Sozialphilosophie auf Kantischer Basis ; Recensionen ; Selbstanzeigen ; Bibliographische Notizen ; Sonstiges neu Eingegangenes ; Varia.

ARCHIV FÜR SYSTEMATISCHE PHILOSOPHIE, VII, 3 : *Franz Staudinger*, Empirische und rationale Methode in der Philosophie. Dargelegt an einer Besprechung von Ehrenfels, System der Werththeorie ; *Benno Erdmann*, Die psychologischen Grundlagen der Beziehungen zwischen Sprechen und Denken (Fortsetzung) ; *Paul Natorp*, Zu den logischen Grundlagen der neueren Mathematik (Schluss) ; Jahresbericht ; Zeitschriften ; Bei der Redaktion einiegangene Schriften.

VIERTELJAHRSSCHRIFT FÜR WISSENSCHAFTLICHE PHILOSOPHIE, XXV, 3 : *J. W. A. Hickson*, Der Kausalbegriff in der neueren Philosophie und in den Naturwissenschaften von Hume bis Robert Mayer, IV. ; *J. Petzoldt*, Solipsismus auf praktischen Gebiet ; Besprechungen ; Philosophische Zeitschriften ; Bibliographie.

ZEITSCHRIFT FÜR PSYCHOLOGIE UND PHYSIOLOGIE DER SINNESORGANE, XXVI, 5 u. 6 : *G. Heymans*, Untersuchungen über psychische Hemmung ; *F. Kiesow* u. *R. Hahn*, Beobachtungen über die Empfindlichkeit der hintern Theile des Mundraumes für Tast-, Schmerz-, Temperatur-, und Geschmacksreize ; Literaturbericht.

XXVII, 1 u. 2 : *C. Hess*, Zur Kenntniss des Ablaufes der Erregung im Sehorgan ; *Robert Saxinger*, Ueber den Einfluss der Gefühle auf die Vorstellungsbewegung ; *Marx Lobsien*, Experimentelle Untersuchungen über die Gedächtnissentwicklung bei Schulkindern ; *Wilhelm Sternberg*, Geschmacksempfindung eines Anencephalus ; *F. Kiesow* u. *R. Hahn*, Ueber Geschmacksempfindungen im Kehlkopf ; Literaturbericht.

REVUE DE MÉTAPHYSIQUE ET DE MORALE, IX, 5 : *C. Bouglé*, L'idée moderne de la nature (différenciation, hérédité, concurrence) ; *G. Cantecor*, La morale ancienne et la morale moderne ; *J. Wilbois*, L'esprit positif (2^e article) ; Enseignement ; Questions pratiques ; Supplément.

REVUE PHILOSOPHIQUE, XXVI, 8 : *C. Bouglé*, Le procès de la sociologie biologique ; *E. Récéjac*, La philosophie de la grace (1^{er} article) ; *F. Le Dantec*, La méthode déductive en biologie (*fin*) ; Analyses et comptes rendus ; Revue des périodiques étrangers ; Correspondance.

XXVI, 9 ; *Gustave Le Bon*, Les projets de réforme de l'enseignement ; *E. Récéjac*, La philosophie de la grace (2^e article) [*fin*] ; *F. Paulhan*, La suggestibilité d'après M. A. Binet ; Analyses et comptes rendus ; Revue des périodiques étrangers ; Correspondance.

REVUE NÉO-SCOLASTIQUE, VIII, 3 : *Dr. Hallez*, Considérations sur le beau et les beaux-arts ; *G. De Craene*, L'abstraction intellectuelle ; *D. Mercier*, L'unité et le nombre d'après saint Thomas d'Aquin ; *A. Thiéry*, Le tonal de la parole (*suite et fin*) ; Mélanges et documents ; Comptes-rendus.

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[N. B.—(a) stands for original articles, (b) for book notices, (d) for discussions, (n) for notes, (r) for reviews of books, and (s) for summaries.]

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