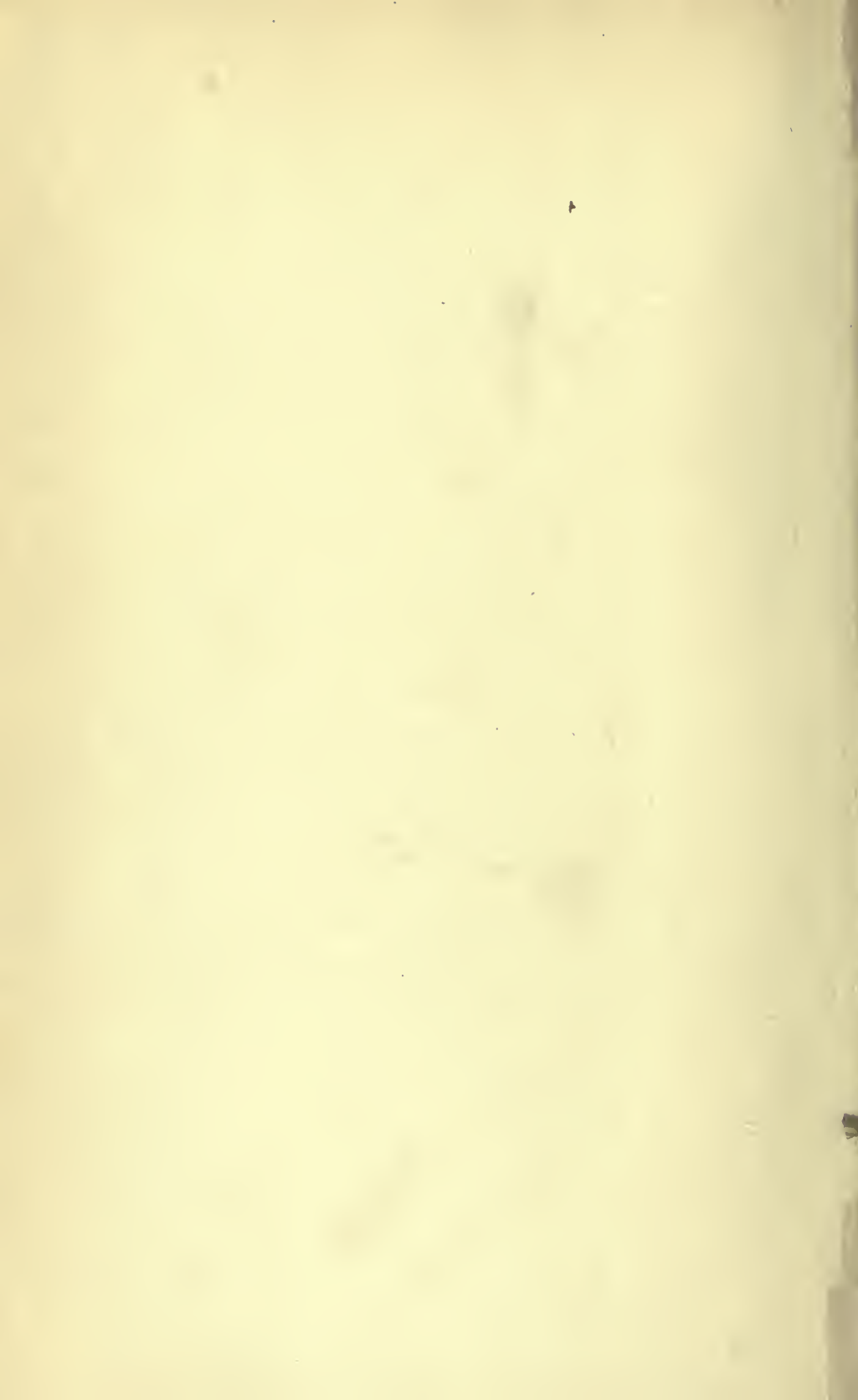




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THE

PHILOSOPHICAL REVIEW

EDITED BY
J. E. CREIGHTON AND ERNEST ALBEE

OF THE SAGE SCHOOL OF PHILOSOPHY, CORNELL UNIVERSITY

WITH THE COÖPERATION OF
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THE PHILOSOPHICAL REVIEW.

ON THE GENESIS OF THE ÆSTHETIC CATEGORIES.

THE purpose of this article is to consider some of the generally accepted æsthetic categories in the light of social psychology. The thesis to be maintained is that the distinctive characteristics of æsthetic feeling or of the æsthetic judgment (æsthetic value) are due, in part at least, to the social conditions under which the æsthetic consciousness has developed. This thesis may be presented in three parts :

I. The æsthetic consciousness in its beginnings is connected with art rather than with nature.

II. The relation of the æsthetic (appreciative) consciousness to art is not that of cause, but that of effect. Art has not arisen primarily to satisfy an already existing love of beauty. It has arisen chiefly, if not wholly, from other springs, and has itself created the sense by which it is enjoyed.

III. Art has its origins, almost without exception, in social relations ; it has developed under social pressure ; it has been fostered by social occasions ; it has in turn served social ends in the struggle for existence. In consequence, the values attributed to æsthetic objects have social standards, and the æsthetic attitude will be determined largely by these social antecedents. Or, in other words, the explanation of the æsthetic categories is to be sought largely in social psychology.

Before considering the propositions *seriatim*, it will be convenient to note briefly what the characteristics of the æsthetic consciousness are. In this, the aim will be not to present an exhaus-

tive list, but rather to indicate categories which have been generally and widely recognized as distinguishing the æsthetic from other values such as the ethical, logical, or economic, or from other pleasures such as the agreeable. And, amid the seeming multiplicity of such marks or differentia which have been put forth by writers on æsthetics, there is after all a considerable degree of uniformity.¹ These may be grouped under three heads :

1. The æsthetic judgment (*a*) expresses a value and hence implies a subjective element ; but (*b*) this value is not apprehended *as* subjective, private, and relative, but rather as objective, independent of personal states or conditions, and hence as appealing actually or nominally to others.

This characteristic has been described in various terms. Volkelt² denotes it as a fusion of feeling and contemplation (*Schauen*), or the association of an element besides sense impression, or the unity of form and content corresponding to percept and feeling respectively. Santayana³ regards it as "objectivity," or "pleasure regarded as the quality of a thing." Home uses the phrase "spread upon the object." Kant employs the terms universality and necessity. By universality he has sometimes been supposed to mean that all agree in their æsthetic judgments. This is analogous to supposing that when Kant asserts the universality of *a priori* judgments in pure physics he means that a savage and a Newton would agree on the causes of eclipses. Kant means rather that the judgment 'This is beautiful,' as contrasted with the judgment 'This pleases me,' implies an elimination of the subjective attitude, such as is involved in the judgment 'This body is heavy,' as contrasted with the statement 'If I carry this body, I feel the pressure of its weight.' That such is the correct interpretation, and that by universality Kant is giving in the terms of the critical philosophy the equivalent of Santayana's objectivity, is evident from Kant's own words : "He will speak of the beautiful as though beauty were a quality of the object."⁴ Cohn⁵ would avoid the misunderstanding to

¹ J. Volkelt, *Zeitsch. für Philos.*, Bd. 117, pp. 161 ff.

² In the essay cited above.

³ *The Sense of Beauty*, 1896, pp. 44-49.

⁴ *Kr. d. Urtheilskraft*, § 6.

⁵ *Allgemeine Ästhetik*, Leipzig, 1901, pp. 37-46.

which the term universality is liable by substituting the term '*Forderungscharakter*.' The æsthetic value appeals to us with a demand for recognition. It may be actually realized by few, but this does not detract from its imperative character. It is 'super-individual.' Further, when Bain names 'shareableness' as characteristic of æsthetic feelings, we have a recognition of the same attitude. It implies that my attitude toward the æsthetic object is not individual, but is possible for any of my fellows.

2. A second widely recognized characteristic of the æsthetic attitude is expressed negatively as a detachment, or freedom from desire, and positively as an immediacy, or purely intensive quality, in the pleasure experienced. The value does not call us to go farther for its full attainment, and hence that deepest feeling of reality is absent which arises in the actual strain of effort, or in the clash of conflicting wills and egoistic appropriation. This characteristic appears under diverse names: in Plato, as the pure pleasures independent of desire; in Schopenhauer, as the stilling of the will; in Kant, as disinterestedness or a contemplative attitude; in Schiller, as play. In recent writers, who, I think, tend to magnify one of the means of this detachment, it is semblance, imitation, conscious self-illusion, or make-believe. Cohn prefers the term intensive or immanent value; the former, as opposed to the 'consecutive' value of the useful, which is valued as a means to an end; the latter, as opposed to the trans-gredient value of the true and good, which point beyond themselves for significance or achievement. The work of art is a closed unity. The frame of the picture has an important function. The æsthetic object or world is a world apart.¹

3. A third characteristic of the æsthetic is that stated by Volkelt as "widening of our life of feeling toward the [typical, comprehensive, and universal]." This characteristic may not be equally evident in all grades of æsthetic feeling. It is more conspicuous in the art of poetry than in that of architecture. Aristotle and Hegel emphasize the universality of the æsthetic object. It expresses the idea. It gives the human and not merely the par-

¹ For a forcible illustration of this in the principles of tragedy, see Lipps, *Der Streit über die Tragödie*, 1891.

ticular. An allied principle appears in Tolstoy's requirement that art shall stimulate human sympathy. Kant does not admit it among the marks of pure, *i. e.*, formal, as contrasted with dependent beauty, but it is widely recognized.

There are other marks which have been held to characterize æsthetic value, but as the purpose of the paper is not to enumerate these categories exhaustively, but to explain certain of the more generally accepted of them, the three already mentioned will suffice.

Assuming, then, that universality or objectivity, disinterestedness or detachment from reality, and a widening of sympathy or an apprehension of the broadly significant, characterize the æsthetic, can we go beyond these categories to seek any explanation for their genesis? Such an explanation may be sought in three fields: (*a*) in biology; (*b*) in psycho-physics; (*c*) in social psychology.

A convenient illustration of (*a*) is offered by the theory of Groos regarding play and the arts which grow out of play. Play, with the psychological attitude of make-believe, is a practice by the young of activities which are to be of use in the struggle for existence later on. Illustrations of (*b*) are furnished by the usual explanations for universality and objectivity. In many cases, æsthetic pleasure is due to ease of adjustment, which, in turn, is favored by unity, symmetry, rhythm, etc. Hence, as the minds of men are similarly constituted in this respect, it may be presumed that objects in which these qualities are conspicuously present will give pleasure to all. As regards objectivity, it may be pointed out that the eye and the ear are the preëminently æsthetic senses. But these are just the senses which objectify all their qualities — color, form, sound — and do not demand private appropriation of the object.

Santayana offers a more detailed psycho-genetic explanation. The tendency to regard our emotional reaction as the quality of a thing "is the survival of a tendency, originally universal, to make every effect of a thing upon us a constituent of its conceived nature." Emotions, pleasures, pains, were thus all regarded as objective by an animistic and primitive consciousness. We have now transferred most of these elements to the subjective side of

the account, but the æsthetic pleasures are still objectified. The reason for this survival is easy to discover. For, whereas in eating or touching we may first perceive the object, and then later, when we taste or manipulate it, get a new and distinct sensation of pleasure, in the case of the purely æsthetic pleasures, on the other hand, the pleasure arises at once in the act of perception, and hence is naturally regarded as inseparable from the object.¹

It is not necessary, for the purpose of this paper, to deny that each of the explanations cited may furnish elements toward a complete account. But there is a fact not explained by them, and it was reflection upon this which led, in the first instance, to the theory presented in this paper. The fact in question is this : *Æsthetic pleasure is not always objectified, but under certain conditions wavers between the subjective and the objective.* When I see a new picture or hear a new piece of music, or attend the presentation of a drama, particularly if I distrust my judgment in the special field in question, I am very apt to express my first judgment in the form 'This pleases me' or 'I like it.' What kind of pleasure does it give me? It would seem very difficult to maintain that the pleasure is not æsthetic. And yet it is not objectified. But, as I continue to look or to listen, if I find that the work not only gives a superficial and momentary thrill, but rouses a deep and lasting emotion ; if it appeals not merely to a passing mood, but to the wider reaches of thought and feeling ; in a word, if it appeals not to the more particular, but to the more universal within me, my attitude changes. Instead of 'I like it,' it becomes, 'This is fine !' instead of 'It impresses me,' it becomes 'This is sublime !' instead of 'I admire that character,' it becomes 'That is heroic !' How is this process of wavering and final fixation of attitude to be interpreted? It cannot be explained upon the basis that eye and ear are the universally objectifying senses, for it is not possible to make my judgment as to color waver between the subjective and the objective attitude. Upon Santayana's hypothesis, we should be obliged to say that in passing from 'I like it,' to 'It is beautiful,' we are falling back into a more naïve attitude. The explanation which I desire to

¹ *The Sense of Beaut* , pp. 44-49.

submit is that, in making this change, we pass from a private or individual to a social standard of value. The elimination of a personal and subjective attitude is equivalent to the substitution of a social and objective attitude, and, so far as I can analyze my own processes, the universalizing or socializing of the standard is the ground, rather than the consequent, of the objectifying. I do not mean by this that I look around to see how the rest of the company are affected. I may do this. But it might be that, while all the company approved, I should yet fail to sympathize with them, or *vice versa*. The community of sentiment to which my standard refers may not be that of my actual spectators. It is, of course, that of real or supposed experts. It is this which gives it the normative or imperative character. The basis for this social reference, and for the distinction between the numerical and a really social universality, will be shown in the exhibition of the three parts of the thesis announced at the outset of the paper, which we may now consider.

I. That the æsthetic consciousness is at the beginning connected with art rather than with nature requires no proof here. Admiration of natural scenery is relatively late in the development of child or race. Even the art which 'imitates nature' by reproducing animal or plant forms in carving or color, by no means presupposes an æsthetic appreciation of the objects reproduced. The animal or plant may be the ancestral totem, or the prized article of food, or the religious emblem. Nor does the impulse to imitate or reproduce depend upon the discovering of beauty in the object. It is in its beginnings quite independent.

II. The second proposition may receive fuller statement, although the evidence on which it rests has appeared in print. The proposition is that art-production is prior to art-appreciation and is its cause rather than its effect. This is a reversal of the usually assigned or implied order. Text-books on æsthetics generally begin with the analysis of beauty or æsthetic appreciation, and treat art-production as subsequent, or at least as not determining the sense of beauty. This is probably due to the fact that until recently the art which was studied was the art of peoples at the period of highest artistic development. Recent work

on the origin and history of art affords the basis for a different interpretation. It has been shown that art has its origin, not in any single impulse, much less in any desire to gratify an already existing æsthetic demand for beauty, but rather in response to many and varied demands, economic, protective, sexual, military, magical, ceremonial, religious, and intellectual. Some illustrations of these varied origins of art may be briefly considered.

The geometric patterns found extensively on pottery might seem to be evidently intended to gratify the æsthetic sense by the 'ease of apperception.' But Holmes has shown these to be due to the conservatism of the savage, who preserves thus the pattern of the basket in which his clay pottery was formed and 'fired.'¹ Another illustration of conservation of a technical motive which becomes æsthetic in another stage of the art is seen in the survivals in Greek architecture of the forms of wooden rafter-ends as ornamental features of the stone construction.

Another slightly different motive appears clearly in the Indian drinking vessels which are exhibited in the Field Columbian Museum, Chicago. The American Indians naturally used as drinking vessels the various forms of gourds which were ready to hand. When they began to make pottery vessels, these were at first made in imitation of the gourds. The series of forms on exhibition shows all stages, from the complete reproduction of the gourd-form to the retention of only a few conventionalized features. Animal decorations on pottery cannot be accounted for in this way, but we know that in many cases the reproduction has religious or magical significance. The palaces and sculptured reliefs of Assyria tell the story of the king's achievements in war and chase, and sprang from the desire to commemorate his glory and minister to his pride. The great achievements of Greek art, in temple, in sculpture of the gods and heroes, and in tragedy, were in source and purpose chiefly religious; although, no doubt, the keen æsthetic sense developed rapidly in the appreciation of the qualities of line and measure due originally to constructional or other demands, and became a stimulus and reinforcement to the original purpose.

¹ Report, Bureau of Ethnology, Vol. VI, 1884-5, pp. 195 ff.

Self-decoration, whether in the form of dress, ornament, or tattooing, is due to a variety of motives. To show that the wearer belongs to a group or an order is one of the most common, which appears even to-day in military or other uniforms and insignia. Religious or other ceremonial or historic motives are prominent in the decorations with totemic emblems or for festal occasions. Protective or erotic purposes are served by special articles of dress.¹

The marvelous development of realistic sculpture in Egypt was due, according to Perrot and Chipiez,² not to any æsthetic motive, but to the magical or religious belief that, if a statue which should be the exact likeness of the deceased were provided, the 'ka' or 'double' would find in it a second body or dwelling, when the embalmed body should have perished. The beautiful painting on the walls of the Egyptian tombs owed its existence to the connected belief that the 'doubles' of the slaves and of the food there portrayed would be at the service of the deceased in the other world.

In the arts of motion, the influence of magical, military, erotic, and religious motives is also prominent. The dance before the chase or battle, the mimes at agricultural festivals, or at initiation ceremonies, which seem to the uninstructed on-looker crude forms of art, are to the minds of the actors entirely serious. They give success in the real activities which follow these symbolic acts. They bring the rain or sunshine or returning spring. The stimulating effect of music upon the warrior, the influence of sex in dance or song, the influence upon pictorial art of the desire to convey information, the influence of the desire to commemorate the orator's deeds, or those of a patron, upon the development of epic and ballad, need no illustration.

No allusion has been made in the above to the play-factor which, from Plato to Schiller, Spencer, and Groos, has been found in art. But, as a result of the studies of Groos and other recent writers, it is now possible to place this play-factor in closer re-

¹ Schurtz, *Urgeschichte der Kultur*, 1900, pp. 380-411, is a convenient recent account.

² *History of Ancient Egyptian Art*, Chap. III.

lation to the serious activities than was formerly the case. It has been shown that the play of children as of animals is largely an experimentation with instinctive activities. It is as real to them as anything which they do. On the other hand, the interest felt is immediate, not remote, as in the case of most employments of adult civilized life. It is this which gives play its sense of freedom. And it is the sense of freedom and of power which finds added enhancement in the make-believe activities of certain of the arts, and hence gives to drama and music a part of the fascination which makes them enjoyed for their own sakes, though originated for other ends. Moreover, just as many of the games of childhood, and as the hunting, races, and sports of men, represent former serious activities of the hunting stage, when the elements of hazard and tension and immediate interest were present, which have now disappeared from the commercial and agricultural life, so the arts of civilization, many of them, reproduce, in elaborated and refined form, the emotions of stress, and contest, and victory, which belonged to the earlier life. In any case, for the purpose of this paper, it is sufficient to note that art, as giving expression and reinforcement to the sense of freedom, has been a powerful factor in the development of the appreciative feeling.

Granted, however, that, as regards its end and content, art has sprung into being not for its own sake, but from the various motives noted, is not all this beside the mark as regards the essentially artistic element—the form? Granted that primitive man wished to propitiate the deity, or gain the favor of the opposite sex, or heighten his courage, or relate the deeds of himself or his clan, why need he do it in dance or music, in epic or lyric, and not in less artistic forms?

The answer to this has already been given in part. In the case of magical representations and conventional reproductions from conservative tendencies, the end determines the form. Secondly, it is freely admitted that the principles of ease of apprehension and of heightening or stimulating the consciousness—principles of individual psychology—may be used successfully to explain part of the artistic development and æsthetic delight. But for still other factors we must seek an explanation in the

third proposition stated at the outset, viz : Art is essentially social in its origins and development. Before considering this, however, we may sum up the significance of the second proposition in the statement that the value of early art was not distinctly isolated and differentiated as æsthetic. Such distinct emergence was the outcome, not the origin, of artistic production.

III. The third proposition, concerning the social origin of art, needs no proof. Grosse, Bücher, Brown, Wallaschek, Hirn, Gummere, and others have brought together the evidence from a multitude of observers, as well as from historic examples. Dance, song, and mime, have always been social expressions and implied attendant social satisfactions and pleasures. Decorations, ceremonies, temples, pictures, and stories have evoked social feeling, and have been created and developed with constant reference to social approval.

But, while it is unnecessary to repeat here the evidence for this, it is necessary to analyze what is denoted by the term 'social' in this connection. To say that art is social in origin means: (a) first and least important, that it arises, whether as dance, song, drawing, decoration, recital, or mime, when several people are together. Hence, by the simplest law of contagiousness, or 'imitation of the emotions,' its effect is not only shared by all, but is strengthened and reinforced, both by the infection from the joy or grief of others, and also by the mere social or gregarious feeling itself. These effects are experienced even by such a merely numerical group as now assembles to hear a concert or see a play. Even this measure of sociability goes beyond a numerical multiplication of the feeling experienced by an individual. It transforms its quality as well as increases the quantity.

(b) More important than the sociability resulting from contiguity and imitation, is the social consciousness of a group bound together by ties of a common blood or common interest. In the first place, the art expresses the joy or grief or pride or heroism, not of an individual, nor of an indifferent person, but of a member of a group. Before any of the group can enter into the art and experience the emotion, he must be a member of the group; *i. e.*, he must know the ideas and imagery, must

cherish the beliefs and ideas, must share the common interest, and hence be in a condition to feel as a social consciousness. In the second place, the member of a group of this sort has his feelings reinforced, not merely by imitation of the emotions of others, but by the constraining and compelling group-authority. For the Hebrew not to join in the song of praise to Jehovah, or for the Australian at an initiation ceremony to decline to play his part, would mean not merely æsthetic indifference, but disloyalty to the group. The quality of the æsthetic feeling is further heightened and transformed, not only by gregariousness, but by the joys of common glory, common victory, and common possession, or by the grief of common loss.

This second and higher kind of social consciousness is very commonly the condition under which primitive art is exercised. The festal observances celebrated at birth, marriage, and death, at initiation into manhood, or in connection with change of seasons, the celebrations of victories in chase or war, the recitals and chorals, the work-songs and war-dances, the temples and emblems, all appeal to such a social consciousness.

A peculiarly striking example of this group-influence is seen in certain phases of the comic. It is not necessary to accept in its entirety Bergson's thesis that the comic is the equivalent of the strange or the odd, to recognize at least this much of truth, that this is often the case, and that the weapon of ridicule is one of the most potent in the armory of the group for enforcing the group-standards upon the would-be individualist. The man who 'doesn't see anything to laugh at' is usually the subject of the joke, and therefore, temporarily, at least, out of the group. The ingenuity which groups of children display in controlling the new scholar by ridicule is well known. Aristotle's definition of the comic as a species of the deformed is thus given a more social standard by which deformity is estimated.

(c) Yet a third aspect of the social origin of art is the relation between the artist and the spectator or hearer. Even more palpably in primitive art, and in the child, than in the artist of maturity, are the expressive function of art and its appeal to social judgment apparent.¹ Any intercommunication presupposes cer-

¹ Cf. Baldwin, *Social and Ethical Interpretations*, pp. 147-153.

tain social standards and may be held to lead to the categories of the 'world of description.'¹ Communication intended to kindle the emotions or voice the purposes of others, as in military, religious, erotic, or magical performances, must necessarily imply a more intimate identification of the parties, and an emotional as well as ideational community of attitude.

This aspect of the social character of art becomes identified with that under (*b*) above in many forms of primitive art. For in the dance, the corroborree, the Dionysus choral out of which grew the Greek drama, the religious or military chant, the funeral wailings, and the labor songs, the artist was not the individual, but the communal group. Hence the influence of the social upon the whole æsthetic consciousness was the more direct.²

The influence of the social origin upon the form as well as upon the content is also apparent in at least one of the most important elements of art-form, viz., rhythm, which Plato regarded as a distinctive mark of human art in contrast with the play of animals. Allowing any physiological basis we please for rhythmic action and its enjoyment, we must in any case recognize that any act performed in common by a group takes on naturally, if not necessarily, a rhythmic form. The sculptured figures of Egyptian laborers, with the præsul clapping his hands to mark time for their efforts, the sailors on the ship, the section-hands on the railway, the mourners expressing grief, college students in a college yell, the pack of children deriding some unfortunate with their chanted 'cry-ba-by! cry-ba-by!' all testify that, if people would do an act together, whatever it may be, or whatever their grade of culture may be, they fall into rhythm.³ In common rhythmic action, the stimulus and reinforcement of sympathy and social accord are felt, and whatever of pleasure there may be in the physiological process is immensely strengthened by this action of social forces.

We come now to the inferences as to the æsthetic feeling and the æsthetic judgment which may be drawn from the above considerations.

¹ Royce, *Spirit of Modern Philosophy*.

² On this see especially Gummere, *Beginnings of Poetry*.

³ See especially Bücher, *Arbeit und Rhythmus*.

First, as to the universality and objectivity of the æsthetic judgment. Universality means, as we have seen, the elimination of the personal, individual, subjective attitude. Now this is precisely what is required by a consciousness in the attitude analyzed under (b) and (c) above. My attitude, when I hesitate to say positively and impersonally, 'This is beautiful,' and venture only to assert, 'I like it,' may be due in part to a query as to how far I am really viewing the object as an expert, *i. e.*, how far I am aware of its full purport, and also able to estimate the efficiency and appropriateness of the means to express the end ; but in addition to this, it is due to the query as to whether the object stirs a genuinely social feeling, and as such has normative and objective value. The conviction that the object is really appealing to a social standard finds expression in an objective judgment. In pronouncing the judgment, I do not, consciously appeal to the actual spectators, the 'man without the breast,' of Adam Smith. Universality of this merely numerical form may belong much more to a judgment respecting strawberries than to judgments respecting Wagner. The æsthetic universality is qualitative and internal, not quantitative and external. It means that I judge as from a standpoint that is '*allgemein-menschliches*,' and that this '*allgemein-menschliches*' has been created and developed within me largely by the social experience and expression. An illustration of the extent to which a social attitude may transform even the most non-æsthetic of senses is seen in the difference between eating alone and sitting at a banquet. The music, the decorations, and the conversation are not merely æsthetic additions, which comprise the whole æsthetic value of the occasion ; even the attitude toward the viands is affected until it becomes at least quasi-æsthetic.

2. The second category of the æsthetic was stated as disinterestedness, or detachment and freedom. There are several aspects of this category to be distinguished. The 'disinterestedness' or 'immediacy' of æsthetic value may refer to its quality as pleasure. This would be a matter of individual psychology. It may also, however, have reference to a certain absence of egoistic desire, and this quality stands in direct relation to the social

origins of art. Whatever is to be enjoyed in common and without egoistic appropriation must, almost necessarily, be enjoyed by contemplation — ἐν τῇ θεωρίᾳ. And while we may not convert this simply, and assert that all pleasure of contemplative quality is due to social antecedents, it is obvious that nothing could conduce more effectually to the creation and development of a taste for such pleasure than the social attitude involved in the festivals and other fostering occasions of primitive art.

There remains to be noted under this category the aspect of freedom, of detachment from reality, or 'make-believe.' It is evident that this, as an aspect of æsthetic appreciation, is fostered, if not wholly created, by the social aspect of artistic production. Whether the work of art owed its origin to economic, or religious, or magical, or military purposes, on the one hand, or grew more directly out of the instincts which at an earlier period show themselves in what adults call play — in either case the imagination of spectator as well as of artist must widen beyond the present reality. As the magical performance takes the actor and spectators into the unseen world, as the recited deed of prowess, or the carved or painted form, revives the past, as the festival of victory enables all the tribe to live over the triumphs of the warriors, as the ceremonials of initiation, or marriage, or funeral, or of religion, project the imagination into the future, the range of conscious freedom is broadened, and the broadening process, although due to other forces, brings with it a thrill and satisfaction of its own. It is not, of course, claimed that the child does not find instinctive delight in the free play of imagination, with all its flight of make-believe. The claim is that the various forms of art have been the most effective means of developing this free play, and the attendant delight. Further, in certain of the arts, notably the drama, we find a form of tension and excitement, which, like certain of the games of childhood, or certain of the sports of maturer life, suggests previous periods in the race history when life itself, as maintained by fishing or hunting, in battle or strategy, was a process containing far more of emotional strain and stimulation than the life of civilization.¹ May not the tingle

¹ W. I. Thomas, "The Gaming Instinct," *Am. Jour. Sociol.*, VI, pp. 750 ff.

in the nerves of the romance reader or the theatre goer, like that of the gambler or the hunter, be reminiscent of the time when capacity for such tension was bred into the race by the struggle for existence?

3. The third category of the æsthetic was given as a widening of sympathy and an appreciation for the broadly significant. The bearing of the social origin of art and of the æsthetic sense upon the genesis of this category is too obvious to require any detailed statement.

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AN INTERPRETATION OF SOME ASPECTS OF THE SELF.

SPECULATIVE interest in the group of problems which center about the self concept without doubt remains, but the direction of that interest has changed somewhat in recent years. Many now base their solutions upon biology or psychology, at times pushing the enquiry through the organic into the inorganic and elemental, finding even in the atom the beginnings of individuality. The appeal to metaphysic is less frequent. This is perhaps due to the well-grounded conviction that its attitude toward this as toward other problems was radically wrong in the past, and that it has still to change much before speculative interest can claim the serious attention which concrete genetic theories possess. In what follows we first may notice briefly some reasons for this change of attitude, and then turn to some familiar psychological aspects of the self, from which we may gather suggestions regarding a possible view of its ultimate or real nature.

The self is admittedly in some sense a fact of experience. Now any experiential fact or datum presents two aspects. It has, to use a biological analogy, both structure and function. Structurally it is a complex of elements, functionally the complex is a unit, subserving some end or purpose in a system of which it is taken to form a part.

We may similarly regard the self. If we attempt to discover its unity in structure, *i. e.*, in psychological composition, we are forced to find it in function; if we look for unity in function or meaning, we are inevitably thrust back upon structure or composition. Ethical and metaphysical theories of the self have been chiefly concerned with the functional aspect of the problem. But the need of making the functional view definite and picturable by reference to structure thrust conceptions of unity, permanence, and substantiality into the foreground. Such views were found insufficient, because there was no adequate structural or descriptive account of the self. When this was supplied, the sen-

sation-complex superseded spiritual activity and unity ; introspection could no longer point to a particular experience in support of the reality of the self. And now, so far as structural evidence goes, we know of no ego except that which arises from the coördination of the nerve-cells.

Psychology thus contributes negatively to the problem ; for since the self can no longer be regarded as an entity *behind* experience, it must be sought *in* experience, in the functional and structural features of those experiences which we term the empirical selves.

I. *Some Dualistic Assumptions.*—The view to which one is then brought from a study of the psychology of the self is this. It is nothing fixed or permanent. It denotes now this and now that ideational or perceptual complex. The self, in short, is a 'thing' ; like the thing, it is a process, but, unlike the thing, it is distinguished by us as 'inner,' not 'external.' It is a name given to this or that nexus of experiences all of which have this peculiarity in common, that whatever nexus of experiences the individual terms himself is somehow vastly different from any other grouping of experiences. These other groups constitute external objects, and also, in analogy with the first group of experiences, other selves. It is true that the difference between this first group of experiences and all these other groups, *i. e.*, between self and not-self, seems for common sense to be an absolute difference, and this distinction has been further emphasized by metaphysical reflection, which has imported into certain of these groups the conception of matter and into other groups the notion of a self behind the phenomenal states of consciousness. But, apart from these prepossessions, what the individual terms self is simply a variable group of experiences distinguishable from others.

Ordinarily, it is true, we look upon our consciousness as something which is separated metaphysically, or perhaps spatially, from things, on the one hand, and, on the other hand, from other consciousnesses. It is so much plaster overlaying the cortex of a man's cerebrum. But we do not regard our physical relation to external objects in the same way. These external processes are continuous with those which occur in the physical organism ;

motions of the air are continuous with molar and molecular vibrations in the ear ; movements of the ether are continuous with chemical and neural processes in the organ of vision ; physical environment is one with the physical man. But it is also true that a man's individuality, finitude, limitation, etc., characteristics which mark his 'self,' as well as that ordinary and insistent separation between two realms of experience, outer and inner, are distinctions, immediate and inevitable though they may be, within an experience which for convenience we may term the experience of the moment, although the temporal is in truth itself a distinction within this experience. Self and external objects are alike abstractions from it, terms denoting special groupings which appear within it, and, as I hope to show later, significant phases of this experience.

It was said above that certain of these groups of experiences constitute external objects. One such object is, let us say, a book. It is an aggregate of leaves and cloth, pasteboard and ink. This is to regard it in terms of those particular groups of experiences within which any physical object falls. As an object of individual perception, however, the book is a percept, resolvable into groups of peripherally aroused sensations supplemented by re-aroused sensations of central origin. This is to interpret the book in terms of a second class of experiences now properly termed 'subjective.' But, in the third place, the book has, beside these structural aspects, what we may again term a functional value ; it occupies a special place among all groups of experiences to which it stands in specific relations, and it has a meaning and reality which is in part determined by the fact that there are other books, other objects, other groups of experiences to which it is related and among which it has a unique place and significance.

Now, if our description of the book as an aggregate of external parts (class I) is to be real, it can be real only as these other groups of experiences (II and III) are taken to constitute the unitary thing we call 'book.' Similarly, if we choose to describe it in terms of psychological structure (class II), its unity must be found outside of these psychical groups (sensations) in those classes of experiences (I and III) which fall outside the system of which the thing is taken to be a part.

In summary, we are to find a least common denominator and regard things as simply experiences (and to this question we shall turn presently); the 'thing' which we describe has a name which denotes the various uses in which it is employed as functionally representative of other groups of experiences, actual or possible, actual experiences being those which must be referred to my self-group, possible experiences those which must be referred to other groups. When we describe a thing, we substitute a second and new group for the first; but this structural account is really a description only as we admit also its functional significance or representative value. For we cannot describe a thing in terms of one set of relations, unless we assume that it is just so far real in the other relations in which the thing stands to us as our description is real. Our description of the book in terms of leaves, cover, and printer's ink does not detract from its reality as a unique object of external perception. Similarly, if our psychological disintegration of the self into sensation-complexes is to be a real account, the self which is thus described must, in some sense, be real and unitary. As seriously as you take description, so seriously must you take the unity of the thing described. The unity of the thing is no more, no less, genuine than the unity of the system of which it is taken to be a part. Discarding, then, as empirical psychology insists that we must, the assumption of a self behind experience, we have to start with the empirical selves only, various groups of experiences having certain characteristics in common like other psychical experiences,—emotions, for example. Wherever self is opposed to object, it is simply an opposition of one 'inner' group of experiences, for practical reasons termed 'mine,' to another, and the experience within which the distinction occurs is as much other-than-mine as mine, as much not-self as self. In short, we shall view the self as any other empirical thing; like the thing, it is unique and unitary; it possesses a function which is inseparable from structure. The question is: Does the self possess a unique function in the interpretation of experience as a whole?

II. *The Nature of the Object-Consciousness.*—We have noticed the sharp separation which we ordinarily make between self and

not-self, consciousness and object of consciousness. We think of consciousness *and* things, but our experience is as truly a consciousness-*of*-things. External object, we say, is just what consciousness is not. And it is true that metaphysics cannot unite satisfactorily in an abstract monism things which are by nature heterogeneous. But metaphysics deals with types, not substances, real aspects or recurrent phases of experience, not entities, and its task is not to ontologize, but rather to discover those universal aspects or types which things in their likenesses and differences display. When, on the other hand, the self is taken in isolation from the context of experience in which it is found, the fiber of that experience is cut, and it matters little whether the instrument employed in this vivisectional process is the psychological or, as in Mr. Bradley's hands, for example, the logical scalpel, for the issue of the experiment is the same. The 'flux and flow' to which other things are subject affects the self likewise, when taken in its structural aspect alone. But the previous argument has intended to show that, if we are content with the psychological account, self is but one group of experiences among others; consciousness is also a term applied to experiences in a certain aspect, and as such falls within a given body of fact which we have termed a 'given experience.' And this experience is an object-consciousness, for we have no *a priori* right to assume that it is not the same for all individuals,¹ since the self of any given individual falls within such an experience. What Nature is for the natural scientist, that is, something which is one and homogeneous, and therefore capable of being exploited, this given experience must be for metaphysic, if it is to concern itself with the ultimate significance of this illusory term 'self.' In short, we are at any moment confronted by a 'given experience,'² a consciousness-of-things, an *X*, or unknown,³ but not an Unknowable, within which all distinctions fall, and this is, in one real aspect, as said above, not-mine as well as mine, object as much as subject. For no experi-

¹ Cf. Avenarius: *Weltbegriff*, p. 5, No. 8.

² Which Avenarius calls "*ein Vorgefundenes*." Cf. *Weltbegriff*, p. 2, No. 4.

³ "Our experience is a thing-in-itself, even if it is not the only one." Walter Smith: "The Metaphysics of Time," *PHILOSOPHICAL REVIEW*, Vol. XI, p. 390.

ence is ultimately 'mine' except as it belongs to that group of experiences with which it inevitably appears to be conjoined, namely, my bodily organism. Then, indeed, it becomes true that "the mind [as this particular group of experiences and, by analogy, *all* 'inner experiences'] is absolutely confined within its nerve-exchange; beyond the walls of sense-impression it can logically infer nothing."¹ But, on the showing of psychology, we know absolutely nothing of mind in itself or of consciousness as such, and are dealing simply with groups of experiences, having this in common that they are 'inner experiences.' 'Animal' is not only a general but a collective term, signifying classes of organisms which have various structural and functional peculiarities in common. 'Consciousness' is such a term, and the various groups of processes included within it are so many individual groups which psychology studies inductively. We have 'memories,' says Ribot, not a faculty of memory; we have 'selves,' is the psychological account, not a spiritual ego. Similarly, we have 'consciousnesses,' not a consciousness. But the metaphysic of psychology substitutes a transcendental 'consciousness' for a transcendental ego, and, going beyond the safe and workable assumption that all communication between the individual and the outside world is through the channels of the senses, it affixes consciousness at one end of a series of conditions, the other end of which is the outer world, and the intermediate conditions of which are the stimulus, nerve-excitation, and brain-process. Thus it virtually transforms condition into cause, and localizes consciousness as surely as if the latter had been placed in the pineal gland or in some other organ. If, however, we must discard a metaphysical 'consciousness' along with a metaphysical 'self,' we are concerned in psychology only with conscious or inner groups of experience which we view structurally in terms of sensations, while these same experiences may have a functional as well as a structural value outside the particular groups of nervous processes with which they are psychologically in correlation. Consciousness does not hover about nerve cells like the halo about the head of a mediæval saint. It is merely a term given to experiences, taken in a certain aspect.

¹ Karl Pearson: *The Grammar of Science*, 1900, p. 108.

We have adopted a given experience or object-consciousness as a provisional reality, and beyond it we cannot go to anything more real than itself. We have now to see what is involved in the acceptance of this object-consciousness as a datum for investigation. (1) It is concrete and not a mere abstraction; for any fact or object to which the individual turns is distinguished within this experience. A thing is individual and unique only because an experience which is more than itself is made the subject of analysis. (2) This 'given experience' is also unitary, although only as any empirical thing is unitary. An aggregate cannot be analyzed. One may analyze the character of an individual or a nation, but not an aggregate of processes which make up the individual, or of individuals who make up the nation. Hence this larger experience must also be unitary, for methodological purposes, in spite of the differences which arise within it. And (3) if we try to grasp this given experience as a whole or in part, it always results in being objective. In the following section of this paper, we shall therefore be concerned with this aspect of difference with which emerges our concept of the self.

III. *Segregation and Analysis.*—Whether we turn to 'inner' or 'outer' experience, objectivity emerges as the common characteristic of anything which is accepted as a datum. As a second aspect, then, this given experience of the moment is always limited, fixed as some special group of processes and made static as a unique and unitary object, whether of the external world or of the inner life. And, as such, it is opposed to this given experience or object-consciousness, which then becomes other-than-object, or subject. We must then admit the paradoxical nature of experience. It is at any moment unitary, yet the distinction of subject and object is real, not merely phenomenal. For if it is true that the recognition of anything as an object depends upon the fact that an experience which is more than the object is taken to be real, to deny the reality of the opposition between subject and object would mean to deny the reality of the given experience through reference to which the object is

known.¹ In other terms, real difference is possible only through real relationship, which means also real unity. We conclude, then, that this antithesis is so far real as our given experience is real. The opposition expresses a fixed relation, or, as Mr. Lloyd Morgan has it, experience is polarized² as subject and object. This is something like the realistic attitude of the ordinary consciousness; but the opposition does not lie between 'inner' states and 'external' things, since the subjective self means simply any associational complex, temporarily regarded as a view-point for the object, while the latter is indifferently thing in the outer world and content of my consciousness.

This may be granted, but it may still be said: the book as an external presentation is totally different from the internal presentation—the memory-image of the book. The reply is:—undoubtedly, for the external book is, in its physical character, (1) a group of experiences which cannot be referred to my self-group, (2) a group which (from the psychological aspect) can be so referred, since it is reducible to specific classes of sensations in correlation with the bodily organism. Moreover, (3) it has a functional value, which differs from that of the memory- or fancy-image, and so on in still other relations.

Experience, then, in so far as it is objective in the sense of presentational, is homogeneous. Perceptions, thoughts, feelings, in a word, what the individual must ascribe to himself, are, in proportion to their definiteness, limitation, and employment as presentational data for the attachment of relations, in a real sense objects. If they are not, it is difficult to see what psychology really means by correlating these two realms of experience, interpreting one in terms of the other. And similarly, if ideas are in the above sense things, the latter are, in virtue of their being experiences, subjective as well as objective.

But here the homogeneity of 'external' and 'internal' is apparently contradicted, and the difficulty is that thoughts are not

¹ Common sense argues unreflectively but well, that 'object in the outer world is wholly independent of myself, for I trust my total experience of the moment.' It concludes to real difference on the basis of a tacitly acknowledged relationship between subject and object.

² Cf. Lloyd Morgan: *Comparative Psychology*, 1896, p. 308.

spatial. Space perception seems to put a barrier between ideas and things. If, however, experience is homogeneous as above, an admission must be made on our part. Space is neither a mind-independent entity nor, as Kant said, a form of external perception only. It is a form in which we envisage all our conscious contents; more than this, a principle or function which defines and characterizes all experience, a form of thought as well as a form of reality. For anything which is taken to be an object, although structurally an aggregate, is first of all in the act of attention transfixed, limited, made static and presentational, and thus defined for practical use as an object. Space, in other words, is not a barrier between a world of external objects and an inner world of conscious processes; for the latter, as the psychology of space is a witness, are capable of being defined through the mechanism of association as a spatial world. Particular images may be auditory, visual, or tactual; but all are spatial as defined and static portions of presentational experience. So, too, are concepts which are, from the structural point of view, generalized images. The concept is in one aspect "an assumed limit" of inner presentational contents, "assumed for practical purposes by the will,"¹ and as such functionally active in the judgment. Accordingly the suggestion is here made that the above analytic and defining process, which appears in this fixation of presentational content as static and objective, is the first of the processes involved in that psychological mechanism by which, through association of this presentational content with specific classes of sensations, a world of 'inner' processes is gradually transformed into an outer and definite world of spatial objects and space relations. And when we say that in the construction of space-perception but two senses are primarily concerned, the visual and the tactual, this would mean that the individual is biologically conditioned to this particular expression of the fundamental fact of the object's otherness by the possession of two senses which in the past, through the influence of heredity and environment, have served as the vehicles of objectivity.

¹Shadworth Hodgson: *Time and Space*, p. 416. Cf. Walter Smith, "The Metaphysics of Time," *PHIL. REV.*, July, 1902.

It is this presentational aspect of the self by means of which we are enabled to fixate and describe our experiences. From the presentational side, for example, the atom is taken to be a simple, indivisible, physical ultimate, not a center of force or 'a category.' Force is regarded as an entity, something *in* things, and is separable from mass; action is always by impact and action at a distance impossible. When the objective and structural is emphasized to the exclusion of the functional aspect, life and consciousness are said to originate from matter, mind is either an entity which acts externally upon a physical world and is in turn acted upon by the latter, or is 'epiphenomenal' and of no real significance in the objective world of phenomena; God is either absent from the world or is the 'gaseous vertebrate' which Haeckel justly condemns; experience is interpreted in terms of mechanism.

IV. *Integration and Synthesis.*—So far we have taken 'objective' to mean presentational, and in observing the various aspects, or, if we may so call them, the recurrent phases of the self, we have followed out the part played by the presentational in our experience. But, if we reflect further upon the nature of anything which is an object, we find that it is incomplete as long as it possesses merely this static and presentational character. The idea or thing which is structurally a group of experiences, actual or possible, presents itself with the requirement that it be taken as representative of other groups. It is not properly an experience, if it is simply presented.¹ No doubt this is paradoxical; but, says Professor Royce, who has most fruitfully developed this phase of idealism, "reality is often much more paradoxical than any philosophical system, and the actual behaviour of mankind contains more inconsistencies than a thinker could with all his efforts put together." An object must be presented in order that it may be experienced as an object, but in its merely presentational aspect it is never what it purports to be, and hence is never really an object. The object, in being pre-

¹ Royce: "Self-Consciousness, Social Consciousness, and Nature," *PHIL. REV.*, Vol. IV, pp. 475-477; *Spirit of Modern Philosophy*, pp. 374-380; *The Conception of God*, pp. 11, 12; *The World and the Individual*, I, Discussions on the 'internal meaning' of the idea.

sented, is limited and defined for consciousness as 'this thing' and thus contrasted with something outside it, so that its real nature must still be found in its relationship to something that is more than self. To be conscious of a thing is to be aware of it as part of a larger plan or system, and it is only the specific nature of the plan which theory has ever successfully denied. Any experience is partial and requires completion, and this relationship which the object requires can ultimately be found only in an all-inclusive system of experiences. But ideas, as unified groups of inner experience, are objects; the difference between idea and external thing is a difference merely between self-group and other-group experiences. And an ideal relationship is required quite as much as that type of relationship which demands that in one presentational fact *a* is to be found the reason or cause of another presentational fact *b*.¹ Ultimately, idealism concludes, the relational process implicates the existence of an Absolute Experience, or, since the notion of a system of experience is implied in the object's demand for relation, an Absolute Self. Experience must be, in one universal aspect, "one self-determined and consequently absolute and organized whole."²

However, as the self is, according to realism, always reducible to an aggregate of hypothetical presentational processes, real relationship cannot be found in the self, but in the system of processes regarded in their presentational aspect. Reality is, then, 'matter' or 'force' or 'atoms,' or it may be simply 'presentational phenomena.' Both idealism and realism regard the antithesis between self and object as unreal or phenomenal. Idealism, taking the *object* to be merely phenomenal, finds its reality in a higher self which includes the antitheses; realism, on the other hand, regarding the *self* as phenomenal or 'epiphenomenal,' finds its only reality in the interrelation of physical processes. Idealism, by regarding the external world as phenomenal, takes a static view of physical processes and a dynamic view of the self,

¹ Cause cannot be described as a mere sequence, but must be regarded as invariable sequence; *a*, and not *d* or *c*, is taken as *representative* of *b*; but *a* is like all things a process, and it is a representation only as the complex is taken to be part of a larger system or plan. Causes are never apart from plan.

² Royce: *The Conception of God*, p. 41.

while realism takes a structural and static view of the self, and a dynamic and functional view of physical processes. We ought, however, to take both a structural and a dynamic view of experience with the self as an inner group of experiences among others.

If we consider the two opposing attitudes toward reality, we shall find agreement in the following respects: (1) The object is something that has been abstracted from a larger context of experience, which is more or less clearly taken to be a system, but which is regarded, in the one case, as the totality of physical things, and, in the other, as a subjective totality; (2) the object is incomplete apart from relations which are in the one case physical processes, in the other ideal relations; (3) there must be a homogeneous medium for the expression of these relations; hence this vaguely defined context of experience must definitely unfold itself as intelligible plan. For idealism the self fulfills this requirement, while for realism and positivism, it is matter or phenomenal sequences devoid of meaning.

And there is no satisfactory answer, if we endeavor to sum up experience in one term. An object must always turn out to be dependent upon the self, while the self in its turn ends by being *my* self, and is thus in dependence upon the physical organism. If experience is always polarized as subject and object, if these are two omnipresent aspects of experience, the real question regarding its interpretation is not, does an Absolute Self exist? or, on the other hand must experience be explained ultimately in presentational terms? but, how must such an Absolute Self be conceived at any given stage of human progress, so that it may be adequate to the structural account; and, in turn, what place does mechanism occupy in a philosophy of experience as a whole? As one view is the correction of gross anthropomorphism, the other conserves the idéal element in experience and makes meaningful the abstract descriptions of science. Without mechanism and law, the world would be lost in superstition; without an ideal self, there would be an end to human endeavor. If it is true that experience is always in some sense a plan, wherever we turn to those distinctions which arise within it; and if, therefore, a methodo-

logical monism of some sort is always tacitly presupposed, the opposition between idealism and realism must always appear to some minds in somewhat the same way as it did to Strauss. He says: "I have always tacitly regarded the so loudly proclaimed contrast between materialism and idealism (or by whatever terms we may designate the view opposed to the former) as a mere quarrel about words. They have a common foe in the dualism which has pervaded the world (*Weltansicht*) through the whole Christian era, dividing man into soul and body, his existence into time¹ and eternity, and opposing an eternal creator to a created and perishable universe."² If it is true that methodologically our thoughts are "the expression of molecular changes in the matter of life which is the source of our other vital phenomena,"³ it is no less true that thought in its representational aspect requires completion in that ideal system of experience which the term self in its representational or functional character denotes.

In summary: The nature of experience is such that an Absolute Self present in our own experience as a concept or representation of completely organized experience in its ideal aspect must be a postulate of reason; while, on the other hand, experience in its presentational aspect requires the assumption of non-ideal or presentational units as working hypotheses by which changing processes may be understood. Ideal relationship must be seen in terms of structure, and structure must be understood in terms of ideal relationship. Matter and force, for example, are idealizations of experience in its presentational aspect, constantly modified and reconceptualized to meet the demands of an ever-widening outlook upon the world of processes.

But now we have to consider some objections, for the absolute character of the self may be called in question. In the first place, it may be said that an Absolute Self does nothing, and therefore is of no moment to us, while real and definite knowledge about experience comes through the categories of science, which are

¹ See later discussion of time and the timeless in this article.

² Strauss: *Der Alte und der neue Glaube*, p. 212, quoted by Professor Orr in his *Christian View of God and the World*, p. 144.

³ Huxley: *Lay Sermons*: "On the Physical Basis of Life," p. 152. Cf. Lange: *History of Materialism*, Vol. II (2d ed.), p. 386.

workable formulæ for its interpretation and verifiable in experience; and secondly, if the Absolute Self is characterized by attributes, this leads us to belittle the universe of things and establish dynamic relations between God and the world which grossly conflict with the scientific account. The first objection may be admitted. "If the absolute cannot be comprehended as it is in itself, this is the same as saying that there is for us no Absolute."¹ The answer is, however, that the determination of the concrete nature of the Absolute Self, which makes the latter the supreme object of religion and of the philosophy of religion, is justified by the same principle broadly viewed which requires us to assume that atoms have a definite size or shape, or ether has motion, that they act by impact or through magnetic fields, or that in the molecules of one substance they have a definite configuration, while in the molecules of another the relationship of the constituent atoms is different. This principle is that the ultimate unit, whether self or atom, both of which are beyond the scope of actually presented experience, must be viewed in relation to experience of which it is to serve as an explanation, and must therefore be characterized by attributes or properties; for any real concept must be *representative of experience*, although these attributes or properties are derived in the one case from relations discoverable within the science of physics or chemistry, in the other from human and ideal relations, discoverable in ethics and sociology or displayed in history and in life. But the functional or dynamic view must be continually modified to meet the requirements of an ever more exact description, while the structural view is constantly being readjusted to the former, although this may be less obvious to the pure empiricist. The history of the conflict between religious and scientific thought is the exhibition of this perpetual process of readjustment. If, for example, God is for the religious consciousness no longer an extraneous power, endowed with human attributes, acting workmanlike upon a world of limiting matter, but an all-embracing personal consciousness in which man lives and moves and has his being, this ideal

¹ Watson: "The New Ethical Philosophy," *International Journal of Ethics*, July, 1899, Vol. IX, No. 4, p. 413.

character of experience has impressed itself upon the categories of science which the structural view recognizes. Matter is no longer a substrate; force is no longer something in things, but a mere name for mass-acceleration;¹ hooks and loops no longer describe the atom which is now less an entity than 'a category.'

In answer to the second objection, we conclude that "anthropomorphism is not a reproach, if one does but see the man to whom the world is likened in his world-wide, world-deep characteristics."² "All science and philosophy are anthropomorphic and it is not possible for the human being to be other than anthropomorphic."³ But all our categories or representations, if in one respect subjective and finite, since they must inevitably be referred to the self-group and always bear the impress of the human organism, 'are, in an aspect no less real, objective and other than finite. Moreover, functional or worth-estimates of things involve a transcendence of experience no more than the descriptive categories of science. If experiences cannot be properly evaluated without the employment of description and presentative relations, description no less involves functional and ideal values; for wherever there is the isolation of thing from thing or of cause from effect, there is *representation* only.

And now, if we must regard human and ideal relations as in some way *represented* in an absolute experience, if this Absolute Self is partly revealed or represented in the attributes which the religious consciousness applies to a supreme being, and if the conception of an Absolute Self becomes real only as it is brought into relation to actual experiences,⁴ there is implied a view of the individual self which must supplement the psychological account. Although personality may mean a sum of psychological selves, it is also more than this.

But here we experience a difficulty. It must indeed be admitted, in view of all that has preceded, that only in an Absolute

¹ Ward : *Naturalism and Agnosticism*, Vol. I, p. 61.

² Lloyd : *Dynamic Idealism*, p. 59.

³ Ivernach : *Theism*, etc., p. 268. Cf. also Royce : *The World and the Individual*, Second Series, p. 201.

⁴ Cf. Andrew Seth : *Two Lectures on Theism*, 1897, pp. 59, 60.

Self are function and structure completely one ; but are we then to say that an Absolute Self, as the completion of the relational process, is "the only ultimately real individual because the only absolutely whole individual" ?¹ If we assent to this proposition, we put in doubt the existence of the Absolute. The latter was found to be the requirement of the relational process, and the assumed reality of present incomplete experience was the ground for affirming its existence. If now the reality of the former is denied on the ground that the Absolute is the only complete individual, the ladder of the relational process is cut from beneath our feet. We must choose between an Absolute Self which is mere idea and the reality of the empirical selves from which the Absolute is distinguished and by reference to which it is known.

The chief source of the difficulty is our way of regarding time. The logical process of thought which asserts the existence of an Absolute requires us to regard this Absolute as timeless, since temporal distinctions within an experience mean incompleteness. But, on the other hand, the logical movement of thought cannot be isolated from the concrete associational processes of the individual into which time always enters. How can we have knowledge of the timeless, if our experience is always of the temporal ? We seem reduced to an 'either-or' between pure empiricism and metaphysic, and must either abandon our speculative conclusion—the Absolute—or assert that the timeless alone is real and the temporal mere appearance. The concluding portion of this paper will therefore be concerned with the relation of the individual to the Absolute from the point of view of this new difficulty which has emerged.

V. *The Individual*. — If, now, we assume that the succession of experiences is real, then time is real ; but if time is real, things in time form no more than a serial aggregate in which each thing is unrelated to its neighbor. If things are thus essentially un-

¹ Royce : *The Conception of God*, p. 272. This is not the standpoint of *The World and the Individual*, and the quotation is inserted only as the expression of a very real difficulty. Yet in the Second Series of *The World and the Individual* we read again that "our idealistic theory teaches that . . . there is, indeed, but one absolutely final and integrated Self, that of the Absolute" (p. 289).

related in a wholly objective time order, there is no organic unity in things or ideas. But we found that relationship is a requirement of any experience, whether viewed from the objective or subjective aspect. It then seems to follow that time cannot be an objective reality, but must be subjective. If, secondly, we assert the subjectivity of time, we must recognize with Kant that we put our own stamp upon everything that enters into the temporal series, and it must again be denied that the relational order means anything apart from our point of view. In the third place, we may simply accept the unreality of time and declare that the timeless alone is real. Now, however, everything which enters into the temporal series will be 'transmuted' into something other than itself, and any experience in time will be an experience of phenomena merely and thus unreal.

In any case, our conception of time is unsatisfactory, because we isolate the temporal and the timeless, or rather, to put the matter more intelligibly, because we fail to recognize the temporal character of the logical process at the same time with the timeless character of the psychological process involved in judgment. The former we regard as timeless, the latter as temporal, without recognition of their connection.

Now we have already taken the view that space is constitutive in our experience, a form of thought, not something which hides reality from the mind, or an objective entity which puts an inseparable barrier between thought and thing. It is possible that we may take a similar view of time. By this I do not mean simply that the processes of thought require time, but that the logical process of thought, which, taken formally, is merely analytic, is, when employed in the effort to reach conclusions about actual experience, relational and synthetic only as we at any moment refuse to take time as mere succession. For in judgment we at any moment transcend our experience of mere succession and treat past and present as parts or aspects of one unitary complex or representation. Let us take, for example, the judgment of identity, '*a* is *a*.' This is perfectly intelligible, if we take the judgment in its merely formal acceptance. But there are no empirically given instances of identity, although, if the judgment

really means anything, it intends to assert identity between two actual contents of experience. Accordingly, between the concrete or experiential and the abstract or formal there is a great gulf fixed. Yet, if the judgment means anything at all, a must signify an actual fact, or object or content of experience. The judgment would then be : experience is of such a nature that a is a . But, in accordance with our previous conclusions, a is never a complete object until it has found relation to something which is more than itself, and we cannot assert identity of an object whose meaning and objectivity do not completely belong to it. By the judgment a is a , there must then always be meant a relation of two actual experiences ; for the a as subject and the a as predicate are separate contents of experience. In the judgment, we cancel the temporal difference between the two experiences, and affirm their homogeneity in a third or inclusive experience which is the ground of the judgment ; that is, time, which in its perceptual form establishes a difference between a as subject and a as predicate, enters as a relational or conceptual process into the judgment. In other words, in the process of judgment we are at any moment under the control of a guiding complex of ideas, an ideal whole,¹ and judgment takes place only as the successive experiences which are denoted by subject and predicate are regarded as aspects of this ideal whole or unitary complex, which is for the moment taken to be their completion and in which they find their meaning.

Now the empirical self was previously taken to mean nothing more than a complex of processes, structurally an aggregate, but unitary in so far as the association-groups of which it is composed are determinative of thought or action. It is simply the ideal complex which accompanies the judgment over again on a larger scale. To paraphrase Kant, it is this ideal complex, an aggregate, yet in its representative function unitary, which is the form in which all our experiences are cast. If, then, in any judgment we are forced beyond mere succession, this timelessness or conceptual aspect of time must in some way belong to the empirical self, and these various ' selves ' of past, present, and future must

¹ Cf. Stout : *Manual of Psychology*, Lond. ed., 1899, Vol. II, p. 448.

have a timeless as well as a temporal aspect. Somewhere, then, the empirical self of the moment¹ possesses a timeless reality; it is, in the latter aspect, part of a plan or representation which stands in a specific and unique relation to the temporal experiences of the individual. It is not simply a phase of the Absolute Self which thinks or experiences in the individual, but is the temporal embodiment of a representation in the experience of an Absolute Self and possesses a reality and worth of its own.

We may now apply these results in a consideration of the nature of personality. We had previously found that an ideal synthesis is, equally with an objective synthesis, the requirement of partial and fragmentary experience, and that an all-inclusive system of experience, an Absolute Self, is demanded by the relational process in its ideal aspect. If, however, such an Absolute Self is taken to be real, one cannot deny the reality of the relational process by which the result is reached. The empirical self, then, in spite of its incompleteness and its temporal character, is also real; for the same process which leads us to assume the reality of an Absolute Self affirms also the reality of the fragmentary empirical self which enters into the temporal processes. The empirical selves, then, cannot be regarded simply as aspects of an Absolute Self in which their meaning is absorbed; for the empirical self of the moment gets its specific character from the experiences of the individual which occur in time, and, therefore, bears a real relation to these experiences.

In conclusion, the thought which I have wished to express in the present article is this: any experience is both objective, or presentational, and ideal. It must, therefore, be interpreted in terms which express not only its presentational aspect, but those ideal relations which are made known to us through the experience of what we term self. All ultimate categories are, like the atom, "hypothetical determinations of the *Ding-an-sich*,"¹ the unchar-

¹ *I. e.*, "Any instant of finite consciousness" which "partially embodies a purpose and so possesses its own Internal Meaning." Royce: *The World and the Individual*, Second Series, p. 270.

¹ Francis Kennedy: "The Metaphysical Worth of the Atomic Theory," *Princeton Contributions to Philosophy*, Feb., 1899, p. 15.

acterized content of the given experience of the moment, or object-consciousness, within which distinctions fall. The given experience of the moment is like a ring on which are painted at opposite poles of its diameter a red and a white band, one representing the antithetical object of attention, the other the subjective self. Upon the ring we may slide an iron band which denotes relationship. When the band covers the red ring, the object is no longer static but relational, and, if the self happens to be the object of attention, it too falls into discrete parts, to be linked together by mechanical means. When the band of relationship is slipped to the white ring, the self is the bearer of all relations and the object shrinks to a mere point. Into whatever parts experience falls, it is always at once both subject and object.

The self, we conclude, is a symbol—like any ‘thing’ named and characterized. Its reality is not adequately represented in categories of ‘permanence,’ ‘substantiality,’ and the like; for it is not something behind or more real than experience. It is not an entity but a law, which, like any other law, denotes a unique type of relationship within experience, its inner and individual aspect which the presentational method of science cannot reach. And the individual is at the center of that law, as to all other laws he is external. Each individual thing which, by means of time and space, objectifies and idealizes the content of a given object-consciousness is the embodiment of law, which to other individuals is external only and thus scattered among the laws of ‘natural’ processes.

Regarded in its structural aspect, this type of relationship, which rightfully claims that experience must be interpreted in terms of an Absolute Self, gives way to an objective synthesis which finds in one presentational fact the reason or cause of another. Structurally, this Absolute Self must be regarded as the world of presentational processes; but these are, however, subjectively its own external life and expression.

We must view the world as an organism, and progress in thought as an approach to a true knowledge of the organic. The complete nature of the organic or spiritual always remains hidden, since the only means at our disposal is the chemistry of logical

and intuitive relations which turn out to be the mechanics of presentational processes, while, on the other hand, the organic is unique, and "whatever is unique, is as such not causally explicable,"¹ or explicable only in the dialectic of infinite time.

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¹ Royce: *The World and the Individual*, First Series, p. 467.

THE REAL SELF.

THERE is a sense in which ideas are more unreal than sensations. One's notions can change far more rapidly than one's fundamental feelings. The more abstract an idea is, the less likely is it to be true to reality. The difficulty of making a fixed idea correspond to its proper object suggested to Socrates the confusion one experiences in giving the right names to different kinds of pigeons flying about in a cage. In a percept, as Höfdding says, the idea is 'tied' to some experienced real. Knowledge proper arises only after these ideas are abstracted from the real and become 'free' ideas. As Professor James expresses it, the idea 'rolls out' from the felt whole. Locke is perfectly correct in saying that the artist has a better idea of colors than the philosopher. He knows them better, to quote Professor James again, although his knowledge about them may be almost nothing. In the same way we may say that an idea of self which is purely abstract is out of touch with reality itself and can only lead to confusion. The static, changeless self as pure seer of the Brahman, and the practical, willing subject of Fichte are alike abstractions of epistemologists. Such an abstracting process defeats itself by freeing itself from the very content from which the concept of the self is in reality abstracted. Are we then to go to the other extreme of viewing the abstract concept of the self as unreal, and of emphasizing the realm of instinct, of the unconscious, of association groups, and of feeling? Are we to regard self-consciousness and voluntary attention as less important than the unconscious and spontaneous?

The concept of the self is not an unreal something abstracted from the experienced content. Abstractness is not unreality. An idea may, because of its abstract character, be less likely to adequately represent some particular fact. But error is not unreality. When, in a number of different experiences, conscious-

ness finds some one factor constantly present, this permanent element, the more often these experiences occur, comes to stand out by itself. The constant element x in the mental complexes *ambx*, *cdnx*, *xowv* will, with sufficient repetition, stand out as the distinguishing feature of any one of these complexes. It will come to be the designative mark. In time this element x will roll out in the mind independently of the particular presentations. And this is precisely what we mean by an idea. It abides in the mind when the particular sense experiences are no longer given. It is the existence of such ideas that makes thought possible.

The relation of the concept of the self to its experienced content is precisely the same. It is never an unreality, although it may well be false to reality. The idea of self might be called a kind of mental ganglion through which is coördinated all the activities of a self-conscious experience. The activities of consciousness are in the first place due to instinct, to feeling, and to inherited organization. But the activities of any consciousness have a more or less constant factor. This constant factor, this x , in time necessarily gets set over against conscious acts in general. And this more or less permanent nucleus is the fact basis of each individual personality. The idea of self is not merely a copy of these conscious activities. It gets spread out over the whole sphere of one's conscious doings until more and more these activities take place through this idea of self. In any new situation consciousness acts blindly, but, with experience, these blind and unnecessary movements are, through practice, gradually eliminated, until finally the idea of the end to be attained is itself sufficient to guarantee direct and perfect action. Our experience is, in the first place, one of immediate, spontaneous activity. Consciousness here does not reason, it acts. But certain particular situations instinctively call forth certain definite acts, most of which are often useless. Experience prunes away these unnecessary acts, until finally experiences of a definite type call forth some one particular act. Now, an experience of this kind is on the way to knowledge. The doing of one thing in any number of situations of a certain type will necessarily stand out

in consciousness as a unique fact. And this is just how the idea of the self arises. This constant element, always present, gets shaken out as a distinct fact in consciousness. The main body of our instinctive and emotional activities takes on a more and more definite shape. The accidental gradually drops out, and that which is common to them all comes more and more into prominence. And just as any one spontaneous act, by virtue of its always being present in a number of complex situations, rolls out in the mind, gets represented in idea, and leads to clearly conscious action later on, just so the relatively permanent core of spontaneous activity which gets expressed in all our conduct comes sooner or later to stand out in a clearly conscious idea of self.

Consciousness in its reflex stage is simply an experience of what is going on. The stimulus comes, and the conscious act follows immediately. If it does not, it is because consciousness is solicited by some other stimulus or stimuli to act in some other manner. But let the outcome of any activity get contrasted in idea with the result of some other activity. And further, let us suppose that either of these results is possible, but that only one is desired. Here the response can no longer take place immediately, because the act, when it shall take place, will not be a mere response to an external stimulus. It will be an expression of the whole body of ideas and feelings stored up within the subject himself. The course of this will-activity will not be the jagged path marked out by external stimuli, but a course of activity lighted up by the ideas within. Here the results of response to stimuli are anticipated in idea so that there is an inhibition of any act not expressive of this inner life.

If the idea be approached from the psychological standpoint, the logical universal will no longer be the stumbling-block it has been to the religious consciousness when dealing with the problem of evolution. There can be no sense of religion, unless there exists some more or less clearly defined sense of self; for it is this that makes any consciousness distinctively human. And on this point there is much to be said in favor of Romanes's new word to designate animal thinking, which is neither reflex action nor

clearly conscious thought. We refer, of course, to the word 'recept.' In the concept the ideal element floats in the mind completely free from the perceived fact, in the sense that the particular fact can be conceived without its having to be presented again in perception. In this case, the activity of consciousness is far from being simply a response to stimulus in that the stimulus is only the occasion for the expression of the activity in question. The ideal element or free fringe of consciousness reaches out beyond the merely presented, and with its knowledge of the past mirrors beforehand that in which it is interested and for which it is on the alert. In the simplest reflex activity, in the lowest or most mechanical form of consciousness, the experience is what we might appropriately call a one-way process. That which determines the response is simply the condition of the nervous structure of the organism itself. It is not mechanical in the sense that the organism has no feeling; it has feeling, and this feeling is the basis of the response. The activity is mechanical in the sense that, given the stimulus, the response takes place immediately. The individuality in this case is more than the punctual or spatial exclusiveness of a definite physical organization; but there is no fund of individually acquired, or consciously acquired, mental life. There are no abiding, fundamental feelings, no permanent centers of ideational activity, which could furnish the basis for an inhibition of any significant type. There is simply a life, which, when acted upon, gives out an immediate, and therefore mechanical, response. Now between the higher ideational form of consciousness — corresponding to the concept — and the lower form which simply perceives what is given in the immediate presentation of an object — corresponding to the percept — Romanes has distinguished an intermediate stage corresponding to what he calls the 'recept.' The activity of such a consciousness is not mechanical, not immediate, because there is a store-house of past experience from which to draw. But because it never comes to clear consciousness, being mechanically stored away in the brain, manifesting itself spontaneously and only on the presentation of external stimuli, it is nature-will and not an individuated will, for the latter must act through its own idea of itself.

The shell sucks fast the rock,
 The fish strikes through the sea, the snake both swims
 • And slides, forth range the beasts, the birds take flight,
 Till life's mechanics can no further go—

.
 But 'tis pure fire, and they mere matter are ;
 It has them, not they it.¹

In the infant, as in the animal, psychic activity has its basis in the structure of the physical organism. Activity here is simply response to stimulus. An act of will takes place through an idea, and where there is no idea of what is to be done there can be no conscious will. The most that can be expected is the coördination of nerve centers, the foundation of habit. The nervous system in time comes to act as a unit. In the early unorganized experience of the individual, its activities are chiefly in response to stimuli from without. Such conduct is in each case largely predictable. And this predictable element increases with the organization of habit, for the latter means fixity of conduct.

But this organization, although necessary, absolutely necessary, is not, in itself, the really significant thing in self-consciousness. Absolute predictability means a fixed, one-way process. Now such may be the fall of a stone, the movement of a river, the flow of an electric current ; but it is not the nature of our experience. When in the physicist's laboratory a number of men form a closed circuit and an electric shock is sent through it, delay in the current is simply impossible. But let the same circuit be made in the psychologist's laboratory, and let an ideational impulse be transmitted. The time not only varies with practice and with individuals, but, what is more to the point, an experimenter may consciously delay the signal or in some way frustrate the entire experiment. Here, evidently, something new has come into the experiment. And this new element is to be found neither in the physical mechanism nor in the stimulus. It is an idea in the mind of a person. It is not simply that something is going on, as is the case with a falling stone, but that some one is doing it himself. There is not merely a something which responds, but a person who wills. The activity of consciousness which has not

¹ Browning's *Cleon*.

reached the ideational form responds as directly and as unerringly to its proper stimulus as a stone to the force of gravity. Such activity does not reveal any individuality whatever. Although intermittent and not as constant as gravity, because largely dependent upon stimulus, it is yet but a manifestation of the same one-way process of nature's activity. But an idea is a content which stands free from the flow of psychic life. It is something to which a name is given. It gets written down as a fixed form of speech. It, therefore, remains in the mind as a permanent form to designate mental content of a certain kind. An act of consciousness which is the result of nervous instability within the organism, or of a stimulus from without, is a fixed, one-way process, with a definite cause and a definite result. But an act which originates in the idea of some object to be attained is a specifically different kind of an act, just because it has its origin in some individual consciousness. Every idea, as a fixed mental content, must necessarily be due to the activity of an individual consciousness. Hence an act of will which carries out such an idea must be the expression of an individual choice. And now, to develop our thought one step further, this idea, of which the act of will is a partial expression, may have as its object, not something of which one is simply conscious as a fact, but rather the more complete realization of the conscious life whose possession this idea is. In this case, the act is not a mechanical thing nor a merely conscious act, but the act of a self. It is not simply something which happens, nor is it a mere response to what chances to call it forth. It is the expression and realization of a self-conscious will.

Personality is to be found in man alone. In the lower animals, the organism itself could very properly be called the individual. The hydra may be divided into many organisms, each one as much a hydra as the original organism. In the higher animals, with their special senses, there is more than this mere bodily consciousness. Different things come to be reacted upon in different ways. In this way an experience, more or less definite, of the outside world arises. But as long as this response to stimulus is immediate, there can be no such thing as personality.

Personality means more than response to the strongest stimulus, even though this response come from an internal experience stored up within the organism itself. The beginning, the first expression of personality, is in inhibition. The stone is a center of nature's forces, the plant a center of nature's life, and the animal, as the play-ground of stimulus and response, is, although in a conscious form, the manifestation of nature. But, in the human order, we have not simply a 'recept,' as it has been called, stored away in the physical organism; we have a concept or an idea of the totality of an inner conscious experience. The activity of this consciousness is not the response to stimuli, nor the mechanical explosion of nerve centers, but the expression of a will consciously possessed as its own. It is not gravity nor feeling nor instinct, but a self. The individual experiences his will as broken apart from the unity of nature as it exists in stone and plant and animal. He has been driven out of this Eden of animal and plant existence, and has begun his career as a lonely, and, as he feels, a separate self.

Primitive man made no sharp line of distinction between himself and his world. The earth, the sea, the sun—all that existed—was the expression of a life including, but not different from, his own personal life. A distinct consciousness either of theism or of atheism was impossible to an experience which had not distinguished spirit and matter. Self there was, and not-self. But this other-than-self was like one's self. This is what we might call the reflex stage of human experience. Streams, mountains, and stars are reacted upon as a larger self. No sharp separation is made between the individual will and the on-going of nature at large. But, with this highly reflective consciousness of self which we have been depicting, this easy-going monism is impossible. The individual has come to think and feel and act in and through his own idea of himself. This idea of self has gradually spread out over the whole field of his conscious life. And it has fenced in for him, as his own domain, this his inalienable and incommunicable selfhood. If any animal have this sense of personality, he is *ipso facto* no longer a mere animal. And personality will always make itself felt. Its existence does

not depend upon any theory of its credentials in our philosophical books. It needs no proof of its existence except its presence.

The human self is not synonymous with what we mean by a simple individual. Of course the self, if it is to be real, must be some particular reality. There must be a this as opposed to a that, else there is no individual at all. But mere individuality is not synonymous with selfhood. It is true that the more the universal, the type, prevails, the less the individual thing centers in itself. And this means that the more the universal predominates, the less is there due to the individual. But this does not hold in the case of the self, where the universal is, through knowledge, placed in the possession of the individual will. It, therefore, does not possess that will. It is this possession of the universal by the individual that constitutes the self. Consciousness in perception is aware that a thing exists. In conception a thing is known to be of such a type; but in self-consciousness there is the awareness that the content in question belongs to the type of reality which characterizes the knowing consciousness itself. The self, therefore, is not a discrete, separate this. In other words, the self-conscious individual is more than an individual, in that, being an object to itself, the type which it is to realize is in its own keeping. And, finally, the very definition of such a self, considered in its larger relations, links it in its very essence with the universal will.

To the historical theology, modern science has become a veritable enemy. The unbroken order of law, which is the very condition of science itself, has rendered the traditional theology hopelessly inadequate. But this does not mean that the truths of religion are, therefore, no longer truths. Without contradicting the great body of modern scientific facts, our human experience may be just as much in need of the teaching of Christ as ever it was; and, further, it may be that this teaching is but in part appreciated even to-day. This, indeed, is the real situation. The discourses of Jesus must be read anew in their own light, and not through any borrowed light. And the doctrines in which this truth can be set forth to-day must be stated in the terms of our own modern thought. The deadening paralysis which has come

upon the religious world of to-day is the result of our evolutionary philosophy, whereby all that exists — matter, life, personality — is so linked together in one unbroken series that the old religious values seem to have disappeared. Such, however, is not the case. The chasm between personality, conscious selfhood, humanity and that which is not human, not conscious of selfhood, be it animate, or inanimate, is the greatest chasm in the whole known universe. The consciousness of a self is not merely a higher form of the sense experience of the animal. Not a consciousness of objects, nor that a thing belongs to this or that class, nor yet any mere consciousness of things, but the consciousness that one is oneself the thing to which as end all else must be as means — this is the consciousness of self. And it cannot be described in terms of anything but itself. What the mirror is for the body, the individuating idea is for the self, and more ; for the self does not exist without it, but only through it. This break between the human self and the one-way process of nature in stone, plant, and animal is the cardinal fact of any theology which is worthy of the name. Just as light must first be broken into the prismatic colors before it can be woven into a rainbow, just as sound must be differentiated into the separate strains of music before they can be combined into a symphony, so must the universal will be broken up through the prism of humanity, differentiated into self-conscious wills, before there can be formed the kingdom of God. And this fall, this Adam-stage, every human will must pass through that enters the gateway of our humanity.

Below the order of humanity there is consciousness, mind, reason ; but there is no conscious personality, no individual selfhood. It is the mind of the species, accompanying the physical organism, and determined by heredity, a racial mind, as opposed to the individual minds of our human order, where the will through the individuating idea has become an object unto itself, and is, therefore, in its own keeping. This explains the break which exists between the human self and the order of nature. This is the point at which all the philosophical religions have one common center, and their different theologies are the different

answers they have given to this problem. Through the prism of humanity the universal will is individuated. Each individual self, so far as it is realized, is a form of will in its own keeping. Here, therefore, is the starting point of all theologies, as well as the termination of physical science. The study of the physical organism gives us the science of physiology. But we are forced on to another science, the science of biology, because conscious processes are associated with those organisms that have a nervous system. And here, again, the study of the facts of consciousness gives us another science, that of psychology. But there is yet another fact, the fact of the self, the person, the human individual, which makes necessary still another science. This is the science of theology. And the unit in this science is the individual self. What the atom is to chemistry, the person is to theology. If this self-consciousness cannot be analyzed into a form of protoplasm, it must be regarded as the individuated form of a larger life. And all the great systems of human thought center here. To Buddhism the self is an illusion. To the Brahman it is an unreal form of an infinite spirit. Materialism makes of the self an effect of organized matter. Whatever the system of thought, the touchstone is the self.

J. DASHIELL STOOPS.

PROFESSOR ROYCE AND MONISM.

IN the following pages I wish to examine one of the most notable of recent attempts in the direction of a monistic view of the world. As the views of Professor Royce are familiar to the readers of this Review, I shall content myself with a very brief statement of them as a basis for criticism, and that, too, rather as a summing up of the general spirit of their main result, than as an adequate account of the process by which they are reached. — Any fact of human experience is, as we come to know, a great deal more than it feels itself to be. My conscious life has, for the most part, a felt relation only to a comparatively few facts in the universe ; it has a real relation to everything whatever. There is consequently a system of related existence which includes all that thought can cover — our own selves as truly as the outer world. Now, the fact that the entire universe can be thought together, makes it necessary to conclude that its existence also falls within the compass of a single unitary 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 experience. The validity of knowledge has no meaning except as our judgments are 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. Accordingly, 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 in which the idea, which in our own experience so often is divorced from its object, is brought together with it to form a living whole of feeling.

In considering now certain aspects of such a philosophical conception of the world, I should like to be understood, not primarily

as holding a brief for an opposing theory, but rather as desirous of having light shed upon some points about which I find myself not altogether clear. I am free to confess the difficulty of finding a complete answer to Professor Royce's arguments. On the other hand, there is one great objection to the acceptance of his main result, which seems to me fatal; and yet, as it appears not to be felt as a difficulty at all by Professor Royce, or by the defenders of monism in general, I cannot avoid the suspicion that I must somehow be befogging myself in thinking that I find any difficulty there. I shall, accordingly, after first pointing out a few minor details in Professor Royce's argument which seem to me inconclusive, go on to state briefly what this difficulty is. Then, assuming that, if it is at all a real one, it must be possible in some way to avoid the apparent force of his central argument, I shall make what suggestions I can as to the point in which this seems to me to fail.

In the first place, I shall examine briefly the practical tests of truth as we actually apply them, distinguishing this inquiry for the moment from the transcendental argument as to the conditions of truth and error upon which Professor Royce mainly depends. In general, then, it may be said that advance in knowledge is represented by an ever-growing inclusiveness.¹ This, however, does *not* mean that our experience enters into a continually wider experience. On the contrary, we abstract here altogether from concrete experience as such, and have to do only with the *thought* about reality. I do not mean that this reality which we are thinking about may not include, or indeed may not be, concrete experience, but only that for the moment we are taking it, not as experienced, but as known or thought about. We are approaching it from the standpoint of knowledge, and immediate experience forms a test of this simply, not a part of it. We are endeavoring to bring the whole of reality within our thought, wherein we wish to make it consistent; and consequently we have nothing to do with our direct experience, except as this forms a part of the reality which has now been transformed into a thought reality. Accordingly, while it is true from this

¹Cf. *Religious Aspect of Philosophy*, pp. 393, 405.

standpoint that truth involves the inclusion of all elements within a single consciousness, this has no self-evident metaphysical bearing, but simply means that my knowledge of reality must belong to the unitary me, in order to be my knowledge at all.

But there is another standpoint from which, again on the practical side, we may regard the question of truth and error. I say that a thing is true, when I can verify my thought about it by an appeal to direct experience.¹ If I think that a book lies on my table, I can only in the last resort be assured of this by looking to see; and the coincidence of the experience I get with that which I expected is my test. But here again we only seem, on the surface, to have an indication of our way of deciding what truth is, not a statement of what reality has to be in order that truth should be possible. The thought of the book and the sight of the book do indeed come within a single experience wherein they are compared, but this from the common standpoint falls short of Professor Royce's transcendental argument in two ways. In the first place, we think we mean a great deal more by the truth of the book's existence than the fact that my thought has been compared with my perception; we mean that this latter has been a sign to me that the book is there apart from any private experience of mine. And this real book does not, for our practical test of truth, come into a unity of experience with our thought at all. The coincidence of thought with experience exists solely, from the practical side, within *our* experience.

Moreover, this coincidence looks to me like a fact which belongs essentially to a finite and growing experience, and I am not clear what the duplication of thought and experience can be like for an absolute being.² Why, any way, do I think about things? So far as I can see, it is only because, for the moment, the direct experience which I desire is impossible. But the Absolute is such an immediate experience eternally, and so thought, as abstract and distinguished from experience, would seem to have no meaning for him. It is necessary, that is, to keep distinct the two uses of the word 'thought' which are sometimes confused. We may say that any concrete experience is a thought

¹ *Conception of God*, p. 9.

² *Ibid.*, p. 10.

experience, or rational experience, meaning that it is not merely a confused mass of feelings, but an articulate and intelligible whole. But this does not mean that in any sense we have two things — an experience, and a thought about it; the experience is one. The thought about it, using thought now in the ordinary sense, is something which may precede or follow the immediate experience, lead up to or reproduce it; but I can get no distinct notion how it can exist together with it. It may be true that a relatively passive experience, the vision, say, of the book, can coexist with the thought of the book. But that to which both the thought and vision of the book lead, and which alone gives them their meaning, is a thing of which it cannot be said that a thought is realized in something distinct from it; if, for example, we begin to read the book with an active interest in it on its own account, our experience tends to be purely unitary. It may be that this is what Professor Royce means, when he says that in God the factors of idea and of feeling are inseparably joined. But if that is so, then the point from which he starts, and which involves the function of thought as distinguished from concrete experience, seems to be out of all connection with the Absolute; and the coincidence of thought and experience in us can furnish no true notion of the ultimate basis of truth.

In so far, therefore, as Professor Royce endeavors to provide a starting point for his thesis by reference to the ordinary facts of our empirical judgments about reality, it does not seem to me that he is successful. And I am inclined to think that the terms by which he attempts to recommend his position to ordinary ways of thinking, are due to a confusion of the two standpoints just considered. "The ideal world," he says, "is linked to our actual experience by the fact that its conceptions are accounts, as exact as may be, of systems of possible experience whose contents would be represented in a certain form and order to beings whom we conceive as including our fragmentary moments in some sort of definite unity of experience." Again, "all our knowledge of natural truth depends upon contrasting our actually fragmentary experience with a conceived world of organized experience inclusive of all our fragments."¹

¹ *Op. cit.*, pp. 27, 28.

Now knowledge does, as has been seen, imply the bringing together of all reality within a single whole, by reference to which the truth of the part is judged; but it is a whole of knowledge, of some one's thought. To change this now to an inclusion of our lives, as concretely experienced, in a larger whole of concrete experience, may represent the truth; but I do not think it is equivalent at all to our natural thought. For the ordinary view, individual lives, as realities, are separate from the world. To bring them together with it in an inclusive whole, would only serve to confuse our apparently clear ideas of the orderly course of the external universe, as we construct it in terms of sense perception. If philosophical considerations lead us to conceive of the reality of this world as a system of orderly experience, it would naturally be, not as an experience which includes all the fragments of human consciousness, but rather as one which includes the reality of which these fragments are imperfect representations, existing in relative separation from it. Our immediate experience as such does not come into question until we turn to the second standpoint, according to which experience tests our thought; and this is not only a different standpoint, but it also fails to take us outside the individual's experience, so far as forming a conscious unity is concerned.

But even if the practical tests of truth are not available, this of course need not militate against the more transcendental argument. And it might at first seem a somewhat hopeless task to attempt to get out of the toils of this argument, since, as it seems, the very fact of its not being true would only prove its truth. If human beings were really distinct from God, such a separation would only be *true* as it came within a single unitary consciousness, and so would not be true at all.¹ Before taking this up, however, I wish by way of preparation to elaborate a little the fundamental difficulty which I find in Professor Royce's conclusion.

And in a word it is this: there are certain aspects of our actual human experience which I do not see how it is possible to make consistent with an all-inclusive experience, without prac-

¹ *Op. cit.*, p. 169.

tically denying their existence outright. The point is at bottom very simple. I will take as an illustration the fact of ignorance. I am, we will suppose, at work upon a problem which baffles me, and of whose complete solution I am at present ignorant. This present state of consciousness of mine is a concrete fact, which psychology may make an object of study. Now, can this concrete state of mind exist in all its detail for an all-knowing consciousness? I can only reply that to me the supposition seems to involve a contradiction in terms. The only analogy according to which to represent this inclusion, is in terms of a later experience of our own, which recalls the details of the former difficulty, while yet it sees the way out. Now conceivably all the details might be remembered or known by such a later and more comprehensive experience; but does that mean that all the aspects of the earlier experience would be present unchanged in the later one, by a direct examination of which they could, if necessary, be adequately cognized? Would not this come pretty close to being an example of the psychologist's fallacy? Can a mental state possibly be the same in itself, when its relationships in consciousness are decisively altered? Take, for example, the feeling of being baffled. Can I feel baffled and see the solution in the same experience? Can I feel baffled and feel everything sun clear all as a unitary fact of consciousness? I can remember that I was baffled in the past, but this is not identically the same fact as the preceding fact; I can recall the feeling itself, in anything like its original completeness, only as I am successful in temporarily banishing from consciousness my more recent and completer knowledge. Nor, again, is the later experience the same fact that it would have been, had a previous experience not existed in which my whole consciousness was tinged temporarily by the presence of a problem unsolved. Had there not been a period in which I did not see the solution, I could not now know my ignorance. There is nothing esoteric about this; a glance at any act of psychological introspection will show what it means. The possibility of coming to a knowledge of a past state, without confusing it with the present knowing state of memory, is presupposed in the existence of the science of psychology.

The point is, then, that the attempt to make what we call human experience an identical part of a comprehensive and all-knowing experience, involves a confusion between the existence of a state as a fact of immediate feeling, and a subsequent knowledge of that state, separated from it empirically by an interval of time. When we carry the problem over to the Absolute, for whom there cannot be such a past experience, limited within itself, and temporarily unconscious of anything beyond its own limited content, it involves the assumption that a particular element of consciousness can be taken as an absolute piece of existence, whose nature is not influenced by the character of its associates. Is my feeling of ignorance identical with God's consciousness of ignorance? If it is, we are bound to accept an Absolute who grows in knowledge after the fashion of human experience. Is my consciousness of ignorance different from God's? Does the human fact change as it enters into the larger whole? It is almost impossible to state the theory without using words which imply that this is so; it is quite impossible, in my opinion, to think it, without recognizing that it must be so. But if the human fact is changed, it is not the same; there are, that is, two facts, only one of which comes directly within the Absolute experience. My actual feeling of ignorance is something which God cannot feel in the way in which I feel it. For one thing, it is something entirely dominating my consciousness as a whole, and this carries with it a peculiar qualitative result in terms of feeling; it can never characterize God's consciousness as a whole.

If it is insisted that this distinction of whole and part does away with all the difficulty, again this fails to meet the point. It is not the fact of being a part which causes the difficulty, but the quality of consciousness which goes along with the limitation. In particular, a distinction must be made between the consciousness by a total experience of one of its parts, and a feeling that a smaller totality has of its own limitation. A sensation, in my conscious experience, does not feel itself a limited element of experience, though I, the total consciousness, can know it to be such. But I as a human self can feel myself to be a part, beyond which other reality extends. The being a part *de facto*, and the

recognition by this part that it is a part, are two entirely different things, and it is only the first case which has any real analogue in the relation to which Professor Royce appeals to make his position intelligible—the relation of a sensation to our own larger experience. In other words, the presence of a limit gives a distinct tone to our consciousness, and this is something that must always belong to a part of reality, not to the whole. That it is really a matter with Professor Royce of a consciousness attaching to a distinct part of reality for itself, and not the conscious knowledge of an element by the whole to which it belongs, is shown, I think, in the fact of a separation in human experience between an idea and its object. It is the partial idea which recognizes itself as detached from its object, and the object as lying beyond its present reach; it is not God's more inclusive consciousness, since for God the separation does not exist. Is not this, on Professor Royce's hypothesis, like trying to imagine a sensation of red conscious of its distinction from blue?

If there is any force in the foregoing criticism, I see only two possibilities open. Either we must deny that the apparent facts of human consciousness—the facts that psychology investigates—have *any* existence; or we must admit that there are facts which cannot be conceived as lying within a single comprehensive experience. The former alternative I do not believe will be widely accepted. It is pretty well understood at the present time, that to call a thing phenomenal is not to deny its existence. An unreal appearance as compared with the reality which appears, it still, in order to be even an appearance, must have reality as a subjective fact; and it is precisely this subjective reality—reality as a finite fact of consciousness—which furnishes the problem.

Again, therefore, if the difficulty be admitted to be a real one, there must of necessity be some flaw in Professor Royce's main argument for monism. I wish next, accordingly, to inquire wherein the plausibility of this argument consists, and whether there is any way in which it may be met.

And I think it may be admitted that, if ultimate reality has no existence except in the form of 'truth,' *i. e.*, of thought, or knowledge, or an intellectual synthesis, Professor Royce's con-

clusion has a good deal of force. For a thing to be true, it must be true for a conscious being; and if truth, *i. e.*, inclusion within an intellectual synthesis, is the final word of philosophy, it also seems to follow that we cannot conceive of reality as involving more than one experience. For any single experience, that would not be true which did not come within its own immediate unity, exist merely as a part of its knowledge; and so, if two or more experiences existed, they would exist as so many distinct universes, which could stand in no possible relation to one another.

But may there not be another alternative? May it not be possible that the knowledge of reality, and the reality which is known, should, after all, not be entirely on a footing? Might not truth or intellectual knowledge fail in some degree to exhaust the nature of the real, and might not this failure possibly apply to the point at issue — the direct inclusion of all¹ reality within a comprehensive whole of experience? Without attempting at present to justify its validity, I wish to point out that there is another category by which we are accustomed to think the unity of life, and that this is, moreover, for practical thought, a far more vital and ultimate one than the category of knowledge. This is the category of *active purpose*. Our experience is a whole just so far as its parts are consciously related to an inclusive end. But now meaning, or end, again, as it actually enters into life — and philosophy is not called upon to invent its categories, but only to discover them — is essentially a social thing. If I look to what I mean by a self, it is always a self in active coöperation with other selves. The unity which includes them is not anything which merges them into a single self. It is the unity of end, which, present ideally in each, enables them to act together and mutually contribute to one another's life. The connection is thus one of active *coöperation* between beings who possess each a life of his own, rather than of identity, or inclusion within a single consciousness. The statement that truth requires a unity would have, on such a theory, to be taken in a way which did not exclude this real separateness. That truth requires the unity would be simply our previous practical postulate, that for any fact to be *known* as true, it must come within the unity of the knowing self.

But this knowing as true would be only a function of an individual subject, and would not necessarily imply that the reality known — other selves, that is — must be a unity of the same sort. The ideal representation of the whole in knowledge would be only a means through which each individual would be enabled to play his part in the higher unity — the unity of social coöperation.

Of course this is hardly intelligible, if we confine ourselves to the standpoint of the human self. The fact that I know reality external to me furnishes evidence of, but not ground for, a more ultimate connection. There is as yet no reality in which the unity of the whole is immediately reflected; nothing to gather up the broken threads of the universal purpose as it appears in the partial and limited human experiences. And, accordingly, the demands of Professor Royce's argument are still unmet in a world made up solely of human selves. But if we suppose the existence of a self-conscious experience on which my own life depends, in a sense in which the opposite is not true, we are in a somewhat better position. Suppose we grant that God exists as a member of this community, but without the limitations and the ignorance of men. He exists, not as a thought unity, but as a unity of active life, whose nature is such as to require the positing of other lives which do not come within the same unity of experience, as immediate experience. He also is a social being, as men are, and finds his life in social coöperation; but the complete conditions of this life are eternally present to his consciousness. The whole of reality would thus be essential to the life of God, and would even, in the form of *knowledge*, come within in. All reality whatsoever would be known by God, and in this sense the Absolute would be able to compare my knowledge with the reality known by me, as Professor Royce requires. He would not do so, however, by bringing the two directly within a unity of experience; with him, as with us, the unity would be one of knowledge. My thought about reality would still be mine alone. It would be his knowledge of the thought, not the thought itself, which would come immediately within his own experience, and on which the comparison would be based; just as I base com-

parison on realities as they come within my experience and are known, not as they exist for themselves.

To come back, then, more directly to Professor Royce's argument. The suggestion of a way in which it may be met is already implied in what has just been said. There may be distinguished two possible meanings that the argument might have. The first is, that truth and error demand the existence of a being — a conscious experience — to whose knowledge all possible truth is eternally open, although this knowledge does not *constitute* all reality. As knowledge, it is within a unitary consciousness, while yet reality, to which the knowledge refers, may exist beyond this unitary consciousness. Knowledge, in other words, is the servant of life, and life is social. The other meaning is, that the validity of truth requires that reality itself should come entirely within a single experience; that knowledge implies the existence of the thought, and the object thought about, in a comprehensive unity of immediate consciousness. The question I would raise is: May not the first supposition be held to satisfy all the legitimate demands of Professor Royce's argument?

The argument appears to reduce itself largely to this: that the fact of meaning anything is unintelligible, unless the object meant is already in possession. And this, again, comes back ultimately to the fact that otherwise we could only mean our own idea of a thing, and therefore error would be impossible. The connection of the meaning with the real object would have no criterion.¹ Now we shall have to admit that, from the human side, there is no absolute criterion of correspondence. The fact of hitting the right mark is not something that depends upon us, nor is it anything that we can test directly; it has its ground only in reality that is more fundamental than our finite lives. But this is equally true on Professor Royce's theory. Since the wider self that embraces both factors is not our partial self, as actually present for us in experience, it is not pretended that we as finite include the two terms. But, on the other side, the correspondence is not inexplicable. The possibility of the existence of my life as a fact outside himself would not be, for God, a something given, as with

¹ *Conception of God*, p. 179; *Religious Aspect of Philosophy*, pp. 397 ff., 411.

us, in a sense, the existence of the object is given; but all the conditions which make it possible would rest consciously within himself. He would not have to learn by a gradual process to know my experience; that knowledge would be originally implicated in his own nature. In terms of the time process, my life only arises at a certain point; but God is eternally prepared for the appearance of this life of mine. His essential nature consciously involves this knowledge, as well as the 'social relationships which the knowledge subserves, and which help to form the content of his being. There would, accordingly, be no uncertainty for him as to the meaning which he has, or as to its falling on the right object. God could not be in doubt whether my thought, the knowledge of which, within his own unity of consciousness, he is able to compare with the object it aims at (also within his consciousness), really means this object. No thought of mine could possibly exist without the conditions of its existence depending, down to the least detail, on the reality of God's own immediate and eternally conscious life.

To sum up, then: The ultimate concept for the understanding of the universe is not self-consciousness, but a *society of selves*. In this God stands for that ultimate Self in whom there are centered consciously the conditions of all reality whatsoever, and by whom the whole universe, and so all truth, is consciously realized throughout all time. It is this I should substitute for Professor Royce's conception, and it seems to me to meet the needs of his argument. In conclusion, I wish to call attention to two of the more obvious objections which may be brought against such a philosophical position.

In the first place, it may be claimed that the distinction which it is compelled to draw between the Absolute Self, or God, and the totality of existence, is a fatal and impossible one. I will not say that the difficulty is not real; I only ask that it be not exaggerated by the refusal to keep the qualifying considerations in their proper balance. The theory can be taken to mean, for example, that each self has an existence in its own right, and that the relations are superinduced upon it; whereas the very essence of the conception is, that reality consists of selves *in rela-*

tion. As opposed to this error, it may be advisable to lay stress upon the point of view from which human selves appear as created, and God as the only ultimate existence. This is true in the sense that, when we take reality from the standpoint of its history in time, God is the original presupposition, who contains consciously and eternally within himself all possible conditions; while the human self appears only at a certain point in the world process, depends for its existence upon these conditions already existing, and has no freedom of action which takes it outside the general purpose which is summed up in God's immediate life. For such a dependence, in terms of the temporal process, we have no better word than creation.

But creation may also be taken to imply that the created being has no essential relationship except to the mere will or power of God, and that its existence, therefore, is an arbitrary matter. This, however, is not at all what is meant. God is not first of all a being sufficient to himself, who afterwards decides to create other selves; he is social in his inmost nature. And, accordingly, I am an essential constituent of reality, in the sense that my life enters definitely into the purpose which from all eternity is working itself out in the life of the universe, and which is eternally present in the consciousness of God. God would not be himself if it were not for the part which I play in his life. But while the point at which I make my appearance on the stage is thus not determined arbitrarily, but has its due preparation, it *is* nevertheless only at this particular point that the need for my life arises, and it becomes actual. It is only as a factor in God's conscious knowledge, which has in so far an influence on the progress of his life, that it is eternal; as my direct experience and act, it begins to be.

But here, again, it will be said that we are distinguishing between God and Absolute existence, and are making God less than the whole. In a sense, the objection undoubtedly is true. God's immediate life, on such a showing, is not coëxtensive with reality. He is absolute in knowledge, absolute in the completeness of his experience, which has no broken edges; but he is in point of existence less than the whole. But the objection usually

is intended to imply — and this I believe is not true — that in saying this we are *limiting* God. Which, however, represents the higher type of existence, I will ask, judging by the best standard we are able to apply : a being who is shut up to his own self-centered nature, or one who finds his life by losing it in the common life which he shares with others ? And if the latter is our truest ideal, why should we still claim that because God is such a God rather than another, his dignity is therefore lowered ? It is the very condition of his absoluteness, in the true sense, that there should be beings beyond him to increase the perfection of his own life. And if it is said that we do not see how reality can give rise to such quasi-separateness of existence, I do not understand why it is not legitimate to fall back upon the answer that our business is to state what reality is, and not how it is possible. If such a conception is thinkable, and if it should happen to be a conception to which the facts of life point us, is not that enough ? No finite intelligence, of course, could understand the ‘how’ of the fact. It is sufficient for us if we can see its *meaning*. And since this meaning is implicated in our whole life of action, it is by no means obscure.

The second objection I shall mention may seem even less easy to meet satisfactorily. It is this : that we appear to be compelled to admit as actual the existence of relations lying outside a thought content or activity. The relations between selves must have a reality which is other than what they have for anyone’s thought or knowledge, even that of God. The relations are reproduced in thought, both God’s and men’s, but they must also be real already in order thus to be reproduced. Relations, to repeat, or certain relations, must be real outside of consciousness. If this seems to the idealist a hard doctrine, I have only two suggestions to make by way of palliation. One is, that it is balanced by what seems to me an opposing difficulty of even greater seriousness on the other side. For while the other difficulty involves a self-contradiction, I am unable to see that there is anything self-contradictory in the idea that a relation, capable of being thought, can also exist outside a unitary thinking consciousness. We have not to do with an opaque and unintelligible fact ; the

relation is thinkable, and both the related terms are open to our knowledge.

And for the second point, it appears to me that something of the sort is tacitly admitted by Professor Royce himself in connection with the fact of human knowledge. If I do not misinterpret him, Professor Royce would agree that there is, in a certain sense, a transsubjective aspect of knowledge. It is possible for me, that is, to know a reality which has an existence beyond the limits of my finite knowing consciousness. This, no doubt, is considered possible only on the condition that a wider range of consciousness extends beyond me, inclusive of the object at which I aim; but still the fact of a transcendent reference remains. Now what I wish to point out is, that if this is so, there exists, as a matter of fact, an aspect of knowledge which involves the thing at issue. There is, in other words, in human knowledge such a thing as a reference to reality lying outside the particular knowing consciousness itself, which thus reveals the existence of a relation which the consciousness, as a concrete fact of knowledge, does not create. This is not got rid of by an appeal to the closing of the gap in God's knowledge; for that knowledge, if the transcendent reference is not present in it, must be in so far a different thing from ours. Again, we would seem to be compelled either to deny the existence of this reference in any form, or else to admit that it exists as a fact beyond the circle of God's immediate life. In the first case, it would at least be necessary, I think, to remodel Professor Royce's position very considerably. In the second case, there is admitted the existence of that as a fact which is all the pluralistic theory demands—the possibility of a connection in terms of knowledge between selves who yet are distinct, so far as immediate experience or feeling is concerned.

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REVIEWS OF BOOKS.

The Varieties of Religious Experience: A Study in Human Nature.

Being the Gifford Lectures on Natural Religion Delivered at Edinburgh in 1901-1902. By WILLIAM JAMES. New York, Longmans, Green, and Co., 1902. — pp. xii, 534.

Reading this book is like walking in a great forest — one enjoys the foliage, the light and shade, the vistas of mountain and valley, and even the tantalizing sense of not knowing exactly whither one's feet are tending. Of the freshness of the thought, the exuberance of the diction, the impetuosity of exaggeration that often reveals truth better than exact statement, of all these it is enough to say that the theme has been wrought out in James's most characteristic style. The material, too — chiefly personal confessions — is extraordinary in range and fulness. Wealth of matter and fascination of form tend, in fact, to conceal the plan. The psychologist is, of course, everywhere in evidence. Mental states are dilated upon with all the fond caresses with which the author's writings have made the whole world familiar. Yet the psychological motive alone does not account for the book or fix its plan. Values, rather than mental laws, occupy the foreground of attention, and the ultimate goal is a solution of the ancient problem: 'Is religion true?' To this problem a second volume will be devoted, in which the solution that is here only suggested and outlined will be supported in detail.

What we have before us, then, is an analysis of certain varieties of religious experience with a view to discovering their value — their value, that is, for this life as an empirical fact, with empirical standards. Distinguishing sharply between existential judgments and judgments of value (Lecture I), the author proceeds to show that religious experience in its two chief types tends to unify the mind and to adjust it to its natural and social environment. These types are "the religion of healthy-mindedness" (Lectures IV, V) and that of "the sick soul" or "the divided self" (Lectures VI-X). Healthy-minded religion signifies an effort to attain peace and unity of mind by turning the attention away from evil and denying that it belongs to us. The sick soul, on the other hand, asserts that evil is so inherent that relief can come only through redemption from without. One denies evil, the other magnifies it and demands a correspondingly marked deliverance. One finds its extreme representative in the 'mind-cure' and

'new-thought' movement of the present day, the other in the familiar conversion phenomena of the evangelical churches. Both attain, in a general way, the end in view. There follows an admirably penetrating analysis of the saintly character and its value (Lectures XI-XV), ending with the conclusion that, after making allowance for excesses and defects, we must leave religion, on the whole, in possession of its "towering place in history" (p. 377). It is "an excitement of the cheerful, expansive, 'dynamogenic' order, which, like any tonic, freshens our vital powers. . . . It is a biological as well as a psychological condition, and Tolstoy is absolutely accurate in classing faith among the forces *by which men live*" (p. 505). "It would seem that she [religion] cannot be a mere anachronism and survival, but must exert a permanent function, whether she be with or without intellectual content, and whether, if she have any, it be true or false" (p. 507).

In the course of this analysis, the author has made a significant contribution to the psychology of individual types of character. If some one would supplement it by an experimental and physiological study of the same types, the results would be doubly valuable. Overtopping everything else in the book, however, is the evidence that it presents concerning the general place of religion among our vital functions. Benjamin Kidd and H. R. Marshall, fastening attention upon certain aspects of religion, concluded that its essential function is repression of the individual in the interest of society. But both failed to interrogate effectively one of the essential witnesses, namely, the immediate consciousness of the individual. If, as we shall see, some of the wider aspects of religion escaped James's scrutiny because he was so intent upon the voice of individuals, nevertheless he has laid bare a fact of the first importance. It is that religion is not repression, which would produce uneasiness and strain, but rather release from tensions which we find in ourselves "as we naturally stand" (p. 508). It is now in order for some one to show how this expansion of the individual consciousness becomes a socializing force. James himself gives only a hint on this point (pp. 273 f.).

Having established the value of religion, the author proceeds, in the closing chapters, to ask where we should look to find the truth thereof. Intermingled with all the evidences of value, he had already found strong presumptive evidence of truth in the ever-present sense of reality conveyed in religious experiences. How get beyond this mere presumption? Mysticism claims to have metaphysical insight, but its illuminations cannot be communicated to the non-mystical (Lectures XVI, XVII). Philosophy professes to prove the existence

of God, but it, too, breaks down (Lecture XVIII). Idealistic proofs of a universal mind are disposed of as follows: "A majority of scholars, even religiously disposed ones, stubbornly refuse to treat them as convincing. . . . If transcendentalism were as objectively and absolutely rational as it pretends to be, could it possibly fail so egregiously to be persuasive" (p. 454)? We are thrown back upon the immediate impression of the religious experience itself. "If definite perceptions of fact like this cannot stand upon their own feet, surely abstract reasoning cannot give them the support they are in need of" (454 f.).

Yet the evidence is scarcely as simple as this. At one moment, to be sure, the self-evidence of religious feeling seems to be final (pp. 431, 455), but in the next breath we are told that "the uses of religion . . . are the best arguments that truth is in it" (p. 458). Again, we are assured that all realities are of the same kind as conscious personality, while the impersonal world of the sciences is an abstraction (pp. 498-502). This leads toward idealism, but we are halted by the discovery that religion "must stand or fall by the persuasion that effects of some sort genuinely do occur" through prayer (p. 466). The several types of thought here represented are not unified. The general structure of the book leads us to think that the value of religion is somehow to prove its truth, yet the final word puts the chief stress upon the effects of prayer. They are merely subjective (pp. 464, 477, 523), but they require a cause. They come to the surface, for the most part, through the subliminal stratum of the mind (pp. 477-484, 511-519, 523, 524). Here in the dark something sets going saving experiences (p. 515). That something is good, for the effects are good, and it is personal, for only personality fills out the notion of cause (p. 502, note 1).

In religious experiences, then, a spiritual world breaks into the series of natural events (p. 524). The inference therefrom is not theism, or divine immanence, or monism of any sort (pp. 524-526), but "piecemeal supernaturalism" (520), the primitive philosophy of the savage (pp. 495-498). Pluralism is held to be favorable to religion, nay, essential to it. For a god who is to produce effects in our world must, it is said, be specific and relative. "An entire world is the smallest unit with which the Absolute can work, whereas to our finite minds work for the better ought to be done within this world setting in at single points" (p. 522, note).

In view of the author's intention to deal with these metaphysical matters more at large in another volume, our estimate of the present

product should be somewhat provisional. An additional reason for caution is found in the qualities that make James's writings so fascinating. Probably no one realizes more distinctly than he that his method has a touch of romanticism, not to say impressionism, about it. Testing the outcome of such a method by classical models, we should expose faults without bringing merits into proper relief. In a case like this, the merit lies in suggestiveness rather than in system or conclusiveness. There is scarcely a page of the present work that is not suggestive; and at the focal point, namely, the value of religion, it is mightily illuminating. The conclusion and postscript come in almost as afterthoughts, and they certainly bequeath a large task to the projected volume on the philosophy of religion. It will need to show how scientific method can maintain itself at all if, as is here asserted, experience contains two un-unified series, one natural, the other supernatural. The *deus ex machina* which is brought upon the stage at the end of the plot appears to be not only extra-scientific, but also anti-scientific. In other words, an ultimate dualism that is capable of manifesting itself in experience contains, in principle, the destruction of science (cf. p. 236, note; also p. 270). It is conceivable that we should be indefinitely baffled in our efforts to reduce to law certain phenomena of the religious consciousness, but the psychologist must cling to his assumption of law, and he must keep on searching for empirical connections, if necessary, world, without end.

It may not be amiss to note also two or three specific points which the projected volume may be expected to clear up. First comes the question of a criterion of the truth of the religious consciousness. If, for example, the arguments of the present work were to be subjected to the test that is supposed to snuff out idealism, the result might be fully as summary. On the other hand, the present effort to rationalize religion warns us not to rely wholly upon our private impressions. Then, there is the relation of value to truth. When we look to see the worth of religion prove its truth, we are offered a special causal judgment of the same kind that Cotton Mather employed for proving the reality of witchcraft. A gleam lights the horizon when we are told that personality is the only kind of reality we know, but it fades when the argument against a monistic God assumes that work for the good is possible only in an un-divine world (pp. 520-524). Finally, we are puzzled to find the subjective effects of prayer, which are referable to the natural order as facts of suggestion, employed as evidence that a spiritual world breaks into the natural. It seems strange, moreover, that the author of that striking passage in the *Psychology* which shows

that self-consciousness involves a reference to "God, the Absolute Mind, the Great Companion" should here find God in the effects of prayer rather than in the impulse to pray. We are given neither psychological analysis nor metaphysical evaluation of the constitutive features of our mind which make religion universal. The nearest approach to such analysis is the recognition of a natural "uneasiness" and the "solution" of it through religion (p. 508), and the solution is very different from the "adequate *Socius* in an ideal world" of which the earlier discussion of prayer speaks. Here it is said that "all that the facts require is that the power should be both other and larger than our conscious selves. Anything larger will do, if only it be large enough to trust for the next step" (p. 525). Here is a question of fact as to what the religions impulse really demands. Probably most observers will agree that the earlier statement is the more profound. In our consciousness of ourselves as limited, there is involved a more or less articulate demand for wholeness in some ultimate unity.

The question of method in the psychological study of religion is so important that another critical reflection may be permitted. It is a matter for congratulation that both James and Münsterberg, though they find intense religiousness and even religious leadership often associated with neurotic tendencies, nevertheless declare that the value of the religious state is to be judged independently of the neurological condition. (See Münsterberg's *Grundzüge*, vol. I, p. 169.) This distinction is vital to the psychological study of religion, as it is also to the religious life. Yet one can sympathize with the man who declared that he would not admit the truth of any proposition until he knew what use was to be made of it. Surely, there is a presumption, a value-judgment, in favor of healthy nerves, and in a matter as universal as religion, an estimate of worth founded upon extremes must be hazardous. Yet that is what is here attempted. No effort is made to separate the typical from the aberrational, all the following expressions being used with respect to the same cases: "More completely evolved and perfect forms" (p. 3); men "most accomplished in the religious life" (p. 3); "deep in the religious life" (p. 484); "expert specialists" (p. 486); "most one-sided, exaggerated, and intense" (p. 45); "eccentricities and extremes" (p. 50); and "an acute fever" (p. 6). Why should such extremes be regarded as a "most peculiar and characteristic sort of performance" (p. 45)? There is here no proper recognition of religion as a universal human phenomenon. The average religious man is even said to be an imitator of the extremist, who is the "pattern-setter" (p. 6), and we are advised to estimate the value

of religion for life at large by "subtracting and toning down extravagances" (p. 50). Now, extremists have been pattern-setters only in the sense that they have here and there dug channels in which parts of the universal flood have moved; they do not create the flood, or give it its general direction, or measure it. This flood is what constitutes the great problem for psychology. That the present work attains a trustworthy conclusion as to religious values is due to the fact that the author's horizon has been vastly wider than he specifically recognizes. Though at the outset (Lecture II) he disclaims the intention of studying religion in its broader aspects, nevertheless, as the discussion goes on, religious consciousness in its totality comes under contemplation and he even feels it necessary to "finish" a "picture of the religious consciousness" (p. 458). The finished picture, however, owing to the exceeding prominence given to morbid growths, can hardly be regarded as a portrait.

But our picture of the book will itself be distorted, if we stop with these general characterizations. For the details of the treatment are exceedingly varied and rich. To do even approximate justice to them would require a catalogue that is impossible in this place. All through the book are penetrating insights, appreciations, and opinions. As examples may be mentioned the analysis of healthy-minded optimism with reference to its two types, the naïve (the Greeks) and the reasoned out or voluntary (Whitman) (pp. 84-88), and especially with reference to the motivation of the 'mind-cure' and 'new-thought' movement (pp. 94ff.), the description of saintliness (pp. 272ff.), of the varieties of asceticism (pp. 296ff.), the proof that an ascetic element is needed in modern life (pp. 360ff.), the analysis of mysticism, including mystical experiences under the influence of anæsthetics (Lectures XVI, XVII), finally, the various references to the relation of feeling, conduct, and useableness to merely intellectual constructions (pp. 72-74, 327-332, 498-507). It should be borne in mind, however, that these special insights, together with the metaphysical interpretations that have largely engaged our attention, are all subordinate to the one great idea of the value of religion (p. 259). The treatment of this point is a distinctive and permanent contribution to the psychology of religion.

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La philosophie de Fichte: ses rapports avec la conscience contemporaine. Par XAVIER LÉON. Paris, Félix Alcan, 1902.—pp. xvii, 524.

A new book on Fichte, embodying the results of a ten years' study and giving an exposition which is at once discriminating and sympathetic, may surely hope for a hearty welcome from all students of modern philosophy. The chief task attempted in the volume before us, is that of exposition. The author makes no reference, in his discussion, to Fichte's life and character (the subject of a future volume), to his influence upon the age in which he lived, or to the influence of this age upon him. Nor does he attempt to give us an exhaustive study of the sources of Fichte's philosophy. One chapter traces the development of the epistemological problem from Descartes to Fichte, and there are frequent references to Kant; but it is evident that the author's main concern is with the Fichtean doctrine itself. And in dealing with this doctrine his purpose is to give an exposition rather than a criticism. His effort has been "to comprehend, to think again . . . the thought of Fichte," rather than "to judge" (p. 506). This purpose has been, on the whole, admirably fulfilled. However greatly one may differ from M. Léon in certain matters of interpretation, one cannot fail to recognize his power of clear exposition, his sympathetic attitude, and his penetrating judgment.

The preface to the book is written by M. Boutroux. The volume is divided into four books and has, as an appendix, an elaborate chronological table of the events of Fichte's life. Book I, dealing with "The Spirit and Principles of the System," discusses Fichte's method, the three principles of the *Wissenschaftslehre*, and intellectual intuition. Book II is devoted to the theoretical philosophy; the first three chapters give an admirable exposition of the *Grundlage der gesamten Wissenschaftslehre*, and the fourth chapter discusses "The Problem of Cognition from Descartes to Fichte." Book III, which deals with the practical philosophy, has chapters on Fichte's theories of rights, morality, and religion, and a discussion of "The Moral Problem in Kant and Fichte." Book IV, which is an exposition of the second form of Fichte's doctrine, contains an introductory chapter, and in addition chapters on "The World of Experience" and "The World of the Supra-Sensible." The conclusion discusses "The Relation of Fichte's Philosophy to Contemporary Thought."

The vexed question of the relation between the earlier and the later forms of Fichte's doctrine will naturally receive consideration in any detailed study of his system. M. Léon is one of those who be-

lieve that there is no essential difference between the two periods, but only a difference in the terminology and in the mode of exposition (p. 53). In the earlier writings, Fichte employs the ascending order of exposition, by which we rise from the world to God. The various stages of the ascent are exhibited in the theoretical philosophy, the practical philosophy (including the theory of rights, the theory of morals, and the philosophy of religion), and the doctrine of love or blessedness. In the second form of the philosophy, which was left in an incomplete state at Fichte's death, his purpose is to show us the reverse order, "to descend from God to the world, or rather to consider the world . . . from the point of view of the God" who is realized in it (p. 413). This difference in mode of exposition, united with the fact that in the second mode the various stages are not clearly differentiated, has led to the belief in a radical change of doctrine on Fichte's part. Really, however, we have one doctrine, with two different modes of expression.

This interpretation, it seems to me, fails to meet the difficulty which many students of Fichte find, when they try to understand the relation between the two periods of his philosophy. The difficulty is that in the first period Fichte seems to regard the absolute Ego as the supreme principle, whereas in the *Darstellung der Wissenschaftslehre* (1801) and in the works written subsequently to it, the Absolute appears as a principle above and beyond the absolute Ego. M. Léon maintains, however, that the doctrine of the *Darstellung* is identical with that of the *Grundlage der gesamten Wissenschaftslehre*. In particular, we have in the two works the same conception of the relation between the ultimate principle and the world of conscious individuals. This relation is not immediate, but is made possible by a middle term. M. Léon usually speaks of this mediating principle as the 'Word' or as 'formal reflection'; but it is evidently identical with the 'absolute knowing' of the *Darstellung*. By means of this middle term Fichte avoids the error of Spinozism, the error of attempting to derive the relative directly from the Absolute. The Absolute Being, in its perfect unity, is utterly opposed to the multiplicity of the particular, and hence cannot differentiate itself into the particular. But the Word, which is the form of the Absolute, since it consists "in the possibility of reflecting upon itself indefinitely," is seen to contain "the form of infinite divisibility" (p. 48). This pure form of the Absolute, whose only reality is the reality of a representation, is thus the ground of existence of the world. "Fichte has never professed to deduce the world of our cognition and action from the Absolute itself." The Absolute

"is not, and cannot be, the principle of the *existence* of consciousness ; it is only the ground of its possibility" (pp. 51, f.).

This interpretation gives the clue to the nature of the three principles, which are described in the first part of the *Grundlage*. The first of these principles, unconditioned in both form and content, is the Absolute. The second principle, conditioned in content but not in form, is the Word, or formal reflection. In calling it unconditioned in form, Fichte means to say that it is an act of freedom ; "logically, it can be or not be" (p. 48) ; "the existence of consciousness is an absolute beginning" (p. 42). But its content is conditioned ; if formal reflection exists, it must be a reflection of the Absolute. The Absolute, however, cannot be "the immediate object of reflection" ; it is "for reflection simply an ideal, pursued through an infinite number of determinations" (p. 49). In order that this infinite progress may be possible, reflection must be capable of infinite division ; and the possibility of this infinite division is expressed in the third principle, which thus mediates between the first and second principles.

Thus, according to our author, the conception of the ultimate principle which we find in the *Grundlage* is identical with that which appears in the *Darstellung*. This is, of course, a point upon which students of Fichte are likely to disagree. Neither of the works in question is easy to interpret, and it must be confessed that the obscurity of many passages affords ground for more than one opinion. On the whole, however, it seems to me that there is not sufficient evidence for M. Léon's identification of the first principle of the *Grundlage* with the Absolute, and the second principle with the absolute knowing, of the *Darstellung*. Certainly there is much in the description of absolute knowing which suggests that it should be identified with the first, rather than with the second, principle. Absolute knowing, Fichte tells us (S. W., II, p. 20) "is absolutely what it is [absolute content] and absolutely because it is" [absolute form]. "All our actual knowing," he says again (*op. cit.*, p. 14), "is a knowing of something." But absolute knowing is "neither a knowing of something nor a knowing of nothing. . . . It is not even a knowing of itself ; for it is not a knowing *of*, at all." Do not these words of Fichte suggest the Ego of the first *Grundsatz*, to which a Non-Ego is not yet opposed, and which, therefore, has not come to consciousness of itself ? And if, remembering Fichte's injunction to his interpreters, "Worte Worte sein zu lassen," we appeal to the spirit of the *Grundlage*, shall we not again find reason to doubt the identity of its doctrine with that of the later writings ? Certainly the relation

between the Infinite and the finite seems much closer in the *Grundlage* than in the *Darstellung*. In like manner, the conception of God which appears in the treatise *Ueber den Grund unseres Glaubens an eine göttliche Weltregierung* is that of an immanent principle, as distinguished from the more nearly transcendent God of the second period. I should hesitate, therefore, to make so complete an identification of the earlier and later doctrines as M. Léon does. On the other hand, it is quite true that there are some indications, even in the *Grundlage*, of a tendency to conceive the ultimate principle rather abstractly, and one may regard the later writings as representing a fuller development of this tendency. Moreover, a detailed study of the works of the second period reveals occasional traces of a disposition on Fichte's part to modify somewhat his assertions of the disparity of the Absolute and the individual. Hence we may recognize important differences of emphasis between the two periods and yet refuse to accept the theory of a radical change of doctrine.

One of the important features of M. Léon's book is its theory of the relation between Fichte and Kant. In spirit and principle, the two systems are the same ; their difference is chiefly one of method. Kant's is the method of discovery, of analytic regress ; Fichte's, the method of genesis, of synthetic construction. Kant's analysis is the necessary condition of Fichte's synthesis ; and Fichte's doctrine is, on the whole, as he himself claims, only a new exposition of the Kantian theory. The fundamental principle is the same in the two systems — the activity of freedom. It is true that Kant never speaks of a single principle which forms the basis of his philosophy ; and it is true also that the reconciliation of the theoretical and the practical which the *Critique of Judgment* offers, is only a concept. Nevertheless, "the generative idea of the system, which breathes through the diverse forms of the three *Critiques*, is always the idea of the autonomy of reason" (p. 35). For both Kant and Fichte the Absolute is an act. Again, Fichte's theory, like Kant's, is a transcendental idealism, which asserts "at the same time the phenomenality and the objectivity of the world" (p. 56). It is true that Fichte surmounts the dualism of sensibility and understanding which Kant regards as irreducible. • But he agrees with Kant in recognizing another dualism, the dualism of the absolute principle and its pure form. The central thought of Kant is that "the pure intelligible, by reason of the essential heterogeneity existing between it and the world of sense, cannot be a producer of being, can be active in the world only in a purely formal way" (p. 57). This is precisely the doctrine which Fichte asserts. The Absolute in its

pure unity cannot be the creative principle of the multiplicity of the sensible world. We need, therefore, a middle term between the Absolute and the world; this term is the pure form of knowing. And when we have recognized this great point of resemblance between Kant and Fichte, we see that still another follows from it. Since the world of thought and action proceeds only from the representation of the Absolute, and since this representation is necessarily exterior to the Absolute, it follows that ultimate Being is accessible to human thought. Thus Fichte virtually recognizes the thing-in-itself and affirms with Kant that we can know nothing of the absolute nature of things. Yet for Fichte, as for Kant, this remote Absolute is the infinite goal which consciousness must ever strive to attain.

This interpretation seems to minimize the differences between Kant and Fichte in a way that will not be acceptable to all readers. In the first place, the author underestimates the importance of the dualism which he himself recognizes in Kant's system, underestimates the importance of the fact that the principle of teleology in the *Critique of Judgment* has only a regulative value. In the second place, we should not forget that, in spite of all that he says about the inaccessibility of the ultimate principle, Fichte seems nevertheless to know much more about it than Kant does. God is indeed, for Fichte, the ideal of reason; but in the second period, at least, he is more than this. And finally we may venture to repeat the comment which M. Boutroux makes in the *Preface*, namely, that Kant himself expressly repudiated the claim of the *Wissenschaftslehre* to be regarded as an exposition of the critical philosophy.

In his discussion of the ethical theories of Kant and Fichte, M. Léon finds considerable differences between the two philosophers. Fichte's theory of knowledge is a development of the Kantian doctrine, but in his ethics the theory of Kant is so profoundly modified that we may well regard the practical philosophy of Fichte as an original achievement. Whereas Kant makes his theory of rights dependent upon his ethics, Fichte maintains that right is prior to morality—the necessary presupposition of the moral life. It follows, that for Fichte the ethical end must be social. Here again we have an advance upon the Kantian doctrine. True, we find the germ of Fichte's conception in Kant's 'Kingdom of Ends'; still, when we remember that according to Kant the essence of moral action is to be found solely in the good will, we see that for him morality is primarily individual. Again, Kant regards the Ought, the demand that freedom shall be realized in the world, as irreducible. Fichte gives

us a deduction of it by showing the relation between nature and freedom, by showing that the world lends itself to the realization of the moral ideal. Here, too, we may say that the germs of Fichte's theory are found in Kant: the *Critique of Practical Reason* postulates the harmony of nature and freedom, and the *Critique of Judgment* permits us to conceive it. But it remains for Fichte to give objective value to what is, for Kant, a mere conception.

In the philosophy of Fichte, right and morality constitute two stages in the realization of the ideal of reason; the third stage in the progress is the philosophy of religion. Here again we see that Fichte makes an advance upon the doctrine of his master. With Kant, religion serves only as "a corollary of morality," postulates the existence of that which the Ought needs. In Fichte's doctrine, however, the Ought requires no such completion. To suggest that virtue needs any reward is to "destroy the very essence of morality" (pp. 368 f.). Religion is a theoretical, rather than a moral postulate. "The categorical imperative . . . entirely satisfies our moral consciousness, but it still leaves our intellect unsatisfied. For we are not merely . . . a freedom which realizes itself; we are an activity which reflects upon itself. . . . Now our intellect, reflecting upon morality, goes beyond it and compels us to posit, outside it, a new realm, which is just what we mean by the realm of religion. Thus religion is . . . a need, not of our morality . . . but of our reflection; for Fichte it is not a belief; it is a cognition" (p. 369).

What is posited, is the ideal order which morality is ever striving to realize. But religion conceives this ideal order, not merely as realizing itself, but also as an expression of the Absolute in the world. And, while this conception does not permit us to regard God as substance, there is nothing to prevent our attributing spirituality and freedom to him. This fact, and the further fact that Fichte does not identify morality and religion, should be a sufficient answer to the charge of atheism.

It is evident that Fichte's conception of religion is animated by a very different spirit from that which pervades Kant's theory. Whereas Kant is led, by the insufficiency of his conception of morality, to postulate the existence of a personal God, in Fichte's doctrine the relation of morality to religion is such that there is no need of a 'supra-natural' Deity. And with regard to another problem, that of immortality, Fichte has again the advantage. M. Léon tries to connect Kant's postulate of immortality with his conception of the *Summum Bonum* as the complete (*consummatum*) good. I am not

sure that I have fully understood his meaning, but it seems to be this. The complete good, as a union of happiness and virtue, establishes a harmony between the two natures of man—sensibility and reason. This dual nature of man is the basis of his individuality. If he pursued virtue as his sole end, he would be striving for a goal, the attainment of which would mean the destruction of his dual nature and thus of his individuality. Thus, “what Kant professes to guarantee by this alliance of virtue and happiness [in the complete good] is the permanence, the immortality, of the individual.” Fichte, however, refusing to believe that virtue needs any recompense of happiness, holds that we should not make of individuality an end in itself. Hence the problem of personal immortality has no place in his practical philosophy.

This difference between Kant and Fichte upon the question of immortality might have been explained by the author (without regard to the complete good) merely by a reference to his own distinction between the individual nature of Kant’s morality and the social nature of Fichte’s. This would have been a simpler procedure, and, at the same time, it would have been more in harmony with Kant’s own statements, which connect the postulate of immortality with the highest (*supremum*) good, rather than with the complete good. It may be, however, that I have failed to understand M. Léon’s meaning.

The philosophy of religion finds its completion in Fichte’s doctrine of love or blessedness. The Word, the principle of existence of the world, is, in a sense, opposed to the Absolute, since, as representation, it is outside the Absolute. Hence, so long as we remain at the theoretical point of view, we cannot stand in any direct relation to the Absolute. It is only by renouncing our individuality, by making a complete self-surrender, that we can become one with God. Thus, in the supreme act of love to God, we overcome the final dualism, the dualism of the Absolute and its representation. And thus the doctrine of love is “the triumph of the system, the return to its absolutely absolute principle” (p. 402).

In his concluding chapter, the author discusses the aspects of Fichte’s philosophy which appeal especially to our own age. What he is considering here is the relation of Fichte’s doctrine, not to the prevailing philosophical theories, but to the moral and religious ideals of all thoughtful men. Throughout the chapter he contrasts the conceptions of Fichte and contemporary thought with those of Kant and the Christian Church. Some of the doctrines and modes of thought which he attributes to the Church seem, however, to be characteristic

of mediæval Christianity, rather than of the early Church or the Church of to-day.

Fichte's theory of rights is opposed to Christian morality in three respects : its moral ideal is social rather than individual ; it rejects the ascetic view which looks upon the body as the enemy of the spirit ; and it makes justice a necessary condition of the realization of the moral ideal. On the last point Kant agrees with Fichte ; but on the first two he must be counted on the side of traditional morality. Modern thought, however, agrees with Fichte on all three points. In his ethical theories Fichte has again the support of our modern thought, but is in opposition to the teaching of the Church and to the doctrine of Kant. His deduction of the Ought, which for Kant is irreducible, is a protest "against the blind Ought" of traditional morality. Again, since he believes in the possibility of moral progress in this life, he sees no need of postulating individual immortality. And, thirdly, his conception of charity is new. Christianity regards self-sacrifice as service to God rather than to the race ; Fichte, on the other hand, emphasizes the social nature of charity. Finally, his religious doctrine appeals to us no less strongly than his theories of right and morality. He distinguishes religion from the dogmas of the creeds ; he establishes the true relation between it and morality ; and he shows that the object of religion is not a transcendent being, "but the idea of a spiritual kingdom immanent in the world" (p. 494). Thus his theories of rights, ethics, and religion commend themselves to the thought of our time ; and we find in them a philosophy which is able in a remarkable degree to satisfy "the demands of the reason and the aspirations of the heart" (p. 508).

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Social Institutions, In their Origin, Growth, and Interconnection, Psychologically Treated. By DENTON J. SNIDER. St. Louis, Sigma Publishing Co., 1901. — pp. 615.

As Hegel calls his metaphysics logic, because he identifies being with thought, so Dr. Snider considers social philosophy a psychological study, because society is the development of a psychical process — 'the psychosis,' as he calls it, which moves through and organizes the institutional world. It is, however, a dialectical, rather than an empirical, psychology which determines his conception of social institutions. He avoids the name 'Sociology' for his subject, because that name suggests the treatment of the subject characteristic of Comte,

Spencer, and their followers—a method which in his view is too largely derived from biology and the physical sciences. “Moreover, the great promoters of sociology have, in the main, discarded free will, Herbert Spencer, for instance, declaring it to be ‘an illusion.’ But the present book makes all institutions, society included, spring from free will; our science is, or seeks to be, a philosophy of freedom in its total circuit” (p. 6). ‘Institutional Psychology’ the author regards as perhaps the best available name for his subject, inasmuch as this term points to the psychological origin and movement of society. “For if psychology be the determining principle of institutions, as is here maintained, then they become a branch of the general science of psychology.”

The point of departure, where the psychology of institutions distinguishes itself from psychology as the general philosophy of the self, is the will. Not all will, however, is institutional. The activity of the will expresses itself in three main stages—the psychological will, the moral will, and the institutional will. An institution, according to the definition which best expresses its psychological form, is *will actualized*. Will actualized is something more than will merely realized. A machine may be said to realize the will of its inventor or maker. “Will is actualized in an object which is itself will, and this is a will which wills will. Such an object, which is existent in the world as will, whose end and purpose is to secure will, is an institution. The state, for instance, is a will, objective, existent in the world, whose function is to safeguard my activity (or will) through the law.”

True to the Hegelian method, everything appears in a threefold form. The entire institutional world unfolds itself into three fundamental forms—the secular, the religious, and the educative institution. Each of the three main sections of the work which follow the Introduction has for its subject one of these fundamental institutions. All institutions unfold themselves in a threefold process—positive, negative, and evolutionary. By the positive is meant the present status or normally existent form, by the negative the retrogressive or descending process, by the evolutionary the progressive or ascending process. With these few remarks as to method and point of view, we will pass to a brief consideration of the content of the work—the unfolding of the institutional ‘psychosis.’

The secular institution is the subject of the first of the three main sections. Man in his secular life is full of wants, desires, finite ends. These constitute the immediate will of the natural man. It is the

work of the secular institution to mediate this immediate will. These bodily needs and desires are to be satisfied, but only in and through the appropriate institutions. Man must have bread, but he is not to seize it anywhere or anyhow. He must obtain it through the social order, *i. e.*, institutionally. In thus satisfying his wants institutionally, man is raised out of a merely individual existence into a universal life, a life in which not one alone, but all can be free. The chief end of all institutions is freedom. The secular institution unfolds its process in three great institutional forms: Family, Society, State. To the exposition of each is devoted one of the three chapters of this first section.

The object of the family is to institutionalize or make ethical the sexual individual, and thus provide for the reproduction of the human individual institutionally. "Through the institution of the family the child is not simply born, but is born into the world of institution, and begins its career as an institutional being." Lack of space forbids an attempt to follow our author's exposition through the three stages, positive, negative, and evolutionary, of the family. A few of his most characteristic views may be mentioned. "Marriage is to possess the stability of the institutional world itself, and is to be dissolved only in order to protect the institution of the family as a whole. An eternal element lies within it, which is to be secured by three confirmations—a personal, a civil, and a religious confirmation" (p. 70). The supreme function of the home is *domestication*. "It makes everything and everybody within its reach domestic—man, woman, animals, even the soil." This process of domestication is expounded in the several cases of (1) the woman, (2) the man, and (3) nature in its three stages, the animal, the plant, the inorganic. In its historical development, the family passes through three stages—*natural monogamy*, the union of one male and one female during the pairing time, during gestation, and during the helpless period of physical infancy; *polygamy*; *institutional monogamy*. With one further quotation, which expresses the author's ideal of marriage, we must leave this chapter on the family. The complete marriage is a threefold unity. It involves a physical, an emotional, and an intellectual element of unity. "First, there is the unity of passion, the physical element. Secondly, there is the unity of emotion, in which the two souls are one—love. Thirdly, there is the unity of intellect, in which thought itself gets married and gives up its isolation. . . . In the modern world, and specially in the Occident, the third element is rising into prominence, chiefly because of the higher education of the woman,

who is inclined to look with favor upon the man that can satisfy her head as well as her heart, she insisting that her whole self must get married and not a part of herself. The cultured woman must be wedded in her culture, otherwise there is a gap in the marriage which is apt to grow wider with the years" (p. 159).

The second of the three great secular institutions is society (pp. 164-335). By the term society is meant here the industrial institution. The function of society (in this limited sense) is to mediate human wants. The individual has his early wants supplied by the family into which he is born, but, as he matures and is trained to help himself, he graduates from the family into society. Man is civilized in proportion as he gives over the immediate satisfaction of his wants and seeks their mediate satisfaction through the social institution. The social whole is to will the gratification of the wants of all its members. The social individual, in satisfying his wants, is to will at the same time the satisfaction of the wants of all other members of the social whole. The will realizes itself in the social institution by the production of property. "The basic fact of property is social recognition, not simply individual possession; that I have this thing is not enough, my having it must be recognized by others and defended by some form of a society. Property is not through myself alone; I must be supplemented by the social whole for its right possession" (p. 176). Property develops from a single-willed product, through a many-willed product, into an all-willed product. The middleman develops through corresponding stages. Passing over the exposition of the earlier types of the middleman, we may note the description of the final type — the universal middleman or "monocrat." He combines the dissident elements, unifies competing enterprises, capitalizes the total investment, subjects labor to this new order. In short, he overcomes competition by controlling alike the labor market, the product-market, and the money-market. Though not yet supreme, he is moving thitherward. "The social monocrat is the most interesting figure in the civilized world to-day. The people of both continents are looking at him with a kind of awe, wondering what will develop out of him next. . . . And the curious fact about this matter is that he is the product of democracy, to which monocracy seems to be the rising counterpart and fulfillment. . . . Socialism as such cannot evolve itself practically in the social whole; it has been, is, and will probably continue to be a doctrine, an ideal scheme. But monocracy is here, and in possession, socially evolved and at work in the world, born doing while socialism is still talking. . . . Unquestionably the

monocrat is a direct and legitimate product of social evolution, and so has supremely the right to be. Yet he may abuse his right and become a tyrant, establishing a social, if not a political, despotism. Here then is the loud call for the state to safeguard freedom against him; still it is not to destroy him, but rather to secure him on his positive side. . . . As yet the social monocrat is purely individual in his work . . . but he is to rise out of this individualistic condition, and work for all socially, and not simply for himself. . . . A federated social world might make him its chief" (p. 332). The exposition of the "social monocrat" is the most interesting and most original feature of the discussion of society as the industrial institution.

The third great secular institution is the state—"that form of actualized will which secures every form of actualized will, including itself." Less than a dozen pages are devoted to the state here, but the author promises to treat the subject in full in a separate work (since published). This completes the circle of secular institutions, and we come now to the second grand division of the book—the religious institution.

The religious institution is the infinite will actualized. God is "a free will which wills free will in man, who, in turn, is to will God's free will, also through the institution." The same dialectical ingenuity is shown here as elsewhere. Many of the incidental remarks are interesting and suggestive, but the treatment as a whole impresses the reader as formal and mechanical. The exposition often runs into subtleties which detract from the force of the whole. As compared with Hegel, there is a fuller recognition of the institutional aspect of religion. It is significant that the religious institution is put in the second place as the antithesis of the secular and not in the third as the highest synthesis of all institutional effort.

This third and highest place is reserved for the educative institution. The central purpose of all educational effort is the reproduction of the institutional person. The entire circle of institutions, both secular and religious, is to be born again in each child and in each man through the educative institution. "It is the third and final stage of the total institutional psychosis, completing the triune process eternally creative of all institutions" (p. 500). Of course the educative institution unfolds itself in a threefold movement—the public or common school, by which the undeveloped self of the child is unfolded out of the family into the community; the special school, which gives special training both as to culture and as to vocation; and the universal school, which is again a common school, but not the

first one, being the school of life which all must enter, the teacher of which is the spirit of the age (Providence, the world-spirit, civilization) incarnate, in the artist, poet, and thinker. Art, literature, science, and philosophy are the great disciplines by which the universal schoolmaster trains men to universality in the universal school. The public and the special school receive a merely perfunctory treatment in chapters of less than ten pages each. The universal school is the subject of the final chapter of the book (nearly a hundred pages). To the present writer this seems by far the most original and valuable portion of the work. We are familiar enough, of course, with the phrase 'school of life.' But, as commonly used, it is a mere metaphor. In the philosophy of education here outlined, the expression acquires a positive content. Not the least worthy aspect of this conception of the universal school is the interpretation which it involves of literature, art, science, and philosophy. They reflect the life of man and thereby lift him up toward institutional freedom. The Ego becomes self-knowing and so self-determining. "Intellect and will unite in one supreme process."

The work may be characterized briefly as Hegelianism psychologized, modernized, Americanized — Hegel up-to-date! The criticism of details may be left to members of the same school. The present writer is inclined rather to say of it, as Huxley once said of a paper which Spencer submitted to him for his examination: "I see nothing to criticise in it, except the whole thing." Yet however deeply one may disagree with the author as to method and point of view, however wearied one may become with the jargon of will willing will, with the exclusive use of the middle voice and the endless threes, triune, and threefold (Is three the only number?), still the thoughtful reader will find much that is valuable and suggestive in the volume. Particularly will the empirical student of social institutions be benefited by reading and thinking through this synthetic study of society. The work is an impressive exposition of the great truth that human freedom is possible only in and through an institutional life—the truth that Goethe expresses in the line

Nur das Gesetz kann uns die Freiheit geben.

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Leibniz' System in seinen wissenschaftlichen Grundlagen. Von DR. ERNST CASSIRER. Marburg, N. G. Elwert'sche Verlagsbuchhandlung, 1902.—pp. xiv, 548.

This is a substantial and an interesting addition to the Leibniz literature. The writer comes to his task with a clearly defined point of view of his own in philosophical matters. This he sets himself to trace in Leibniz as the source of Leibniz's philosophy, and the touchstone for determining what is and what is not really a logical part of his system. The book has both the merits and the defects of such a method. It results in setting aside certain aspects of Leibniz, in particular whatever has an ontological tinge, as representing a mere logical irrelevance, when it is at least possible that an actual problem is involved; and not infrequently, interpretation goes to the verge of transformation in the light of later doctrines. But, on the whole, the thesis is effectively carried out; and the writer shows a familiarity with the concepts of modern mathematical science, as well as with the development of philosophy, which gives the work a value also as a positive contribution to the philosophy of science.

Dr. Cassirer finds the core of Leibniz's philosophy in his contributions to the logic of science. His significance lies in his having grasped the central point of idealistic method. Objectivity is nothing given and complete, external to thought, but the creation of thought itself; the problem of philosophy is epistemological, in the sense of deducing, in the form of a connected system, the methodological moments through which nature is progressively constituted in the scientific experience. The first hundred pages are given to an introductory criticism of Descartes. Descartes's original thought is that of idealistic method. Thought does not copy an existing object; the impossibility of any secure result by this road is the methodological sense of the Cartesian doubt. Science involves the derivation of the object from an original unity of method, which method is found in mathematics. In trying to get a unity of mathematical method, Descartes discovers the general concept of quantity, of which both numbers and figures are examples, and the analytical geometry. The method of analysis is thus a result of epistemological demands, and has for Descartes a fundamental philosophical significance. This demand that the ground of the nature of body be found in thought, governs all the details of his scientific conceptions, even where, as, *e. g.*, in the concept of impact, we have what has the appearance of materialism. It is his failure to be true to this thought which is the source of the theoretical and practical defects of his physics, and of his

general concept of reality. While mathematics is rightly made the fundamental basis of all objects of knowledge, he sees the impossibility of solving the problem of concrete existence without going beyond pure mathematics. But in his inability to do this by means of a new principle of reason, he falls back upon sensation as the source of the knowledge of facts, thus giving sensation a connection with ontology. The result is that the object no longer forms the correlate of the subject in the unity of consciousness, but stands over against it. The idea of substance loses its value as an objectifying condition of the object of physics; it gets an ontological significance by its application to God and the soul. The self of the *cogito ergo sum*, originally the system of scientific principles on the basis of mathematics, and so representing an objective interest, changes its logical for a psychological meaning; the problem of knowledge becomes the metaphysical problem of the soul, to which objects are opposed. This reacts on the concept of space, which becomes substantialized and loses its methodological force. Motion has then to be externalized as a mere modification of an existent substance, instead of being constitutive of substance itself. The same unfortunate results appear in the carrying out of the doctrine of method. Experience separates itself from reason as something given, which points to a reality outside consciousness, instead of having an essential connection with reason as the starting point of problems, and the control of hypotheses. Descartes's fault is not that he is too rationalistic, but that he is not rationalistic enough.

It is the purpose of the rest of the book to show how, through the concept of continuity and the insight which is expressed in the differential calculus, Leibniz overcomes the defects of Descartes, and, under the guidance of his original idealistic thought works, out the essential principles of the modern scientific conception. The inquiry divides itself into three parts. The first deals with the fundamental concepts of mathematics, the second with the fundamental concepts of physics, and the third with metaphysics. The opening chapter tries to show that Leibniz, through the influence of mathematics, has practically transformed logic into a science of objective knowledge. This takes shape in the new logical doctrine of definition, as containing the law of the construction of its content. The law of identity is to be interpreted accordingly, not as a mere formal absence of contradiction, but as consistency with the ground principles of science, creatively developed in the definition. The theory of the concept is changed from a sum of given marks, and bases itself upon the act of judgment;

the deepest sense of the idea is grasped as hypothesis. The truth of the idea becomes the truth of the acts of judgment which maintain the possibility of the object of the idea. This now results in a reconstruction of the concept of quantity, in which the various moments are carried back to the act of positing. This frees it from connection with special contents, like space, and grounds it itself in the problem of quality, as the unity of law out of which quantities are derived. Space, which was presupposed in Descartes, has now to be developed logically through the qualitative moment shown in figures. In this way it comes back to an analysis of relations of position. Extension thus ceases to be original, and is created from the unextended point, which is itself not sensibly received, but logically postulated. Absolute space is not a whole of quantity, but a creative principle.

In the origin of the coexistent from the successive, the problem has now been transferred to time. The extended is the diffusion of a quality. Considering first the process, we get the significant moment of Leibniz's thought in the differential concept. The solution of the problem of the continuum is found in the act of continuation — a process. The qualitative unity of law constitutes the concept of the differential, while the integral signifies the quantitative result in so far as it is created in continuous development out of this. The infinite has now become, not, as in Descartes, a limit to knowledge, but a positive moment in the growth of knowledge; it exists not as a quantum, but as the presupposition of finite determinations. Permanence, then, is no longer the property of a thing, but the unity of law in a temporal process. Change is a necessary constituent of reality. This relativity of unity and the manifold is embodied in the new concept of substance, in which it stands as the expression of the law of a series as opposed to its members, and the notion of substance as an ontological fact is overcome.

The possibility of qualitative distinctions, as the prius of quantity, which has its foundation in infinitesimals, is developed in the logic of force, in which we pass from mathematics to mechanics. Here also it is not a question of psychology, but a logical demand for a conceptual fixing of the general process in a unitary time moment. This defines the subject of dynamic determinations, but only in isolation. To pass from abstract mechanics to physics, we must define the functional relation to other contents; and the logic of this demand is traced through its various steps, to its issue in the recognition of the law of conservation as fundamental to the constitution of the object of physics, and the presupposition of the causal relation.

The third section opens with an analysis of the concept of consciousness implied in the foregoing development. This stands for no empirical 'I,' but for the unity of law binding together the manifold of objective appearances. Add the further element of active tendency, and we have the logical basis of the monad, not as a simple being, but as the unity of the act of relating through which appearances become well-grounded phenomena. Monads are not causes of appearances, but representations and principles of the phenomena themselves. Consciousness and nature are thus correlative. The results, however, are still general; there is still lacking the concrete determination of the individual. Here it becomes more difficult to keep what the author conceives as the legitimate and the illegitimate elements of Leibniz's thought apart. The concept of the particular and contingent, representing a real function of knowledge as standing for the endlessness of the problem of scientific determination, receives an attempted solution in a different direction, through the idea of a new kind of knowledge lodged in God, who sees the perfect reason of what to us must ever remain irrational. The thorough-going determination which is posited as the problem of experience is hypostasized; the problem of the individual has changed into that of the *Ding an sich*. Again, however, for Leibniz, this means no transcendental cause of phenomena, but only a problematical new kind of knowledge assumed as actual.

The subjects of the remaining chapters will have to be indicated very briefly: the passage from the individual of immediate self-consciousness, through the postulate of the harmony of the part with the cosmos, to the concept of reality as a system of monads; the transition from abstract laws of motion to biology, through the raising of the monad to the concept of life, and the consequent transformation of the idea of nature; the passage from the biological 'I' to personality, and the freeing of the spiritual sciences alike from theology and empiricism by bringing them under the ideal of scientific method. It is very doubtful indeed whether all this does not bring in points of view that have no place in the writer's clear cut epistemological conception; certainly the treatment is much less satisfactory than in the earlier part of the book. Ethics, æsthetics, and the philosophy of history are briefly treated, and in the final chapter of the section the Theodicy is dealt with, in so far as it has a philosophical as opposed to a theological interest. A concluding section traces the historical development of Leibniz's philosophical point of view in his successive writings.

A. K. ROGERS.

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.

Hegel's Treatment of the Categories of Quality. J. E. McTAGGART. *Mind*, 44, pp. 503-526.

This article deals with one of the nine subdivisions of the Greater Logic. Quality is again subdivided into Being, Being Determinate, and Being-for-Self. In connection with the first, we note that the category of Becoming is unfortunately named, because it implies change which really is not present. A better name would have been Transition to Being Determinate. Passing to the second division, it is not clear why we first have reality in the category Something; but the transition under Being Determinate as such is valid because plurality is introduced. In the second step, under Finitude, as that whose nature is limited by something outside itself, is found not only limit but an extremely subtle trichotomy of the sixth order, Determination, Modification, and Limit. The internal nature of the finite something is named Ought to afford an opportunity for criticising the ethics of Kant and Fichte. Negative infinity does not involve real change, but only a change of judgment about reality. Affirmative infinity means that the nature of the something lies in the relation of itself to its other. Here Idealism becomes possible. The finite is Ideal, that is, it has been seen and also transcended. Passing to Being-for-Self, the third division of Quality, a thing is qualitatively differentiated from its other; yet it has stability which saves it from the infinite series of others. The positive nature of the other is no longer essential. Qualitative differences are substituted by rudimentary numerical differences. To the objection that abstract quantitative determination is not a higher category, we may say that although self-determined beings are conceived more adequately when qualitatively determined, yet it does not follow that abstract self-existence without quality is lower than abstract quality without self-existence. The significance of Being for One is negative, it might have been named not being for other. In the relation of Repulsion and Attraction, the last trace of Quality has died out. The ones have become indifferent to each other, and are exactly alike. And with this Quantity is reached.

N. E. TRUMAN.

La philosophie de la contingence. L. NÖEL. Rev. Néo-Scolastique, IX, 3, pp. 365-380.

This philosophy arose out of that of Kant. After rejecting as useless Kant's noumenal liberty, M. Boutroux affirms that there may be liberty in the phenomenal world based on contingency. If it can be proved that there is some irreducible contingency, it is possible to think that the laws of nature do not rule absolutely, but have their reason in the causes dominating them. He does not believe that the irresistible need of the mind should rule phenomena, but that one must investigate matter to form sane and adequate conceptions of it. He attacks science in general, in order to show the impossibility of deducing absolute necessity. In the first place, the necessity can only be relative — given a condition, *a*, some other, *b*, is bound to follow. The only way to prove that *b* must follow *a*, is to prove an identity. But the syllogism, by which one would prove this identity, adds something to one of the terms not derivable by analysis. The different sciences are not merely an extension of logic. Mathematics, mechanics, physics, chemistry, etc., each adds something of its own. Mathematics has its limits. It is an abstract science, and concrete, living being refuses to conform entirely to it. 'Nothing is created or destroyed' is the law from which is deduced the equivalence of cause and effect. But this equivalence is absurd. If the cause were equal to the effect, it would necessarily be one with it, and could not be a new thing. If different, it must be distinguished by some new irreducible thing not derivable from the cause. Finality is an explanation in which appeal is made to that which does not yet exist. Finality, for M. Boutroux, demands contingency. In conscious action the strongest motive prevails; but that motive is often the strongest, not in itself, but because the unconditioned will chooses it. But how can mind affect matter without adding new force? M. Boutroux answers: Life and mechanism are not apart, but the separation is an abstraction. He also attacks the phenomenalist conception of causality. If phenomena are self-positing and independent, they cannot be causes except by themselves becoming the effect — hence not causes. His idea is that efficient causes are less mechanical, and more susceptible of finality. But when the efficient cause is subject to finality, it gives law. Here M. Noël differs from M. Boutroux. He agrees with M. Boutroux in rejecting blind determinism and the Spinozistic deduction of natural laws; but he differs in that he maintains necessity based on finality. Both alike oppose the phenomenalist conception of causality.

O. G. SHUMARD.

Mind and Nature. A. E. TAYLOR. Int. J. E., XIII, 1, pp. 55-86.

The author here presents a philosophy of nature which vindicates our poetical interpretations, and is opposed to the mechanical view of the world. Anticipating the argument that our feelings toward nature are mere aspects of our own mental presentations, mere reading our own feelings into perceptions whose *esse* is *percipi*, the author criticises the

Berkeleyan denial of independent objective existence. The arguments based on common sense and physiological analogy are rejected as unreliable. Our assurance of the existence of the objective world, as we experience it, is rather found in our assurance of the existence of our fellow-beings. *Their* existence is manifest through our consciousness of our own purposive actions. I find myself constantly giving expression to purposes which would have no meaning unless I were an organic part in a vast system of purposive agents. The reality of purposes independent of myself is guaranteed by that very same experience which assures me of the reality of my own purposes. The very apprehension of my own existence as an intelligent purposive being is itself the apprehension of purposes of other conscious intelligent existences, my fellows. Belief in the existence of fellow-beings immediately involves belief in the existence of the whole physical world. Tracing, now, the development of our attitude toward the objective world, we find that as children we ascribe feeling and purpose to both organic and inorganic beings. We later come to note *special* purposive action in animate nature, and, taking into account the ways it is affected by our own expressions of purpose, we attach a special purposive connotation to persons and animals. The process is not eminently one of discovering the analogy between our fellows' actions and a definitely perceived individuality in our own actions. We get to know others as we know ourselves; we get to know ourselves as we know others. Because of the regularity with which inanimate objects reply to our conduct, we learn that we may assume intelligent purpose and conscious individuality to be non-existent for such objects. By no means can we argue, from our failure to identify ends in nature, that none are there. We have, however, more than this negative side—this mere failure to affirm the presence of dead, purposeless action in nature. Apart from primitive superstition, our whole experience gives us a sense (perhaps too remote from human life for comprehension) of the presence of purpose in our natural environment. We read mysterious and baffling life rather than death in nature's changing aspects; we read an inexplicable sympathy with all that is purest and kindest in our own human nature. There is in us, in fine, a definite sense of comradeship with nature. This sense, moreover, is not occasional and exceptional with all. A poetical view of the world, based on immediate experience, is entitled to as much philosophic consideration as the necessarily one-sided view of the materialistic physicist.

Lastly, we may criticise the grounds upon which nature is so often described as a mere mechanism. The argument that nature is regular and uniform in her operations, whereas the very essence of mind is to be arbitrary and uncertain, is a misstatement. The truth is that, in order to predict the behavior of individuals, we need special information. Rational action exhibits adherence to definite plan. A further objection is that we can predict events of nature without knowing her purposes. To this we say that we predict only general natural tendencies, not particular phe-

nomena ; not, *e. g.*, each individual movement of a gnat's wing. Likewise, in human action we may predict, from our laws of averages, general social tendencies, tendencies of the aggregate. Finally, we recognize two facts regarding all machines : (1) all machines are the creation of purposive agents ; (2) all machines are the direct and transparent embodiment of specific purpose. Hence, if nature is but a machine, she should be dependent on conscious intelligence, and the realization of manifest purpose. A mechanism can be rightly conceived only as a subordinate aspect of intelligent teleological action.

C. A. HEBB.

PSYCHOLOGICAL.

The Problem of Attention. O. KÜLPE. *Monist*, XIII, 1, pp. 38-68.

The purpose of this article is to develop a comprehensive view of the nature and functions of attention in the light of the results obtained by subjecting its phenomena in their quantitative and qualitative aspects directly to careful investigation. In sense perception, three factors, objective, peripheral, and central, are found to contribute to distinctness. The chief problem of attention, viz., the exact determination of the nature of the attentive state, consists in determining just what constitutes the central or psycho-physical distinctness, and how to distinguish it from the objective and peripheral forms. The chief difficulties attending the solution of this problem are : (1) There is a close intrinsic connection between attention and the processes and mechanisms that subserve peripheral distinctness. Hence we run a very real danger of ascribing to attention results that are actually conditioned upon the special adjustment of the sense organ concerned. (2) If we are to have any exact knowledge of the degrees of consciousness, we must be able to vary them at will, to induce at our pleasure this or that grade of psycho-physical distinctness as independently as may be of extrinsic influences. This may be accomplished by distracting the attention, or by dividing it; but distraction of the attention, in a strict sense of the term, simply means the inducing of inattention, and the distribution of attention can never be really uniform. Furthermore, the power of a stimulus or an occupation to distract the attention does not remain constant, so that it is clear that, if we are to induce a determinate degree of consciousness, we must know, first, the mode of distribution of the total energy of attention over the separate conscious contents included within its range ; and secondly, the distractive value of the processes which we have selected for our purpose. No general rule can be laid down under either heading. (3) When we attempt to study the changes in conscious contents that follow upon a partial withdrawal of the attention, we find that the very conditions of our inquiry are hostile to any adequate account of the altered experience ; for it is essential, if we are to describe what we perceive, that we be able to hold our attention upon the objects presented, while the more effective is the distraction, the more imperfectly can this be done, and the more im-

perfect is our portrayal of consciousness. Hence we cannot tell how much should be ascribed to the change in consciousness, and how much to mere inadequacy of description. Considering distribution with reference to a lowering of concentration, the first thing to be noticed is that the *comparison* or *discrimination* of sense impressions is seriously affected by division or diversion of the attention in whatever way produced. Not only do the judgments of comparison show large variations, but the just noticeable difference also reaches an unusually high value. That the subjective difference of two weights, in dealing with pressure, for example, is so much reduced by reduction of the attention, evidently cannot be ascribed to any peripheral cause, for the stimulation is the same in both cases, and the skin does not possess any mechanism of accommodation to pressure, the only effect of which, if it did exist, would be to make the weights appear heavier or lighter as they were applied, which shift of subjective intensity would neither increase nor diminish the difference between the two. Neither can we find a reason for this in the central conditions of sensation, for a weakening of the excitatory processes in the cerebral center, such as might result from a lessened excitability of a sensory center, could not bring about a reduction of the apparent differences between the two, nor could we give any reason for the approximation of the excitatory processes themselves. We are therefore forced to ascribe the changes in discrimination to the mind's own power of apprehension, directly dependent upon its preparedness to apprehend. This preparedness consists in the excitability and revivability of the ideas employed for the required comparison, the mental activities that may subserve speech, and, in a measure, the motor innervations that precede the deliverance of a judgment of comparison. In this, the reason that the differential limen is raised is readily seen, and we get our first insight into the real nature of psycho-physical distinctness. In estimating the influence of attention upon *sensitivity*, it is important to find that we are able to favor any of the attributes of sensation at the expense of the others. Concentration upon the pitch of a tone, for instance, diminishes the apparent intensity or duration. Further distribution enhances this effect. No such influence, however, has been out in the case of quality, which fact, perhaps, more clearly than any other shows the vanity of an appeal to peripheral factors, for we find no trace in the sensory organs that should favor this or any attribute of sensation at the expense of the others. The true explanation will probably involve the consideration of but two factors, preparedness for the particular sensation, and susceptibility to the ideas which the sensations are able to revive. Preparedness, in the form of expectation, increases the excitability of the sensory centers and produces a stronger tendency towards the reproduction of the ideas which aid in assimilating, interpreting, and defining the impressions received. However, it is readily seen that we have more in the above phenomena than can be accounted for by these conditions, for they do not explain how the pitch of a tone, for instance, can be better prepared for than its intensity

or duration, since, so far as these attributes are concerned, the excitation is just as much an indivisible unity as is the sensation or stimulus. But since every one of these attributes has its own associative connections with other ideas, we have only to conceive that the group of mental processes connected with the quality of an impression has attained a higher degree of preparedness than the group associated to the intensity or duration, to readily understand that the former will be more easily perceived and more quickly identified than the latter. A third fact in the sphere of sensory attention is the analysis of complex perceptions — a function so important that some psychologists make it fundamental in the psychology of attention. This does not necessitate special treatment, as it is obvious that it implies the work of sensitivity and sensible discrimination, and is thus subsumed under the two heads already discussed. Experiments show that the direction of attention is too indefinite to perform the task of analysis, unless there is a preparedness of ideas relating to the separate constituents of the complex impression. Thus the facts again force us to the conclusion that the mental state or attitude we term attention consists in the preparedness of the ideas reproducible by the various contents of consciousness. Considering distribution with reference to the range of attention, we find that it reduces the number of objects that can be grasped with one complete concentration, when identification or recognition is involved in the process. That it should reduce the number of constituents in a total impression, rather than make the presentation itself uniformly indistinct, is explained by the different susceptibility to different objects, and the difference in preparedness or central excitability. This is borne out by the fact that a suitable change in the predisposition of the subject lowers the degree of consciousness for all objects alike with comparatively slight changes in the range. With excitability and preparedness of ideas as our determinant factors, it readily follows that memory and recollection, reproduction and association, are peculiarly dependent upon the processes to which the name attention is given. Also, the relative slowness with which it passes from one content to another, forms the foundation of all rhythmical articulation and division. The peculiar mood of interest, too, is very intimately related to the attentive state, in that it is the emotional state which invariably accompanies a strain of the attention, provided that it is not carried so far as to induce fatigue or dull the faculties. Passing over bodily accompaniments and the factors of involuntary attention to the consideration of whether our theory affords adequate explanation of our ability to resist distracting stimuli, we find that, if susceptibility to peripheral and central excitations depends upon our preparedness to receive them, the whole of the individual's past with all of its associations are arrayed in battle order to meet the scattered assaults of chance. Behind attention and behind distinct consciousness, stands the whole experience of a personality ; and with attention trained by education we can transcend the limits of our organism, propounding and realizing ideal ends.

C. E. FERREE.

Le langage et la parole : leurs facteurs sociologiques. GÉRARD-VARET.
Rev. Ph., XXVII, 10, pp. 367-391.

Wundt's *Die Sprache* is the occasion of this article. In the old theories of language, there were two explanations, the physiological and the psychological. Wundt makes use of both of these factors by connecting them with a factor which partakes of the nature of both, viz., the vocal gesture (*Lautgeberde*). But since language is a social phenomenon, the author thinks that there may be some social conditions which have thus far been overlooked. The first condition is communication. He observes that, in rural districts where work is routine and in families where the privilege of speaking belongs to the father, intercourse is largely by signs and gestures. What is needed, in each case, to call language into use, is some stimulus from without. Communication with other people of different habits is such a stimulus. The author attacks the view that the factors of language were produced by emotion and imitation. The argument (*a*) against the emotional origin is that language is a patient and calm work of analysis, while emotion is a violent and tumultuous synthesis ; (*b*) against the chance origin from occasional emotional states (*Zufallstheorie*), he argues that universal and permanent phenomena could not arise from accidental and individual cases. Imitation is criticized on the ground of vagueness and narrowness. But the principle of imitation is not so bad as its application, *i. e.*, to the external world. For it regards man as passive and learning to speak from phenomena. The correct application of the principle of imitation is to the useful and important acts of man himself. So far no distinction has been made between the gesture and the word. The question arises, What are the causes of the survival of the word instead of the gesture ? The reason for this is the superior efficiency of the word in directing the concerted action of a body of men in war or peace ; and in putting man in relation to deity. The function of the word is, in every case, social. The development of language, therefore, is neither purely mechanical and biological nor directed and psychological ; but it is both, since it is sociological.

H. C. STEVENS.

The Unity of Process in Consciousness. H. R. MARSHALL. *Mind*, 44, pp. 470-503.

From the strictly objective point of view, the biologist finds a unity of process in all living matter, the reproduction of its kind. In observing the effect of stimulus, he finds that a capacity of 'learning by experience' is present in all forms of living matter. In animal activity there is a complexity due to variety of structure ; but in this systematic complexity there also appears a unity of process. Complex animals are systems of systems, and in man systematic coördination is observed in the highest degree. In reflex action some minor system is practically disconnected from the whole. The receptive, coördinating, and reactive systems function in one and the same act. At any given moment there is an activity of the system

of systems, together with an increment of activity in some particular part. Even where the 'neurergic patterns' assume very complex forms, there is unity of process in the activities of man's nervous system. Hesitancy or immediacy of reaction depend upon the more or less diverse activities set up by the stimulus in the coördinating system. Adaptation is the case of a whole complex organism 'learning from experience.' The final adjustment of the 'neurergic pattern' to new conditions must often be due to some influence from within the mass of the system of systems. From the introspective point of view, some of the increments have spatial quality, others do not. Modifications in the nervous system are in some manner coördinate with the non-spatial increments of consciousness. Unity of process which is found in nerve action appears also in consciousness. Emotion and conative action affect the 'noëtic pattern.' The self, as the sum total of undifferentiable psychic activities can never appear as an increment in consciousness. But in self-consciousness there is an increment as empirical ego, to which another increment accrues. These facts also correspond with the activities of the neural system. We are compelled to assume a unity of process in the conscious life. From this point of view, the distinctions between reflex and instinctive activities and between habit and instinct are not fundamental. The sharp distinction between instinct and intelligence implies denial of unity of process. Yet the 'effective consciousness' here introduced is only an emphasis on some element in a complex psychic presentation. In acts of will the influence, which finally breaks down the opposition between tendencies to reaction, comes from the undifferentiated mass of psychic activities. N. E. TRUMAN.

ETHICAL.

The Definition of Will. F. H. BRADLEY. *Mind*, 44, pp. 437-469.

"A volition is the self-realization of an idea with which the self is identified." In it we find the following aspects: existence, idea of change, actual change of existence to the idea's content, and the self-feeling itself realized in this change. Existence is the actual series of events continuous with my here and now. Volition begins by an alteration of present existence as such. The will to know alters the existence of the person though not of the object. The existence must be changed to the character of the idea; and the idea must itself alter the existence; though not the whole complex cause, it must enter the causal sequence. The identification with self will be treated in the following articles. Resolve differs from volition in the fact that it is directed on what is not yet actual. They are confused, because (1) will is taken to mean standing tendency, or (2) resolve sometimes involves volition of a psychical state, or (3) resolve partakes of the nature of an incomplete volition. To be even incomplete will, the idea must not only have subdued any idea contrary to itself and have individualized its own nature, but it must also have carried on this

process until a part of the characteristic change implied by the idea is a psychical or perhaps a physical fact. In resolve there is a movement of the idea to alter the fact. This may amount to an incomplete will, but such a result is not directly aimed at. Approval is not volition unless the idea approved is of a change here and now. In volition there can be only one independent idea, and this is followed by its own unmodified result. Volition does not imply judgment; the qualification of the change as my act need not be part of the idea's original content, and the result may follow the suggestion without delay. The idea of an action, if qualified as impossible or doubtful, is not truly the idea of that action. Desire, in any proper sense, or attention need not be present in will. An idea of the end must always be present; but this may not be specific or based on an image. Gesture and involuntary instinctive movements are not will, because the idea is not of a change in my present existence. In the case of imitation, we have to determine whether the idea has freed itself from the condition of an alien personality. It is possible to aim at something which is not to be experienced by the self. Volition does not necessarily end when the idea is turned into a perception. N. E. TRUMAN.

Natur und Kultur im sozialen Individuum. A. VIERKANDT. V. f. w. Ph., XXVI, 3, pp. 361-382.

An answer to the question, "In what sense can the concepts 'nature' and 'culture' be applied to the individual and his conscious processes?" will help us to understand and justify the opposition of popular and scientific speech to the view that the concept of nature refers solely to the physical world. It is admitted that the individual and his conscious processes do not fall absolutely under the concept of culture, as the term is ordinarily understood, that is, as the totality of material and spiritual 'culture-goods' of a people, such as tools, language, customs, etc. All these 'culture-goods' stand towards the individual in an objective relation of externality and independence of his voluntary influence. In its wider sense, too, culture stands over against the individual, who is its bearer or substrate. This relation, however, justifies the application of the concept of culture to certain sides and parts of the content of the individual's consciousness. From the standpoint of evolution, nature appears the oldest endowment of man, and culture, as the sum-total of all later acquirements of society. Carried over to the single individual, this means that if we think of him as permanently untouched by any of the influences of culture, then we should apply to him the concept of nature alone. All that in him which is changed through the influence of society and of culture we subsume under the concept of culture. We can, then, speak of nature in the individual in the two-fold sense of form and content. In the latter sense, there belong to his nature the conscious processes in so far as they are essentially untouched by the influence of culture; in the former, the totality of laws, uniformities, and characteristic peculiarities of the stream of consciousness. In how far

can certain branches of the mental sciences be called natural? Beginning with psychology, we find that it has to do only with the nature of man in the sense of the term established above. On the one hand, it establishes laws, types, and peculiarities of the stream of consciousness; and, regarded from the side of content, it has to do with such conscious processes as belong absolutely to the nature of man. The other branches of mental science, such as sociology, ethnology, etc., can also be put down among the natural sciences, at least from their general character and tendency, if not from their actual content.

M. S. MACDONALD.

The Ethics of Nietzsche and Guyau. ALFRED FOUILLÉE. Int. J. E., XIII, 1, pp. 13-26.

The philosophy of Zarathoustra is far from being in tune with modern progress. Nietzsche attempts to explain every act of man by the will to be powerful, to overcome obstacles. He adopts Schopenhauer's theory of the will and combines it with Darwin's theory of universal struggle. Individuals are for him centers of will, each one aspiring to be all and to appropriate all. Nietzsche's error lies in his neglect to analyze and fathom the idea of life on which he bases his doctrine of morals. Guyau points out the error. He shows that, if we take Nietzsche's view of 'the will to live, to be powerful,' we are obliged to look for the foundations of morality, first, in the domain of causality, not in that of finality; in the domain of the actually existent desire, not in that of the desirable; and, secondly, in the common domain of the conscious and the unconscious, which is precisely the basis of life. Guyau here seems to be in the right. We cannot, as Nietzsche has done, ignore voluntary aim and the desirable, subjecting all to instinct, to blind will. Nietzsche bids us give ourselves up to the natural evolution of events, to blindly struggle for existence. Both Nietzsche and Guyau regard the ethics of life as an ethics of intensity and vital expansion, but they take entirely different points of view. Nietzsche saw only the natural law of division and opposition; he did not see the more fundamental law of union and harmony. Guyau emphasizes the fact that struggle does not prevent harmony; there should be a 'coincidence' between finality and causality; there should be an organic union, a fusion of the individual and the universal.

C. A. HEBB.

Moralisme et immoralisme. G. PALANTE. Rev. Ph., XXVII, 9, pp. 242-248.

Nietzsche has given to the world the new problem of immoralism, but H. Heine should be regarded as a precursor of the movement. Moralism is the subordination of the individual to the ends of the race. The conception of the social group is an abstraction which must give way to the individual. The terms immoralism and individualism can be identified. Immoralism is an attempt to displace the false teleology of the race by emphasizing the rights and ends of the individual. Nietzsche opposes

Kantian and post-Kantian ethics on the same ground that he opposes Christianity, viz., on the ground of ultimate social reference. For philosophy the problem of moralism *versus* immoralism transforms itself into the problem of egoism *versus* altruism. Guyau believes that altruism will finally triumph over egoism. Schopenhauer and Ribot are quoted to confirm the writer's view that there are two or more ultimate tendencies in human nature.

G. W. T. WHITNEY.

La téléologie sociale et son mécanisme. G. PALANTE. Rev. Ph. XXVII, 8, pp. 149-159.

The idea of finality is an empty form. The only scientific side of finality is its mechanical aspect. We go back to the early stages of the race to see the psychical mechanism from which the idea of social teleology arose. The first law of primitive people is the law of mental inertia, with the corollary of least work. This law is instinctive and the dispositions which it inspires are adapted to the immediate difficulties. At first man's prevision is very limited and he looks only to the needs of the present, but with more experience his view is broadened, and he recognizes a utility beyond the here and the now. The first law thus transforms itself into the law of maximum of effect. At this stage, there is an awakening of energetic disposition and willed action takes the place of instinctive action. It is teleological, in the sense that it implies the representation of the ends to be obtained. Division of labor now appears. Wealth is accumulated for the future, and at length riches are sought as an end. Personality tends to be lost in industry, literature, art, and morality; uniformity prevails. The excessive development of the law of the maximum of advantageous effects produces social disorganization and economic crises. It is the duty of the individual to break away from this industrial uniformity and return to æsthetic diversity. If this return is not made, industry, art, and culture are doomed. A third law appears in the modern world, the law of the organization of human activities to promote harmonious and intense individual life. At the end of the article, the writer concludes that there is no absolute end, no absolute social well-being, and no absolutely fixed direction of development.

G. W. T. WHITNEY.

HISTORICAL.

Sur une des origines de la philosophie de Leibniz. G. RODIER. Rev. de Mét., X, 5, pp. 552-564.

The purpose of the present discussion — called forth by an article recently published in this *Revue* by M. Brochard — is to indicate briefly the influence of Plotinus upon the doctrine of Leibniz, and to show that the close affiliation of the systems of these two writers can only be the result of common metaphysical principles. That the neo-Platonist should be rarely mentioned among the inspirers of Leibniz is especially strange in view of the striking similarity of terms and metaphors found in the *Enneads* and

the *Monadology*. Both agree that the intelligible world, beyond time and space, contains a multiplicity — is composed of simple substances, thinking spirits, ideas. Since these are without parts, no change can be produced in them from without. Quantitatively alike, the variety of nature demands that they differ in quality. This distinguishing quality or essence is thought, whose continuity conditions the uninterrupted existence of substance, and whose logically implied change is of relations and affections. The universal Substance and Intelligence of Plotinus, just as the God of Leibniz, implies and is implied in all simple substances, each one of which contains potentially all the changes that can ever occur in it. Each is a microcosm, an element in an indissoluble system, a totality, whose own essence is its sufficient *raison d'être*, 'a living perpetual mirror of the universe.' Applying this thought to epistemology, Plotinus, foreshadowing his German disciple, takes an important step towards a rational solution of the problem. It follows from the nature of substance, that knowledge of any one thing implies all the other things with which that one is in relation, and so knowledge is entire in each of its parts. There are no isolated facts; every fragment of truth is essentially truth as a whole. Otherwise science would not be a system. The (purely ideal) influence exerted upon one substance by another can only be accounted for by supposing that the universal Intelligence, in regulating each thing at the beginning, had regard to all the others, and found in each substance reasons compelling its accommodation to all the rest. But this accommodation is radically exclusive of all contingency and liberty. It is merely a matter of logical or mathematical determination, an eternal necessity, without any moral or teleological significance. Indeed, prevision in the engendering Intelligence is useless, since only one alternative, determined by the nature of a substance, is possible. The world of spirits is beautiful simply because it cannot be otherwise: every part of an organism is necessarily what it is because of its existence in and for the whole. An appearance of freedom is given to man's actions, in the sense that they result from the exercise of his own right reason; but his reason is, in turn, determined by the nature of his mind. The establishment of the relationship of the two doctrines under discussion is of considerable interest and importance. Not only does the system of Leibniz become clearer when viewed in the light of neo-Platonic pantheism, but the theory of Intelligence, thought of as capable of its later development, is seen to possess more depth and originality than is ordinarily attributed to it. That Leibniz, fond of displaying his vast erudition and of quoting the thoughts of others which even remotely confirmed his own, should have omitted to cite Plotinus, is no doubt due to the fact that this writer had been read at a time when the influence of his profound thought was not consciously recognized.

A. D. MONTGOMERY.

NOTICES OF NEW BOOKS.

Outlines of Metaphysics. By JOHN S. MACKENZIE, Professor of Logic and Philosophy in the University College of South Wales and Monmouthshire. London and New York, Macmillan & Co.—pp. xv, 172.

This book, Professor Mackenzie tells us in the Preface, "is the outcome of a large plan." He says: "I had promised a good many years ago to write a book for Sonnenschein's Library of Philosophy, giving a comprehensive and connected survey of philosophical first principles, as these appear in the light of the most recent developments of thought." Before this promise could be fulfilled, Mr. Bradley's *Appearance and Reality* was published. "I decided for a time at least to abandon the larger scheme and attempt something smaller and more feasible. It seemed to me that a short introductory book might at least be of some use in helping students to a more easy understanding of the larger ones—a book that should aim chiefly at indicating the place and nature of the various metaphysical problems, rather than at thrashing them out in detail."

In preparing these outlines, Mr. Mackenzie has kept in view the purpose of an introduction rather than that of a text-book. He has been more anxious to present the problems, method, and results of a certain type of metaphysics than to acquaint the student with the different ways in which metaphysicians have conceived the problems and methods and have reached the results of their speculative task. "It seemed to me that, in view of the recent constructive work that has been attempted in our own country, it ought now to be possible in a quite short sketch to give enough indication of the nature of the problems to enable the student to find his bearings among them" (Preface). An introduction of this kind is likely to have more of the metaphysical spirit than the critically constructive survey of the development of metaphysical theories, yet it will not enable the student to gain a proper perspective and emancipate himself from the bondage of any particular theory.

Metaphysical speculation has turned mainly on that fundamental antithesis in our experience between self and not-self. Dualism arises from the simple acceptance of this antithesis as an ultimate fact. Materialism, idealism, agnosticism arise either from attempts to overcome it, or from despair of any ultimate solution. "Experience is much more of a piece than it is apt at first to appear." "The problem of metaphysics can no longer present itself as that of dealing with two opposing forms of reality." "The world of matter and the world of mind, in the only sense in which these two can be set in opposition to one another, are both ideal constructions." "They both stand in opposition to the raw material which is brought within such ideal systems." The antithesis between mind and matter must give place

to that between thought and sense, "an opposition that can no longer be regarded as a sharp and final one" (pp. 91-3).

"What is wanted as a propædæutic to metaphysics is not a theory of *knowledge*, but a theory of *experience*; and a complete theory of *experience* would be a complete metaphysics" (p. 35).

From the foregoing it is not difficult to discover the author's conception of the problem of metaphysics. "Metaphysics is the science which seeks to take a comprehensive view of experience with the view of understanding it as a systematic whole" (p. 11). Its problem is that of "considering and criticising the whole work of that constructive activity which is involved in experience" (p. 98). "The development of experience proceeds on the whole from the less determinate to the more determinate by the introduction of more and more definite constructive forms." "The problem of metaphysics is to understand these various modes of determination and to see within what limits each is valid" (p. 94).

To determine what are the 'fundamental forms of construction,' or to 'discover the categories,' Mr. Mackenzie attempts a 'genetic survey' of experience. He traces the development of experience, not with the eyes of the psychologist, but for the purpose of discovering "what elements the various modes of conscious development contribute to the apprehension of reality" (p. 55). "The main modes of construction" are: (1) "Perceptual construction or that which is involved in the simple setting before us of a number of objects; (2) scientific construction or that which is involved in the attempt to connect objects together so as to think of them in relation to one another as parts of a larger system; (3) ethical construction or that which is involved in the effort to bring objects in relation to a final end or good; (4) æsthetic construction or that which is involved in the apprehension of objects in relation to feeling, as beautiful or the reverse; (5) religious construction or that which is involved in the effort to view the universe as a complete system which is one, beautiful, and good; (6) speculative construction or that which is involved in the systematic attempt to think out the justification for such a view of the universe" (p. 90).

The third and most interesting part of this book is devoted to the "essential work of metaphysics," the criticism of these ideal constructions. The question asked is: Within what limits is each construction valid? It is not possible to test their validity by an external criterion. The test applied is self-consistency and completeness. Thus 'speculative construction' is required to "enable us to view experience as a whole, to see it as a completely coherent, self-consistent, and satisfactory system" (p. 156).

The conclusion of this venture in criticism may be summed up as follows: "Take any construction by itself and it fails; take it in relation to the whole, and we may reasonably believe that it does not fail." "Experience is an organic whole in which each part has value only in the light of all the rest." "On the whole, then, I would urge that the broad result of metaphysical inquiry is to lead us to have a general conviction of the

reliability of experience as a whole, coupled with a general distrust of the finality of any particular aspect of it" (pp. 164, 165).

In a note appended to the chapter on Speculative Construction, the most interesting in the book, Mr. Mackenzie says : " The comparison of different systems supplies one of the chief tests of the validity of any one system. Another justification for the historical methods of study has also been supplied incidentally in the course of this book, by the emphasis that has been laid on the genetic character of human thoughts " (p. 160). Though it is asserted " that the order of our study " (*i. e.*, the criticism of the ideal constructions) " will continue to be as far as possible the genetic one," one is forced to conclude that the genetic method has done its work, when it has aided in the discovery of the forms of the constructive activity involved in experience, and that in the essential or critical work of metaphysics it plays a very minor part. Surely the similarity between the experience of the individual and that of the race is sufficiently great to warrant a more extensive application of the most interesting of the methods, the genetic. Nearly every one will join with Mr. Mackenzie in expressing abhorrence at the introduction of mere historical detail into a metaphysical discussion ; but what one asks for is not fidelity to the chronological, but to the logical order, not a slavish tracing of the development of the opinions of any philosopher, but of types of metaphysical theory. This would, no doubt, require more space than that at the disposal of a " quite short sketch."

The reading of these *Outlines of Metaphysics* will increase the desire of every serious student of metaphysics to see the fulfilment of the promise, which Mr. Mackenzie made some years ago and partially repeats in the Preface to this book, to take the " longer voyage " required for a " comprehensive and connected survey of philosophical first principles."

WALTER C. MURRAY.

DALHOUSIE COLLEGE.

The Level of Social Motion : An Enquiry into the Future Conditions of Human Society. By MICHAEL A. LANE. New York, The Macmillan Co. — pp. ix, 577.

This book deserves more than a passing notice, not because its positions are unfamiliar, but rather on account of its patient application of the materialistic conception of history to the future of human society. While some spiritualistic mechanism gets woven into the warp of the book, its evident drift is along the lines of Marx and Loria. " Public good and equality of wealth are the same thing ;" and, at the same time, " social growth is a process entirely independent of man's volition." The trend of social motion is mechanically adjusted and has as its norm the bee group or what we observe in the bee-hive. Such a level is the end toward which social forces flow. Progress depends upon change of environment without change of locality.

According to Mr. Lane, the law of social motion entails human equality through the operation of natural selection. In fact, the two principles are very much the same. It also entails the equality of the sexes, which is being brought about by the increasing weight of woman's brain among civilized peoples. It further entails a rapid trend to a mean of population, which, when once attained, "can never again be disturbed." It is also to be noted that the force of progress is eliminating inferior races, not by war and pestilence, but by diffusion of wealth and education.

If the author's theory is correct, it goes far toward accomplishing his purpose to harmonize the bewildering facts of human history, to account for the contradictions between human aspirations and human injustice, and to foreshadow the future of human society. But Mr. Lane's theory will encounter some scepticism among those who believe that recent investigations show 'natural selection' to have been greatly overworked, and that its area of operation is limited, especially in the social realm. Analogous doubt will arise in reference to the claim that the human brain is increasing in weight. Even suppose that there is such an increase in weight, it by no means follows that this means an increase in intelligence or in social effectiveness, unless it can be shown, which it admittedly cannot, that there is a correlation of brain weight and mental power. Still, quite apart from such considerations, Mr. Lane's book is a good one and can be heartily commended to serious students of social science.

MATTOON M. CURTIS.

WESTERN RESERVE UNIVERSITY.

Le évolutionnisme en morale : Étude sur la philosophie de Herbert Spencer.

Par JEAN HALLEUX. Paris, Félix Alcan, 1901.—pp. 228.

This book consists of two parts, the first being a brief exposition of Herbert Spencer's *Data of Ethics*, the second a discussion and criticism of it. The criticism proceeds largely upon the traditional lines of opposition to the theory of evolution, and represents the view of Roman Catholic theology. As against the theory of development as applied to man, the author declares for special creation. He has failed to grasp certain elements of Spencer's system, or has failed to keep them steadily in mind in his criticism. It is quite beside the mark to attack Spencer's view of morality as being merely external. To do so is to ignore his insistence upon the fact that every genuinely moral experience is essentially internal, with sanctions that are clearly distinguishable from those of the prudential morality which has been its nurse. Spencer's system as a whole surely presents sufficient points of attack without increasing them by misinterpretation. In another matter the writer seems to vacillate in his criticism. At one time he finds Spencer's teaching fatal to positive morality by reason of what he regards as its selfish and hedonistic tendencies; at another he arraigns it as requiring an altruism too strenuous and lofty for mortals.

The rationale of the system which M. Halleux would himself offer is not altogether clear from the discussion. Appeal is made to the will of

God as the ultimate principle of Christian morality. But how is this will known to men? Either, it would seem, by a supernatural revelation or by the study of nature, including, of course, human nature. If he declares for the former, he has the difficult task of exhibiting a clear, harmonious, and universally authoritative revelation; if for the latter, he must descend from the clouds and find the divine will in the facts of human experience. As the discussion stands, M. Halleux is left in an ambiguous position between the earth and sky. On the one hand, he declares that "la morale religieuse puise dans la considération de la vie future un criterium certain de la moralité de nos actes" (p. 169); on the other, that "la morale théologique . . . place le fondement immédiat de la loi morale dans les relations naturelles des êtres" (p. 175). How can the consideration of a future life furnish a certain criterion of morality, when the very problem of morality is to determine what constitutes a worthwhile life, whether present or future, short or long? Indefinite extension or extension to infinity does not answer the question.

W. G. EVERETT.

BROWN UNIVERSITY.

A Study of Ethical Principles. By JAMES SETH, Professor of Moral Philosophy in the University of Edinburgh. Sixth edition, revised. Edinburgh and London, William Blackwood & Sons; New York, Charles Scribner's Sons, 1902.—pp. xvi, 470.

Advantage has been taken of this opportunity to revise the entire work once more and to make many minor corrections. There are, however, only two alterations of real importance. These occur (1) in the statement of Butler's theory in terms of Eudæmonism, as well as of Rationalism (Part I, ch. iii, § 14), and (2) in the discussion of freedom, which is no longer identified with contingency or indetermination, but with self-determination. The latter change of view has led to the alterations of certain statements in Part III, ch. i, §§ 3-5, and to the omission of the criticism of Green's view of the relation of the self to the character (§§ 8, 9).

J. S.

W. Wundt. Seine Philosophie und Psychologie. Von EDMUND KÖNIG. [Frommanns Klassiker der Philosophie] Stuttgart, Fr. Frommanns Verlag, 1901.—pp. 207.

W. Wundt's Philosophie und Psychologie, In ihren Grundlehren dargestellt. Von RUDOLF EISLER. Leipzig, J. A. Barth, 1902.—pp. vi, 210.

The scope and purpose of these volumes is in general the same. They both present in a compact form an exposition of Wundt's views on the fundamental questions of philosophy and psychology. König's method of treatment was undoubtedly determined largely by the character of the series for which his book was written. The first forty-nine pages deal with Wundt's relation to other current philosophical movements, and with an account of

his scientific history and development. These are followed by an excellent summary of the main results which the Leipzig philosopher has reached in Logic, Psychology, Metaphysics, and Ethics. What we get is thus a broad and general outline of Wundt's many-sided activity, without any attempt to deal in detail even with the fundamental principles. Eisler, on the other hand, has written rather for students of philosophy and psychology than for the general reader. While, therefore, he does not give as full a synopsis of the doctrines as König, he emphasizes more the main concepts and principles of Wundt's philosophy, and gives numerous references to his writings. The two little volumes supplement each other excellently, König being concerned mainly with a historical outline of the doctrines, while Eisler deals rather with the concepts which constitute the system.

J. E. C.

The Economic Interpretation of History. By EDWIN R. A. SELIGMAN. New York (The Columbia University Press), The Macmillan Company, 1902.—pp. ix, 166.

In his Prefatory Note the author tells us that "the present work is substantially a reproduction, with some alterations, additions, and rearrangements, of the articles that appeared in Volumes XVI and XVII of the *Political Science Quarterly*." The book falls into two parts, each comprising six short chapters. Part I gives the history of the theory of economic interpretation, and Part II furnishes a critical discussion and estimate of the theory. The thesis of the doctrine is stated by the author in the following way: "The existence of man depends upon his ability to sustain himself; the economic life is, therefore, the fundamental condition of all life. Since human life, however, is the life of man in society, individual existence moves within the framework of the social structure and is modified by it. What the conditions of maintenance are to the individual, the similar relations of production and consumption are to the community. To economic causes, therefore, must be traced in last instances those transformations in the structure of society which themselves condition the relations of social classes and the various manifestations of social life" (p. 3).

The historical portion of the book is mainly devoted to the development of the economic view of history by Marx and his school. Only brief mention is made of Buckle or of any earlier writer. The connection of the German 'materialistic' school with Feuerbach and the other adherents of the Hegelian 'Left' is very clearly shown in a chapter entitled "The Philosophical Antecedents of the Theory."

In the critical chapters the author undertakes to answer the main objections that have been brought against the theory, to point out its exaggerations, and to furnish a final estimate of it. The objections to which he replies are the following: (1) That the theory of economic interpretation is a fatalistic theory, opposed to the doctrine of free-will and overlooking

the importance of great men in history ; (2) that it rests on the assumption of historical 'laws,' the very existence of which is open to question ; (3) that it is socialistic ; (4) that it neglects the ethical and spiritual forces in history ; (5) that it leads to absurd exaggerations. The third objection is of course irrelevant, and, as Professor Seligman points out, is based on a misunderstanding. The economic theory of history may be held with any view of the state, whether socialistic or individualistic. The other objections Professor Seligman discusses rather briefly, but, in so far as he answers them at all, he does so, it seems to me, by modifying the theory and making the economic motive one important influence among others, of great constancy and importance doubtless, but by no means the sole or a compelling motive in the life of individuals and society. He thus expressly repudiates such exaggerations of the theory as we find in the works of Mr. Brooks Adams and Professor Patten, pointing out that Marx and Engel never regarded the law as anything more than one among several principles of historical explanation. This being so, it is difficult to see what good end is subserved by using the term 'economic interpretation' at all. An 'interpretation' of history, if it is ever attained, must surely result from a synthesis of explanatory principles, not from emphasizing a single principle out of proportion to its real significance. The notion of historical relativity, which grew up with the development of historical and evolutionary conceptions in the nineteenth century, has doubtless brought with it a new insight into the real forces and motives which are effective in social and political progress. Marx and his school, with their insistence on the strength and constancy of the economic motive, were a part of the new movement itself, not the originators of that movement as Professor Seligman seems to imply in his concluding chapter. He himself, however, is exceedingly careful not to over-emphasize the claims of the principle as an explanation of history. "The economic interpretation of history," he says, "in its proper formulation, does not exhaust the possibilities of life and progress ; it does not explain all the niceties of human development ; but it emphasizes the forces that have hitherto been so largely instrumental in the rise and fall, in the prosperity and decadence, in the glory and failure, in the weal and woe of nations and peoples. It is a relative rather than an absolute, explanation. It is substantially true of the past ; it will tend to become less and less true of the future" (p. 158).

J. E. C.

Leaders of Religious Thought in the Nineteenth Century: Newman, Martineau, Comte, Spencer, Browning. By SYDNEY HERBERT MELLONE. Edinburgh and London. William Blackwood & Sons, 1902.—pp. ix, 302.

The substance of this book was delivered as a course of lectures before an unsectarian theological institution, the Divinity School of Meadville, Pennsylvania. The subject of the course was 'the Source and Meaning of Belief in the Divine Being.' The results are arrived at by means of a com-

parison and estimate of some typical forms of religious thought. The five thinkers whose names appear on the title page were chosen because they represent various aspects of the new spiritual awakening and reaction against the deistic and mechanical views of the eighteenth century (p. 2), and are hence typical of nineteenth century thought.

The author does not claim any special originality in his interpretation and criticism of the philosophy of the first four writers named, though it may be said that he seems to touch their real weaknesses. Newman discards reason as the seat of authority in religion, and affirms the necessity of a belief in the deliverances of the church, but mistakes a psychological analysis of belief for an account of its ultimate grounds (p. 80). He also fails to leave any distinction "between religion itself, and a particular expression of it in doctrine and ritual" (p. 56). In Martineau there are two lines of thought. The first, which looks to conscience as authority, but which has no adequate conception of development, may be called 'ethical deism.' The second regards true religion as resting at bottom on a direct experience which thought tries to interpret (p. 146). The infinite is found *in* the finite, not above it (p. 163). Comte gives a true analysis of the factors that constitute religion, but his religion of humanity fails to satisfy what is required by his own analysis. This deification of humanity recognizes the truth that God is revealed through man, though it errs in identifying Him with humanity (pp. 216-218). Spencer makes the opposite mistake of wholly excluding the infinite from the finite; whereas, the finite should be thought of as realizing, though not limiting the infinite (p. 244).

In his interpretation of Browning, the author claims to be more original, and on the basis of his interpretation, finds Browning's views acceptable. Browning's thought is "the value of work" (p. 254). Work gives new and deepened experience, and this, interpreted by thought, furnishes our best knowledge, the finite and the infinite. But work means growth, and a consequent perfection of activity (pp. 279-280). Here, then, we have the author's conclusion. First, truth is a development; second, new truth is not something different from the old half-truths, but something which combines them in a larger view; third, experience is the data of thought, and the place where the infinite is to be found.

The book aims to be a reconciliation of Rationalism and Mysticism (p. vi), and may fairly be said to represent the best philosophy of theism and of religion of the present day—that which looks for the Divine at the top rather than at the bottom of human life, at the end rather than at the beginning. The deism of the eighteenth century has been long in passing away, but wherever its mechanical conceptions and hard and fast logical separations have been displaced, religion has gained in both breadth and depth, by the incoming of the more spiritual theism of the nineteenth century.

A. W. CRAWFORD.

Estetica come scienza dell'espressione e linguistica generale. I. Teoria.

II. Storia. Per BENEDETTO CROCE. Milano, Palermo, Napoli, Remo Sandron, Editore, 1902. — pp. xx, 550.

There are two forms of human knowledge, the one intuitive, a knowledge of the individual, of things, the other logical, concerned with the universal, with concepts. Intuition is altogether independent of logic and concepts, and is the function that gives us knowledge of things in their concreteness and individuality. As such, it is not distinguishable from expression, with which it is in fact identified. Creative in its nature, acting through any sense and upon any material, it is to be regarded as form alone. That portion of its manifestations which is included under works of art or classed as distinctively æsthetic, differs from the common possession of all men only in quantity. It is not different in quality nor greater in intensity, but it embraces a wider field. Intuition or expression is the fundamental function of the mind, the only one which can exist alone and that which forms the necessary basis for the others. Wherever it exists, expression is always complete, it does not admit of degrees; and, since the beautiful is the expression, beauty has no more nor less. When expression is externalized, we speak, paradoxically enough, since beauty is of the mind, of beautiful things. The externalization may be willed, expression never. Æsthetic judgment is æsthetic reproduction. One appreciates only as the expression becomes one's own.

Such, in brief, is the theory of æsthetics advanced in the book under discussion. The consequences and developments presented are largely made up of criticisms of different theories, which are judged entirely in the light of this one, and of an account of the relation of the æsthetic to every other branch of human knowledge and activity. At the end of the portion of the book devoted to theory, linguistics is identified with æsthetics, and an attempt is made to show that their problems are the same. There follows a history of æsthetics, which is nothing more than an examination of past theories, with the view of ascertaining in how far they agree with the main thesis of the volume.

WELLS COLLEGE.

GRACE NEAL DOLSON.

La teoria della conoscenza come induzione sociologica e l'esigenza critica del positivismo. Per ICILIO VANNI. Roma, presso la "Rivista Italiana di Sociologia," 1902.—pp. 54.

This monograph is devoted to an examination of the positivistic epistemology. The contention of some of Comte's opponents that he advanced no theory of knowledge is shown to be false, inasmuch as his doctrines of the relation of the individual to the universal man and of the central idea of humanity as the explanation of the world really supply such a theory; and Comte is, therefore, to be freed from the accusation of wilful or careless neglect of an important problem. His theory, however, essentially historical and sociological in its nature, is not an adequate substitute for in-

dividual mental analysis, although it is of great value, because it emphasizes hitherto unconsidered aspects of the question and suggests better methods of procedure. In fact, positivism must be supplemented by criticism, if it is to hold a permanent place in philosophy.

GRACE NEAL DOLSON.

WELLS COLLEGE.

Das Bild des Christentums bei den grossen deutschen Idealisten: Ein Beitrag zur Geschichte des Christentums. Von LIC. DR. LÜLMANN, Berlin, C. A. Schwetschke und Sohn, 1901.—pp. x, 229.

The interest of this volume is more directly theological. As the name suggests, it deals with the philosophy of Christianity rather than of religion in general, and there is the incidental aim of throwing light upon the present theological situation, although this does not interfere with the objective nature of the historical treatment. The idealistic thinkers who are examined are Leibniz, Lessing, Kant, Fichte, Schelling, Hegel, and Schleiermacher. In each case, a systematic exposition is followed by a critical appreciation. The criticisms are sympathetic and undogmatic. They are based on the standpoint of priority of religious experience or feeling, while still demanding that this be true to the spirit of historical Christianity and its doctrinal expressions. From this standpoint, Fichte's moral principle, Schelling's intellectual intuition, Hegel's speculative reason, are criticised as inadequate, and the author finds in Schleiermacher what evidently he regards as the most significant tendency in modern theology. The book pretends to no very definite results in the way of a positive system, and, in particular, the relation which is conceived to hold between religious faith and rational knowledge remains rather unclear. But, on the whole, the criticisms show a judicious balance in estimating the claims of the various aspects of the religious life, as expressed in intellectual formulations, ethical conduct, inner feeling, and external cultus.

A. K. ROGERS.

BUTLER COLLEGE.

Du beau: Essai sur l'origine et l'évolution du sentiment esthétique. Par LUCIEN BRAY. Bib. de Philos. Contemp., Paris, Félix Alcan, 1902.—pp. v, 274.

Études esthétiques. Par GEORGES LECHALAS. Bib. de Philos. Contemp., Paris, Félix Alcan, 1902.—pp. 306.

These works are up to date. The more serious and systematic work of the two is that of Bray, who, from his own standpoint, the physiological, has endeavored to explain æsthetic phenomena in their more elementary aspects. It is written with the clearness and ease so fascinating in French bookmakers. The work is divided into eight chapters, in which the author canvasses a really vast range of topics of the greatest interest and importance to students of the beautiful. In the introduction, he advances the theory that emotion is determined *not* by ideas, but by motor and organic

tendencies of which the emotion is a manifestation in consciousness. M. Bray claims the support of James, Lange, and Ribot for this theory ; but, whatever may be true of Lange (who was a medical man) and Ribot, I believe Professor James no longer holds the organic origin of emotion. Here, it seems to me, is the chief error of this interesting work. It appears in all parts of the æsthetic system of our author, and accordingly vitiates the conclusiveness and adequacy of his treatment of the problems of æsthetics. It crops out in such sentences as these: "Consciousness is the gradual result of the development of the nervous system . . . it derives its constitution in the last analysis from matter itself" (p. 11); and again "Emotion is only the consciousness of all organic phenomena" (p. 18). It is natural to expect, with such presuppositions, a very plain and straightforward derivation of the sense of beauty from some organic tendency or function ; and in this we are not disappointed ; for on p. 40 the perception of the beautiful is reserved exclusively for the organs of sight and hearing ; and, in the chapter on "The Genesis of the Idea of the Beautiful," we are told that the reproductive function, which is an instance of organic selection in the form of sentiment and idea, is at the root of our notion of grace and sublimity (p. 137). "Sexual attraction," in other words, accompanied by an act of choice, is the real and essential nature of the æsthetic complex so far as its origin is concerned (p. 141). Of course, M. Bray does not intend us to believe that this organic tendency stands alone at the base of the æsthetic consciousness. Indeed, he shows that there are sensuous, intellectual, and moral elements or factors involved (ch. iii). His meaning, so far as it can be ascertained from this book, is that sexual needs dictate the course of æsthetic development (p. 160).

The importance of organic factors in psychical development has, since Hume's time, received, and is receiving still, abundant recognition. But perhaps they are being overestimated just now. We suspect that underneath it all there is a slavish and uncritical allegiance to the more rigid forms of evolution. If so, it cannot be too often or too emphatically insisted that evolution is not a body of doctrine, but only a method of study. Students of æsthetics especially need to steer clear from the capacious maw of this error, which would drag down the highest and most distinctive ultimate conceptions of our science to the level of merely organic 'tendencies.' M. Bray's book is commended to the attention of all who care to contemplate that process carried out with a finish, a learning, and a gift for system which leaves little to be desired.

Touching on similar themes, the book of *Georges Lechalas* is not dominated by the idea of system, for rigorous unity is absent from it. He has simply collected some studies of æsthetical problems, for the most part related. In the introduction on "The Beautiful and the Ugly" and in the short chapter on "What is Art?" he has shown his point of view and mode of regarding general æsthetical problems. These are especially artistic and literary, as well as scientific or philosophical. In a series of

chapters beginning with one on "Art and Nature," M. Lechalas takes up certain special problems, where he shows, in an interesting manner, that art cannot be the reproduction of those sensations which connect us with an external world, for those sensations do not reproduce nature as it is. Hence the artist is obliged to portray nature other than she is, by studying mathematics, and *suggesting* rather than imitating the reality. This is the most interesting part of the book to students of the philosophy of the beautiful, especially the chapter on "Art and Mathematics." In this chapter, our author claims that there is a natural affinity between art and the sciences of number. He refers to the "rhythm of organic nature" and the relation of this phenomenon to the musical character of notes, words, and colors. His principle seems to be that the laws of sensibility are reducible to mathematical formulas—a position in which M. Lechalas is honest enough to say (p. 121) that there is incontestably a large part given to hypothesis; but this is not a condemnation of this chapter, for in certain practical ways (in perfecting the technical foundation of an art like painting, *e. g.*) such a quest for mathematical exactness is not only a satisfaction to the intelligence, but also a positive gain to the teacher and student. In succeeding chapters, our author writes of the relations of the arts to each other, where he uses his mathematical theory to some extent; of the function of curiosity in art; and of the moral element in artistic productions—and all are edifying reading. If the book as a whole lacks system, it is not without original ideas, and it is written with a commendable desire to preserve the dignity of art from the influence of demoralizing standards. It might be questioned if Ruskin's *Lamps of Architecture* can be seriously considered as systematic a work on architecture, as our author seems to think it (p. 292). It is even doubtful if Ruskin thought specially of 'methodical exposition' in his works at all. As a seer and prophet, Ruskin can be regarded, but hardly as a systematic and scientific thinker. The inferences drawn from 'The Lamps' by M. Lechalas are, therefore, somewhat weakened. On the whole, these essays hardly deserve to rank on the same level as those of Guyau on the same subject; at the same time, we should not omit to praise their serious purpose, high tone, and true appreciation of the beautiful.

HENRY DAVIES.

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The following books also have been received:

Man's Place in the Cosmos and Other Essays. By A. SETH PRINGLE-PATISON. New York, Charles Scribner's Sons, 1902.—pp. viii, 318. \$1.50.

Lectures on the Ethics of T. H. Green, Herbert Spencer, and J. Martineau.

By HENRY SIDGWICK. London, Macmillan & Co., 1902.—pp. xli, 374.

An Essay on Laughter. By JAMES SULLY. New York, Longmans, Green, & Co., 1902.—pp. xvi, 441.

Dictionary of Philosophy and Psychology. Vol. II. Edited by JAMES MARK BALDWIN. New York, The Macmillan Company, 1902.—pp. xvi, 892.

Religion as a Credible Doctrine. By W. H. MALLOCK. New York, The Macmillan Company, 1903.—pp. xiv, 287. \$3.00.

Psychopathological Researches: Studies in Mental Dissociation. By BORIS SIDIS. New York, G. E. Stechert, 1902.—pp. xxii, 329.

The Mind of Man: A Text-book of Psychology. By GUSTAV SPILLER. London, Swan Sonnenschein & Co., 1902.—pp. xiv, 552. 7s. 6d.

Aristotle's Psychology: Translated with Introduction and Notes by WILLIAM ALEXANDER HAMMOND. London, Swan Sonnenschein & Co., 1902.—pp. lxxxvi, 339. \$3.00.

Reason and Revelation: An Essay in Christian Apology. By J. R. IL-LINGWORTH. London, Macmillan & Co., 1902.—pp. xix, 271. \$2.00.

The Possibility of a Science of Casuistry. By ERNEST NORTHCROFT MER-RINGTON. Sydney, Angus and Robertson, 1902.—pp. 58.

Hegel's Logic: An Essay in Interpretation. By JOHN GRIER HIBBEN, New York, Charles Scribner's Sons, 1902.—pp. x, 313. \$1.25.

Tolstoi as Man and Artist. By DMITRI MEREJKOWSKI. New York and London, G. P. Putnam's Sons, 1902.—pp. 310.

The New Empire. By BROOKS ADAMS. New York, The Macmillan Co., 1902.—pp. xxxvi, 243. \$1.50.

Democracy and the Organization of Political Parties. By M. OSTRO-GORSKI. Two Volumes. New York, The Macmillan Co., 1902.—pp. lviii, 627; xlii, 793. \$6.00.

Life in Mind and Conduct. By HENRY MAUDSLEY. London, Macmillan & Co., 1902.—pp. xv, 444. 10s. 6d.

Recollections of Half a Century. By Col. ALEXANDER K. MCCLURE. Salem, Mass., The Salem Press Co., 1902.—pp. vii, 502.

School Administration in Municipal Government. By FRANK ROLLINS. (Columbia University Contributions to Philosophy, Psychology, and Edu-cation, IX, 1.) New York, The Macmillan Co., 1902.—pp. 106. \$0.75.

Studies in the Cartesian Philosophy. By NORMAN SMITH. London, Mac-millan & Co., 1902.—pp. xiv, 276. \$1.60.

The Problem of Metaphysics and the Meaning of Metaphysical Explanation. By HARTLEY BURR ALEXANDER. (Columbia University Contributions to Philosophy, Psychology, and Education, X, 1.) New York, The Mac-millan Co., 1902.—pp. 130. \$0.75.

Grundzüge der physiologischen Psychologie. Zweiter Band. Von WILHELM WUNDT. Leipzig, Wilhelm Engelmann, 1902.—pp. viii, 680. M. 13.

Ausgewählte Beiträge zur Kinderpsychologie und Pädagogik. Von G. STANLEY HALL. Aus dem Englischen übersetzt von JOSEPH STIMPFL. Altenburg, Oskar Bonde, 1902.—pp. 454.

Die Philosophie der Weltmacht. Von FRIEDRICH SELLE. Leipzig, Johann Ambrosius Barth, 1902.—pp. vi, 74. M. 2.40.

- Kants Philosophie der Geschichte.* Von FRITZ MEDICUS. Berlin, Reuther & Reichard, 1902.—pp. 82. M. 2.40.
- Rudolf Euckens, Theologie mit ihren philosophischen Grundlagen.* Von HANS PÖHLMANN. Berlin, Reuther & Reichard, 1903.—pp. 93. M. 1.50.
- Wissen und Glauben bei Pascal.* Von KURT WARMUTH. Berlin, Georg Reimer, 1902.—pp. 56. M. 1.50.
- Martineaus Religionsphilosophie: Darstellung und Kritik.* Von ORLO JOSIAH PRICE. Inaugural-Dissertation der hohen philosophischen-Facultät der Universität Leipzig zur Erlangung der Doktorwürde.—pp. 104.
- Essai d'une philosophie de la solidarité.* Par LÉON BOURGEOIS and ALFRED CROSET. Paris, Félix Alcan, 1902.—pp. xvi, 287.
- Le fonctionnisme universel: Essai de synthèse philosophique: Monde sensible.* Par HENRY LAGRÉSILLE. Paris, Librairie Fischbacher, 1902.—pp. 580.
- Nouvelles pensées de Tolstoi.* Par OSSIP-LOURIÉ. Paris, Félix Alcan, 1903.—pp. xi, 149.
- L'idée d'évolution dans la nature et l'histoire.* Par GASTON RICHARD. Paris, Félix Alcan, 1903.—pp. iv, 406.
- Analysten et esprits synthétiques.* Par FR. PAULHAN. Paris, Félix Alcan, 1902.—pp. 196.
- Le positivisme et le progrès de l'esprit.* Par GASTON MILHAUD. Paris, Félix Alcan, 1902.—pp. 210.
- Esquisse psychologique des peuples Européens.* Par ALFRED FOUILLÉE. Paris, Félix Alcan, 1903.—pp. xix, 550.

NOTES.

At a recent meeting of the University Court of St. Andrews, a communication from Professor William Knight was submitted, tendering his resignation of the chair of Moral Philosophy in the University. Professor Knight was elected to the chair in October, 1876, and at the close of the current session he will have discharged the duties of the office for twenty-seven years.

We regret to announce that Professor J. H. Hyslop has been compelled by ill-health to resign the chair of Logic and Ethics at Columbia University.

The second meeting of the American Philosophical Association will be held at Washington on December 30th and 31st. Professor A. T. Ormond, of Princeton, will preside and deliver the presidential address. On the morning of December 31st, a joint meeting will be held with the Psychological Association, whose sessions extend from December 30th to January 1st.

The meeting of the Western Philosophical Association which was to have been held at Iowa University, Iowa City, on January 1st and 2d, has been postponed until Easter.

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

THE PSYCHOLOGICAL REVIEW, IX, 6: *Thaddeus L. Bolton*, A Biological View of Perception; *Alice Robertson*, 'Geometrical-Optical' Illusions in Touch; *G. A. Tawney*, Feeling and Self-awareness; Discussions and Reports; Psychological Literature; New Books; Indexes.

ARCHIV FÜR GESCHICHTE DER PHILOSOPHIE, IX, 1: *W. Pfeffer*, Die Entstehen der Philosophie Descartes' nach seiner Correspondenz; *A. W. Loewenstein*, Die naturphilosophischen Ideen bei Cyrano de Bergerac; *Max Köhler*, Studien zur Naturphilosophie des Th. Hobbes, Jean Pérès, Platon, Rousseau, Kant, Nietzsche; Jahresbericht.

ZEITSCHRIFT FÜR PHILOSOPHIE UND PHILOSOPHISCHE KRITIK, CXX, 1: *Johannes Rehmke*, Zum Lehrbegriff des Wirkens; *Friedrich Jodl*, Goethe und Kant; *Jul. Bergmann*, Ueber den Begriff der Quantität; *J. Lilienfeld*, Versuch einer strengen Fassung des Begriffes der mathematischen Wahrscheinlichkeit; *E. Schwedler* (Bonn), Die Lehre von der Beseeltheit der Atome bei Lotze; Recensionen; Neu eingegangene Schriften; Aus Zeitschriften; Notizen.

VIERTELJAHRSSCHRIFT FÜR WISSENSCHAFTLICHE PHILOSOPHIE UND SOCIOLOGIE, XXVI, 3 (Neue Folge, I, 3): *Cay von Brockdorff*, Galileis philosophische Mission; *C. M. Giessler*, Über den Einfluss von Kälte und Wärme auf das seelische Funktionieren des Menschen; *Karl Marbe*,

Brömses und Grimsehl's Kritik meiner Schrift, "Naturphilosophische Untersuchungen zur Wahrscheinlichkeitslehre"; *A. Vierkandt*, Natur und Kultur im socialen Individuum; Besprechungen; Notiz; Selbstanzeige von K. Geissler; Philosophische Zeitschriften.

ZEITSCHRIFT FÜR PSYCHOLOGIE UND PHYSIOLOGIE DER SINNESORGANE, XXIX, 6: *Vittorio Benussi*: Über den Einfluss der Farbe auf die Grösse der Zöllner'schen Täuschung (Schluss); *O. Rosenbach*, Zur Lehre von den Urtheilstäuschungen; Literaturbericht.

XXX, 1 u. 2: *Eugen Reimann*, Die scheinbare Vergrösserung der Sonne und des Mondes am Horizont; *Paul Ranschburg*, Über Hemmung gleichzeitiger Reizwirkungen; *N. Lossky*, Eine Willenstheorie vom voluntaristischen Standpunkte; Literaturbericht.

REVUE NÉO-SCOLASTIQUE, IX, 3: *G. Simons*, Le principe de raison suffisante en logique et en métaphysique; *A. Walgrave*, L'emotion poétique; *J. Homans*, La logique algorithmique; *L. Noël*, La philosophie de la contingence; Mélanges et documents: *G. R. Woad*, La philosophie de M. Grote; *C. Sentroul*, Bibliothèque du Congrès international de Philosophie; Bulletin de l'Institut supérieur de Philosophie: Une thèse d'agrégation; Comptes-rendus.

IX, 4: *G. Legrand*, Le réalisme dans le roman français au XIX^e siècle; *Cl. Besse*, Lettre de France; *E. Van Roey*, Récentes controverses de morale; *M. Defourny*, La rôle de la sociologie dans le positivisme; Mélanges et documents: *James Lindsay*, Etude morale sur la première philosophie de l'histoire; La traduction française de la terminologie scolastique; Bulletin de l'Institut supérieur de Philosophie: Programme des cours pendant l'année académique 1902-1903; Comptes-rendus.

REVUE DE MÉTAPHYSIQUE ET DE MORALE, X, 6: *F. Rauh*, Le sentiment d'obligation morale; *G. Milhand*, Le hasard chez Aristote et chez Cournot; *Henri Piéron*; Essai sur le hasard; *F. M.*, Essai d'ontologie; *Henry Bargy*, Le fatalisme d'action aux États-Unis; *G. Lanson*, A propos de 'La crise du libéralisme'; *P. Lapie*, La crise du libéralisme; *D. Parodi*, La crise du libéralisme; *G. Lyon*, L'état de l'enseignement libre; Correspondance; La philosophie dans les Universités; Livres nouveaux; Revues; Table des matières.

REVUE PHILOSOPHIQUE, XXVII, 11: *H. Leuba*, Les tendances religieuses chez les mystiques chrétiens; *L. Dauriac*, Des images suggérées par l'audition musicale; *F. Le Dantec*, La place de la vie dans les phénomènes naturels; *Th. Flournoy*, Les variétés de l'expérience religieuse d'après M. William James; Analyses et comptes rendus; revue des périodiques étrangers.

THE
PHILOSOPHICAL REVIEW.

PHILOSOPHY AND ITS CORRELATIONS.¹

I.

I AM well aware that in a presence constituted mainly of the professors of the art of philosophizing it would be unseemly to doubt the value of that art. But it is open to us all, without implying any reflection on our profession, to recognize the fact that such doubt exists, and that not infrequently in the minds of very intelligent men. Now, without stopping to consider the forms which this doubt is accustomed to assume in the thought of the sceptic, it is my purpose here, at the outset, to concede that philosophy itself is partly responsible for this result, and this admission will be taken later on as an excuse for attempting a fresh definition of the nature and method of what we call philosophical inquiry. In the meantime, if any specifications be called for under the general indictment of philosophy as in part responsible for the scepticism with which its pretensions are assailed, I would say in reply : First, that the philosophizing intellect too often yields to the temptation of over-subtlety in its conceptions and distinctions, as well as to over-abstractness in its data and ultimate aims. If we take into account the first point in the indictment, we are prone to think of the middle ages as the golden period of hair-splitting, and we are accustomed to laugh with a sort of unholy glee over some of the performances of the scholastics. But we are unmindful of the fact that scholasticism still has its cult, and that we are perchance not altogether without

¹ Read as the Presidential Address at the second annual meeting of the American Philosophical Association, December 30, 1902.

sin ourselves. For it must be admitted that the philosopher's most besetting fault is a tendency to hypostasize abstractions.

I think no more need be said on this point. More serious, however, is the fault of over-abstractness in the sphere of data and ultimate aims. In the field of data, the sin was committed in its most aggravated form by the Pre-Kantian Rationalists, who, deliberately closing their eyes to the ordinary activities through which experience realizes its world, sought to deduce the whole content of knowledge from concepts of the understanding which they traced to sources independent of experience. The result was a striking demonstration of the truth of Kant's tersely-stated proposition that conceptions without perceptions are empty; for, as the student of thought knows, the Pre-Kantian Rationalism ended ingloriously in a system of empty dogmatism. But this tendency to over-abstraction works out more seriously, as I think, in the field of ultimate aims. Here the temptation operates very subtly. Science tells us that its ultimate aim is the discovery of laws that sum up in compendious formulæ the behavior of things, but that it has no vocation to determine the inner nature of things. Its laws, as related to this nature, are symbols that do not define. The symbol tells what the thing does, but not what it is. Now philosophy, seeing the symbol of science to be thus abstract, commits the sin of over-abstraction, when it imagines its true business to be a still further extension of the symbolizing process along the lines laid down by science. And it will not be purged of its evil conscience in this matter until it realizes that it ceases to be a mere pale imitation of science and becomes something real in itself, only when it has begun to relate itself to an order of conceptions different from those that represent the final terms of science. Philosophy will not find its arteries beginning to pulsate with life until, for example, it makes the effort to translate the ultimate symbols of science into terms, not of mere abstract law, but into such terms as those of will and purpose.

In the second place, I feel sure that philosophy supplies fuel to doubt, in its general inability to make up its mind on the question of its own proper field and vested rights. Self-abnegation

is carried too far, I think, when philosophy is ready to admit, as it sometimes does, that it is in possession of no original territorial rights, and that the advance of science may drive it from preserve after preserve until it has not a foot of ground that it can call its own. Something like this has actually taken place, and we have watched the process by which science has occupied all the territory that is of value in those ancient preserves of psychology, ethics, and religion, where philosophy was wont to go in and out and find pasture. It has seemed to be a veritable struggle in the last ditch for philosophy, a kind of Transvaal tragedy enacted in the field of mind, in which science has planted her victorious standards on the very citadel of the enemy, and there has seemed to be nothing left to philosophy but to capitulate and accept such terms as the victor should be willing to give. I say the situation has this appearance, for I believe the truth of the matter to be altogether other than what it appears to be on the surface. For to my mind this very invasion is helping philosophy to a clearer understanding of what its field and functions really are. Nevertheless, the apparent willingness that philosophy sometimes shows to sink into the position of a mere vassal, and the generally apologetic air with which it is accustomed to assert its rights, have been not unfruitful sources of the scepticism with which its claims have been received.

II.

The great question, then, that confronts us here is this: *How shall philosophy vindicate itself against the scepticism with which its claims are liable in our time to be met?*

And I would answer: (I) *By defining some point of view that is clearly philosophical, so that the complete occupation of this point of view will have the effect of translating an inquiry into one that is distinctly philosophical.*

In undertaking to define such a point of view, however, we might seem to be attempting the impossible. But after all, the difficulty is not so great; for, as a matter of fact, the history of philosophy has largely solved the problem for us. When the great Kant had been aroused from his dogmatic slumbers, the

task he found awaiting him, if we may take his own statement of it, was nothing less than the effecting in the intellectual world of a revolution corresponding to that which Copernicus had brought about in the physical world. Copernicus had overthrown the Ptolemaic system by showing that the section of the cosmos in which we live has its center in the sun rather than in the earth; and Kant was convinced that his mission as a philosopher was to organize that activity by which man seeks to know his world in general, around a new center. As a matter of fact, it is not important for the purposes of this discussion that we should settle the question of Kant's originality in this matter. It is not even important to decide whether or not he was completely successful in carrying into effect his revolutionary aims. It is only needful here clearly to realize the situation as it presented itself to the mind of Kant, and, in view of this, to endeavor to comprehend what it was he was seeking to bring about. What change was he aiming to effect in the philosophical conceptions of men? Well, there are two points of view, one of which, at least, is familiar to every man who has engaged in any kind of scientific investigation. This we may for convenience call the *extra-conscious, spectator* point of view, in which the investigator becomes an observer, standing in a sense outside of the world he is exploring, and contemplating it as a system of forces which are in themselves inscrutable, and which turn only their phenomenal side toward him, and must therefore be studied strictly in terms of their movements or outer conduct.

From such a view-point, consciousness has no special prerogatives, but to the spectating eye that contemplates it is simply one, and perhaps not the most important, of the cosmic elements with which it deals. From this point of view, consciousness is simply a phenomenon among phenomena, to be reckoned with only in view of the part it seems to play objectively in connection with the other forces of the world. That science will recognize this as the ordinary way in which it looks at consciousness, we need not stop to insist. The other point of view is, for various reasons, less obvious but none the less real. It is that which is achieved when a man comes to regard consciousness, not as a mere cir-

cumstance of his world, but as holding a central place in it. The world of ordinary science is not one in which consciousness is centrally located. But the standpoint we are now concerned with is that of consciousness itself. It is the point of view of an investigator who approaches his world *intra-consciously* rather than *extra-consciously*. If, now, we assume that the inquirer has truly occupied this point of view, we may ask what effect it will have on his way of looking at the world. He may, and probably will, continue to occupy what we have called the extra-conscious standpoint, and in that case he may even, as a psychologist, undertake to define the activities of consciousness in terms of psycho-physical symbols, and his results will no doubt be such as to justify the attempt.

But the point of our contention here is, that just so far forth as the inquirer succeeds in occupying what we have called the standpoint of consciousness itself, he will find himself participating in a species of Copernican revolution. The world no longer presents itself to him as a system of extra-conscious forces in connection with which consciousness plays, on the whole, a subordinate and precarious part; but consciousness itself has become central and determines the point of view from which the whole system of things is to be contemplated. And the investigator finds that, in occupying this internal point of departure, a transforming change has been effected, and that he is no longer simply an indifferent spectator of the activities of consciousness, but has in fact plunged into the stream and identified himself with the movement in which consciousness seeks to penetrate and realize its world. The completeness of the transformation will be exemplified in the fact that the psycho-physical procedure will be exactly reversed; for the aim, from this point of view, will not be to define the mental in physical symbols, but rather to construe the physical and every other aspect of our world in terms of its significance for mind. Now, what I have to say very briefly here is, that this *is* the Copernican revolution which Kant sought to bring about, and which every investigator occupying the more external point of view must in some way pass through in order to qualify himself for the real work of the philosopher.

The world, as philosophy views it, is a world in which consciousness is central, a world that is to be construed, therefore, in terms of those activities by which consciousness reaches its content of realized experience. The statement here is more radical, I think, than the fact; for what is contended for is no more than philosophers from Plato down have maintained; namely, that a construction of things, in order to be truly entitled to the name philosophical, must take its departure from mind itself and must follow the processes in which mind reduces its world to terms of its own experience.

II. *By determining some concept of method that will stamp as distinctly philosophical any inquiry that conforms to its requirements.* Now, a method is not defined fundamentally when we say that it is either deductive or inductive, synthetic or analytic. The real nature of a method is determined only when we bring to light the underlying concepts and presuppositions on which its procedure rests. A method will be profoundly affected by the point of view from which the investigation sets out. If this be what we have called the extra-conscious, proceeding from the position of the spectator who stands outside of the consciousness of the system he is investigating, it is clear that the form of the procedure will be largely mechanical; that is, its form will be determined by the categories of space, time, or cause, while its result will be some formula that sums up and describes the phenomenal movements of its world, while in its relation to the inner nature it stands as only a symbol of the inscrutable. But let the point of departure be the internal one of consciousness itself; the whole fundamental form of the procedure will be different; and the doctrine that I wish to make good here is that this, when determined, will yield us our fundamental definition of philosophical method. If we ask what the very first fact is that impresses us as being central in consciousness when we look within, I do not think we will long hesitate to say that it is *effort*. The very central core of consciousness is the effort that takes the form of *endeavor to realize*. We cannot go back of this forward push of consciousness, this motor-pulse out of which are all the issues of life. And it is this motor-pulse that supplies us with our first data

from which we determine our fundamental self-hood as *will*. Let us say, then, that the first determination of the inner consciousness is that of *self-hood in the form of will*; we then have our internal point of departure defined as will, and will has been further defined as our internal effort to realize our world. Now, without stopping for details, we immediately come to the point of asking two further questions: In the first place, how are we to suppose the other elements of consciousness to be related to this central effort of will? And secondly, how are we to define the form of the activity in which this effort proceeds to realize its world? The first question leads us into the very heart of philosophy; for over against the modern Schopenhauerian insight, which is also the insight of modern psychology, and which defines the inner world as will, we have the more ancient insight of Plato that defines the inner world as idea. Shall we repudiate the older insight, and translate the heart of things into the pulsations of a purely motor force? Schopenhauer's experiment in this direction gave the real world over to blindness and unreason; whereas the perennial complaint against Platonism is that its steps are too much in the clouds, and that it divorces its ideas too much from the world of ordinary experience and human interests; that its habit is to deny the reality of this ordinary world and lose itself in dreams and unreal abstractions. Without stopping, however, to debate the issue between Platonism and the modern doctrine of Will, I propose here to claim for philosophy the right to avoid partizanship by seeking a synthesis that will be just to both the ancient and modern insights. While it is no doubt true that idea without will is powerless, and will without idea is blind, yet if we include the two terms in a polar synthesis we thus arrive at the notion of the idea as informed with motor energy; or, approaching it from the opposite pole, we arrive at the notion of will or motor energy as informed with ideal insight. Let us then apply to this ideo-dynamic conception the name 'reason'; we will have in reason, which from one point of view is will, while from another it is idea, the central pulse of the inner being of the world.

If this conception of reason and the relation to it of will be admitted, then I for one am ready to fall in with the emphasis

which both modern philosophy and psychology have placed on will, since, on the one hand, it indicates a healthy reaction against the one-sided intellectualism of ancient idealism, while, on the other, its relation to reason preserves it from blindness and translates it into a principle of intelligent prevision rather than one of caprice. This leads to the second of the questions propounded above; namely, How are we to define the form of activity in which this world-reason or will relates itself to the world? Are we to regard this activity as primarily non-selective and mechanical, so that without ado it can be construed in terms of matter and motion acting under forms of space and time? Or shall we regard it as teleological, as motived by intention and as determined in its direction by some definitely representable end? On this question, while I feel sure that philosophy cannot choose the mechanical alternative, yet I confess to a measure of prejudice against the easy teleology that sometimes passes for profound philosophy. The movement of will must, I think, as a whole, be regarded as *selective*, but there is a first stage of what we may call spontaneity in will-effort that is not clearly teleological. This spontaneity will be selective, but the 'select,' if the term be allowed, is come upon, so far as we can see, without prior intention, just as the young chick first comes upon food that is palatable. The selectiveness in this case, as in all cases of spontaneity, is due to an original property of the consciousness that puts forth the effort. (In the chick's case, the selectiveness is to be found in an original property of its palate.) But, after the first step, the movement tends to become selective in the ordinary teleological sense; or, to state the case in terms that will further our philosophical aim, will-effort after the first stage, in which it is subjectively selective, tends to become objectively selective and teleological. And it tends to become so because of the implicit rationality from which will is inseparable in its foundations. We have contended that the notion of reason involves the synthesis of idea and will, and this enables us here to translate spontaneous selectiveness into terms of primary conscious quality, while, in regard to the later stages of the will-activity, it is clear that it has become informed with the idea in a definitely directive form, and

is end-seeking, therefore, in the objective sense. To this whole activity, in view of its subjective and spontaneous aspect, as well as its more objective and teleological phase, we may well apply the term 'purposive,' understanding, of course, that this term is used broadly so as to include the sphere of spontaneous selectiveness along with that which is more deliberate.

We thus reach a point where it becomes possible to define the method of philosophy in terms of the fundamental concepts that determine the character of its procedure. And we can say, in view of conclusions already reached, that, whereas a mechanical method may be defined as one that generalizes its phenomena under the forms of space, time, matter, or cause, and reduces them to statements called laws which do not directly imply either reason or purpose in the world, the method which we call philosophical, on the contrary, taking its departure from the heart of consciousness itself and seeking to interpret the world in the light of the central effort of consciousness, attains as its final result an interpretation of the world that reduces it directly to terms of reason and purpose.

III. *By defining a criterion that is distinctly philosophical and that will, therefore, stand as the ultimate test of philosophical validity.* Now it is clear at the outset that such a criterion can be no mechanical or merely factual test, however indispensable these undoubtedly are in their place. Nor can it be any purely formal test like the principle of consistency; nor yet any principle that has its application to the relations of parts and not to the whole of a system of truth. There can, as it seems to me, be only one ultimate test in philosophy, and that is what we may call 'reasonableness.' We may name our criterion 'sufficient reason' or 'rationality,' if we will. But it is clear that if the concrete organ of philosophy is reason, this must also be the court of last appeal, and the ultimate criterion of philosophical truth will be one of reasonableness or rationality. When we say, however, that the philosophical criterion is reasonableness, we do not mean to imply that there is some definite objective standard of rationality available, that will enable us to decide in any mechanical way what is objectively reasonable and what is not. We mean

rather the rational satisfaction that arises in view of the felt congruity of any part or element of our experience with our whole ideal of truth. The last test of truth, it seems to me, will be like the last test of beauty, immediate. We will feel it in our *reaction as a whole* upon our world or upon our conception of the world. And if this reaction prove permanently unsatisfactory, then we have to contemplate the failure of our system in view of the only ultimate test that is available.

Having fixed upon reasonableness as the ultimate philosophical criterion, we cannot of course require a further test of reasonableness itself. But we may ask some formulation of its requirements that will render it intelligible. In response to this request, it can only be said that all our criteria spring somehow out of our experience of fact, or of some other aspect of reality. These criteria will embody the tests that experience has proved to be necessary, and will simply have the effect of determining the harmony of some special content with the laws of that part of experience to which it belongs. But the criterion of ultimate reasonableness is evidently a test of the congruity of any given content with experience as a whole, or with our ideal of experience as a whole. And when we push our question far enough back, I have no doubt that we shall find here one of the data that will lead philosophy to the postulate of an absolute experience, or some other form of absoluteness as the ultimate ground of truth.

I have been able to present in bare outline only, what I conceive to constitute the point of view, the method, and the ultimate criterion of the distinctively philosophical way of looking at and interpreting the world. We will find, when we identify ourselves with this way of looking at things, that just as from the more external standpoint of science the world as *object* looms up and fills the whole perspective, while the subject shrinks; so here the reverse event takes place — the world of the *subject* looms up and supplies the concepts and analogies that are essential to the philosophical interpretation of the world.¹ That philosophy has its

¹ In the above definition of the distinctive point of view, method, and criterion of philosophy, I have attempted only to state what is distinctive of philosophy. I do not deny, but rather affirm, that philosophical investigation includes more than this.

problems for the solution of which it supplies the only or the most favorable point of view need scarcely be argued. We need only mention the problems of the unification of the elements of our culture, the development of a rational conception of the world, the question of the ultimate meaning of life, the problems of man's freedom and destiny, the ultimate problems of ethics and religion, the great perennial issues of God and Immortality.

IV. I pass at this point to the subject of the correlations of philosophy with other interests and disciplines. The circumstances under which we meet suggests one very important point of correlation, the connection of our work with that of the sciences in general, and especially with that of the group of affiliated societies of naturalists. It is not one of the purposes of this paper to attempt the conversion of our naturalistic friends from the more external point of view, which they have been occupying, to our own. We shall be satisfied, if they will recognize the validity of our point of view, while clinging stubbornly to their own and regarding the mission of science as the most important in the world. For my part, I am fairly well satisfied with the situation as I find it, for I do not regard seriously the little bickerings that will arise occasionally over disputed territory, or the chaff in which friendly workers in neighboring fields sometimes indulge. It is only that deeper scepticism that leads on one side or the other to the complete denial of the value of the other's work, that seems worthy of any consideration; and it is only in view of the possible existence of such scepticism that I am led to treat the question of correlation here. If we take into account the dual standpoints, methods, and criteria of the sciences, on the one hand, and of philosophy, on the other, we may interpret this duality in either one of two very different ways. On the one hand, we may regard it as representing two wholly separate and conflicting ways of dealing with the world; or, on the other, we may conceive the relation to be complementary, and the connection between them, that of a species of dialectic. Now, without en-

It must satisfy, or at least be consistent with, the requirements of science, and broadly defined philosophy will include science, just as science in a broad sense will culminate in philosophy. The above discussion attempts to answer the question, What are the differentiae of philosophy in view of which it can stand in its own right?

tering on any debate of the relative merits of these alternatives, I shall attempt here only a brief vindication of the latter of the two suppositions. What I mean by calling the relation dialectical is this: that to my mind, while the sciences and philosophy represent two ways of dealing with the world that are really different, and either of which may be adopted to the exclusion of the other, yet, from the standpoint of a broader concept of relation, they form complementary parts of any scheme of world-interpretation that would lay claim to completeness. What we have to consider here, then, is how this broader synthesis is to be achieved and maintained. Let us, in view of this task, try to identify ourselves alternately with the two parties to the relation. The votary of science, who has been occupied mostly with the extra-conscious or mechanical point of view, if he be strictly consistent with his principles, will find that his investigations, however accurately they may enable him to describe the movements of the part of the world he is dealing with, yield no insight into its inner nature. And realizing this, he will be tempted to become agnostic and to regard the real nature of things as inscrutable. He may, however, choose another, and, as I think, a better way. It may occur to him to interpret his failure to grasp the real in his symbols, as meaning that he has reached the limit of the point of view he has been occupying, and this will lead him to consider whether there may not be some complementary standpoint, the occupation of which will yield him the insight which he is at present denied. And if he be potentially a philosopher as well as a man of science, he will find the desiderated $\pi\omicron\tilde{\upsilon} \sigma\tau\tilde{\omega}$ in what we have defined as the standpoint of philosophy. In short, he will occupy the inner position of the subject-consciousness itself in its efforts to realize its world, and the light will rise upon him, when he realizes that this is the point of view from which alone the inner nature of things may be translated into intelligible terms. This insight once gained will prove a permanent possession, and will contain for him the secret of translating the symbols of his science into real inner meanings of his world.

If, now, we consider the same problem of correlation from the position of the philosopher, it will be found that, if he occupy

too exclusively the inner and supra-mechanical point of view, he will be led to such a sweeping interpretation of the world under the categories of reason and purpose that no real place for the mechanical will be left, and he will be tempted to regard the whole aspect of things with which sciences deal as mere appearance and illusion. So that, while the man of mere science is tempted to become agnostic about the real, the mere philosopher will encounter the temptation to become sceptical as to the reality of what he calls the phenomenal world. But this philosophical scepticism is no more necessary than is the agnosticism of the man of science. There is another, and, as I think, a better alternative ; and that will reveal itself to him in the insight that his categories of reason and purpose are only *immediately* applicable to the inner nature of the world, and that, in order to be just to its outer aspects, he must translate his point of view into that of science, and regard the symbols of science as *immediately descriptive* of the outer world, while standing only mediately and indirectly for the world of reason and purpose. His insight will thus lead him to a synthesis that will be practically identical with that of the enlightened man of science.

We thus come to a point where the force of the proposition I am about to enunciate will be apparent : namely, that knowledge —and by that I mean the whole insight we seek into the meaning of our world—is a business that, when viewed largely, will involve the methods and results of both the scientific and philosophical investigations. We as men are not satisfied to know our world merely in the outer court of its behavior, while we are cut off from communion with its inner heart. Nor, on the other hand, are we any better satisfied with an inner communion that cuts us off from the field of outer activities, and forces us to disbelieve in its reality. Neither of these abstractions, as we must call them, are able to satisfy the requirements of real knowledge ; but we as rational beings thirst for a relation to the world that will include a *modus vivendi* with both the field of its outer life and activities and that of its inner nature. It may be that the ancients were right in refusing to divorce science and philosophy ; for this separation, whether necessary or not, has involved us

moderns in no end of perplexity and conflict. No doubt the field is too large and complex at present for any synthetic genius ever to comprehend it in its entirety, as Aristotle comprehended the field of ancient culture. But we may feel sure that one great need of the sciences and philosophy at present, is unification under some comprehending and synthetic concept of knowledge. And while it may not be possible for us to combine the functions of both scientific and philosophical investigators, it will help us, on whatever side of the synthesis our work may fall, if we are able to hold this larger ideal of knowledge as an article of faith.

V. Now, all the contention we have made so far may be admitted, and as men of science and men of philosophy we may have no further trouble on the score of our theoretic relations. But there remain to be considered some difficulties of a more strictly practical nature. This is a utilitarian age; and, on the one hand, we meet the practical man who puts the question, '*Cui bono*'? Philosophy bakes no bread, therefore it is idle speculation and away with it. On the other hand, we find a demand arising among the philosophers themselves, that philosophy shall give up its theoretic longings as unattainable, and that it shall not merely devote itself to the satisfaction of practical needs, but that the sole ultimate test of the validity of its results shall be their workability in a utilitarian scheme of conduct. Turning briefly to the indictment of the practical man, we may answer in part in terms of confession and avoidance. If we rigorously distinguish the work of the philosopher from every other kind of effort, we will be led to admit, I think, that the aim of the philosopher is not immediately practical. Philosophy does not lead directly to the hitching up of any machinery for the manufacture of food or clothing, or for the satisfaction of any of the common and pressing necessities of life. It is, therefore, despised and rejected of many men. But admitting this, we may ask if men do not have needs that rise above the level of their every-day demand for utilities. A psychological analysis of our nature reveals the fact that, in addition to those utilitarian interests which shape themselves into demands for the satisfaction of special wants like the want of food and the

want of shelter, there are other interests that we may represent as supra-utilitarian, which express immediate demands of our nature as a whole. Such, for example, is the æsthetic requirement, of which art in its various forms is the satisfaction, and such, in fact, in the last analysis, are the satisfactions to which morality and religion minister. And there is also a demand that finds its satisfaction in pure science, irrespective of the question whether or not its results can be made directly practical by a system of weights and measures. All these great objects are related to certain pressing demands of our nature as a whole, and the satisfactions they bring are as real and vital as any of those that are to be met by the ordinary utilities of life.

Now, it is among such objects as these that we would rank philosophy, and what we claim for it here is that it is practical in this higher sense. Surely men hate ignorance, and knowledge brings with it its own intrinsic satisfaction; and that species of knowledge in which philosophy is chiefly concerned, the interpretation of the world in the light of reason and purpose, and the effort from this point of view to solve the higher problems of life and destiny — surely this is worth while for its own sake, inasmuch as it ministers to one of the deepest requirements of our being. And when we bear in mind how profoundly we desire unity amid the fragmentariness of our ordinary life, and completeness in the midst of its imperfections and limitations, and peace in the midst of its mutations and unrest, we will not doubt that the consolations of philosophy, which hold out the hope of these things as ideals, are little less real or vital than the consolations of religion. We will say, then, that while philosophy bakes no bread, it does, in connection with religion and art and science, promote an ideal of living that makes it very much more worth while that bread should be baked.

What shall we say now to the demand that philosophy shall abnegate its theoretic interest and evaluate its results by exclusively practical standards? This demand, which has some exceedingly weighty names back of it, no doubt derives much of its cogency from the scepticism with which, since Kant's time, any effort is likely to be viewed that aims to reach more

than negative results in the field of ultimate metaphysical problems. Kant, in one of his weaker moments, I think, compares the vaticinations of metaphysics to the disordered fancies of a seer of ghosts, while the futility of metaphysics has been a favorite theme of modern satire.

And yet, should we go even as far as Kant and assert the futility of the effort to obtain positive solutions for our metaphysical questions, we might still deem it inadvisable to surrender completely to the pragmatic demand; for Kant himself, and in this he has many followers, deemed the metaphysical investigation indispensable as a means of determining the limits of the knowable, or the fact, if it be one, that the ultimate problems are beyond solution. And we may well echo his conviction here. Even when the theoretic value of philosophy has been stated in its lowest terms, and we have reached the conclusion that its last word is that nothing can be known, will not that result, if it be true, justify in a measure the theoretic activity through which it has been established? For how are we to know that there are limits to knowledge, and that some of the most vital problems of life rest beyond its further boundary, if we do not make the effort through which alone such secrets can be revealed? For these questions are not such that one generation of thinkers can settle them for all time. Each generation of thinkers must either go through the theoretic labor of an effort to solve, or else they will find themselves under the humiliating necessity of holding even their negations on the ground of mere authority.

But, if I am not mistaken, it is only a minority that would reduce philosophy on its theoretic side to this negative minimum. Whatever the actual positive content of our philosophic creed may be, most of us will still be open to the conviction that philosophy has positive insights and may be of some value in grounding and rationalizing our theories of life and conduct; that it may yet have an important part to play in determining our conceptions of reality and our theory of religion. We will still entertain the hope that philosophy may help us in completing our ideals of being and of truth and duty, and in making up our minds about freedom, God, and immortality. And, so long as we entertain this

larger hope, we will not be willing that philosophy should be shorn of its theoretic criteria and aims, even though the alternative offered us be a pragmatism with whose larger spirit we may find ourselves much in sympathy.

ALEXANDER T. ORMOND.

PROLEGOMENA TO AN ARGUMENT FOR THE BEING OF GOD.

THERE has been of late a noteworthy increase of interest in the phenomena of man's religious life and religious development. Anthropology, psychology, so-called sociology, antiquarian and historical study, as well as the science of comparative religion and historical or speculative theology, have all been actively engaged in the effort to gather and to interpret these phenomena. Many, perhaps most, of their researches have been motivated by a purely scientific curiosity; they have not greatly concerned themselves with the reality of the Object of religious belief, or with the grounds on which the thoughtful man may securely repose his theoretical and practical attitudes toward this Object. For the most part, then, modern researches have not greatly changed the reasons for, or against, the monotheistic conception of God. But they have made no small contribution toward a reconsideration and reconstruction of those reasons. It is, then, in the form of prolegomena to an argument for the Being of God that I wish to present some of their results.

And, first, as to the nature and the method of any attempt to establish an argument for the Being of God upon the basis of modern scientific researches and reflective thinking. What is the problem before the modern inquirer? It is so to conceive of the Object of man's religious belief and devotion that we may vindicate for this conception its proper place in reality, and its proper influence in the life of humanity. For the right attack upon this problem three things are, therefore, indispensable in the form of preparation and method: (1) an intelligent and thoroughly well-informed sympathy with the development of man's religious life; (2) such a knowledge of human nature, of man's soul, as fully to recognize its demands, not only for the satisfaction of its intellectual interests, but also to have met its ethical, æsthetical, and social needs; and (3) points of view for regarding the sum-total of human experience which will bear the test of the severest

critical and reflective thinking. The first third of the investigator's equipment is furnished by the antiquarian, and, especially, by the historical study of the various religions of the world, from the comparative point of view, and as all alike subject to a course of development. The second requires the help of psychology, individual, and social, and racial, with the most comprehensive use of the means at our disposal. The last third of the needed equipment can be supplied only by such training in philosophy as shall put one into possession of rational and defensible opinions on those fundamental problems which are inseparably connected with, or necessarily implicated in, the great problem of religion.

Conclusions from all these three fields of inquiry form indispensable parts of the prolegomena to an argument for the Being of God. Without anthropology and the comparative study of religion, one cannot know the facts with regard to man's belief in God. And for any individual mind to attempt, as it were, to make a new start for itself, and to look upon the phenomena of religion as though the individual were not a dependent member of the human race, is to begin by courting the title to irrationality and absurdity. Without psychology, one cannot interpret or understand the inner meaning of these same facts. And without philosophy, one cannot harmonize the conclusions in respect of this side of human experience with views and opinions derived from an attempt to understand human experience in its totality.

Anthropology and comparative religion have now established certain conclusions, largely, but by no means wholly, negative, which constitute important contributions toward the prolegomena to an argument for the Being of God. One of these is the universality of at least a germinal belief in God. If we state this belief, when taken at its lowest terms, as the belief in superhuman spiritual powers on which man is dependent for his welfare, and to which he is, in some respects at least, responsible for his conduct, we are entitled to say that all men have this much of the faith of religion. This universality extends as far as the evidence goes both temporally and territorially, both in space and in time. The Christian of the twentieth century and the cave-dweller of the remotest antiquity, the Brahman and the Bushman are all, so

far as the evidence goes, shown to be bound into a common brotherhood by religion.

Again, anthropological and historical investigations have shown that the earliest traceable form of this belief, while it was exceedingly crude and confused, contained within itself numerous germs which were sure to develop under favoring circumstances into the more harmonious and rich conceptions of monotheistic religion. Negatively stated, the truth is now patent that all efforts of the anthropologists to reduce the more primitive religious beliefs of man either to totemism, fetichism, magic, belief in ghosts, or to some form of non-religious experiences or institutions, or to nature-worship or the worship of ancestors, have signally failed. The fact is that several or all of these forms of religious belief are everywhere found existing together, either in harmony or in partial conflict ; many, if not most of them, persist and recur all the way through man's religious development, up into the higher forms of religion, as these forms are apprehended to-day by the popular feeling and intellect, and down to the present hour even in Christian lands. "Whom therefore ye ignorantly worship, him declare I unto you," is the one proclamation always appropriate for the investigator who wishes to put his argument for the Being of God upon a firm historical basis. And in doing this, as he faces the facts which history discloses with regard to the presence of these same degrading superstitions in the sources of his own religion, he should never allow himself to display the uncandid horror that has attacked so many anthropologists when the plain evidence has been adduced for the existence of 'creator gods' among the native Australians and certain of the degraded native tribes of South Africa. Thus the generous recognition of the universally true and good under the cover of the concretely false and faulty becomes an important part of the equipment for the successful student of the philosophy of religion. .

Once more, in this connection, all religions are shown by anthropological and historical study to have been subject to development. But it is with this aspect of man's complex evolution in history, as with every other important aspect ; the development of man's conception of God, and of his belief in God, is corre-

lated in numerous important ways with all his development. The kind of God acceptable to the religious being of man, the character of the conception evolved and actually accepted by man, and the influence over connected opinions and over the social and æsthetical, as well as the more definitely religious life of man, changes with the other most influential changes of race-culture. Thus to catch and sympathetically to interpret the spirit of all this, to regard the belief in God as natural and essential to human development, and yet as itself subject to certain great influences, and, perhaps, controlled by certain great laws which we may learn the better to appreciate and to understand, is an essential part of the prolegomena to an argument for the Being of God. It is not in the form of dialectic alone or chiefly, nor in the form of theological discussion or dogma, that the enlightened mind arrives at rational and defensible conclusions on this subject. It is quite as much, and even more, by the cultivation of insights into the meaning of man's career in history.

Psychology, too, furnishes important contributions to the prolegomena to an argument for the Being of God. Thus far, however, its more recent endeavors have been the less illumining and satisfactory because of certain current tendencies to repeat over again, from a different point of view, the early mistakes of the anthropologists. The extreme resultant of such movements may, perhaps, be said to have been reached by the recent book of Mr. Mallock, who appears to have established to the satisfaction of his own intellect the paradoxical proposition that religion must, at once and for all time, abandon its attempts to make itself in any degree satisfactory to anybody's intellect. Since Dean Mansel's juggling with abstractions in order to show the dire necessity of the mind, when religiously inclined, to believe firmly in that which is known to be irrational, not even in Mr. Bradley's somewhat similar lack of success, by setting 'appearances' at loggerheads with one another, in showing that Reality itself is not essentially self-contradictory, have we had reason so flouted at by the claims of religious faith.

Would, then, that psychology might, from the very beginning of its newly awakened and eager inquiries, be broad-minded and

genial enough to recognize this truth : The entire soul of man — intellect, feeling, and will, or whatever other forms of functioning or of so-called ‘faculty’ one may ascribe to it — is concerned in, and constitutionally committed to, religion ; and if to religion in respect of its various tenets and practical interests, then *a fortiori* to the belief in, and worship and service of God. On this important conclusion, psychology confirms the testimony of history as studied from the comparative point of view. In fact, religion and the belief in God cannot be made independent of man’s scientific and philosophical development. This relation between religious belief and science and philosophy, which the comparative study of religion shows to have been actually made good by the entire career of man in history, psychology proves to be essentially and forever true on account of the constitution of the human soul.

The Kantian schism, which, even in any one of its several neo-Kantian forms, is the deadliest of all schisms in man’s religious life, is psychologically untenable. We cannot permanently satisfy the religious aspirations and sentiments, or cultivate the essential beliefs of religion, at the expense of our knowledge respecting the world of fact, or the defensible character of our opinions respecting the ultimate problems proposed for our reflective thinking. The whole man must go into his religious belief. That belief must be made rational and subject always to renewed critical and discursive examination. But the conception of Divine Being to which the belief attaches itself must also satisfy, by keeping pace with their refinement and uplift, all of man’s æsthetical and ethical sentiments. The variety in unity and the capacity for development as a spiritual unity of the soul of man is an essential part of the prolegomena to an argument for the Being of God. The conception of God which is going to establish its own reality must do so by making an ever improved response to the demands of man’s soul for an ever more nearly complete satisfaction.

Among the more important philosophical problems, toward which answers or attitudes of mind must be directed in preparing the investigator to examine the arguments for the Being of God in a fair and fruitful way, I enumerate the following. These

philosophical opinions constitute an indispensable part of the prolegomena to this argument. Most important of all is an intelligent epistemology. Let it be granted that the Roman Catholic position, as stated by the Vatican Council in support of the declaration of Aquinas, transcends the view which is defensible by philosophy. According to this theologian, it was a grave error to deny that the one and true God, our Creator and Lord, can be known through the things that are made, by the natural light of human reason. But Kant and all his agnostic following certainly miss the true theory of knowledge in a number of important ways. This they do by their way of distinguishing the subjective and the objective, by their too hard-line division of the so-called 'faculties,' and by the overdrawn and inadequate distinctions which they set up within the sphere of so-called 'knowledge,' and between so-called 'knowledge' and so-called 'faith.'

But if this mild and rather negative form of agnosticism, which aims to remove knowledge in order to make room for sentiment and belief, needs critical reëxamination, the more positive and rudely dogmatic agnosticism which is now so current, and which is sometimes so boastful of its superior scientific character, invites severe chastening for itself and prompt rejection by those who aim candidly to consider the argument for the Being of God. The *a priori* and dogmatic denial of the possibility of establishing a rational faith in God, upon the basis of man's total experience with himself and with his environment, is the one deadly enemy of all true religion. But then this form of agnosticism, if it could — as from the very nature of its intellectual positions it cannot — be logically consistent, would end by administering the death-blow to all the products of human reason. The very discussion which it, however reluctantly, admits the propriety of bestowing upon the grounds of man's belief in God is a refutation of its own point of view and of its fundamental tenets. And to make anything worthy, either polemically or sentimentally, out of the negative conception of the 'Unknowable' which it proposes to substitute for the conception of God, is intrinsically illogical and absurd.

"Alas! how is it with you
That you do bend your eye on vacancy
And with the incorporal air do hold discourse?"

A tenable and consistent theory of knowledge is, then, an indispensable part of the prolegomena to an argument for the Being of God. And this is a truth for the assumption and demonstration of which, both by his successes and his failures, the modern world owes an incalculable debt to the critical work of Kant.

A certain species of metaphysics, or, if you please, a certain theory of Reality, is also an important part of the prolegomena to an argument for the Being of God. One's ontological view of the World-All cannot be indifferent to the different lines and phases of this argument. Of course, he who does not believe in metaphysics cannot consistently credit any of the several ways by which reflective thinking seeks to justify man's belief in the Reality of the Object of religion; just as without a certain irresistible tendency to be metaphysical and a certain natural metaphysics, there could be no religion and no question of any belief in God. But whether they will or not, and whether they realize the meaning of their own activities or not, all men have ontological beliefs. Without such beliefs, knowledge itself could not come into existence, whether as scientific or practical, or as philosophical. In some sort, and at least in a naïve, fragmentary way, every adult mind has some theory of reality.

Now, it is from his ontological point of view, the point of standing from which his mind regards the world of things and of selves, that each thinker really appreciates and adjusts the different lines of evidence bearing upon the Object of religious belief and worship. If the world is regarded as a jumble of contending forces that surround the individual as its center — some malign and devilish and some kindly and good — then the evidence for the existence of many gods of various sorts is readily accepted. If the world is thought of as *Mâyâ*, or a totality of inherently contradictory appearances, then the argument therefrom seems to lead in the direction of belief in some One, impersonal, and wholly mysterious Reality. If the world is found to be, essentially con-

sidered, a unitary and spiritual being, an association and kingdom of selves that is mediated by means of communication whose nature is not wholly foreign to these selves, then the arguments for the monotheistic conception gain credence as sufficiently convincing, if not demonstrably complete. What I will venture to call a spiritual monism is, then, a most important point of view to be held as belonging to the prolegomena to the argument for the Being of God.

Finally, the cultivation of comprehensive and profound ideas on æsthetical and ethical problems, and of refined and noble ethical and æsthetical sentiment, is no unimportant part of one's equipment for estimating, both justly and sympathetically, the various lines of evidence converging to throw clear light and warm convictions upon the great problem of religion. About this kind of fitness, from its very nature, it is difficult or impossible to speak either didactically or polemically. But the experience of man, whether we appeal to it from the historical or from the psychological ground of standing, confirms what philosophy indicates to be true. Conduct and art offer the most important problems to reflective thinking. Ethics and æsthetics are nearest of kin to the philosophy of religion. As an artistic and moral spirit, man ever seeks to know God; and to know Him with more satisfaction as this growing knowledge meets the developments of his own ethical and æsthetical life.

For, although it is not the theme of this paper to deal with any of the so-called arguments for the Being of God, but only with the prolegomena to them, it is perfectly obvious that the arguments themselves must be undergoing a constant process of change. They must, therefore, be constantly in need of reconstruction, and, if possible, of improvement. For it is in God that man seeks to find the ultimate explanation and complete satisfaction of his total experience.

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RATIONALISM IN MODERN ETHICS.

THE rationalistic point of view, as it appears in modern ethics, assumes so many different forms that its essential features are not at first sight apparent. The conclusions to which it leads are so strained and unnatural, that it is difficult to understand why it is ever adopted and defended as an adequate explanation of morality. A brief account of the rise and development of modern rationalism will throw some light on these points, and prepare the way for a critical evaluation of the fundamental principles which all rationalistic theories presuppose.

Rationalism makes its first appearance in modern ethics as the opponent of the doctrine of Hobbes. Whatever interpretation be put upon Hobbes's theory, one conclusion is clear, namely, that moral rules are not unconditionally valid. Each individual seeks his own safety, gain, or glory, and is thus brought into direct conflict with his fellows. The natural state of mankind is a state of war. But human beings are also rational, and perceive that it is advantageous from a selfish point of view to restrain their selfish inclinations so that peace may be possible. Moral laws are "the articles of peace" suggested by reason.¹ They are founded, therefore, on the nature of things, are laws of nature; for peace is intrinsically better than war, and these rules are the indispensable conditions of peace. It does not follow, however, that these laws are to be obeyed in all circumstances, "for he that should be modest, and tractable, and perform all he promises in such time and place, where no man else should do so, should but make himself a prey to others, and procure his own certain ruin, contrary to the ground of all laws of nature, which tend to nature's preservation."² In other words, it is not reasonable from the selfish standpoint, that one individual should act in accordance with the principles of peace when others are at war with him. Consequently, moral laws are valid only if all obey

¹ *Leviathan*, Molesworth ed., p. 116.

² *Ibid.*, p. 145.

them. But external compulsion alone can guarantee that selfish individuals will permanently restrain their selfish inclinations, even when this restraint is on the whole to their advantage. "Covenants without the sword are but words, and of no strength to secure a man at all."¹ Consequently, it is indispensable that there should be some supreme power which compels all individuals alike to observe the articles of peace. The dictates of the sovereign power must of course be obeyed without question, since the security so much desired cannot be attained on any other terms. The content of morality, therefore, is in the end identical with the commands of the sovereign. It is not necessary at present to consider whether or not the system of Hobbes is internally coherent. It is obvious that at every stage of his argument he denies that moral laws are unconditionally valid, and this is the aspect of his theory which influences the development of rationalism. Opposition to this view of morality brings the rationalistic mode of thought into prominence, and moulds the character of the rationalistic theories.

Cudworth insists that moral distinctions depend, not on the will of the sovereign or on the will of God, but on the nature of things. Even God cannot, by any arbitrary command, make an action just or unjust. "Omnipotence itself cannot by mere will make a body triangular without having the nature and properties of a triangle in it," for this would involve a contradiction.² So long as things remain as they are, certain actions are necessarily right and others are necessarily wrong. But the nature of every being is a permanent essence which involves permanent relations to other things. These permanent essences and relations constitute the definite plan in accordance with which God created the world. The principles of morality, therefore, since they are conditioned by the nature of things, are immutable and eternal. They are thus cognizable by reason alone. The senses tell us nothing in regard to the essences of things; sensation simply represents the way in which objects affect the individual here and now. The senses are equally unable to give any information in regard to re-

¹ *Loc. cit.*, p. 154.

² *Eternal and Immutable Morality*, Bk. I, ch. ii.

lations. The eye knows nothing of sounds, of tastes, or of smells; each sense is shut up within itself.¹ Reason alone enables us to know the objective nature and the unchangeable relations of things; it is thus the only faculty by which moral distinctions can be cognized.²

It is clear from Cudworth's argument that reason is declared to be the faculty by which moral distinctions are perceived, because it alone is regarded as capable of discovering principles which are eternal and immutable. Cudworth feels that if moral laws are to be unconditionally valid, they must be dictates of reason. The rationalists of this period, however, are not content to remain at this stage. In their anxiety to establish morality on an absolutely firm foundation, they obliterate all distinction between the moral and the rational, between Right and Truth. Samuel Clarke is the representative of this point of view in its fully developed form.

According to Clarke, it is self-evident to a rational being that there are different necessary and eternal relations which different things bear to one another, and that from these relations there necessarily arises a fitness and unfitness in the application of different things to one another. It is also self-evident that in these circumstances an obligation is laid upon the rational being to act in accordance with these eternal relations and fitnesses.³ Reason, therefore, not only enables us to ascertain what is, but also to recognize how we ought to act. "By the reason of his mind, man cannot but be compelled to own and acknowledge that there is really such an *Obligation* indispensably incumbent upon him."⁴ But the rational being, *qua* rational, not only perceives what he ought to do; he is also impelled to act in accordance with his sense of obligation. Reason is a motive power; it furnishes the impulse by means of which moral principles are realized in action. "And by this Understanding or Knowledge of the natural and necessary relations, fitnesses, and proportions of things, the *Wills* likewise of all Intelligent Beings are constantly directed, and must needs be deter-

¹ *Loc. cit.*, Bk. III, chapters iii and iv.

² *Ibid.*, Bk. IV, chapter vi.

³ *The Unchangeable Obligations of Natural Religion*, Second edition, pp. 45 ff.

⁴ *Ibid.*, p. 68.

mined to act accordingly." ¹ "The Reason which *Obliges* every man in *Practice*, so to deal always with another, as he would reasonably expect *That Other* should in like circumstances deal with *Him*, is the very same, as that which *forces* him in *Speculation* to affirm, that if one line or number be equal to another, *That Other* is reciprocally equal to it." ² In short, the same faculty of reason which determines what things are, determines what ought to be. The same faculty which decides in regard to the law of right supplies the dynamic force which is necessary for the realization of the law.

From this point of view, the standard of right and the criterion of truth are the same. Since reason determines what ought to be done, it must use its own criterion, namely, self-consistency or absence of contradiction. The distinction between right and wrong is therefore the same as the distinction between true and false. A vicious action is one which involves a contradiction. "*Iniquity* is the very same in *Action* as *Falsity* or *Contradiction* in *Theory*." ³ Conversely, of course, right action and correct thinking are identical in their essential nature. The necessary consequence of this position is that the dynamic force which impels us to act rightly is the same as that which makes us think correctly. More accurately stated, the conclusion is that we are impelled to fulfil our moral obligations, when we know what they are, by the same force which compels us to assent to a truth when we know the demonstration on which it depends. Clarke, as we have seen, does not shrink from accepting this result, and yet it is a result which might well cause some misgiving. We assent to a demonstrated truth, because, as rational beings, we cannot possibly do otherwise. In like manner we cannot possibly believe anything which we know to be self-contradictory. We have no choice in matters of this sort. If right action and correct thinking stand on the same basis, therefore, it is clear that a wrong action is an utter impossibility. Clarke admits, of course, that there is such a thing as moral evil, and he attributes its existence to the freedom of the will. "*Assent* to a plain specu-

¹ *Loc. cit.*, p. 61.

² *Ibid.*, p. 86.

³ *Ibid.*, p. 86.

lative *Truth* is not in a Man's Power to withhold ; but to *Act* according to the plain *Right and Reason* of things, this he may, by the natural Liberty of his Will, forbear."¹ But if moral action has the character which he ascribes to it, moral evil is an impossibility, and the freedom of the will cannot explain why the impossible is actual. To do wrong is the same as to believe something which is manifestly self-contradictory. Nothing can explain how this can be done. Not even the freedom of the will can explain this, for no human being is free in the sense that he can do what in the nature of the case is impossible. There is, however, another point which must be emphasized in this connection. If reason is the motive power which lies behind right conduct, the individual who obeys the moral law acts under the compulsion of his rational nature. There is then no difference between moral obligation and rational necessity. An action is not moral, however, if it is performed under compulsion of any kind. Consequently, if the rationalistic view of conduct be adopted, right actions can have no moral value or significance.

The identification of truth and right implies yet another result which is worthy of note. Since reason deals with that which is, the rules of conduct which reason prescribes must have the same reference. If we act according to reason alone, we must act in accordance with things as they are. Clarke, therefore, insists that the whole duty of man is to treat things as they are. Vice consists in the endeavor "to make things be what they are not and cannot be."² In view of the eternal and necessary relations which exist between things, reason lays an obligation upon us ; but the obligation thus imposed is simply that our actions be in conformity with these eternal and necessary relations. All that reason commands, therefore, is that we should act in accordance with the nature of things. Now in one sense it is characteristic of the rational being to act with a due regard to the relations of things, but this truth has no moral significance. The murderer who destroys a life and the Good Samaritan who preserves one, alike conform their conduct to the nature of things.

¹ *Loc. cit.*, pp. 64, 65.

² *Ibid.*, p. 66.

If this conformity is the criterion of Right, every action which is performed by an intelligent being is right. In another sense, however, all purposive action is an endeavor to make things different from what they are, *i. e.*, to realize some ideal; and moral activity is that which realizes the right ideal. It might well be maintained, therefore, that the essence of morality is the effort to make things other than they are, to alter them in order that they may conform to our ideal of right. The crucial question then is: What is the ideal which ought to be realized in the actual world? This is a question which reason cannot answer, and Clarke's own statements constitute a tacit recognition of the truth of this assertion.

The absurdities which are inherent in this form of rationalism are realized to the full in a work which was famous in its day and which is entitled *The Religion of Nature Delineated*. Wollaston, the author of this book, expresses his views with clearness, with precision, and without fear of reproach. The difference between moral good and evil, he tells us, is at bottom the same as the difference between true and false.¹ Since truth consists in recognizing things to be what they are, virtue consists in 'treating things as being what they are.' Virtue is the practice of truth,² and vice is, therefore, the practice of lying.³ "A true proposition may be denied, or things may be denied to be what they are, by deeds as well as by express words."⁴ Indeed, to contradict any proposition by action is "a fuller and more effectual contradiction than can possibly be made by words only;" for actions are facts, and "facts express more strongly even than words themselves."⁵ Thus, "if *T* takes or uses *P*'s property without the consent of *P*, he declares it to be his when it is not his, and so acts a lie, in which consists the idea and formal ratio of moral evil."⁶ "If I, being of ability to afford now and then something in charity to the poor, should yet never give them anything at

¹ *Religion of Nature*, 5th edition, p. 22.

² *Ibid.*, p. 38.

³ *Ibid.*, pp. 11, 138.

⁴ *Ibid.*, p. 8.

⁵ *Ibid.*, p. 12.

⁶ *Ibid.*, p. 138.

all, I should *then* certainly deny the condition of the poor to be what it is, and my own to be what it is ; and thus truth would be injured.”¹ He who would not violate truth must avoid all injustice.² From Wollaston’s standpoint, then, the murder of a fellow-being is merely an action which denies an evident truth, namely, that the victim is a fellow-being. In other words, murder is nothing more than a lie ; it is essentially a form of untruthfulness, and this is why it is wrong. It is a very emphatic lie, to be sure, and Wollaston would doubtless assert that it is on that account emphatically wrong. The real nature and the ultimate significance of vicious action, as Wollaston understands them, are described in the following terms. “Designedly to treat things as being what they are not is the greatest *possible* absurdity. It is to subvert all science, to renounce all sense of truth, and flatly to deny the existence of anything.”³ In these circumstances it is somewhat comforting to learn that “it is not in one’s power deliberately to resolve not to be governed by reason.” For if any person “could do this, he must either have some reason for making that resolution or none. If he has none, it is a resolution that stands upon no foundation, and, therefore, in course falls ; and if he has some reason for it, he is governed by reason. This *demonstrates* that reason must govern.”⁴

The standpoint of Clarke and Wollaston is the first form of modern rationalism. The further development of the rationalistic point of view is influenced by the doctrine, originated by Shaftesbury and elaborated by Hutcheson, that moral distinctions must be referred, not to reason, but to an internal sense. Directly and indirectly, the moral sense theory brought to light the essential weakness of the position adopted by Clarke and Wollaston. It thus forced upon the later rationalists the task of modifying, or at least restating, this view of morality. We must, therefore, consider with some care the main contentions of the moral sense school.

Hutcheson’s primary aim is to show that moral approval is an ultimate fact. We do not regard actions and dispositions merely as

¹ *Loc. cit.*, pp. 17, 18.

² *Ibid.*, p. 137.

³ *Ibid.*, p. 15.

⁴ *Ibid.*, p. 51.

advantageous or disadvantageous, *i. e.*, as pleasant or unpleasant. We approve actions which are not advantageous in this sense, and which have no reference to self-interest in any form. Actions thus approved in and for themselves are called virtuous. Moral approval is therefore independent of self-interest.¹ It cannot be explained solely by custom, education, instruction, or the association of ideas; it is not a product of law, human or divine.² In short, it is natural not artificial. Moreover, it cannot be regarded as a direct emanation from reason. The criterion of truth and the standard of right are different, for true propositions can be made about an action which is wrong.³ Virtuous and vicious actions alike conform to truth or reason; the mind discerns truth about both. The faculty of reason, therefore, can never justify actions or condemn them, and it will be found that those who identify moral goodness and conformity to truth unconsciously employ a criterion of moral goodness which reason by itself cannot supply. Reason, indeed, plays but a subordinate rôle in conduct. It does not move to action; for knowledge is not desire, and without desire no action is possible. It cannot determine any end of action; it can only suggest means towards the attainment of the ends which are constituted by the active principles of our nature.⁴ In these circumstances, Hutcheson maintains, it is necessary to suppose that there "is a natural and immediate determination to approve certain affections and actions consequent upon them; or a natural sense of immediate excellence in them, not referred to any other quality perceivable by our other senses or by reasoning."⁵ It would be strange if no such moral sense or instinct existed. The Author of our nature has provided us with instinctive impulses and desires which give "quick and powerful instructions" in regard to what is necessary for the preservation of the body. Analogy would lead us to infer that, in matters which concern our welfare on the whole, He has not left us at the mercy of the slow and uncertain processes of reason.⁶

¹ *Inquiry into the Original of our Ideas of Beauty and Virtue*, 4th edition, pp. 111 ff.

² *Ibid.*, pp. 217, 229, 242, 267. See also *System of Moral Philosophy*, I, pp. 55, 57.

³ *Essay on the Passions*, Treatise II, Section 1.

⁴ *System*, I, pp. 56, 58; *The Passions*, II, Sec. 1; *Inquiry*, p. 195.

⁵ *System*, I, p. 58.

⁶ *Inquiry*, Preface; see also p. 272.

The actions which are approved by the moral sense are those "which proceed, partly at least, from a disinterested ultimate desire of the happiness of others."¹ This desire is the motive which prompts to right action; it is 'the true spring of virtue.'² It is reinforced, however, by the feelings which the perception of moral goodness itself arouses.

The element of strength in Hutcheson's position is the recognition of the fact that the distinction between right and wrong is not a product of reason. The vulnerable part of his theory is the reference of moral judgments to an internal sense, which, in all essential respects, has the same nature as the ordinary external senses.³ Hutcheson, like Locke, regards sense as a mere capacity for being affected in a particular manner on particular occasions. If the moral faculty, then, is only a superior kind of sense, it is simply a capacity for receiving impressions of a higher order. On this view, of course, morality becomes a purely individual matter; and, if differences of opinion should arise, they could not be removed by an appeal to any objective standard. It is evident also that moral judgment requires training, but a faculty of sense perception, such as Hutcheson postulates, cannot be improved. In attempting to obviate these objections, Hutcheson merely involves himself in other difficulties. Lack of uniformity in moral judgments, he tells us, is due to the fact that "our *Reason* may be very deficient in its Office, by giving us partial Representations of the Tendency of Actions."⁴ "The moral sense seems ever to approve and condemn uniformly the same immediate objects, the same affections and dispositions; though we reason very differently about the actions which evidence certain dispositions or their contraries."⁵ But, if reason is at fault whenever there is any difference of opinion on ethical questions, it is clear that moral approval is not altogether divorced from reason. The same conclusion follows from Hutcheson's admission

¹ *Loc. cit.*, p. 152. There are, however, actions which are morally indifferent, "such as pursue the innocent advantages of the agent without any detriment to society." (*System*, I, p. 64.)

² *Ibid.*, p. 159.

³ *Inquiry*, pp. 128-129; cf. pp. I ff.

⁴ *Ibid.*, p. 202.

⁵ *System*, I, p. 93.

that the moral sense stands in need of culture and improvement. He insists, it is true, that "the apparent disorders" of the moral faculty are corrected without the aid of a higher power of perception or of reason. It turns out, however, that the moral faculty is corrected and improved when a wider view is taken of the consequences of action,¹ and reason has been given to men for the very purpose of enabling them "to judge of the Tendencies of their Actions, that they may not stupidly follow the first Appearance of *publick Good*." ²

Evidently, the relation between reason and moral sense is a difficult question for Hutcheson. He cannot fail to see that reason participates to some extent in our moral judgments, and yet this fact does not harmonize with his contention that the source of these judgments is an immediate sense-impression. Hence it is impossible for him to reach any consistent view in regard to the part which reason plays in determining whether actions are right or wrong. His conflicting statements on this point show clearly enough the hopelessness of the situation in which he is placed. Reason can mislead the moral sense by presenting false views in regard to matters of fact, yet this sense can be corrected and improved without receiving any aid from reason. Each individual is in duty bound to undertake "a *serious Inquiry* into the Tendency of his Actions"; nevertheless, "*moral Sense* and a 'little' Reflection upon the Tendencies of Actions" are able to settle very complicated questions of ethics.³ The moral sense is not dependent on "the long deductions of reason," and is an immediate appreciation of the ethical significance of conduct and character. It is not absolutely immediate, however, in its procedure; the utmost that can be maintained, apparently, is that it approves or condemns "almost at first view."⁴

Hume attempts to solve this awkward problem of the relation between moral sense and reason. In a measure he seeks to mediate between rationalism and the moral sense theory, though on the most vital points at issue he sides with Shaftesbury and

¹ *System*, I, pp. 59, 60.

² *Inquiry*, pp. 207, 208.

³ *Ibid.*, pp. 268, 288.

⁴ *Ibid.*, p. 120.

Hutcheson. Reason alone is not sufficient to produce moral blame or approbation ; it judges either of matters of fact or of relations, and there is a great difference between a question of fact and one of right.¹ Examine the crime of ingratitude, for instance, and endeavor to ascertain by reason alone wherein the *crime* consists. Ingratitude, viewed as a mere fact, is the ill-will or indifference which exists in the mind of the person who is ungrateful. It cannot be said, however, that either of these feelings is essentially and in all circumstances blameworthy. If the assertion be made that the crime does not consist in a particular fact, but in certain 'moral relations' discoverable by reason, it is fair to demand that these relations be definitely indicated. There is, of course, a relation of contrariety between the action of the benefactor and the attitude of the beneficiary. Let us suppose, however, that a person returns good for evil. Here is the same relation of contrariety, and yet the ethical aspect of the situation is entirely different. The truth of the matter is that, after every circumstance and relation is known, the understanding has completed its task and has accomplished all that it can do. "The final sentence which pronounces characters and actions praiseworthy or blameable, and stamps on them the mark of approbation or censure, depends on some internal sense or feeling which nature has made universal in the whole species."² "But in order to pave the way for such a sentiment, and give a proper discernment of its object, it is often necessary that much reasoning should precede, that nice distinctions be made, distant comparisons formed, complicated relations examined, and general facts fixed and ascertained."³ Reason and sentiment thus concur "in almost all moral determinations and conclusions." "The distinct boundaries and offices of reason and of *taste* are easily ascertained. The former conveys the knowledge of truth and falsehood : the latter gives the sentiment of beauty and deformity, vice and virtue. The one discovers objects as they really stand in nature, without addition or diminution : the other has a productive faculty ; and gilding

¹ *Inquiry concerning the Principles of Morals*, Appendix I.

² *Ibid.*, Section I.

³ *Ibid.*

or staining all natural objects with the colors borrowed from internal sentiment, raises, in a manner, a new creation."¹

Hume here states the arguments for the main contentions of the moral sense school with masterly precision and force. Nevertheless, he does not really solve the difficulty which baffled Hutcheson. He proves conclusively that the distinction between right and wrong implies a point of view which is foreign to reason. On the other hand, he clearly recognizes that approval or condemnation of particular actions must be guided by accurate knowledge of the facts of the particular case. He thus admits that reason is necessarily involved in all moral judgments, though he is somewhat reluctant to commit himself unreservedly to any general statement on this subject. This admission, needless to say, merely accentuates the difficulty which confronts those who regard moral approval as a passively received impression of sense. Hume's argument, however, has a special significance and importance. It emphasizes the real point at issue between rationalism and the moral sense hypothesis, and presents in sharp outline the elements of truth in both theories. It does not reconcile the opposing views, but it brings the whole controversy to a head. It therefore enables us to ascertain what Hume himself failed to discover, namely, the fundamental confusion which underlies the moral sense doctrine. This confusion depends upon a failure to distinguish between the moral standard itself and its application to particular cases. It is true that the criterion of right is an ultimate fact which cannot be derived from reason, but this does not justify the inference that the perception of the moral character of particular actions proceeds from an ultimate faculty of sense. This perception involves the application of a general rule to particular cases. It therefore implies a process of judgment, and cannot be a mere impression which is passively received. When the criterion is given and the facts are known, a judgment must be made in regard to the relation between them. This process of judgment presupposes an aptitude for selecting the relevant features of the situation. In ordinary language such an aptitude is frequently called 'sense,'

¹ *Inquiry*, Appendix I.

but this mode of speech does not imply that the faculty in question is regarded as a mere capacity for receiving impressions. The 'plain man' indeed uses the terms 'sense' or 'judgment' indifferently to indicate the possession of this selective power, and, though an individual well endowed with the capacity for perceiving the relevant aspects of things may come to a conclusion with more rapidity and certainty than a person not so well equipped by nature, the selection which is actually made by him must nevertheless be capable of justification. Moral approval of particular actions therefore involves, in addition to mere knowledge of all the circumstances of the case, a process of selection, and a final judgment on the relation between the moral standard and the action in its concrete setting. From this standpoint we can separate the elements of truth and of error which are contained in the moral sense hypothesis. There is, as Hutcheson and Hume maintain, an ultimate criterion of right. But, though the principle by reference to which we determine the moral quality of actions is independent of reason, this determination involves the application of a general rule to particular cases, and here judgment, not sense, is required. Consequently there is no special faculty of sense, blind and merely receptive, to which moral 'perceptions' can be attributed.

From the preceding discussion it is manifest that the moral sense school could not fail to make some impression on the rationalistic position, and yet could not render that position wholly untenable. The rationalists, therefore, held their ground, though they found it necessary to make some change of front. They no longer insisted on the absolute identity of right and truth; they ceased to assert that virtue consists in treating things as they are; they admitted, though with some reluctance, that an emotional factor constitutes an integral part of the moral motive. How far they could really modify Clarke's theory without abandoning his fundamental principles, is obviously another question. Be that as it may, new types of rationalism appeared in the second half of the eighteenth century. Intuitionism and Abstract Rationalism are the most characteristic doctrines of this period. Price is perhaps the best representative of the one; Kant of course is the exponent of the other.

In his preface to the *Review of the Principal Questions and Difficulties in Morals*, Price states that he is indebted to Butler more than to any other writer. In reality, however, he is under greater obligations to Hutcheson, though his book was written with the avowed purpose of exposing the fallacies of the moral sense theory. He asserts that right and wrong are simple ideas, *i. e.*, ultimate ideas which cannot be defined in terms of anything else. Consequently, they are to be ascribed to some immediate power of perception in the human mind.¹ Had Hutcheson proceeded no further than this, little room would have been left for any objection.² Hutcheson, however, did proceed further than this, and substituted sense for reason as the faculty by which moral distinctions are perceived. But, if right and wrong are determinations of sense, they are mere visions and fancy, expressing nothing more than the nature of our individual constitution. Sensations are subjective appearances which vary with the individual. If moral distinctions proceed from sense, therefore, they are subjective not objective, and have no foundation in reality.

This is a result which Price cannot accept. It can easily be proved, he thinks, that virtue has a foundation in the nature of things, that right and wrong are real qualities of actions. Since objective qualities of this sort cannot be discerned by sense, Price seeks to determine whether or not there is a higher faculty from which the ideas of right and wrong can be derived. In a noteworthy chapter on "The Original of our Ideas in General," he shows that all elements of our knowledge do not come from sense. Anticipating the results of the Critical Philosophy, he maintains that the ideas of space, time, cause, and substance, are supplied by the 'understanding.' It is possible then that right and wrong also are ideas of the understanding. Once this stage of the argument is reached, the final conclusion speedily emerges. These ideas are not derived from will in any form, nor from sense; they possess the characteristics of all rational principles, namely, universality and necessity. We are constrained to admit, therefore, that they are ultimate conceptions furnished

¹ *Review of the Principal Questions in Morals*, chapter i, p. 59.

² *Ibid.*, p. 11.

by the understanding. Like all ideas of this description, they are not gained by a process of deduction or ratiocination, but appear immediately at the appropriate time. Hence Price agrees with Hutcheson that moral conceptions are ultimate and immediately applied. He maintains, however, that they are 'simple ideas,' not of sense, but of reason.

To act virtuously, then, is to obey or follow reason. To this we are impelled by our rational nature. Reason is the natural and authoritative guide of a rational being,¹ and we cannot contradict its dictates without doing violence to our nature, without experiencing a sense of shame. "Instincts are not necessary to the choice of ends. The intellectual nature has within itself a spring and guide of action which it cannot suppress or reject."² Price goes on to assert, however, that an element of feeling, a love or affection for rectitude, adds its force to the motive power furnished by reason. Like Kant, he declares that this additional factor is essentially connected with reason, and must therefore be distinguished from other affections and inclinations. Like Kant, therefore, he insists that, in so far as an action is due to natural desire, it has no moral merit. Instinctive benevolence is no principle of virtue; an agent is not virtuous if he acts "from kind affections which have no connection with and cannot be derived from intelligence." "The virtue of an agent is always less in proportion to the degree in which natural temper and propensities fall in with his actions."³

In determining the particular duties, Price simply refers to a series of intuitive perceptions. "Public happiness is an object which must necessarily determine all minds to prefer and desire it; and there is not anything which appears to our thoughts with greater light and evidence, or which we have more undeniably an intuitive perception of, than that it is *right* to promote and pursue it." "If it is my duty to promote the good of *another*, the same most certainly must be my duty with regard to *myself*. It would be contrary to all reason to deny this."⁴

¹ *Loc. cit.*, chapter vi, p. 188.

² *Ibid.*, chapter viii, pp. 326-329.

³ *Ibid.*, chapter viii, pp. 335, 339. Balguy adopts a similar view in his treatise on *The Foundation of Moral Goodness* (Selby-Bigge, *British Moralists*, ii, pp. 94, 95).

⁴ *Ibid.*, chapter vii, pp. 259, 263.

Inasmuch as Price admits that the ideas of right and wrong are distinct from other products of reason, he is able to avoid some of the confusions into which his predecessors had fallen. He is not compelled to regard moral conduct as essentially identical with assent to a demonstrated truth. He can maintain that these activities are totally different expressions of our rational nature. Nevertheless, when all is said, they are both manifestations of reason, however great may be the difference between them. To be rational and to be virtuous, therefore, are one and the same thing. From this standpoint it is necessary to assert, as Price does, that our intellectual nature furnishes the criterion of right, decides in regard to the particular duties, and contains within itself the true spring of virtuous action. According to Price, it is true, certain feelings reinforce the purely rational motive, but they are themselves derived from reason. The final outcome of this view, as Price does not hesitate to acknowledge, is that a large part of human nature is excluded from the life of virtue. We have kindly feelings towards others, to be sure, and benevolence is a duty, but, so far as an action is produced by kindly feeling, to that extent it is devoid of ethical value. The ordinary feelings and impulses of men fall wholly outside of the moral life, for even when natural inclination and the moral motive are both involved in one action, the former has no moral significance. In order to lead the moral life, therefore, the individual must make one element of his nature do duty for all the others, must substitute a part for the whole. This is an impossibility, and a rationalist may fairly be called upon to explain why morality makes such an irrational demand.

Though there is, as we have seen, a general resemblance between the doctrines of Price and of Kant, the rationalism of the German philosopher has, nevertheless, a marked individuality. Kant begins by declaring that "if a law is to have moral force, *i. e.*, to be the basis of an obligation, it must carry with it absolute necessity." Moral rules must be unconditionally valid if they are to be valid at all. Laws which apply only under certain conditions, or with exceptions, have no authority, and inspire no respect. Moral laws, therefore, cannot be derived from experience, for no

empirical principles possess the character of necessity. "The basis of obligation must not be sought in the nature of man, or in the circumstances in the world in which he is placed, but *a priori* simply in the conceptions of pure reason."¹

The motive power in truly moral action is derived from the same source as the moral law itself. "Reason is imparted to us as a practical faculty, *i. e.*, as one which is to have influence on the will." Pure practical reason and speculative reason "are ultimately one and the same reason."² Kant is frank enough to state that it is beyond the power of human intelligence "to explain how pure reason can of itself be practical without the aid of any spring of action which could be derived from any other source."³ His general point of view, however, forces him to assume that reason functions in this incomprehensible manner. If the rational and the moral are in essence the same, reason alone can supply the distinctively ethical motive. Actions which spring from mere feeling or desire presuppose empirical objects; are empirically determined, not rationally conditioned; are in consequence devoid of moral character. It is true that Kant recognizes the existence and influence of a special feeling, namely, respect for the law, but this feeling is a direct effect of reason. Ultimately then the pure rationality of duty is the only source of purely ethical endeavor. The non-rational desires and inclinations have no moral function. If they happen to join forces with reason, they merely impair the ethical value of the resulting action. In such circumstances they are prejudicial to the purity of morals in the same way as "the least empirical condition would degrade and destroy the force and value of a mathematical demonstration."⁴ Unless the law alone is the spring of action, *i. e.*, unless pure reason itself determines the will, the moral level is not attained. To some extent Kant is aware of the implications of this position, and asserts that we can never be certain that a really virtuous action has ever been performed.⁵ This deduction from

¹ *The Fundamental Principles of the Metaphysic of Morals*, Abbott's translation, pp. 3, 4, 25, 42.

² Abbott's translation, pp. 7, 12, 217.

³ *Ibid.*, pp. 82, 83.

⁴ *Ibid.*, p. 112, cf. pp. 43, 44, 336.

⁵ *Ibid.*, p. 37; cf. pp. 23, 24.

his principles arouses no misgivings ; on the contrary, it is welcomed by him as a cogent proof of his contention that moral laws are not derived from experience. The true conclusion from the Kantian premises is, of course, that virtue is absolutely unattainable.

Up to this point, Kant and Price move on parallel lines. They diverge, however, as soon as the question arises in regard to the content of the moral law ; for here Kant's distinctive view of reason necessarily comes into prominence. From the Kantian standpoint, the supreme law of reason "contains nothing but the general statement that an action should conform to a universal law."¹ Since the imperative faculty is reason in its pure *a priori* aspect, it cannot command any particular action or prescribe any definite end. Consequently, the categorical imperative of reason is : "Act only on that maxim whereby thou canst at the same time will that it should become a universal law." The full significance of Kant's position, however, has not yet been made explicit. Pure reason cannot take cognizance of any empirical fact, and every action is a concrete fact in the concrete world. Hence, if the moral law is a dictate of pure reason, the individual is not morally obliged to will anything at all. Whether any action or volition takes place or not, is a matter of supreme indifference to this supreme moral law. If *a priori* reason issues any moral imperative, therefore, its ultimate command must be that an action or volition, if it exists, should be in harmony with the form of rational law as such. It is difficult for any rationalist to determine the concrete content of morality ; for, as Hutcheson and Hume have demonstrated, reason does not prescribe any end of action. This barren formalism, however, is so obviously involved in the Kantian view of reason that it is impossible, even for Kant himself, to deny its existence.

The categorical imperative of reason, then, does not prescribe any definite end of action, and Kant merely employs it as a criterion to determine the moral quality of the actions which are conditioned by other elements of human nature. Even this use of the principle is illegitimate, since it necessarily involves an attempt to make the criterion of truth do duty for the standard of right. Kant

¹ *Loc. cit.*, p. 38.

does not assert, with the earlier rationalists, that a vicious action involves a contradiction. This would imply that the self-contradictory can exist, that a square circle is a possible fact. He escapes this absurdity by insisting that the actions which are condemned as wrong *would be* self-contradictory *if* universalized. More precisely, Kant's criterion is that a vicious action implies a maxim which would be self-contradictory if it were made a universal law of nature. Suicide is wrong because a "system of nature of which it should be a law to destroy life by means of the very feeling whose special nature it is to impel to the improvement of life would contradict itself, and, therefore, could not exist as a system of nature." Similarly, the maxim which is implied in the breaking of promises "could never hold as a universal law of nature, but would necessarily contradict itself."¹ It is noteworthy that Kant immediately gives his principle this concrete form, and substitutes 'conformity to nature' for the abstract formula 'conformity to reason.' Even when thus modified, however, the rationalistic criterion does not enable us to distinguish between right and wrong. Kant acknowledges that a system of nature could indeed subsist although all men should be perfectly indifferent to the misfortunes of others. Selfishness, then, cannot be condemned from his point of view, since universal selfishness, being a possible fact, is not self-contradictory. In declaring this principle of action to be vicious, he tacitly applies a criterion which reason confessedly is unable to furnish. This procedure, therefore, attests the truth of Hutcheson's contention that the rationalist is forced to fall back on a standard of right which is very different from the one he professes to employ. If we take Kant at his word, the failure of his own criterion becomes painfully obvious. It seems rather an inadequate statement of the case to say that stealing is wrong, because, if every one stole, no stealing would be possible. This may be an eminently rational account of the matter, but it surely does not represent the moral attitude. It is, indeed, no easy task to reproduce, with the neutral tints of reason, the vivid colors of virtue or of vice.

Since all principles established by reason are valid in them-

¹ *Loc. cit.*, pp. 39, 40.

selves, irrespective of everything else, Kant maintains that the particular moral rules, as dictates of reason, are valid for all rational beings in all circumstances. Here another error of rationalism reappears. While different theoretical principles cannot be at variance with one another, particular rules of moral conduct obviously do conflict in many cases. On such occasions, if each rule of action is unconditionally valid, the individual is morally obliged to move in two directions at one and the same time. It is evident that there can be only one unconditional law in the universe of moral conduct, namely, that the moral end be realized. Particular ethical principles have no authority of their own, and are in consequence not unconditionally valid. When two rules apply in a complex situation, the one which indicates the best method of realizing the moral end carries with it all the authority of the supreme law. It must be noted, in conclusion, that Kant eventually modifies the rigor of his original doctrine, that duty is obligatory apart from all reference to any consequences which may affect the agent. Virtue is the supreme good, "but it does not follow that it is the whole and perfect good as the object of the desires of rational finite beings; for this requires happiness also."¹ It is necessary to assume, therefore, that we live in a moral world where happiness is essentially connected with virtue. From the Kantian point of view, then, morality does not impose an absolutely unconditional obligation.

The imposing structure of Kant's theory rests upon principles which cannot be harmonized with the facts or with one another. Pure reason issues the categorical imperative of duty, but it cannot prescribe any definite action or end. It furnishes the moral criterion in reference to which actions are approved or condemned; yet an action may be wrong though pure reason cannot explain why it is wrong. Pure reason alone is able to move the will to obey the law of reason. That it can determine the will is, 'incomprehensible,' and possibly this explains why it is so difficult to understand the nature of the influence which it exercises. It cannot itself move the will in any definite direction; yet every action involves a particular impulse to realize a particular end. What

¹ *Loc. cit.*, p. 206.

the rational motive lacks cannot be made good by an alliance of pure reason with the non-rational impulses or feelings ; for if these influence action to any extent, the moral purity of conduct is to that extent impaired. Finally, duty is obligatory in itself, and consequences must not be considered ; nevertheless it is necessary to postulate the ultimate coincidence of virtue and happiness.

A general statement in regard to the standpoint of rationalism is now possible. The rationalistic point of view develops under the influence of the conviction that the chief characteristic of morality is the unconditional nature of its demands. Moral laws are eternal and immutable, universal and necessary, obligatory under all circumstances without reference to consequences. Accordingly, so the argument runs, they must be derived from reason, for reason alone gives rise to principles which are unconditionally valid. The criterion of reason, *i. e.*, absence of contradiction, must therefore be the criterion of right. The distinction between right and wrong is the same as the distinction between rational and irrational ; moral action is identical with rational activity. Hence reason must supply the motive power for right action, and the strict letter of the theory logically implies that moral obligation is identical with rational necessity. The non-rational side of human nature has no place or function in the universe of ethical conduct, and must be treated as if it did not exist. Morality thus consists in the expression of one element of our nature to the exclusion of everything else. Finally, if reason be regarded as the faculty which discerns the truth of things, the content of the supreme moral law necessarily is that we should treat things as they are. On the other hand, if reason is regarded as an *a priori* faculty, the moral imperative is that actions should be in harmony with the form of rational law as such. In the second case the law is explicitly formal ; in the first case also it will be found incapable of determining the particulars of duty. From the rationalistic point of view, the content of the moral law is purely formal.

The difficulties which are necessarily involved in this position have already been indicated. They arise, for the most part, from the fact that the rationalist attempts to eliminate will from the

sphere of action, and moral obligation from morality. An examination of the relation between knowledge and conduct will open up a general point of view from which the truth of this assertion can be made evident.

Knowledge is necessary for conduct, as distinguished from mere mechanical action, but it is not the only thing which is necessary. It is a light which guides our steps, but not the power which makes us move. It shows the different paths and the direction they take, but it does not choose one path rather than another. Suppose, for example, that an individual suddenly becomes aware of the fact that he is standing on the brink of a precipice. If he had no desire to lose his life and no desire to save it, knowledge alone could not cause him to act in one way or another. If he desires to save his life, his knowledge will undoubtedly influence his action. It is the desire, however, which moves him to act; the knowledge simply enlightens. Cognition which has no reference to any object of desire produces no effect on conduct. Moreover, the kind of influence which knowledge exercises in a particular case depends upon the kind of desires which the agent possesses. The knowledge which enables one individual to save his life guides the suicide to his destruction. In short, if impulse without knowledge is blind, knowledge without impulse is inert. Ideals, not ideas, impel us to action, and an ideal is simply the idea of an end which is desired.

Knowledge, then, does not prescribe any end of action; it merely enables the agent to attain the objects to which his desires are directed. There is, however, another aspect of the matter which must be indicated. As Hutcheson pointed out, cognition itself presupposes intellectual tendencies or desires. The attainment of knowledge is the object of a special desire; there is a 'will to know' as well as a 'will to live.' Accordingly, if reason be regarded as the faculty of intellectual desire, it is legitimate to assert that reason determines one definite end of action, namely, the attainment of truth. It must be noted, however, that when reason is viewed in this light, it is merely one tendency to action among others.

It is evident, therefore, that every end of activity, knowledge

included, presupposes an active tendency as the condition of its possibility. Each individual is endowed with a multiplicity of these principles of action. Every power or capacity which he possesses is the source of a tendency to act; for, apart from all reflection on consequences, he is impelled to realize his potentialities. In addition to these primary tendencies which spring directly from the natural capacities of the agent, there are other impulses, also primary, which have a reference to certain conditions necessary for the realization of these capacities. Self-preservation, self-assertion, and sociability, may be taken as concrete instances. These basal tendencies constitute the conditions on which pleasure and pain, for the most part, depend; they likewise determine the interests of the individual and thereby determine his emotions. From pleasure-pain and emotion, in turn, other impulses proceed, which may be called secondary tendencies, since they depend on mental states which are themselves conditioned by the primary tendencies.

Each of these impulses tends to assert itself as opportunity offers, regardless of the others, and each is directed exclusively to its own particular end. If the individual be at the mercy of these particular tendencies, therefore, there is no principle of unity in his conduct. He is a natural, not a moral, being, for morality implies that conduct be regulated in accordance with one supreme principle or end. Even if the particular tendencies themselves, through their internecine strife, did as a matter of fact realize one end, the status of the individual would not be altered. Morality requires that the agent should systematize his conduct by his own endeavors, and that this task be undertaken for its own sake. The question then is, whether there is any principle of action superior to the particular impulses, which makes it possible that the agent should act in accordance with the demands of morality. This question is answered, I believe, when we discover that the human being feels there is a mode of behavior which alone is worthy of him.¹ This ideal of worth furnishes, not only the moral criterion, but also the moral motive. It influences the will in a manner peculiar to itself. It

¹ Cf. a previous article in this *Review* (Vol. X, No. 3, pp. 282 ff.).

does not exercise compulsion of any sort; for, if the individual acts in accordance with it, he feels that he is acting freely under a principle which he recognizes as his own. On the other hand, the agent is not merely inclined to comply with its demands, but realizes that this compliance is something which he owes to himself. The motive supplied by the ideal of worth, therefore, does not constitute one inclination among others. It is always acknowledged to have right on its side, if it does not always have might. In short, the individual feels *obliged* to realize what is worthy of himself, and this feeling of obligation, which evidently supplies the distinctive moral motive, is an ultimate fact which cannot be expressed in terms of inclination or compulsion.

That moral obligation is an element of our nature which cannot be reduced to anything else, becomes more apparent when we ascertain its place and function in the system of things. The ideal which carries obligation with it is the individual's own ideal and appeals to him as such, yet it is not arbitrarily made by him. It is an integral part of his nature, which he does not create or shape by his own volition. Nor does he create its content. What he feels to be worthy of himself is determined by his essential nature and the character of his environment. Moral obligation, therefore, implies no constraint, and yet involves nothing which is capricious or factitious. It is freedom without caprice, and thus possesses the characteristics of an internal law. Moreover, it is a law which possesses a cosmic significance. The ideal of worth obliges the individual to realize, as circumstances permit, the capacities which are distinctively his, for a distinctive endowment involves a distinctive obligation. In other words, each individual feels obliged to act the part which falls to his lot in virtue of his place in the universe. Now this is precisely what we should expect to find if the universe is a system, and if there is any distinction between persons and things. If human beings are to any extent individual centers of activity and not mere modes of the Absolute, to this extent their fate must be in their own hands. They must in some measure be able to work out their own salvation. Finite beings, however, can enjoy but a relative amount of independence. They

are parts of the universe, and the universe would not be a coherent whole if some principle which makes for order did not exist in all the parts. Moral obligation thus represents the law of the universe as it appears in the world of persons. Consequently, it is of necessity an absolutely unique fact.

The results which emerge from this discussion of rationalism may now be briefly summarized. Actions are judged to be right if they accord with the ideal of what is worthy of the self. Judgments of right are not the same as judgments of truth; for the criterion which they presuppose is harmony with the possibilities of the nature of the agent, not logical consistency. The ultimate criterion alone is fixed and immutable; what is right in particular cases must be determined by a consideration of the means which are necessary to realize the moral end in the circumstances. Further, worth and moral obligation are essentially connected, for the individual feels that the realization of his ideal of worth is something which he owes to himself. If he acts in conformity with this ideal, he acts freely under a principle with which he identifies himself. Hence moral obligation is eternally distinct from logical or mechanical necessity. From the nature of the ideal of worth it follows also that morality is unconditional. Conduct which is worthy of the self is *de facto* and in itself obligatory.

DAVID IRONS.

BRYN MAWR COLLEGE.

PROCEEDINGS OF THE SECOND MEETING OF THE
AMERICAN PHILOSOPHICAL ASSOCIATION,
COLUMBIAN UNIVERSITY, WASHINGTON, D. C., DECEMBER 30 AND 31,
1902.

REPORT OF THE SECRETARY.

THE second meeting of the American Philosophical Association was held in Washington, D. C., in rooms of the Columbian University, December 30 and 31, 1902. The meeting was held in conjunction with that of the American Association for the Advancement of Science and in affiliation with the American Society of Naturalists. Over fifty members were in attendance. Special features of the meeting were the discussion in the afternoon of the 30th, the joint session with the American Psychological Association on the morning of the 31st, for both of which larger rooms had to be secured than those originally provided, and the informal smoker at the Riggs House following the address of the President on the evening of the 30th.

At the business meeting, December 31st, the following report of the treasurer was read and accepted.

TREASURER'S REPORT FOR THE YEAR ENDING DECEMBER
31, 1902.

Receipts.

Members' Dues	\$95.10
Interest .....	.77
Total	\$95.87

Expenses.

Postage and Stationery	\$26.87
Printing, etc.....	30.63
Executive Committee (meeting of December 6).....	27.60
	\$85.10
Balance in hand.....	10.77
Total.....	\$95.87

Examined and found correct, David Irons.

The following officers were elected for the ensuing year : *President*, Professor Josiah Royce (Harvard); *Vice-President*, Dr. Edgar A. Singer, Jr. (Pennsylvania); *Secretary-Treasurer*, Professor H. N. Gardiner (Smith); *Members of the Executive Committee for two years*, Professor W. A. Hammond (Cornell) and Professor F. J. E. Woodbridge (Columbia).

Notice was given of an amendment to the Constitution, to be acted on at the next meeting, to enable the retiring president of the Association to continue his services as a member of the Executive Committee.

Twenty-two persons were elected to membership. The names of those who have signified their acceptance of the election are printed in the list of members at the end of this report.

It was voted to propose to the Western Philosophical Association through its President, Professor Woodbridge, that the two associations adopt the common title, American Philosophical Association, and that they regard and designate themselves respectively as the Western and Eastern Branch of the Association. The wish was also expressed that both branches meet together at some time in the near future.

The question of presenting a memorial to the Carnegie Institution was left to the discretion of the Executive Committee.

The time and place of the next meeting was left with the Executive Committee, the desire being that it be held, if possible, in connection with the meeting of the American Psychological Association.

The President, Professor Ormond, expressed the thanks of the Association to Professor Sterrett and the authorities of the Columbian University for the accommodations afforded to the Association at the meeting.

ABSTRACTS OF PAPERS.

Philosophy and its Correlations. (Address of the President.)

By ALEXANDER T. ORMOND. (This paper appears in full in this number [March, 1903] of the PHILOSOPHICAL REVIEW.)

Critique of Cognition and its Principles. By KARL SCHMIDT.

Knowledge that satisfies the group of conditions for which the concept of system stands, I call cognition. Particular instances

of such systems of cognition are mathematics and mechanics. In order to give determinateness and stability to the concept of cognition, I restrict it at first to mathematics and physics, with the provision, however, of properly extending it afterwards to the whole of science.

By Logic of Cognition, I understand the systematic construction of the foundations of cognition from the true origin, the generating problem. Preliminary to this another discipline is required, which establishes the problem, determines the method, and prepares the material. This is Critique of Cognition.

By Critique of Cognition, I understand the examination of the actual or possible systematic solutions of the problem of cognition according to principles. It is the task of the paper to establish such a set of principles. They form four groups: The conditions of logical simplicity, of logical completeness, of logical purity, and of logical truth.

The Relation of Appreciative to Scientific Descriptions of Value. By WILBUR M. URBAN. (Read by title.)

The Function of Æsthetic Form in Judgments of Value. By ROBERT MACDOUGALL.

By form is meant the apprehension of the unity which a system of related parts composes. It is to be distinguished from the appreciation of the elements which are thus organized; it is to be distinguished from the expressiveness which an object may derive from association with other elements of value; and it is to be distinguished from the idea of function, the significance which an object possesses as part of a larger system. The perception of form is pure in proportion as the synthetic activity is swift, frictionless, and successful; it is intense in proportion as the materials unified are many and diverse. The principle of organization must be single. When two dissassociated centers of interest coëxist within the same formal limits, the attention is forced into a meaningless oscillation. Such a condition is subversive of the very attitude of contemplation. In the æsthetically satisfying object, expectation must not run beyond the group of elements involved, but be constantly reflected back within it, in virtue of

its embracing the reciprocal of every constituent ; it must constitute a functionally complete system of parts.

The synthetic unity under which a manifold of sensible or ideal data thus appears cannot exist in the datum and impress the mind as do the material elements of beauty. In every perception of formal beauty, a set of elements which can be presented only as a series must be held in solution until the whole sequence is completed, and combined into a form which can have its existence only in the processes of a constructive consciousness. The element of form is thus conditioned, not by the materials which it combines, but by the habitual methods of interpretation of the mind in which it arises. There is nothing which properly restricts its application to perceptual objects or excludes any content of consciousness. Of the two elements of æsthetic value, the material is special and variable, the form general and constant. Wherever that ideal construction occurs by which the content of experience is thus transformed in the service of a rationalizing imagination, the perception of beauty arises. The apprehension of formal beauty in the world is the perception of its unity. The more varied the material data which are welded into one and the clearer the vision of their synthetic form, the more intense and noble the æsthetic delight.

Logic and Metaphysics. By H. AUSTIN AIKINS.

The limitations of logic are such that constructive metaphysics, based on the principles of contradiction and sufficient reason, is impossible ; and its problems should be handed over to religion and its free symbolism.

Constructive metaphysics tries to show what the ultimate relations assumed in ordinary experience — such as individuality, causal interaction, knowledge, moral and æsthetic values — must really be, if they are to fit together in ultimate reality; and what kind of thing this ultimate reality must be for them to fit into it. But this is impossible.

Contradictions exist only between judgments ; not between bare concepts (which have no logical relation to each other at all), nor between external facts (which may be incompatible, but not

inconsistent). All judgments have reference to some supposed reality beyond themselves, and to have a contradiction there must be two conflicting statements about the same object beyond them in the real world. Contradictions are formal ('this is white and it is not white') or material ('this is white and it is black'). Metaphysics is concerned only with the latter (*e. g.*, when it wants to affirm both human responsibility and universal causation). Material contradiction depends upon the recognized incompatibility of two different relations in the same object; and incompatibility depends, not on laws of thought, but on the actual constitution of the wider universe to which the object belongs. When it comes to ultimate relations, there is no known wider system or universe into which they must fit; and, consequently, they are neither compatible nor incompatible, and the statements affirming their existence are neither consistent nor inconsistent. In the same way, it is impossible to say what kind of thing ultimate reality must be if they are to fit into it; for we cannot tell the law according to which they must fit. Hence, when it comes to these ultimate relations, the law of contradiction is useless. The same considerations apply, *mutatis mutandis*, to the principle of sufficient reason.

Kant's Attitude towards Idealism and Realism. By EDWARD FRANKLIN BUCHNER. (Read by title.)

Bentham's Discussion of the Relations between Ethics and Law. By E. HERSHEY SNEATH.

General ethics is divided into private ethics and legislation. The former is the art of self-government; the latter is the art of government (of others) by permanent measures. Both private ethics and legislation concern themselves with the same end — happiness of the same individuals, and the direction of the conduct of the same persons. To a very large extent, indeed, they concern themselves with the same acts. Still, they "are not perfectly and throughout the same." They differ in this. There are some actions which are properly objects of private ethics which are not properly objects of law. Every act which makes for the happiness of himself and the community, the

individual is under obligation to perform. But he should not be compelled to do so by law. Again, every evil act which affects the happiness of himself and the community, the individual is, from the standpoint of private ethics, under obligation to avoid. But he should not be compelled to do so by law. Just what duties belong to private ethics when compared with law, can best be determined by noting when law ought not to interfere in conduct, and when private ethics, in the same instances, ought. There are four kinds of cases where legislation ought not to interfere: Where punishment would be (1) groundless; (2) inefficacious; (3) unprofitable; (4) needless. The third class is especially important in determining the peculiar field of ethics. Many cases of wrong doing cannot be dealt with by law, because punishment would be productive of more evil than good. These cases are to be handled by private ethics. The line separating private ethics and legislation becomes clearer, when we examine the three kinds of duty—duty to self, probity, and beneficence. Legislation ought not to interfere to any great extent with personal duty. This is largely the field of private ethics. Probity constitutes the chief domain of law. Beneficence is almost entirely the field of private ethics; still there is room here for a growing application of law. Criticism.—Bentham is right in his main positions. However, he argues the subject too much from the standpoint of a negative conception of the function of private ethics and law. Both ethics and law have a positive function which must be reckoned with in discussing their relations.

The Philosophical Aspect of Education. By H. H. HORNE.

The natural and social sciences to which education stands related, give us the empirical conception of education with which the philosophical discussion of education must begin. Man, the being to be educated, is an animal, has a body, is social by constitution, and has a mind. Hence biology, physiology, sociology, and psychology, all contribute to the theory of education its fundamental presuppositions. Biology adds the conception of adjustment; physiology, the conception of the development of the

body; sociology, the conception of the environment to which education adjusts man; and psychology, the conception of the development of the mind. Putting these conceptions together, we reach the following definition: Education is the superior adjustment of a man through development of mind and body to his social environment.

Here philosophy begins with its two questions: (1) What is education from the philosophical point of view? and (2) What are the philosophical implications of education? From the philosophical point of view, education is a world-process and a time-process. All the experiences of life go into the education of man; they fulfill their purpose in bringing man through education into the largest appreciation of the whole reality. And this process goes on in time as its logical condition. So significant a temporal process is human education that we look with confidence to its philosophical implications. Education, seizing upon mind as the final reality, developing mind from less to more, and finding man alone subject to this educational development of mind because of his high degree of self-activity, raises the presumption that man is the highest manifestation in the temporal process of a reality that is mental, actual, and self-active, viz., God. Again, education being due to man's own energizing effort, the educational result being proportionate to the amount of mental effort put forth, and education being the means whereby man becomes what he is intended by nature to be, leads to the necessary implication that man has freedom, viz., the ability to realize in some measure through effort his own selected ends. Finally, education, being never actually completed, and man's nature being full of infinite potentiality, suggests that in a rational universe man must have an infinite life in which to realize his destiny. Education philosophically implies that the origin of man is God, his nature is freedom, and his destiny immortality.

An Examination of Höffding's Theory of Religion. By F. C. FRENCH.

In his recent work on the Philosophy of Religion, Professor Höffding maintains the thesis that the essence of religion is a

belief in the persistence of value (*ein Glaube an die Erhaltung des Wertes*). This oft-repeated formula leaves the character of the value undetermined. In the course of the exposition, we find religious values differentiated from others in two ways. (1) It is belief in the persistence of the *highest* values which constitutes religion—not the highest in any absolute sense, but simply the highest for us. This is perhaps why Höffding does not use the term ‘highest’ in his formal statement of the principle. “The values,” he says, “in whose persistence man believes, will be those which are to him the highest.” (2) Religious values themselves are derivative or secondary: It is our interest in the fate of our direct or primary values in the struggle for existence that constitutes the distinctively religious feeling. This feeling is determined by our belief in the relation of value to reality.

The following suggestions of criticism are offered: (1) Höffding says he uses the phrase persistence or conservation of value in close analogy with the conservation of energy. The analogy is helped by the existence of potential values, and by the transformation of values (*e. g.*, a value at first mediate often becomes in time immediate); but it breaks down altogether when we come to the quantitative aspect so important in the doctrine of the conservation of energy. The notion of a quantum of value in the universe and its permanent conservation is wholly elusive. (2) Is there anything distinctive of religion in the principle of the conservation of value? Does not all intelligent effort in whatever sphere imply a faith in the continuance of values? (3) Even if an element in all religion, can this principle be the *essence* of religion? Faith in the persistence of value may be an effect of religion, but not religion itself. (4) The theory fails utterly to account for the moral force characteristic of the active types of religion. (5) On this theory, religion offers no criteria for the relative worth of our several types of value. It loses all practical import and becomes a merely subjective attitude of the æsthetic type. It is a preëminent merit in Höffding’s work that he has sought the ideal essence of religion, not a mere abstract essence, as, *e. g.*, Herbert Spencer has done.

Prolegomena to the Argument for the Being of God. By
GEORGE TRUMBULL LADD.

Recent researches in anthropology, psychology, sociology, comparative religion, and philosophy, have been preparing the way for a reconstruction, consistent with the discoveries of these sciences and the tendencies of modern thinking, of the argument for the Being of God. The paper treated of these results as prolegomena to this argument. The results include certain important truths arising in three fields of investigation: (1) The history of man's religious development; (2) the nature of man's religious being—the soul as religious, and (3) philosophical tenets and attitudes toward reality and human experience.

1. The universality of religion is now a demonstrated fact; and none of the several forms, such as totemism, fetichism, magic, nature worship, ancestor worship, or any non-religious experiences or institutions, can be said to have been its *sole* original form.

2. Psychology, so far as it can be prevented from falling into the mistakes of anthropology, shows that the entire soul of man is concerned in, and constitutionally committed to, religion. The conception of God which has a preferred claim, so to say, to reality is the conception—if such a one can be framed—which will satisfy all the demands of the soul of man in its historical development.

3. Among the more important philosophical problems that have a bearing upon the argument for the Being of God, stands the problem of knowledge. While the very life and improvement of religion require doubt and inquiry, dogmatic agnosticism is the deadliest foe to a rational faith in God. A certain theory of reality, or attitude toward the World-All, is a scarcely less important item for consideration among the philosophical prolegomena to the argument for the Being of God. This world-view may be called that of a spiritual monism. But, finally, equally important is the cultivation of comprehensive and profound ideas of value, and of refined and noble ethical and æsthetical sentiments.

The so-called arguments for the Being of God are in constant need of restatement. Every age must make them its own, by

making them over anew. For in God man seeks to find the ultimate explanation and complete satisfaction of total experience.

Discussion on the Subject: What Should be our Attitude as Teachers of Philosophy toward Religion?

By DICKINSON S. MILLER.

Students come to the teachers of philosophy with the hope of satisfaction in regard to those beliefs which religious feeling implies. But philosophy, so far as it is controversial and analytic, is ill qualified to impart to ordinary minds a sense of the reality of the object of religion. But if it undertakes to make religion intelligible, philosophy must impart this sense. Let us then keep a place in our instruction for the exposition of those grounds of worship which are beyond controversy and beyond the need of metaphysical analysis: first, man's unquestioned relation to the sum and system of natural things; second, the relation of the individual self to those secret inward forces, not wholly within his voluntary grasp, which make for the ideal and whose aid may be had for the seeking. Each teacher of philosophy may properly make much of his disputable speculations; but all alike may point out the common and indisputable basis that exists for some of the chief elements of religion.

By JOSIAH ROYCE.

The proper attitude of the teacher of philosophy towards religion depends for justification and definition on two or three very simple principles. (1) Religion, in its higher sense, *i. e.*, the consciousness of practical relations to a real, but unseen, spiritual universe, whose authority, as furnishing the rule for conduct, is conceived as absolute and whose worth and dignity are recognized as supreme, is the most important business of the human being. (2) Religion, in proportion to its importance, characteristically appears among the worst managed of humanity's undertakings. (3) The task of improving the conduct of religion is so complex and difficult as to demand a very great and varied division of labor. In this division the special function of the philosopher is to contribute two things: (*a*) clearness of thought about religious issues, and (*b*) a judicial spirit in the comparison, the his-

torical estimate, and the formation of religious opinions. The consequences for the teacher of philosophy are then the following: (1) In appealing to elementary students he must begin by cultivating in them the judicial rather than the merely dogmatic attitude towards religious problems, a thing which can best be done by a teaching of the history of thought. (2) In guiding his more advanced students, he should seek to help each individually to become clearer in mind as to what his own personal religious interests and problems mean. (3) He should help them to profit by one another's religious doubts, strivings, experiences, etc., he himself playing the part of mediator rather than that of appellate judge. (4) In relation to the outside public, his attitude should be at once frank and conciliatory, judicially critical and reverently earnest, free alike from dogmatic presumption and from indifference. (5) It is an advantage under existing conditions, if the philosophical teacher can conscientiously avoid all connection with any sect or form of the visible church. He can so better devote himself to his proper business and avoid compromising the judicial spirit in himself and in the eyes of his students.

(President Francis L. Patton and Dr. William T. Harris also took part in this Discussion.)

The five following papers were read at the Joint Session with the American Psychological Association.

The Position of Psychology in the System of Knowledge. By HUGO MÜNSTERBERG. (This paper appears in full in the *Harvard Psychological Studies*, Vol. I. Macmillan, 1903.)

Psychological Method in Ethics. By JOHN DEWEY.

It is commonly agreed that philosophy deals primarily with values, the sciences with facts. Hence psychology, a science of facts, is thought to have no essential bearing on ethics, a branch of philosophy concerned with a particular sphere of value. We may accept the distinction, and yet maintain that psychology furnishes an indispensable phase of method in ethics. (1) While affairs of conduct are matters of value, and of functions and attitudes, not of mere presentations, nevertheless,

every such conduct-value has its signature and correspondent in the immediate data of presentation. (2) The psychologist can study the particular conditions in the stream of presentations of that particular content which represents the having of a moral value, and he can trace the influence, in the way of stimulation and inhibition, which such content exercises upon further presentations in the stream. (3) It is practically impossible to see how any control of the interpretation to be justly given to the category, say, of 'ideal' can be secured without recourse to just such a device as this. Psychology can study in a definite and analytic way the meaning of a value as determined by the position which the conscious presentation corresponding to it occupies in the stream of conscious states. (4) It is clear that the use of psychology in this way is formal rather than material. But it is not *merely* formal. Knowledge of the specific conditions of origin and career to which the candidate for ideal value must submit enables us to delineate the main features of anything which has legitimate claim to be considered as end or ideal. Philosophy has too largely assumed that it is its task to prove the existence of ethical values, either at large or in more special forms. Ultimately, however, ethics would seem to be a science of experience in so far as experience is possessed of values of a certain sort; and the business of ethics is to render interpretation, discussion, criticism, and definition in this field as controlled, orderly, and intelligible as is possible. Viewed in this way, psychology is not merely an incidental auxiliary, but an indispensable instrumentality, because such interpretation and definition depends upon power to state the value in question in terms of the position it occupies within experience.

Critique of Psycho-physical Parallelism. By GEORGE TRUMBULL LADD.

In opposition to all forms of the current hypothesis of so-called 'psycho-physical parallelism,' the paper made the following points: (1) All the data for any theory as to the relations of body and mind originate within the unity of the 'stream of consciousness.' The connections between the different items or

'moments' of this stream are not merely those of sequence in time; but they also have the appearance of dynamical connections. (2) Just as apparent as the fact of this unity, is the fact of a certain *diremption* accomplished by the activity of discriminating consciousness. Some of the psychoses are ascribed to the *Ego* as their subject, and others are more definitely localized in the organism. (3) These two classes of experiences are now inevitably regarded by the natural 'ontological consciousness' in terms of the interaction of body and mind. (4) So true and inevitable is all this, that the very conceptions 'cause,' 'causal relations,' 'causal influence,' etc., originate and receive their chief validation from this experience; and without it, no question as to the relations in reality of body and mind could ever arise. (5) Judged from the point of view of experience, the figure of speech involved in the term 'psycho-physical parallelism' is both inadequate and misleading; it is inadequate, because it utterly fails to emphasize the complicated network of interrelations of which we have an indubitable experience; and it is misleading, because it neglects the *dynamical* character of the interrelations. (6) These defects are emphasized anew, when the theory becomes metaphysical and strives to state itself in terms of the 'ontological consciousness.' (7) For purposes of psychological science, it is the business of the investigator, assuming the standpoint of the natural dualistic hypothesis, to discover the precise nature and empirical formulæ of the interrelations. But, finally, (8) philosophy is not satisfied to leave the subject in this shape; it seeks a '*uniting bond*' for these and for all other dynamical connections of our experience. This bond it must find in the Being of the Cosmos, whose being man, with the totality of his nature, shares.

The Theory of Energetics in its Philosophical Bearings. By JOHN GRIER HIBBEN.

The claims of the *Energetiker*, as expressed by Ostwald in his *Naturphilosophie*, may be summarized as follows.

The most universal scientific concept is that of energy. All other concepts are derived from it. Energy is defined in terms

of work, as the result of work, or that which may be transformed into work. Thus substance and cause may be expressed in terms of energy. Matter may be expressed in terms of form-energy and volume-energy. The transition from physical to psychical phenomena becomes immensely simplified, for it is possible to conceive of a psychical energy as transformed physical energy more readily than we can coördinate matter and mind. This general position is fortified by three analogies :

1. As a transition is effected from physical to nervous energy, so also is there a passage from nervous to psychical energy.

2. As only a few crystals under pressure manifest electrical phenomena, so only the central energy of the brain is accompanied by consciousness.

3. As a storage-battery produces energy out of all proportion to the liberating cause, so also the centrally stored energy.

In criticism, the following theses were discussed :

1. Its mathematical presuppositions and processes are precariously uncertain, as indicated by Boltzmann and Planck.

2. The mechanical, or dynamical, expression of any physical system does not purport to give an exposition of the essential reality of the phenomena it describes.

3. The correlation of the forms of physical energy expresses a quantitative equivalence. The attempted correlation of nervous and the so-called psychical energy is distinctively qualitative.

4. The definition of energy in terms of $\frac{1}{2}MV^2$ represents its essence under space and time conditions. Mental phenomena cannot be brought under such categories.

5. Psychical energy is either the same in kind as nervous energy, or it is not. If it is, it must be a disguised form of mass and velocity relations. If it is not, it lies outside the initial concept of energy altogether.

6. The physical world is characterized by decrease of energy and increase of entropy. The reverse is true of the world of thought.

7. The concept of energy is not a 'form' of the mind in a Kantian sense, as Ostwald maintains.

8. Ostwald affirms that 'the continuity of experiences in one brain, or in one mind' constitutes the consciousness of personal identity. If this continuity is maintained by the brain as an organ of physical energy, it fails to account for the resulting continuity of consciousness. If it is maintained by the subjective thought center, this transcends the function of the fundamental concept of energy.

The Status of the Subconscious. By JOSEPH JASTROW.

On Mechanical Explanation. By EDGAR A. SINGER, JR.

The 'mechanical ideal' is more eagerly disputed about than carefully defined: its implied meaning varies with the interests of the disputants. If the biologist regards himself as offering a mechanical explanation of organic life in so far as he succeeds in describing its phenomena in physico-chemical terms, the chemist and the physicist may still feel the need of a mechanical explanation of their own sciences. This confusion of images may be removed, if we consider one science to be mechanical with respect to another, in so far as it approaches more nearly to a certain traditional science which has received the name of mechanics. The mechanical ideal then means the reduction of all sciences to that of mechanics.

Now sciences are best differentiated in terms of their 'dimensions.' Mechanics may be defined as the science whose dimensions are mass, space, and time. To 'reduce' a science of a greater number of dimensions to that of mechanics is to show that the dimensions in excess of mass, space, and time may be expressed as functions of these three. There is a long history of efforts at such reduction. One of the most effective instruments employed is the conception of concealed mass-motion: *e. g.*, the dimension 'temperature' is eliminated when it is expressed as a function of mass-velocities.

If we ask: On what grounds rests the ideal of making mass, space, and time the dimensions of nature? the answer must be that it rests on none but experimental grounds. For, while it follows from the meaning of explanation that it can be offered only in connection with a 'determinate' system, we are unable to deduce

from the notion of determinateness either the number or the kind of the determinants. Consequently, we cannot deduce the necessary dimensions of such a system.

With the admission of its empirical character, the mechanical ideal loses its direct interest for the philosopher. He may still, however, see in this ideal the imperfect expression of a deeper motive. Considering the historical material more carefully, we find that the real interest of science is not in the *goal* of reduction, but in the *process* of reduction. For example, there is a fairly continuous history of attempts to reduce the dimensions of the science of mechanics itself to those of kinematics or even of geometry. The mechanical ideal is properly neither mechanical nor an ideal: it is simply the recognized principle that explanation means the *simplest possible* description of the phenomena explained. Our systematic study permits us to define the meaning of 'simplest': that description is the simpler that can be effected in the fewer terms or dimensions. As for the definition of 'possible' in this connection, together with the allied question of the limit of reduction, their discussion is beyond the reach of the paper.

We see, then, that the so-called mechanical ideal, supposed to stand for a goal, raises only a question of fact whose decision there is little interest in anticipating; its underlying motive raises a question of meaning whose recognition is of some importance.

The Empirical View of Causation. By BROTHER CHRYSOSTOM.

The empirical theory of causation is commonly accredited to Hume and Mill, but may be traced through Locke to Bacon. The views of these men have exercised so great an influence that we are impelled to look for the elements of truth in their theory. We have three questions: (1) What foundation has the theory of causality in *sense-experience*? This leads to criticism of Hume. (2) How can we account for the *necessary* connection between cause and effect? This involves examination of Mill. (3) What justification is there for the class of judgments which Kant named synthetic *a priori*, citing the principle of causality as an example?

Consulting experience, we find that we apply the term *cause* wherever we perceive an unmistakable sign of action. In so far

as we are active, we find in ourselves the origin of the idea of cause. There has been too pronounced a tendency to look upon *willing* as the sole type of human activity. Hence the objection that the application of the term *cause* to external reality is anthropomorphism. The remedy is found in shunning this exclusive attention to will and giving equal importance to thinking. To the objection that we perceive our acts of thinking and willing, but not the power that produces them, we may reply that the change rests upon a failure to distinguish between immanent and transient ('transeunt') action. Since the former, when viewed in the concrete, is nothing but the subject acting upon itself, whoever sees the act, sees the subject in the process of producing it. The subject which acts, moves, or does something, is the cause; that which is done is the effect. The principle of causality may be formulated in these terms: *Every activity demands a subject*; and since this principle is necessary and universal, so also is the principle of causality.

In the case of transient action, it may be difficult at first to find in the so-called effect any trace of the active force to which it owes its existence. But this effect had a beginning; it passed from non-being to being, a passage impossible without the exercise of active force.

The processes involved in developing the idea of cause in general are as follows: (1) Consciousness tells us that we are efficient causes of our thoughts and desires. (2) It informs us that we often control our bodily members. (3) By induction we can be certain that other bodies act on us. (4) By analogy we infer that other bodies act upon one another. This mutual interaction is a necessary assumption in all the natural and experimental sciences.

The Dogma of *Ex Nihilo Nihil Fit*. By EDWARD GLEASON SPAULDING.

Does consciousness possess attributes which render possible an experimental confirmation of the dogma *ex nihilo nihil fit, nihil fit ad nihilum*? If not, is the 'self-evidence' of the principle sufficient ground for its application, and could this dogmatic procedure be justified further by any increased usefulness resulting,

and recognition, therefore, be given to another determinant in scientific method than that of 'absolute truth,' viz., utility? Finally, are there different kinds of dogma?

Examination of the development of the law of the conservation of energy shows, as ultimate characteristics of physical things which render an experimental confirmation possible here: (1) spatiality, and (2) the seemingly reversible change into each other of qualitatively different phenomena, *e. g.*, heat and motion. If motion be primarily selected as 'work,' and a constant quantitative proportion shown to exist between it and other phenomena, *e. g.*, heat, position, then the application of *ex nihilo*, etc., is on an experimental basis, and the origin of the definition of energy as 'the power of doing work' possibly explained. However, because it is impossible to get beyond these qualitatively different yet quantitative phenomena, and to establish anything more than *proportion* between them, the validity of *ex nihilo*, etc., here is not strictly proven. The law of the conservation of energy is therefore based on an *assumptio non probata*.

In 'energetics' the dogma is applied, first, to the 'extensivity' factor, *e. g.*, mass, etc., second, to the 'potential difference'; one, when 'uncompensated,' rises as much as another falls, but the qualities of each species of energy appear *ex nihilo* and disappear *ad nihilum*.

Consciousness is not spatial, therefore cannot be measured by itself, nor are its events 'reversible.' Consequently, there is no experimental basis for *ex nihilo*, etc. Nevertheless, the so-called 'self-evidence' of this seems to some to demand its application. Self-evidence is belief, inability to conceive the opposite, congenital dogmatism as opposed to critical. This forced application leads necessarily either to the acceptance of the *contradictio in adjecto* of 'unconscious consciousness' or of a materialism of energy. Nor can this contradiction be avoided by making unconscious consciousness 'potential consciousness,' analogous to 'potential' energy in physics; for in the latter case something, viz., position, etc., is given, in the former nothing. Nor is the dogmatic application justified by the utilitarian principle.

Therefore, retaining the dualistic position, we must conclude that conscious states arise like qualities *ex nihilo* and disappear *ad nihilum*; that transformation, causality, and conservation, which are interdependent in physics, are not present here.

The Functional Theory of Psycho-physical Parallelism. By
H. HEATH BAWDEN.

1. By 'function' is meant orderly, continuous activity with reference to an end. But all activity consists simply of changes in structure. Hence the only significance of function over and above mere structure must lie in the end subserved. Function is the *meaning* of structure as expressed in its activity. But end or meaning, in its only legitimate sense, has reference to a conscious content. Hence the psychical is, in some sense, the functioning of physical structure, for the function of the body is the orderly, continuous activity of the body, and in mind only can we find the end or meaning of this activity. Mind equals the meaning of the activities of the organism, it being understood that the organism cannot, in strictness, be separated in any hard and fast way from the rest of the universe. In this sense, it is not so startling as it seems, to say that the brain is conscious, that matter thinks, that mind simply represents the totality of the functioning of the body. A better form of statement, however, would be to say that the psychical and the physical are constituent and correlative functions within experience.

2. The term 'mental activity' is ambiguous. The demands of philosophic unity lead us to assume the existence of only one reality, with one process, its activity. From this standpoint, the concepts both of mind and of matter require revision. Matter is not lump stuff; it is energy, motion, activity. But this describes mind also, as experienced in will. Hence we are forced to some functional view of these two concepts, which interprets them, not in ontological or existential, but in teleological or methodological terms. Regarded in this way, the psychical appears as the meaning of the physical.

3. If the foregoing criticisms are true, then the term 'unconscious mental states' also is a confusion of two concepts which

methodological considerations would lead us to keep distinct. The phrase 'unconscious mental states' is a contradiction in terms. Yet the distinction between the psychical and the physical is no less real because it is a functional distinction.

4. In conclusion, it is pointed out that the tendency of scientific procedure is to ignore the metaphysical implications of the postulate of parallelism, and to explain the whole phenomenal universe in terms of a 'psychophysical' causation and evolution. In this attitude, science is implicitly proceeding upon the basis of a functional interpretation of mind and matter. This is shown in terms of a discussion of Professor Baldwin's recent book *Development and Evolution*.

Personal Idealism. By W. CALDWELL.

A critical estimate of the volume of Oxford essays on "Personal Idealism," edited by Henry Sturt. There is an inequality in the treatment of the subject by different essayists, some seeming to allow of a continuity between the older and the newer forms of idealism and others ignoring it. Some of the essays (like that of Stout) open up a line of valuable fact and argumentation, and others, like that of Rashdall and that of the editor, are in accordance with the professed spirit of the volume, but others establish little that is really new. Others, again, exaggerate the pragmatic conception of philosophy, and ignore the question of its presuppositions and its relation to the older idealism. The book, in short, suffers a good deal from its lack of unity, and from the overstatement of some of its more or less irresponsible writers.

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REVIEWS OF BOOKS.

Studies in Hegelian Cosmology. By JOHN McTAGGART ELLIS
McTAGGART. Cambridge, University Press, 1901.—pp. xx, 292.

In his introductory chapter, Mr. McTaggart defines cosmology as "the application to subject-matter empirically known of *a priori* conclusions derived from the investigation of the nature of pure thought." He admits that Hegel "gives a very small part of his writings to cosmological questions," and he does not, for the most part, "propose to consider the views actually expressed by Hegel," but rather "to consider what views on the subjects under discussion ought to be held by a thinker who accepts Hegel's Logic, and in particular Hegel's theory of the Absolute Idea." This frank avowal of an "endeavor to supplement rather than to expound" is certain to strike terror to the minds of such Hegelian students as feel, with a certain show of justice, that they have been treated to overmuch supplementation of Hegel and that too many of the so-called expositions contain a very dilute extract of Hegel's own doctrine. It should, however, be remembered that Mr. McTaggart's working out of Hegelian ideas is based upon a peculiarly close and critical study of the text of Hegel, and that it therefore deserves the respectful consideration of students. The present review departs from the order of the chapters, and concerns itself mainly with the question of the personality of Hegel's Absolute.

1. Mr. McTaggart opposes the conception of Hegel's Absolute as personal God, and replaces it by the conception of the Absolute as "a society" (§ 197)—in other words, an impersonal community "of related persons." This conception has two important features in common with the view that Hegel conceives of the Absolute as person. By both interpretations, the Absolute is to Hegel "not . . . an external and mechanical unity, not even . . . an organic unity, but . . . the deepest unity possible (§ 63)"; by both interpretations also the Absolute is unquestionably spirit. But instead of conceiving the Absolute Reality as itself a person, manifested, yet not completely exhausted, in finite personalities, Mr. McTaggart teaches that just as "the parts have no meaning but their unity, so the unity has no meaning but the differentiations" (§ 21). More concretely, he holds that the Absolute Unity is itself a 'community' or 'society' of finite persons related to the unity by their consciousness of it. "The unity," he says, "which connects individuals is not anything outside them, for it

has no reality distinct from them ;"¹ it is therefore, in a certain sense, within them. Moreover, it is neither in each of them when taken separately (else there would be no distinction between any individual and the Absolute), nor in all of them when taken together as an aggregate (else the unity would be a mere sum). In truth: "The unity must be completely in each individual. Yet it must also be the bond which unites them" (§ 14). Such a relating unity-in-the-differentiations is found, Mr. McTaggart teaches, in the consciousness which each individual has of the entire unity. In its intimate and fundamental nature, he believes, this "relation which binds individuals together" is love.²

This is an ingenious and a subtle attempt to solve the really insoluble problem: How obtain a unity which is neither an individual nor an aggregate, that is, a sum of externally related parts or aggregate? Mr. McTaggart, as has been indicated, answers: The unity is internal and yet not individual, in that it consists in the consciousness which each individual has of itself and of all the similarly conscious individuals. But this conception is surely inadequate. Granted that the relation of each individual to the others consists in its consciousness of all the others, the consciousness of unity, as possessed by any one individual, is certainly distinct from that consciousness of unity which each of the other individuals feels. In other words, we have not yet reached an absolute unity, but rather a sum of relations (consciousnesses of unity), which have need of still further unifying. Or, to put this criticism in another form — we have now an aggregate of internal relations, which themselves must be conceived as externally related, unless indeed they are unified by being object to the central or Absolute self-consciousness.

The failure of Mr. McTaggart's positive interpretation throws us back upon the view that Hegel conceived of the Absolute Reality as personal God. Hegel's own expressions in the most detailed and authoritative form of his metaphysical system, the *Logic*, fully bear out this interpretation. He defines the "Universal" — the "mediating universal" — as not merely "a totality of its members, but as a singular particular or exclusive individuality,"³ and he characterizes the Absolute Idea as "*der vernünftiger Begriff*," adding, in the sentence which follows: "*Der Begriff ist nicht nur Seele, sondern freier, subjektiver Begriff, der für sich ist und daher die Persönlichkeit hat.*"⁴

¹ § 11, cf. §§ 14-15 and 64 seq.

² Ch. IX, cf. esp. § 310.

³ Encyclopædia, § 191.

⁴ *Logik, Werke*, V, Vom Begriff, 3ter Abschn., Cap. 3, first paragraph. Italics mine.

The belief that Hegel conceives God as personal does not, however, rest on the interpretation, however unambiguous, of single passages. On the contrary, the whole trend of the *Logic* is toward this conclusion, and its most important teaching opposes the theory of Absolute Reality as a plurality of related parts, whether a merely mechanical combination or the unity of a system. For if one considers this conception of a unity which is deeper than that of externally related parts, it becomes clear that only an Absolute Individual will fulfill the condition, by being manifested in the parts instead of being composed of them. So long as, in Mr. McTaggart's terms, "the unity has no meaning but the differentiations," it cannot help being an aggregate — in other words, an externally related combination of parts. On the other hand, an Absolute Individual not only includes all the parts, but relates them by virtue of its own deeper unity; that is to say, the unity belongs more truly to the Absolute than to the particulars; it is no longer the superficial unity of a sum, but the fundamental unity of the "exclusive individuality."

Against this view Mr. McTaggart offers only two arguments. He holds, in the first place, that this conception implies a virtual regression to the transcended categories of essence, in that it conceives of the Absolute as behind the individuals, and, in a sense, more real than they. This criticism, however, rests on a misapprehension of Hegel's doctrine of essence. For Hegel never denies the rationality of the attempt to 'account for' finite realities. He objects to the interpretation of them as 'appearances,' and to the explanation of them through the fictitious conception of essence. For essence is regarded by Hegel as unknown reality which purports to be unrelated to phenomena and which yet has no meaning except 'unknown cause of precisely these phenomena.' Judged by this standard, the interpretation of Hegel's Absolute as person is far from conceiving of it as essence. For the Absolute person must be, like all persons, directly known; and it includes and relates finite individuals even though it is not constituted by them.

In the second place, Mr. McTaggart lays great stress on an important teaching of Hegel's Philosophy of Religion, which certainly suggests the impersonality of the Absolute. Hegel, as is well known, makes the Holy Ghost the synthesis in the triad of which Father and Son are thesis and antithesis. This, as Mr. McTaggart shows, is equivalent to the teaching that the Holy Ghost is the deeper reality of Father and Son. "The Father and the Son," he says, "are related to the Holy Ghost as something which is they and more than they" (§ 213).

But the Holy Ghost is explicitly identified by Hegel with the church, or community (*Gemeinde*). Since, then, Hegel identifies the Absolute with God, and furthermore teaches that the Holy Ghost is "not only the supreme reality, but the sole reality of God," and, finally, defines the Holy Ghost as a "community," it follows, according to Mr. McTaggart, that the Absolute, or God, is to Hegel a society of related persons, but itself impersonal.

Now it must be confessed at once that Hegel does, in many passages, identify the Holy Ghost with the church. But there are several statements which indicate that this is an abbreviation, as it were, from the fuller and more adequate definition, very explicitly stated by Hegel in the words "the Spirit of God, or God, as present, real Spirit, God dwelling in His church."¹ Now, "God dwelling in His church" means more than a mere community of related individuals. In other words, as the Father meant, to Hegel, God abstractly viewed as apart from the world, and as the Son meant sensible nature regarded as God revealing himself, so the Holy Ghost meant God, the Infinite Personality in his relation to the finite persons whom he encompasses and includes. The passages which identify the Holy Ghost with the church are, thus, either inexplicably opposed to that just quoted, or else the word 'church' or 'community' (*Gemeinde*) must be interpreted in them all by the fuller expression 'God dwelling in his church,' and the use of the term *Gemeinde*, with so full a meaning, must be regarded as a case of Hegel's tendency — admitted by Mr. McTaggart — to over-emphasize some one side of his teaching.

But to this interpretation of Hegel's assertion that the Holy Spirit (and therefore God) is the Church, Mr. McTaggart would object: Hegel's vocabulary is "rich with terms for a unity, which would suggest, or at least not exclude the suggestion of, a personal unity. He chose, however, a word — *Gemeinde* — whose ordinary meaning quite excludes any idea of personal unity. It is surely a fair inference that he wished to exclude that idea" (§ 218). But this argument proves too much. Hegel had not the remotest scruple in utterly perverting words from their usual meaning. Mr. McTaggart himself teaches that Hegel uses the terms 'God' and 'Father' of impersonal realities, and that he employs the word 'friendship' to mean something other than "affection which is fixed on the friend himself" (§ 220). The critic who admits that Hegel has so greatly altered the meaning of these familiar terms cannot consistently hold Hegel to the everyday significance of the word *Gemeinde*.

¹ Werke, II, 315 (Translation II, 107), quoted by Mr. McTaggart, § 216.

Besides elaborating this general argument, Mr. McTaggart quotes¹ the first paragraph of Part III in the *Philosophy of Religion* to show that Hegel does not conceive his God as personal. The passage certainly, in a sense, identifies 'the self-consciousness of God' with a consciousness which has finite selves as its object. Yet the passage also definitely speaks of the finite consciousness as 'distinct from God, from the Absolute,' and cannot therefore be cited to show that "Hegel regards God as a unity of persons . . . many persons, not one person, although really one Spirit."

It must, finally, be noted that the *Philosophy of Religion* cannot claim to be so authoritative an expression as the *Logic* of Hegel's system. Pieced together, as it was, from the notebooks of his students, and published after his death without his revision, it should not be used to oppose, but rather to supplement, the teaching of the *Logic*. Therefore, if the student of Hegel finds in the *Logic* the clear assertion of the personality of Absolute Reality, and if he acknowledges with Mr. McTaggart, that to Hegel 'God' and 'Absolute' are synonymous terms, he cannot admit the validity of any argument drawn from the *Philosophy of Religion* in opposition to this conclusion.

The conception of human immortality follows, Mr. McTaggart holds (Ch. II), from this doctrine of the Absolute Idea as unity of individuals. "Hegel," he says "does not appear to have been much interested in the question of immortality"; he asserts the truth of the doctrine, but gives no prominence to it (§§ V, VI). None the less the doctrine follows, Mr. McTaggart teaches, from the theory that finite selves are fundamental differentiations of the Absolute. For "absolute reality as a whole must be regarded as unchanging" (§ 33); and it is "the nature of the Absolute to be manifested in precisely those differentiations in which it is manifested." Thus "the Absolute re-

¹ § 224. (Abridged, from Mr. McTaggart's quotation. Italics mine.) "We defined religion as being in the stricter sense the self-consciousness of God. Self-consciousness in its character as consciousness has an object, and it is conscious of itself in this object; this object is also consciousness, but it is consciousness as object, and is consequently finite consciousness, a consciousness which is distinct from God, from the Absolute. The element of determinateness is present in this form of consciousness and consequently finitude is present in it; God is self-consciousness. He knows Himself in a consciousness which is distinct from Him, which is potentially the consciousness of God, but is also this actually, since it knows its identity with God, an identity which is, however, mediated by the negation of finitude. . . . We define God when we say that He distinguishes Himself from Himself, and is an object for Himself, but that in this distinction He is purely identical with Himself, is in fact spirit. . . . Finite consciousness knows God only to the extent to which God knows Himself in it, thus God is Spirit, the Spirit of His Church in fact, i. e., of those who worship Him."

quires each self, not to make up a sum, or to maintain an average, but in respect of the self's special and unique nature" (§ 35). Because the Absolute, which consists precisely in the interrelated system of individuals, is eternal, each of these individuals must itself be immortal, for if any one perished the unity would be broken.

This is a strong and vivid presentation of the great argument of monistic philosophy for human immortality. But it does not preclude the conception of the Absolute as an individual rather than a society. Mr. McTaggart, it is true, denies this. "This line of argument," he says, "would not hold with a view" in which the Absolute is "something more and deeper than the unity of its differentiations. . . . In that case, a breach in the unity of the differentiations would not imply a breach in the unity of the Absolute, because the unity might be preserved by that part of the Absolute which lay behind the differentiations" (§ 35). In other words, the author maintains that only the conception of an Absolute whose "unity has no meaning but the differentiations" demands the conception of essentially eternal selves as its manifestations; and that an Absolute Individual could be "as a whole unchanging," even if the individual selves included in it ceased to exist. But the truth is that, if the finite selves are conceived, as by Hegel, to be essential manifestations of the Absolute, then they must be eternal even if the nature of the Absolute is not exhausted by them. For each self is, in Royce's words, "a unique expression of the divine purpose;"¹ and if, therefore, the individual selves could perish, the Absolute could no longer remain the same. Mr. McTaggart has, indeed, developed from Hegelian premises an argument for human immortality; but his argument holds as well, if the Absolute be conceived as personal, as if it be regarded, in his fashion, as system of related individuals.

The remaining chapters of the book may be more lightly passed over, though every one of them contains fruitful suggestion for the student of Hegel. In opposition to the traditional view, Mr. McTaggart argues (Ch. VII) that society, as it really is, is described by Hegel rather as mechanism than as organism. Hegel, as he says, never himself characterizes the nature of society as 'organic'; and Hegel's conception of social progress is of an oscillation between socialistic and individualistic tendencies.

In his interpretation of Hegel's doctrine of the Supreme Good (Ch. IV), Mr. McTaggart is more conventional; for he holds that the Supreme Good—that is, the harmony of individuals—coincides

¹*The World and the Individual*, II, p. 286.

with the Supreme Real. In detail, however, he argues that the Supreme Good is undiscoverable; and he therefore believes that the calculation of the greatest pleasure is the practical moral criterion.

The discussion of punishment (Ch. V) is followed by a consideration of Hegel's view of sin (Ch. VI). Hegel is correctly represented as teaching that "where there is innocence there must necessarily follow sin, and where there is sin there must necessarily follow Retribution, Amendment, and Virtue." But this process, Mr. McTaggart points out (§ 178), is not, in life as we know it, universal. For, in the first place, in its higher stages, "virtue can be increased otherwise than through sin and amendment" (§ 177); and, second, many instances occur in which "innocence does not pass into sin" or sin into virtue (§ 179). Now it is highly unlikely that Hegel overlooked these cases; for "whatever the philosophical importance which he attributed to the facts of everyday life, his knowledge of them was profound and his practical interest in them was acute." Either, therefore, Mr. McTaggart concludes, Hegel attributes this process from innocence through sin to virtue, not to the individual but to the race (§ 180); or else he means to imply that the process is completed only in the life after death.

Finally, in the discussion of Hegelianism (and Christianity Ch. VIII), Mr. McTaggart defines his purpose as more "purely historical": the endeavor to determine the relation in which Hegel actually stood to the Christian religion. With entire accuracy, in the opinion of the present writer, he holds that Hegel's doctrine of the Trinity is the conception of the Father and Son as imperfect aspects of the Holy Spirit; that his doctrine of the Incarnation regards God as incarnated in all finite things, and Jesus Christ as a mere type of the unity of the divine and human; that Hegel treats sin as an element of good; and, finally, that his ethics lay no stress on sin, on humility, or immortality. In each of these conceptions, Hegel either opposes accepted Christian doctrine, or, at most, he agrees only with some one phase or aspect of Christianity.

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Facts and Comments. By HERBERT SPENCER. New York, D. Appleton and Co., 1902.—pp. viii, 292.

Mr. Spencer has brought together in this final volume a number of essays which have not hitherto been published. They concern a great variety of topics upon which he has meditated during a long life-time of reflection. The ideas here expressed the philosopher regards as of

varying value, some of them being relatively trivial, others of more interest, while some are of sufficient importance to be embodied in his scientific treatises. All admirers of Herbert Spencer will be grateful for this aftermath of his thought. We have here the gleanings from a rich intellectual field.

The essay entitled "*Feeling vs. Intellect*" may fairly be regarded as worthy of a place in the body of his philosophy. The animation of the style of this paper is characteristic of the entire volume. "Come up stairs," said Mr. Huxley to him on the occasion of an afternoon call in 1854, "Come up stairs and I will show you a fact that goes slick through a great generalization!" This was a challenge from the man of science to the philosopher. Mr. Huxley was dissecting the brain of a porpoise, an animal which has a brain of relatively immense size, seemingly out of all proportion to the creature's needs. This was the fact, and the generalization which it seemed to refute was the prevalent idea that the brain is chiefly, if not wholly, the organ of intelligence. "What can an animal leading so simple a life want with an organ almost large enough to carry on the life of a human being?" Mr. Spencer, reflecting upon the anomaly, became convinced that the current idea was erroneous. Mind itself is not identical with intelligence alone; it includes the whole range of consciousness, of which sensations and emotions are larger components even than thought, and the brain is the organ of expressing these emotions and sensations far more than it is the organ of thought. "The large brain of the porpoise is not the agent of much intellectual activity, but it is the agent of much emotional activity, accompanying the pursuit and capture of prey. That enormous muscular power exhibited by the creature — exhibited sometimes in its superfluous gambols while keeping up with a swift vessel — is the expression of an enormous outflow of feeling; for without the correlative feeling there could not be the muscular contraction. It is in generating this great body of feeling and concomitant energy, perpetually expended in the movements of the chase, that its brain is mainly occupied" (p. 39).

Likewise in human life and conduct, Mr. Spencer holds that the emotions are the supreme element. "That which we ordinarily ignore when speaking of mind is its essential part. The emotions are the masters, the intellect is the servant." He then points out some erroneous conceptions arising from "the immense mistake commonly made in identifying mind with intellect." The over-valuation of intelligence has for its concomitant the undervaluation of the emotional

nature. It leads to unscrupulous egotism and disregard of one's fellow men; whereas the cultivation of the altruistic sentiments promotes the happiness of society. The superiority of the moral element thus becomes conspicuous. Full recognition of this truth would change men's estimates of character. They would honor more than they do the unobtrusively good, and think less of those whose merit is intellectual ability. "There would, for example, be none of the unceasing admiration for that transcendent criminal, Napoleon" (p. 41). In the matter of education, the chief aim would be, not merely instruction, as at present, but moralization, a point which he further enforces in his essay on "State Education." "Were it fully understood that the emotions are the masters and the intellect the servant, it would be seen that little can be done by improving the servant while the masters remain unimproved" (p. 43). It may be observed that, in substance, this view of Mr. Spencer agrees with that of Aristotle and Plato. "All true education is," as Plato says, "a training of our sympathies so that we may love and hate in a right manner." The high place accorded to the altruistic sentiments, however, is due to the influence of Christian ethics mainly, although Mr. Spencer cites a remarkable example of it among savages, the peaceful Arafuras, as contrasted with the cruel, though clever, Fijians.

In the essay, "Some Light on Use-Inheritance," Mr. Spencer employs with great effect the *argumentum ad hominem* to refute the objection which the neo-Darwinians, especially the school of Weismann, bring against the neo-Lamarckians, who defend use-inheritance, maintaining that "a modification produced in an organ can produce a correlated modification in the germ of a descendant." He shows, by striking illustrations, that "inability to conceive any means" by which acquired characters impress themselves on the reproductive elements is no adequate reason for assuming that they cannot do this. He further disposes of the objection by reference to a parallel case, that of Huyghens, who rejected the theory of gravitation because he could not conceive any means by which the mutual attraction of bodies could be effected. Nevertheless the theory of gravitation is universally accepted. The substance of this essay should be incorporated in the *Principles of Biology*.

Mr. Spencer treats in a very interesting manner what he calls "The Regressive Multiplication of Causes." He illustrates this principle, in the case of descent, by an ancestral tree drawn up to show not merely descent from some person of note, but "all the ancestors of each preceding generation, multiplying as they recede; the four grandparents, the

eight great-grandparents, the sixteen great-great-grandparents, the thirty-two, etc.; nearly all of them commonplace or obscure persons, descent from whom confers no distinction," yet each contributed to the descendant a part of the constitution now possessed by him. Moreover, each became a cause only through the presence or absence of certain conditions or incidents. "If a certain ancestor and ancestress had been of different creeds; if one or both had had no property; if the lady had not recovered from small-pox without bearing marks; if illness had prevented one of them from attending a certain social gathering, or the other had been called away by business; or if some more attractive man had not been absent; and so on, and so on; the courtship would not have been initiated, the marriage would not have taken place, and there would not have been the child through whom the descent was traced" (p. 211). The same principle is illustrated in the inorganic world and in the entire cosmic process. "We have to regard each cause we see in operation as resulting from an integration of causes, or rather of forces, conditions, antecedents, becoming more complex with each step of retrogression, carrying us back to an infinite complexity" (p. 215). The doctrine here set forth should have formed a chapter in *First Principles*, and Mr. Spencer desires it to be considered in that connection.

Besides the above-mentioned essays, which are of sufficient importance to be incorporated into the philosophical system of the author, Mr. Spencer has included in this volume of "Facts and Comments" a large number of short papers on topics of more popular interest; but in all of them, whether important or trivial, we recognize the habitually reflective turn of mind which characterizes the philosopher. There are several articles on Music which contain valuable suggestions as well as heterodox opinions. Many will agree with him in deploring the growing tendency to acceleration in 'tempo,' and the display of mere agility in performers, as if difficulties overcome were of more importance than the music itself. Mr. Spencer maintains, against some high authorities, that the 'Origin of Music' is not in rhythm, but in melody. He traces the development of music, in accordance with the general theory of evolution, from its simplest and most primitive forms as practiced to-day among the lower races—through stages of increasing heterogeneity, integration, and definiteness—up to its highest type, which he considers to be 'poetical music,' and cites as examples, Beethoven's Septet and Haydn's "Seven Last Words."

In an essay on Meyerbeer, Mr. Spencer rates him very highly,

chiefly because this composer, in his view, combines better than others "the two requisite elements in fine music: dramatic expression and melody." "Notwithstanding all that has been said against him, I shall continue to applaud Meyerbeer until there is shown to me some work in which truth of expression and melodic quality are better united than they are in 'Robert, toi que j'aime'" (p. 115). Upon one account, he puts Meyerbeer above Mozart. Meyerbeer had been found fault with by the critics for too frequent use of arpeggios and scale-passages. Mr. Spencer himself would agree that this would be a fault if it could be proved. "Scale-passages especially annoy me: suggesting that the composer, 'gravelled for lack of matter,' runs upstairs to find an idea, and being disappointed comes down again" (p. 113). Accordingly he set to work to test the point scientifically. By actual count it was found "that in equal spaces Meyerbeer has 151 of these mechanical successions and Mozart 253." The 'classical' composer is far more open to the fault, if it be one.

In the papers on Art, Mr. Spencer notes the tendency to over-value the intellectual element; whereas, he contends that the true purpose of art is not to instruct but to give pleasure. In this, he sets himself in opposition to Wagner and his theories. Under the suggestive title "Barbaric Art," he points out a change of taste carrying us back to types of art prevailing in the days of coercive rule, and this is but one token of the "rebarbarization" characterizing the present "movement towards Imperialism." Grace and beauty are sacrificed to costliness and gorgeousness, and even to ugliness, where mediævalism is dominant.

Facts and Comments contains a number of short political tracts: "Imperialism and Slavery," "Party Government," "State Education," "Rebarbarization," "Regimentation," "Patriotism." The last-named essay begins: "Were any one to call me dishonest or untruthful he would touch me to the quick. Were he to say that I am unpatriotic, he would leave me unmoved. 'What, then, have you no love of country?' That is a question not to be answered in a breath." Further on he says: "To me the cry — 'Our country, right or wrong!' seems detestable" (p. 124). He makes his meaning clear and supplies pertinent illustrations. The essays: "A Business Principle," "The Reform of Company Law," "Spontaneous Reform," "Sanitation in Theory and Practice," "Vaccination," "Gymnastics," furnish valuable suggestions. One cannot run one's eye down the table of contents of this volume without being impressed with the breadth of intellectual interest of this thinker, nor read his thoughts upon these

topics without admiring his sagacity, whether one agrees with him or not.

The personal note appearing in these brief papers imparts to them a peculiar charm. "Tethered by ill-health to the south of England," Mr. Spencer, since '89, has spent his summers in a country-house where there were young people. "Taking, in my daily drives, two ladies as companions, and being generally unable to bear continuous conversation, I put a check on this by asking one or other question not to be answered without thought." A clever device, worthy of a philosopher! We may easily imagine the hush which fell upon the chatter, when this question for instance was put: "How is it possible for a lark, while soaring, to sing for several minutes without cessation?" In the silence which ensued upon the unusual demand upon these young people to use their minds, the philosopher was left free to enjoy his own while testing theirs.

The author tells us that this volume is the final one. Seldom is it permitted a thinker at fourscore to look back upon a task self-imposed in early manhood carried out so nearly to completion. It is the artist, with the inevitable shadow close at hand, giving the last touches to his canvas. Whether one finds oneself in agreement or not with Mr. Spencer's philosophical views, one cannot but admire the resolution and unflagging perseverance with which, against all obstacles, he has labored at his task. "Early in life," he says in one of these essays, "it became a usual experience with me to stand in a minority — often a small minority, approaching sometimes to a minority of one." Yet, undaunted by opposition, as he was unshaken in purpose by bodily infirmity, sustained by the simple courage of conviction, he has gone steadily on to the final consummation.

These last writings have the pathetic interest which attaches to all last things. They are the more pathetic because Mr. Spencer's philosophy denies him the hope of a personal consciousness beyond the present life. There is a touch of sadness in the final essay, "Ultimate Questions." "For years past, when watching the unfolding buds in the spring there has arisen the thought — Shall I ever again see the buds unfold? Shall I ever again be awakened at dawn by the song of the thrush? Now that the end is not likely to be long postponed, there results an increasing tendency to meditate upon ultimate questions."

These are the questions which are as old as the human race, yet new to every member of it, the persistent questions of "the How and the Why, of the Whence and the Whither." The Christian

faith gives a partial answer to these questions, but to one who has relinquished the creed of Christendom, 'the riddle of existence' remains, in its deeper aspects, a riddle still. That at death the elements of a human consciousness merely "lapse into the Infinite and Eternal Energy whence they were derived," so that with his last breath it becomes to each as if he had never lived, appears to Mr. Spencer "a strange and repugnant conclusion." But it is the inevitable conclusion of his philosophy, and he seems to acquiesce in it. Is it, then, so certain that death ends all? Is there not a glimmer of hope for the Agnostic even, who holds with Mr. Spencer that in our human life the emotions are the masters, the intellect the servant? This predominance of the emotions has some meaning. May it not be that the great impulses of hope, desire, and aspiration, unsatisfied in the temporal life, have, like natural instincts, some answering reality in the future? If, trusting them here, our human lives are elevated and enriched, may it not be sane and rational even, in respect to the larger issues, to believe where we cannot prove?

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A History of Political Theories: Ancient and Mediæval. By WILLIAM ARCHIBALD DUNNING. New York, The Macmillan Company; London, Macmillan and Co., Ltd., 1902.—pp. xxv, 360.

Professor Dunning prefaces this noteworthy contribution to the history of political theories by defining the nature and limits of his undertaking, saying that the "present history will prefer those lines of development in which political ideas appear as legal rather than as ethical." From this standpoint, he reviews the chief works on the history of political theories published in the latter half of the last century, — Janet, Robert von Mohl, Hildenbrand, Bluntschli, Blakey, and Sir Frederick Pollock. He aims to be more comprehensive than Pollock, Bluntschli, and Hildenbrand, more systematic and accurate than Blakey, less bibliographical than Mohl, and to differentiate more sharply between political and ethical theory than Janet. The author has carried out this plan with consistency in the main, although I think that, in the treatment of such a writer as Plato, the exposition is vitiated by the artificial separation of strictly political and ethical elements, where these elements are so intricately and essentially united as in the Dialogues. In the case of no other writer, perhaps, is this difficulty so keenly felt as with Plato; and yet in the ancient theories of politics in general, ethics and politics are not so clearly sundered as in post-renaissance theory; and for this reason the

historian, in order to give a correct exhibit of ancient and mediæval political philosophy, cannot isolate these elements as there actually interrelated. Indeed, the author has himself apparently felt this, for he has fortunately not adhered to his introductory programme with absolute rigidity. The bibliographies are admirably prepared, with a rare discretion as to what should be put into a useful compilation of titles. Such a series of titles is certainly not enhanced in value by being merely exhaustive. Select bibliographies are conveniently placed at the ends of chapters, and a general bibliography, alphabetically arranged, is furnished in an appendix. In the select bibliographies, date and place of publication are generally omitted, but will be found with complete title in the appendix. Another general remark about the book is perhaps worth making: it is a good example of proof-reading, which inevitably predisposes the reader to a feeling of security in the author's general accuracy of statement. This feeling of security is in no wise shaken by a minute verification of references and statements of fact. Such minor details, although relatively insignificant when compared with the higher informing ideas of the book and its constructive criticism, are yet important for the reader's opinion of the scholarly character of the volume and for his good will towards the author. The reader has a legitimate claim on the writer for the exact verification of such matters.

A clear, though somewhat brief, sketch of the development of the historical governments of Athens and Sparta in particular, and of the institutional bases of Greek theory amongst the Hellenic people in general, precedes Professor Dunning's discussion of the philosophy of politics. The Athenian democracy (although democracy is a misnomer when applied to the entire Athenian population) and the Spartan aristocracy, because of their importance for Plato and Aristotle, are explained in their most significant features. I cannot, however, quite agree with the author when he says regarding Plato and Aristotle that they analyzed and classified the principles and organs of a state "that had passed its prime and was rapidly passing away," and that the result of this systematic reflection "was rather explication of the past than anticipation of the future." This statement seems to me to apply with essential accuracy to Aristotle, his political theories being empirically derived from and founded on the one hundred and fifty-eight actual constitutions he is said to have examined and summarized (although in the *Politics*, Bks. VII and VIII deal with an ideal commonwealth, as is indicated by μέλλουσα κατ' εὐχὴν συνεστάναι); but with Plato the case is different. No doubt certain Spartan and Pythagorean in-

stitutions, partly aristocratic and partly communistic, were significant for his political philosophy, and are clearly discernible factors in his ideal state. Yet it would be a misinterpretation of the philosophical and ethical-reformatory foundations of his civic structure to say that his reflection was merely an "explication of the past" (p. 18).

I do not wish to minimize the influence of Spartan institutions or of Plato's whole historical environment on his conception of the ideal commonwealth. On the contrary, I think Professor Dunning would have done good service had he pointed out with even greater distinctness the meaning for Plato (who saw the light of day at the beginning of the Peloponnesian war) of the "antithesis and death-grapple of Spartan oligarchy and Athenian democracy" (p. 19), in which oligarchy arose victor. This fact no doubt gave the young mind food for thought and exercised no inconsiderable influence on his political ideas, as the author points out (p. 44). But Plato's commonwealth is an intellectual aristocracy, and not a state militant nor an oligarchy whose strength is vested in gymnastic training and skill at arms, although he does not deny to these a certain importance. In these respects Plato's state is un-Spartan, and in the *Laws* he more completely parts company with the Doric constitution. The Platonic state is founded on the Platonic psychology and ethics. It is the "individual writ large," its classes are analogues of the psychological elements (reason, the spirited element, the appetitive element, or, roughly described, cognition, will, feeling) and its organization is ethically determined. While I do not deny the importance of historical suggestion and environment, I feel that the author gives them undue prominence in his criticism of Plato, and that too little notice is paid to the psychological and philosophical factors in Plato's theory, although these are not entirely ignored. The whole volume, indeed, exhibits a strong bias for the biological method of interpreting history, the explanation of phenomena in terms of environment, of which M. Taine has furnished us with the most radical and thoroughgoing example. With such a method, effective and productive as it is where legitimately applied, the constructive and creative character of work like Plato's is apt to suffer, and to be interpreted as merely a selective or adaptive process — a kind of eclecticism. No doubt it is that, but that is surely not all. I make this objection with considerable hesitation, feeling as I do the most cordial sympathy with the author's temperate and well-weighed exposition, and knowing how much more dangerous and futile is the opposite error of exaggerating the *a priori* character of Plato's state (or of any other thing or system).

Professor Dunning says with justice that Plato's political theories "never assumed the independent and systematic form of science" (p. 27). His political ideas are set forth mainly in the *Statesman*, the *Republic*, and the *Laws*. The first is an "exercise in dialectic," the second a treatise on individual and social ethics, the third "sets out with a deliberate purpose of dealing with political subjects" (p. 27), while all of them include incidentally matter of great value for political science. In regard to the *Republic*, the author objects to the title as misleading, adding in a footnote (p. 28) that the alternative title, *On Justice*, describes more accurately the contents. This would be true, if we were to consider only the first four books — the original draft of the *Republic* and probably of a considerably earlier date than the rest — but surely the title *Republic* more adequately describes the last six books. While the ethical coloring of Plato's entire conception of the state is unmistakable, it would seem to me to require a high-handed interpretation to say that the latter part of the dialogue or the dialogue as a whole is *On Justice*. The older and more adequate title has survived, and rightfully, I think, in the Platonic corpus. The political ideas brought into most prominent relief in this dialogue, according to the author's analysis, are (1) the need of organic unity in society; (2) the importance of systematic education, directed to fitting the upper classes for civic functions, and so tending to make a large part of legislation unnecessary; (3) the conception of an intellectual aristocracy, or the ideal of authority based on culture (p. 30). To these might be added, (4) communism of property, wives, and children, as in the opinion of Plato a means of primary importance in securing civic unity. The *Statesman* develops the 'idea' of the ruler as a completely trained philosopher, who is carefully distinguished from the practical politician. Also the function of law is analyzed in this dialogue. Professor Dunning tabulates the forms of government in their relation to law according to the *Statesman* as follows:

SUBJECT TO LAW.	UNRESTRAINED BY LAW.
Rule of the One = Monarchy	= Tyranny.
Rule of the Few = Aristocracy	= Oligarchy.
Rule of the Many = Democracy	= Democracy, or, as named by Polybius, Ochlocracy.

Coördinated with the relatively best form of government, monarchy or royalty, is the worst form, tyranny. Democracy, while it is the worst of legally controlled governments, is the least evil of the legally uncontrolled governments. Between these two, aristocracy and oligarchy

occupy intermediate positions of excellence and badness. The posthumously published work called the *Laws* leaves the region of the ideal and occupies itself with the actual — with laws practicable under the existing imperfections of social life. In this practical civic code the communistic character of the *Republic* is much modified: marriage and family life are permitted, although the stock-breeding régime is not quite abandoned, and a paternalistic censorship is rigidly applied to education, morals, and even to domestic life. Further, the principle of private property is introduced, but so safeguarded that excessive accumulation of wealth is rendered difficult, the most fruitful source of political restlessness being found in economic inequalities — extreme wealth and extreme poverty, which are equally detrimental to civic and private virtue. If, however, the principle of private property is once introduced, inequalities in the distribution of wealth are inevitable. To render these inequalities as innocuous as possible is the business of government. The citizens of the state described in the *Laws* are classified, not in terms of education or culture, as in the *Republic*, but on a property basis. They are grouped into four classes or estates. The lowest class is formed by the group who possess only the land allotment of the government, which is the “limit of poverty”; the second, third, and fourth classes are formed by the groups that possess twice, three times, or four times the value of this minimum amount of land property. The land allotment is inalienably entailed in the family. Those who exceed in wealth the quadruple value of the land, have their property confiscated by the government. The citizen population is fixed at 5,040, a desirable number to Plato because of its large variety of divisors. The citizen population in excess of this number is to find an outlet in colonies, which are not regarded as an integral part of the state. The Platonic state is anti-imperialistic, excluding the principle of expansion. Its entire aim is not power, but the virtue and happiness of a rigidly limited population, an ideal Plato persistently maintained to the last, although in his extreme old age he knew the Macedonian power and may have foreseen the far-reaching hellenistic imperialism of Alexander. The *Laws* recognize the fact that the stability of government requires provision for the equal treatment of citizens. Inasmuch as equality is of two sorts, absolute and proportionate, the former will be secured if, in the distribution of civic honors, the lot is employed; the latter will be secured by election. These two methods should, therefore, be used conjointly. Accordingly, the chief administrative council is elected; the military officers are elected on nomination of the council, while the

Senate of 360 is partly elected and partly chosen by lot. In the framing of laws, Plato points out the desirability of incorporating an *exposé de motif* in the law, so that both persuasion and penalty may be operative in securing obedience (p. 42). Further, inasmuch as custom is more potent than written law in the promotion of civic and social order, the state should give especial attention to the education of its youth. The more specific regulations, described in the *Laws* with a great wealth of detail and applying to a vast mass of subjects, unsystematized and unorganized, laws regarding the Agora, homicide, assault, fraud, bribery, adultery, the religion of state, commerce, athletic contests, public festivals, minutiae of education, etc., etc., — all of these Professor Dunning leaves aside as having no immediate bearing on political theory. The result is that we have in these sketches of the evolution of political theory, following a chronological order from Plato to Machiavelli, a clear and well-defined outline of the really significant and fruitful ideas of political philosophy, unobscured by extraneous matter. This is the sort of *σωφροσύνη* — the temperance that is not enticed by the unessential — that marks the really skilful and discerning expositor.

It is a good deal to say that Socrates was the founder of an ethical "system" (p. 21), unless one uses the word in a very loose general sense. His importance in the development of methodology was no doubt great. The discovery of induction and definition, which Aristotle ascribes to him, would alone constitute a just claim to be regarded as one of the heroes of science, and an analysis of the dialogues will show that Aristotle did not give us an exhaustive account of the constituent elements in the Socratic methodology. But the characterization of the Socratic method as "doubt and definition" (p. 21) seems to me objectionable. It is not easy to see how "doubt" can be called a "method," although it may well characterize the mental attitude of Socrates or of any other scientist in the investigation of truth. It is true he was a bitter and victorious opponent of the dogmatists, and, as Professor Dunning neatly says, "with the frost of his tantalizing irony, he nipped many a promising blossom of political omniscience" (p. 22); but this scarcely constitutes a scientific method. The distinction between political and divinely sanctioned moral obligation, which has played so considerable a rôle in scientific controversy, is justly traced to Socrates.

We have in English no better characterization (I believe none so good) of the contrast between Plato and Aristotle than that given in Chapter III, which, with the utmost brevity, lucidity, and exactitude,

describes their different temperaments, methods, and results. The space afforded by this review is not adequate for the analysis of this chapter, but it will amply repay careful study by any technically trained reader. It contains admirable criticisms of Aristotle's theory of the functions of money, of value in use and value in exchange, the curious inclusion of brigandage amongst the natural methods of securing wealth, the economic foundations of government, the nature and varieties of constitutions, and of the cause and cure of revolutions.

The chapters following the discussion of Aristotle are devoted to the political philosophy of later Greece and Rome, to mediæval institutions, more particularly to Papacy and the Secular Power, to political ideas in the patristic period, to the theories of Thomas Aquinas and of the writers during the decline of the papal hegemony, and to the monarchistic and rationalistic movements of the Renaissance, whose chief historian and philosophical exponent was Machiavelli. Aristotle and Machiavelli, as the greatest political theorists falling within the range of the present volume, rightfully receive from Professor Dunning the most extended treatment.

The old notion of a Christian Empire became gradually obsolete in the Renaissance ; the title of Secular Head of Christendom could no longer be conjured with. In Italy the development of national monarchy was hampered both by the existence of the various city-states and by the Papacy. At the time Machiavelli reached his thirty-first year (1500, all of his important writing was done after 1514), the work of coalition had left five peninsular states : Naples, Milan, the jurisdiction of the Roman See, Florence, and Venice. The further unification of these five governments in a single monarchy constituted the political ideal of Machiavelli, an ideal whose frustration was due mainly to the secular influence of the Roman curia in maintaining the independence and integrity of the papal states. In his political philosophy, Machiavelli stood totally apart from the ecclesiastical theorists of the preceding centuries, ignoring entirely the doctrine of the dual powers and the texts of canon and civil law ; he rehabilitated pagan antiquity in a political reconstruction essentially novel and original in his age, an interpretation of politics in the light of history. The pagan antiquity from which his inspiration was chiefly drawn was that of classical Rome. The historical and comparative method employed by Machiavelli was, as Professor Dunning points out (p. 293), really rudimentary in character. His historical studies had mainly the apologetic function of defending conclusions empirically derived from the observation and analysis of Renaissance conditions. He differs

from Aristotle in being concerned chiefly with the practical machinery for the successful management of a strong principality (The *Prince*) or of a strong Republic (The *Discourses*); while Aristotle, although he does not ignore questions of administration, considers especially the larger philosophical questions touching the essential nature of government and the principles of civic and social organization. Further, the Aristotelian ideal (which was fundamentally Platonic and Hellenic) was fixity and moral perfection in the state; the Machiavellian ideal, on the other hand, was power, not virtue, physical dominion, expansion, wide empire, not ideal internal excellence.

To Machiavelli, fixity and immobility meant stagnation or decline. Expansion and mobility are demanded by the actual conditions of life and progress. It is the Roman ideal *versus* the city-state ideal of Greece. Considerations of moral and religious culture were relegated with an astounding frankness to a very subordinate position in the theory and practice of politics (p. 297). Politics and ethics, which were intimately and intrinsically united in Plato's political theory and only partially severed by Aristotle, are completely divorced by Machiavelli. Moral goodness in a prince is a phenomenon to be kept in strict isolation from political fitness. It is desirable for practical purposes that the prince appear virtuous, but he should be able and ready to act regardlessly of purely ethical demands. "Reason of state" is the supreme Machiavellian dogma. It is just in this divorcement of public from private morality that the voluminous discussions of Machiavellism have centered. The function of the prince is the maintenance of government, and successful means to this end, even deceit, hypocrisy, and ingratitude, are politically good. The exigencies of political welfare and power are the sole canons of civic conduct, which Professor Dunning describes rather questionably as "not immoral but unmoral." His political philosophy is the apotheosis of dominion, of the strong man, the *Obermensch*, and to this apotheosis he was led by the analysis of practical politics, of real, not imaginary, governments. This is what Morley wittily describes as the "‘evolutionary beatitude’": Blessed are the strong, for they shall prey on the weak." Machiavelli's conclusions were based on the way in which he believed men to live, not on the way in which they ought to live (p. 302).

To a large extent, it must be said, Machiavelli echoed the moral and religious decadence of the Renaissance. This made possible the utterance of his ultra-rationalistic sentiments and moral pessimism. Men are "ungrateful, fickle, deceitful, cowardly, and avaricious"; they "more readily forget the death of a father than the loss of a

patrimony'' (p. 305) ; self-interest is completely adequate to explain all political phenomena — these utterances express a cynicism more radical than that of Hobbes and are normative for the means, viz., fear not love, which the prince should employ in the maintenance of his rule. A thoroughgoing discussion of the relations between politics and ethics is a much needed piece of work. The complete severance of the two spheres, as in Machiavellism, with which modern theorists (including the author) appear to sympathize, seems to me futile both in theory and practice. One cannot, however, too warmly praise the volume as a historical exposition. It is a work of the very first order.

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.* = *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.]

LOGIC AND METAPHYSICS.

Le hasard chez Aristote et chez Cournot. G. MILHAUD. *Rev. de Mét.*, X, 6, pp. 667–681.

There is no great difference between the views of Aristotle and of Cournot. They agree that everything has a cause, and that chance is not the absence of cause. For Cournot, chance is the result of the combination of events which belong to different series of causes. For Aristotle, chance is the relation between terms that are taken as the limits of series, either by nature or by the human will. It is closely associated with accident, in the sense of not normal. Accident is what attaches to one series, but belongs to another, or, rather, to none at all. Accident cannot be the object of science, because it is neither permanent nor frequent. Science must proceed by demonstration. Cournot says: It is not because the examples are rare or surprising that we should call them the results of chance. This statement, however, is not intended to deny the rarity of the fortuitous event, but is directed against the tendency to speak of chance in the presence of a curious fact. Frequency of the event is the reason for rejecting chance and explaining facts by one permanent cause. With Aristotle, the accidental or fortuitous attaches to the material element, while the actuality of certain determinations is effected by the formal element. With Cournot, chance attaches to the idea of complete contingency and disappears in so far as the reason of things becomes manifest. While the former separates chance and science, the latter makes a fundamental distinction between the historical 'given' and the scientific element. The notion of chance has its foundation in nature and is not relative to human ignorance. The facts excluded from science are historical results, which are irreducible to a rational order, *e. g.*, the 'given' which philology accepts as the material on which it establishes the laws of word-formation. The important difference between ancient and modern science is not in regard to necessity and contingency, but in regard to scientific certainty. For Aristotle, the mind attains to eternal truth; for Cournot, reason is a light to guide us according to the greatest probability.

N. E. TRUMAN.

Essai sur le hasard. HENRI PIERON. Rev. de Mét., X, 6, pp. 682-695.

In the popular consciousness of the Greeks, *τύχη* was associated with events which could not be foreseen ; it was separated from the idea of finality. In the modern consciousness, as a result of the anthropomorphic tendency, chance is connected with a certain capricious purposiveness. In philosophy there is an inverse development. Aristotle attributed to chance a certain finality, one end was substituted for another, by reason of the resistance which matter offered to form. With Cournot, the notion of finality has entirely disappeared ; chance is the result of the union of two or more causal series. Even here, however, the contingency would not be absolute ; for a mind that could synthesize the series in advance, there would be nothing fortuitous. Cournot's definition is inadequate because it lacks a subjective element. When we speak of chance in relation to other things, it is with a reference to ourselves. The definitions of Cournot and of Aristotle are not opposed, but mutually supplementary. To constitute chance there must be an event resulting from the union of series and unpredictable analytically, an event so interesting that the mind establishes it from efficient causes, though it appears to consist in final causes. In the calculus of chances, we have an absolutely new concept. The only common element is a certain degree of ignorance. Here, however, the ignorance is inability to foresee the event, though we can determine the causes more or less scientifically. Chance is a universally regulative principle, a tendency to equilibrium.

N. E. TRUMAN.

The Concept of the Infinite. JOSIAH ROYCE. Hibbert Journal, I, 1, pp. 21-45.

Two questions arise in connection with a study of the Infinite. The one is purely logical : What do we mean by the concept of the infinite ? The other is a metaphysical question : What grounds have we, if we have any grounds, for asserting that the real universe, whether divine or material, whether spatial or temporal, is infinite ? Professor Royce deals with the first of these rather than with the second, merely touching its application to God and the universe. It is common in trade-marks to have represented on the whole article a picture of itself true in all details. This picture logically would include another picture like the first, and so on *ad infinitum*. This Professor Royce calls the plan of "Self-representation." To exactly define it, let us say first : it is the formal conception of a perfect pictorial representation of an object ; and secondly, the picture shall be contained in, or laid upon, the object that is pictured, and form a part thereof. This plan, however, would be practically impossible.

Taking, again, the perfectly definite series of whole numbers, 1, 2, 3, 4, 5, . . . ∞ , and writing under it the series of even numbers, 2, 4, 6, 8, 10, . . . ∞ , we find in either series no last term ; for every term '*n*' in the upper we have '*2 n*' in the lower, so the lower series would form, as a possible fact, a precise picture of the upper, and be just as rich. Then,

too, in the integral powers of 2, for example, $2^1, 2^2, 2^3, 2^4, 2^5, \dots \infty$, we have a more striking example. The series of 2 is infinite, for there is a power to correspond to every whole number. Yet the powers of 2 form a very small part of infinity, since we have left out of account the powers of the prime numbers 3, 5, 7, etc., which are whole numbers. And yet, "that part of the whole numbers which consists of the powers of 2 has a separate member to correspond to every single whole number, that is, the part is as rich as the whole." With a view to this, Dedekind defines a collection as infinite, if it can be put in "one to one correspondence, or can thus be found equal to one of its own parts."

Now this is not paradoxical; it holds true for infinite quantities only. In self-consciousness, let us take for example a thought S , and represent the thought ' S is one of my thoughts' by S' . For every thought S , then, we can have a thought S' . Now the series of reflective thoughts S' is a part and *not* the whole of possible thoughts, for we may have mere thoughts. So a part may be equal to the whole, but not necessarily *all* parts. However, there are different 'Dignities' of the Infinite, that is, where a one to one correspondence is impossible between whole and part. For instance, the collection of all the possible fractions, rational and irrational, between 0 and 1 is one of a higher dignity than the collection of whole numbers, and there is an endless series of these dignities. Now this conception that a part can, in infinities of equal dignities, be equal to the whole, throws light on the relation of the individual to God. A being as one of the infinite number of parts within the universe, that is, the divine whole, might justly count it not robbery to be equal to God, if he only receives somewhere an infinite expression, by virtue of perfected self-attainment.

R. B. WAUGH.

Le principe de raison suffisante en logique et en métaphysique. G. SIMONS.

Rev. Néo-Scholastique, IX, 3, pp. 298-325.

In Leibniz's statements: 'Nothing ever happens without a cause, or, at least, a determining reason . . . ; or, further, nothing ever happens such that it would be impossible for one who knew the things well enough to give a reason which would determine why it is thus and not otherwise,' he has failed to distinguish between the logical and the metaphysical use of the principle of reason. His rationalism predisposed him to recognize only a *a priori* deductive demonstration and ontological reasons. What is the meaning of logical and ontological principles? A principle which exerts any influence on the nature or existence of a thing is an ontological principle; one from which knowledge arises is a principle of knowledge. The analysis of mediate knowledge discovers: First, the purely formal subordination of less general to more general formulæ; and, secondly, the fact that its content arises from the development of immediate knowledge. The first is logical, the second ontological. That which aids in the logical development of knowledge is a principle of knowledge, and

therefore subjective. On the other hand, that which furnishes the content of mediate knowledge likewise contributes to knowledge, but it also reaches the foundation of that knowledge and is objective. Is the human mind constructive or merely reproductive? The scholastics distinguished between intelligence and reason, according as it reached its object directly or indirectly. The human mind reaches its object indirectly. It cannot perceive at a single glance a complex object, but only simple indecomposable ones. The essence of an object, though a unity, requires a multiplicity of acts to be comprehended. It is here that reason comes in to restore the objective unity to these elements. The law in virtue of which the mind is able to reduce multiplicity to unity, is the principle of reason. Since every coördination is a reduction to more general knowledge, and presupposes a common basis of unification, we can say every complex object has a reason. In the synthetic order, we presuppose the complex object, and reason reconstitutes the object which our feeble intelligences decomposed. In the analytic order, the mind is constructive with the simple elements. Psychologically speaking, the principle of reason is a need of explaining everything, an intellectual curiosity, the conviction that all knowledge can be reduced to knowledge more general. Analysis shows that this arises from reflection. Logic is the science of the purely formal connection of concepts. To say here 'All knowledge has a basis,' is to say: 'All mediate knowledge has a subjective motive determining the union of the terms which express it.' This motive is the third or middle term. There are, besides, habits of combination which are also bases of our thought. Metaphysically speaking, the principle of reason states: Every object of knowledge has a basis. Essences, though unities in themselves, require a multiplicity of acts of thought. These partial perceptions have their objectivity and intelligibility, and from this results the synthesis. This basis is objective. Without this basis the object could not be comprehended nor be an object of such a nature. As every essence is manifested as a complex object, the principle of reason is objective and metaphysical. Whether the reasons by which we synthesize be subjective or real, they always belong to the very nature of the object and are metaphysical. Ontological reasons and objective causes may serve as middle terms in logic, and in this manner the logical and metaphysical points of view may be correlated. O. G. SHUMARD.

Feeling and Self-Awareness. G. A. TAWNEY. Psych. Rev., IX, 6, pp. 570-596.

Feeling and thought are often opposed to each other on the ground that the former refers to a subject and the latter to an object. This distinction, however, is not absolute; since, in normal experience, feeling is sometimes attributed to objects, as it habitually is in religious mysticism and under certain pathological conditions. A genetic *differentia* of feeling and thought is attempted in the theory of the 'relative priority of feeling.' T. argues

against this view: (1) If feelings are prior, it ought to be possible to say what feeling comes first; but this cannot be done. Also, there is no reason to regard primitive consciousness as feeling more than as awareness or as motor tendency; but, more probably, primitive consciousness consists both of feeling and awareness indistinguishably fused, which, however, are differentiated by movements. (2) The development of the nervous system, presumably necessary to the existence of feeling, would not bear out the theory of the prior origin of feelings. Feeling always refers to a self; but, in the early stages of development, to an object as well as to a self. Hence, the law that implicitly at first, and explicitly later, 'feeling is always an attributive element in the consciousness of self.' This reference to the self accounts for the uniqueness of feelings, as it also accounts for the uniqueness of objects felt. The feeling of self arises in organic and other special sensations; but adjustments to objects, self-interest, imitation, and language all contribute to the growth of self. Self-consciousness develops from the relations of oneself to other selves. T. distinguishes two types of self-consciousness. One is derived from the empirical qualities of the body (organic sensations, etc.) and the sense of the difference of the body from all other objects; the other, reflective self-consciousness, is derived from social relations with other selves. The feelings of the latter type acquire a universality which expresses itself in æsthetic and ethics; the feelings of the former type remain individual and peculiar.

H. C. STEVENS.

A Biological View of Perception. THADDEUS L. BOLTON. Psych. Rev., IX, 6, pp. 537-549.

Perception is usually defined as a complex of sensations, which stands for an object. This view regards perception as purely passive. But there is in perception another element which is frequently overlooked, viz., the element contributed by the organism itself—the reaction to the stimulus. This view regards perception as active. On the first view, emphasis is put upon the presentation, the stimulus; on the second view, stress is laid on the representation, the reaction. Biological evidence is cited in the case of the behavior of chicks and frogs to stimuli. For example, the chick sees a moving particle and pecks at it; its perception does not consist in the visual stimulus of the moving particle merely, but in the visual stimulus *plus* its reaction to the stimulus—pecking. The frog's perception of a piece of red flannel does not consist simply in color sensations, for it might have sensations of color from other objects; but the total perception consists in seeing and swallowing the flannel. The manner of reacting becomes less definite in conscious beings; but, nevertheless, perception has these two sides—the presentative and representative, or, more technically, the stimulus and the reaction.

H. C. STEVENS.

Le vocabulaire et l'idéation. A. BINET. Rev. Ph., XXVII, 10, pp. 359-367.

This article describes some experiments to show the relation between the general trend of consciousness and vocabulary. The observers were two sisters: Marguerite, fifteen years old, and Armande, fourteen. M. is described as belonging to the observant type; her thought is precise, attentive, and practical. A. belongs to the imaginative type; her thought is more vague, more disconnected, and more poetic. Both girls had lived under the same conditions and had had the same education. They were subjected to the same mental tests. In one case, they were asked to describe the leaf of a chestnut tree. M. gave a minute, botanical description of the leaf. A. gave first place to her emotions excited by the dead leaf of autumn and second place to the description of the leaf. They were also asked to write a list of 350 words. B. notes three differences in the vocabularies. M. wrote common nouns, as she was requested to do, while A. wrote some verbs, adjectives, and adverbs. M. did not write as many abstract words as her sister. M. wrote fewer choice words than A. The conclusion is that the vocabulary agrees with the nature of the intellectual type.

H. C. STEVENS.

ETHICS AND ÆSTHETICS.

La responsabilité. CH. DUNAN. Rev. de Mét., X, 4, pp. 422-436.

Reason, human or divine, is not only the law, but the judge of conduct. To it moral beings are, as such, responsible. This implies that man is the free author of his acts. Otherwise the responsibility would belong to the cause moving him. The only alternatives are, accordingly, the absolutism of rational man, or the meaningless character of 'moral responsibility.' Now reason is essentially autonomous, and only pure materialism denies that man is a life principle, which is all that absolutism means. But responsibility demands the power of reflection, and this is phenomenally conditioned. Hence only the noumenal will is truly responsible. This is Kant's doctrine, and is, with two important changes, indubitable. The noumenal will (1) penetrates the phenomenal by introducing an element of contingency, and (2) is thereby changed. Unless it be modifiable, it remains a mere irrational spontaneity. As a third condition of responsibility, free will is sometimes added. But the power of existing for and through self is already implied in the reflection of an absolute being. And free will, in the sense of liberty or sovereign reason, is impossible; for, though absolute, we are not reason itself. This idealistic account of causality does not contradict the empirical. Lombroso's statement that innate tendencies are inherited and that acquired ones result from external circumstances, in no wise invalidates responsibility. Our non-temporal wills determine each other for good or evil actions in time and space. Yet, since one will can accomplish nothing unless all consent, every man is in part the author of nature, and so is accountable for all that is. Thus, responsibility remains

individual, *is* individuality and nothing else. Although undeniable, the doctrine of free agency cannot be made the basis of civil law. The inviolability of the human person conflicts with the right of the state to punish. But the state's one interest is self-preservation, and this is impossible without legal obligation and sanction. The existence of society does not, however, necessitate absolute justice, but what is just. Accordingly, human law is concerned with the maintenance of public safety rather than with the inculcation of morality. Punishment is not intended as an expiation of guilt, but is considered sufficient as soon as efficient. That is, the problem of modern law deals with man's social, not his transcendental, responsibility.

A. D. MONTGOMERY.

Le besoin de prier et ses conditions psychologiques. F. DA COSTA GUIMARAENS. Rev. Ph., XXVII, 10, pp. 391-412.

Prayer is a fundamental need of the human organism and has evolved with it. Broadly considered, it is manifested in the ordinary as well as in the religious life, the only difference consisting in the being to whom it is addressed and the affective changes thus brought about. One is not astonished, then, to find that it has as its most general characteristics, universality and relativity. It is universal in the sense that, in some form or degree, it is common to every human being, and to the higher animals as well, more especially the domestic species. It is relative in the sense that its affective antecedents are conditioned by many and varied complex factors, the principal of which seem to be: the individual and his temperament, age, sex, race, circumstances, education, habit, historical epoch, time, and place. Consistent with this feature of relativity, we find that the need is occasional, periodic, intermittent, and that it can be acquired, with proper attention to the inducing conditions. Like other organic predispositions, the tendency is unquestionably hereditary, although environment is a strongly modifying factor. The remainder of the article is given up to the discussion of its attendant physiological and psychological phenomena, its nature, its cause and effects, and its pathology, the principal conclusions from which seem to be that the need is fundamental, physiological; that it is '*un cri du corps*' as well as '*un cri de l'âme*,' the manifestation of a general appeal on the part of the organism. Prayer satisfies a certain demand for exercise of our faculties; it is a constituent element of man, inseparable from human nature, in a way an emotional vent, the normal use of which is necessary to the mental and physical poise and well being. There are peculiar moods and states of the organism for which it is as essentially the natural expression and relief as is the shedding of tears, or laughter, for others, and its repression leaves a distinct pathological tracing, while its exercise strengthens and stimulates. In short, it is egoistic, practical, utilitarian, a part of the instinct of self-preservation.

C. E. FERREE.

La confusion entre l'ordre social et l'ordre religieux. E. RÉCÉJAC.
Rev. Ph., XXIX, 9, pp. 217-242.

The origin of the religious order is not really contemporaneous and parallel with that of the social order, but is to be found in an unique mystical concept in human consciousness, viz., the idea of 'grace.' This concept is the foundation of Christianity, and our study will bear upon four points: (1) the mystical impression and social expression of 'grace,' (2) the basis of the 'mystical city,' (3) 'grace' and 'right,' (4) the civil effects of excommunication. (1) To get at the psychological basis of faith, let us look at history. The two main characteristics of Christ were, first, His feeling of oneness with God, and, secondly, His belief that this union was attainable by all. This expansive tendency is necessary for the existence of the church; hence arises 'grace,' as the inner feeling of oneness with God and election by God. This mystical impression cannot find social expression in language, so the sacraments originated as a social institution. These rites are a middle expression between language and the mystical vision which cannot be expressed by language. (2) Christ's dream of a purely mystical church could not be realized; instead we have a church both religious and political, which has had to adapt itself to society. According to St. Augustine, the mystic city was the union of those souls that had '*amor dei*' as opposed to '*amor sui*.' This 'grace,' or '*amor dei*,' arises from God and not through ourselves. How, then, is a man irreligious, if he does not love God? Rather, God refuses to love him. '*Amor dei*' does not imply the perfect denial of self; by this one rather realizes oneself. The love of self and the love of God are inseparably connected. (3) Christ omitted two things, in founding his church, which were necessary for its existence, viz., hierarchy and the right to hold property. Hence a quarrel arose in the fourteenth century between the mystic church, adhering to Christ's principles, and the clerical church, claiming the right of rank in the priesthood and the right to hold property. The church only saved itself by the prestige of the sacraments and the papal bull of John XXII., which declared that Christ did not refuse the right to use property, but merely the right to own it. All right belongs to God. The idea of right is of modern growth. Among the Romans, right was legal, now it is of the person. Divine right has been idealized by the church and rendered inviolable. It is the foundation of modern society, while 'grace' is not. (4) The idea of 'election,' like that of 'exclusiveness,' has received the condemnation of those who have not this saving power of 'grace.' The very saving of some souls implies the loss of others. The church could not exist unless it assumed this unique power of salvation. Excommunication is only an eliminating principle of the '*société spirituelle*' in so far as it hopes to reach the civil life of the very people whom it has excluded. To the old terrors of damnation, however, has succeeded the hesitation to incur human disrespect. We must recognize the two sides of 'grace': (1) the purely mystical phase, a striving for egoistic perfection; and (2)

the expansive side, which promotes the social order. True religion consists in the latter.

R. B. WAUGH.

The Practical Consciousness of Freedom. R. B. PERRY. Int. J. E., XIII, 1, pp. 40-55.

In spite of the many apparently overwhelming defeats which indeterminism has met with, no theory has been so little disturbed or forces itself more perversely upon the attention. Evidently there must be some profound practical need of mankind which this 'theoretical monstrosity' satisfies. Kant recognized this, when he called freedom a postulate, along with God and immortality, and found their roots in the moral nature of man. It is, accordingly, the common moral consciousness, rather than metaphysics or even ethics, which must be considered in order to see what is meant and what is gained by this postulate of freedom. Every moral being apprehends, however vaguely, a certain set of *ideals*, the *duty* which these impose upon him, and thereby his *responsibility*. These terms signify to most men the heart of conduct. Now what is meant by saying that freedom denotes a practical experience and a moral value inseparable from this conception of life? In the first place, moral loyalty demands that God be acquitted of designing a universe in which sin is inevitable. Freedom implies alternatives—the evil *might* have been avoided. Moral courage dwells only in a world of possibilities; out of the consciousness of liberty issues the will to achieve. The proof of determinism would not affect the moral ideal, but it would destroy individual initiative. The statement that a belief in freedom *ought* to make no difference, that free or not man ought to do his duty, simply begs the question, since it assumes the continuance of the sense of duty. Again, it is said that a deterministic theory is morally beneficial, because it emphasizes the connection between character and conduct, on the one hand, and conduct and external events, on the other. But the truth of determinism could only be practically beneficial by arousing in some individual the will to make use of it; and then the will to achieve it would belie its content. Turn now to metaphysics to see what provision is made for man's abiding sense of liberty. Consciousness of freedom presupposes that under identical conditions several events are possible; a succession of moments is implied, the second of which is not implicitly contained in the first. Obviously, such a conception is diametrically opposed to mechanism, which considers all the facts of the universe as members of a causal series, each state explaining its antecedents and implying its consequents. But the consciousness of freedom is equally opposed to the super-temporal determinism of idealism, which claims that the universe is some nature that is out of time, having a fixed character *sub specie aeternitatis*. Whether or not the facts of the temporal sequence are mutually determined, their occurrence is prescribed by the character of the whole, of which they are necessary constituents. But the nature of the whole is an ultimate matter of fact, not open to question. Since it cannot

be said that anything determined the universe as a whole to be what it is, therefore, it is argued, the universe is self-determined or free. But this involves a palpable *non sequitur*—choice, and so freedom, may be entirely excluded. What can it mean to say that existence in general is free to exist or not to exist? If it is free, it must exist to be free, and hence cannot be free not to exist. The universe must exist in order to be free, and, its character being immutable, this very existence denies its freedom. The thesis proposed is accordingly this: *The practical consciousness of freedom implies that the ultimate nature of the universe is subject to temporal change.* It is originally in connection with the temporal series that the question of freedom arises. The moment when an act is chosen is temporal, because it involves a subsequent moment when the selection shall be realized as fact. There must be a moment in which there is a plurality of possibilities, and another in which one of these is actualized and the others have become impossibilities. But real possibility and impossibility rest only on the ultimate structure of the universe; therefore, in the interval between the moment of choice and that of actualization, the ultimate structure of the universe has changed. Thus, a finished universe is incompatible with freedom, which requires a cosmos subject to change. Without temporal change no alternatives, and without alternatives the terms duty and responsibility become meaningless for the common moral consciousness.

A. D. MONTGOMERY.

What is Religion? IRA W. HOWERTH. Int. J. E., XIII, 2, pp. 185–206.

A definition of religion must, first of all, apply to all religions. It must not, again, make religion and belief identical, for beliefs are never permanent. In some religions we find lacking belief in a Supreme Being; in others, belief in immortality. The broadest definition that has been given in terms of belief, makes religion a belief in spiritual beings. This definition goes back to the original of religion, the idea of a double self and nature spirits. If such is the foundation of religion, then, since science has proved these to be erroneous conceptions, religion is left without a support. Ultimately, belief is founded on the perception of a *something*, an infinite, indefinable power. In this conception, belief is one element in religion. A second element is restraint of the individual from acts harmful to the race. But this is not the only element, not the essence of religion, since social restraint does not appear until the social group or its leader becomes conscious of the already existing psychological fact of religion in the individual and finds it valuable as an instrument of restraint. A third element in religion is feeling—the feeling of impotence, of absolute dependence, which we experience before the forces of nature. These three elements may be included in a psychological unity under the name of desire, which implies perception and feeling followed by action. Given the perception of a power manifesting itself in the world and a feeling of dependence upon it, an inevitable result will be the desire of the individual to be in right or

personally advantageous relations to that power. Conscious religious activity is always in obedience to this power. Religion, then, is to be defined as the effective desire to be in right relations to the power manifesting itself in the universe.

C. A. HEBB.

Some Considerations Relating to Human Immortality. J. E. McTAGGART.
Int. J. E., XIII, 2, pp. 152-170.

The object of the present article is to consider some of the arguments against the immortality of the self,—particularly those expressed in the questions: (1) Is my self an activity of my body? (2) Is my present body an essential condition of my self? (3) Is there any reason to suppose that my self does not share the transitory character which I recognize in all the material objects around me? The first of these questions may be answered in the negative. Although the tendency is to regard the self as reducible to terms of matter, as the independent reality, the fact is that our conception of matter consists of: (1) sensations, which are acts of consciousness, not constituents of matter; (2) ideas (*e. g.*, substantiality, causality), which spring from the mind's activity. Matter, therefore, is meaningless apart from spirit, and by itself has no reality. Spirit, therefore, cannot be interpreted in terms of matter; hence, the self cannot be called an activity of the body. For, if my self is one of the activities of my body, then, since my body exists only in the knowledge of some conscious being, my self must be a product of some piece of knowledge, which is absurd. Our second question generally receives an affirmative answer, based on the argument that, since we know no selves to exist without bodies, the self exists by virtue of sensations. But could not the self exist in some body other than the present? We cannot say that it is impossible for a self to think without sense organs and a brain, and to get its data by means other than sensations. The fact that abnormal conditions of the brain affect thought, does not prove that the normal state of the brain is necessary for thought. Finally, ghost stories give us sufficient evidence to justify belief in apparitions of the dead. Apparitions, though they are no proof of immortality, can remove the presumption that the death of the body destroys the self. To answer our third question, Is the self transitory? we must define transitory. Science teaches, not that the constituents of matter (atoms) change, but that only their combinations are transitory. But the self is not a combination. It is a complex whose parts (thoughts, emotions, volitions) cannot be imagined as existing separately. Its form cannot be changed without its content being changed—a conception not analogous to any in science.

C. A. HEBB.

The Evolution of Conscience as a Phase of Sociology. W. L. SHELDON.
American Journal of Sociology, VIII, 3, pp. 360-381.

There is a certain mystery in the appearance and development of conscience. Evolution may explain the growth of sympathy among members

of the same race ; but universal sympathy is not in keeping with the law of the survival of the fittest, and in this respect ethics has in the past yielded too much to evolution. This theory, however, has shown ethics that the moral sense has come by a process of growth, like all other features or phases of mental or spiritual experience. It appears gradually. Moral sense starts in the feelings, and only becomes conscience when the true self-conscious and independent personality appears. Conscience starts under the form of scruples, as may be seen in the savage, when a sense of regret follows certain actions. When the scruple precedes the act and serves as a check, there is a much higher stage in the development of conscience. In the highest stage, when sympathy extends to man as man, there appears a new ideal element, a spiritual law. When man sees conduct in its relations, he is on the verge of a conception of the moral law. The authoritative element in conscience cannot be explained as the 'Voice of God' or as a product of evolution ; it is a product of heredity. When the element of authority has become established, its evolution becomes a story of its growth in the social consciousness. Ancient wars were pursued without justification, but to-day all nations in war plead a just reason. Here can be noted the advance in social consciousness. However, there is yet a lack of conscience in the individual's dealing with corporations. One does not scruple about paying less taxes than one ought ; conscience rather holds between individuals. In the final stage, however, conscience will become more universal, and will apply to all cases. In this last stage of the development of conscience, not merely altruism but egoism in a higher sense will assert itself. A man becomes ashamed, if he has broken a law of his own nature, even unobserved. In its highest form, ethical law is not dealing with social relationships, its one exaction is that each man shall keep his spiritual nature untarnished.

R. B. WAUGH.

Is the Altruist Idea Evolving in Man? A. STODART-WALKER. Westminster Review, CLVIII, 4, pp. 374-381.

Man becomes altruistic as a result of his subjection to a social environment, and as a necessity of self-protection. There is not involved within himself the altruistic idea. Acquired characteristics are not inheritable ; and if they were, there is no evidence to prove an inherited altruism. The child is an egoist by nature, and is only altruistic through the influence of society. The fact that men have not committed murder suggested to them in a hypnotic state, is no proof for inherent altruism. If murder had been suggested as a means of self-protection, the result would have been different. The altruism of the martyrs was rather the product of society than an inheritance. In reply to the objection that conscience and instinct show evidences of the evolution of altruism, the author holds that the conscience has not been proved to exist as a working and intelligent entity apart from the unconsciously absorbed impressions of childhood and apart from accumulated knowledge and experience ; and no altruistic instinct

has been evidenced in childhood before the elementary facts of social consciousness are recognized. Every day we see instances of the ruin of social altruism, and egoistic tendencies arising. As proof of this, the decreasing birthrate among the better class is cited.

R. B. WAUGH.

Die entwicklungsgeschichtliche Betrachtungsweise in der Aesthetik.

JOHANNES VOLKELT. Z. f. Ps. u. Phys. d. Sinn., XXIX, 1, pp. 1-21.

The chief problem of æsthetics consists in the establishment of norms which are valid for the feeling-life of the mature individual of modern times. A universal æsthetics whose norms will be found to be valid for all races and for all ages is an ideal which can only be approximated. An evolutionary æsthetics is subject to a two-fold limitation, for it has to do with stages of the æsthetic evolution not only of the race, but of the individual as well. This complication makes investigation difficult and uncertain. For, not only must we determine what mental processes are present in the mind of the child who is engaged in drawing or in contemplating the artistic productions of others, but we must even go back in time and re-experience the æsthetic feelings of the visitor to the prehistoric temple and of the spectator of the Greek tragedy. If this procedure is possible at all, it is possible only with the aid of a complete race psychology. And the psychological method is essential throughout in æsthetical investigation. It would be of inestimable value to discover the earliest dawn of æsthetic feeling in the race; but our knowledge of the mental life of primitive man is vague and uncertain. Scherer is of the opinion that poetry has its roots in primitive man's impulse to conversation and amusement. Yet it may be that the songs and dances of the savage are attended only by warlike or sexual or fanatico-religious emotions, and contain no vestige of æsthetic feeling. Lange attempts to supplant the psychological method of æsthetics by an historical or evolutionary method. But Lange's method falls back upon our knowledge of the history of art and of culture; and our knowledge of these, in their earliest beginnings, at least, is directly proportional to our insight into the psychology of races. Considerations of an evolutionary character must occur in every complete system of æsthetics; but we cannot speak of an evolutionary basis of æsthetics nor of an evolutionary method in æsthetics.

J. W. BAIRD.

NOTICES OF NEW BOOKS.

Das Problem des Wirkens und die monistische Weltanschauung mit besonderer Beziehung auf Lotze: Eine historisch-kritische Untersuchung zur Metaphysik. Von DR. MSCISLAV WARTENBERG. Leipzig, Hermann Haacke, 1900. — pp. 256.

This volume represents an attempt to found a pluralistic metaphysic through a criticism of the concept of causality, which is here identified with that of action. Its general attitude towards the problem is that for which Lotze stood. The concept of causality, in the sense of action, is regarded as the fundamental one, from which a constructive interpretation of the world must proceed. Quite in the spirit of Lotze, too, the author assumes the plurality of interacting elements as given in experience. But Lotze, as is well known, makes this plurality only an initial stage in his reflection. He led directly to the view, that the reciprocal interaction of the many elements which appear in the process of change, is possible or conceivable only through the immanent causality of the one Absolute World-ground. His pluralism is only the propædæutic to his monism. The phenomenal world is manifold, the real world one.

Dr. Wartenberg, pressing this monistic, or Spinozistic, element in Lotze's thought, attempts to show that it contradicts the facts of experience. The logical result, he urges, is a strict determinism, applicable to each individual element of reality. There can be, therefore, no real ethical freedom. To be consistent, one should surrender either belief in any form of moral freedom, or the attempt to reduce the world to such a monistic basis. Every process, whether appearing in the physical world as motion, or in the mental world as thought, feeling, or volition, is a manifestation, a mode, of the Absolute. Self-consciousness is an illusion. Taken seriously, Lotze's monism should involve the further consequence of an all-embracing, conscious unity of the spiritual life of humanity. This, however, is obviously wanting. Opposed to it, is the inexpugnable consciousness of individuality, and also the fact of unceasing conflict between individuals throughout the entire course of human history.

But Lotze, the author continues, would attack the pluralistic view by urging that it involves the acceptance of the idea of transitive causation, which is self-contradictory. In reply, it is contended that the contradiction involved is of Lotze's own making, is in effect a *petitio principii*. This consists in the unwarranted assumption that, according to the pluralistic view, the substances which are the bearers of the process of change are in themselves quite independent, and so separated that they cannot affect each other. Lotze has, indeed, clearly refuted such an Herbartian interpretation of the elements of reality, but, according to our author, he refuted it only

to fall back into it himself at a later period. The *how* of transitive causation we are not able, it is true, to comprehend. But this is not a valid objection, since, in the stricter sense, the *how* of every process whatever is equally incomprehensible.

Thus far the discussion proceeds in close relation to Lotze. In what follows the writer's pluralistic theory is developed and applied to various problems. Advancing to a description of the atoms, the substances underlying all processes in the physical world, Dr. Wartenberg construes them, in essentially Leibnizian fashion, as centres of force. But, unlike the monads of Leibniz, they stand in dynamic, causal relations of reciprocal interaction. Following Trendelenberg, he derives space (and time) from motion. Space may be defined as an 'attribute of motion.' Things do not presuppose space, but space things.

In applying his theory to the sphere of life, he discusses at length the differentiation of organic from inorganic matter. While biological science has been justified in its attempts to offer a mechanical explanation of life-processes, it must acknowledge that, after all its efforts, there is an inexplicable remainder. The author regards it as one of the tasks of philosophy to criticise the concepts of science and to point out such *lacunæ*, leaving the filling of the same by more adequate hypotheses to the special sciences concerned. It is insisted, however, that in the biological problem at issue appeal must be made to a teleological principle. Only by such a principle can the element of form, which characterizes all organic life, be explained. "For the 'Newton of the blade of grass' whom Kant missed and whom the biologists eagerly and hopefully await, will never be born; of this we entertain not the slightest doubt" (p. 205). As to the relation of the physical and psychical processes, both materialism and psycho-physical parallelism are rejected, along with the already discredited view of idealism. The author declares for interaction and a resulting dualism of the most pronounced type. A soul substance is as necessary and legitimate for thought as is the atom. The one is the centre of psychical functions as the other of physical functions. The two types of substances are in relations of mutual interaction. The inconceivability of the *how* of such interaction is no adequate ground for the rejection of the theory. For, as already seen, the *how* of the process of purely physical interaction is equally an enigma. The principle of the conservation of energy is obviously violated by such an explanation. But the principle itself, it is urged in reply, holds only for physical processes and is only of empirical validity even here.

In the conclusion Dr. Wartenberg returns to the problem of the unity of being. It is now frankly admitted that the plurality for which he has so strenuously contended is only a 'relative plurality.' The combination of the many in a cosmic unity points unmistakably to an Absolute World-ground, the one source of the many substances. The very interaction of substances is possible only because of the qualities given to them by the

creative World-ground. This World-ground is further defined as a "transcendent meta-cosmic principle of being," which can only be conceived as "intelligent, purposive, and creative will" (p. 254).

To criticise the work in detail would involve entering upon nearly all the vexed problems of metaphysics. The difficulties which the author has upon his hands are obvious. They include not only the difficulties incident to the form of pluralism here presented, but also those of a complete dualism of mind and matter and the extreme form of interaction resulting. A single criticism of a fundamental character, so far as the purpose of the author is concerned, may here be offered. Dr Wartenberg has contended for a pluralism against Lotze's monism largely, it would seem, in the interests of the freedom of the individual. But in the end he admits that the plurality is only relative and must be referred to a unitary World-ground. Is not the difference between the two systems at most one of degree? Lotze, too, admits a 'relative plurality.' If Dr. Wartenberg has thrust the unitary principle further back, he has as a result encountered the enormous—to me insuperable—difficulties of a transcendent, 'extra-cosmic' Deity, while it may be questioned whether he has bettered the case of the individual. If all the activities of the many are due, as the author admits, to the properties with which a creative will has endowed them, is not this will as strictly the cause of every event as if operating by immanent causation. The Deity can hardly be excused from responsibility for the world which he has made by merely establishing an *alibi*.

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Maine de Biran: Ein Beitrag zur Geschichte der Metaphysik und der Psychologie des Willens. Von ALFRED KÜHTMANN. Bremen, Max Nössler, 1901.—pp. viii, 195.

The author of this volume presents a rather elaborate discussion of the psychology and philosophy of Maine de Biran, whom he regards of historical importance as furnishing the connecting link between the sensationalism of Condillac and the eclecticism and idealism of later French philosophy. No attempt is made, however, to exalt Maine de Biran to the place of a philosopher of the first rank. The purpose of the work is rather to show the significance of the problem of the will, with which he almost exclusively concerned himself, and to discuss the value of all the literature which has gathered about his name. Condillac, Laromiguière, and Destutt de Tracy naturally appear as prominent figures in the earlier part of the work. An attempt is also made to treat the theories of the will held by all the leading European philosophers prior to the time of Maine de Biran. In the latter part of the work an entire chapter is given to Schopenhauer and Wundt.

As the philosophy of Maine de Biran is, in a peculiar sense, the product of his personality, the record of his life properly receives considerable attention. This chapter deals somewhat too exclusively with the outward

aspects of his life. And yet there are not wanting glimpses into his inner history with its almost tragic unrest, which drove him to seek refuge in religious mysticism.

At the close, the author gives a brief statement of his own philosophical position, which may be described as a modified agnosticism. The problem of metaphysics is unsolved, if not insoluble. This fact, however, does not destroy the value of philosophical speculation, which is a necessary form of the higher conscious life of the race.

The book, which shows painstaking scholarship, should prove of historical value. Its chief defect seems to me to be in the use and arrangement of material. If all that is here offered could have been fused by some central principle into a progressive and unitary discussion, the interest of the work would have been much enhanced.

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Die Erkenntnisstheorie von Tetens: Eine historisch-kritische Studie. Von GUSTAV STÖRRING. Leipzig, Verlag von Wilhelm Engelmann, 1901. —pp. viii, 160.

The writer believes that Tetens has not received justice at the hands of those who have gone into his theory of knowledge. Much philological work is required, in his opinion, to discover the meaning of this thinker. It is worth while to undertake this task, first, on account of the interesting historical relations which Tetens's theory of knowledge bears to Hume, Leibniz, and Kant; secondly, because it has systematic interest. His psychological genesis of the notions whose validity is discussed in epistemology, is valuable even now, while his epistemological theories are, to say the least, still stimulating.

Dr. Störing gives an interesting exposition and criticism of Tetens's epistemology. In connection with this, he presents his own views on the psychical genesis of epistemological notions, the epistemological significance of the laws of thought, and a defense of the application of the psychogenetic method in the theory of knowledge. Tetens accepts the genetic method; Kant rejects it. The method is a proper method, only we must remember that the psychological derivation of an epistemological concept does not necessarily validate that concept. If it is a necessity of thought, then the psychological genesis is an excellent heuristical principle for epistemology; if it is not, it has no epistemological value. Tetens fails to distinguish between psychological necessity and logical necessity, hence he often recognizes notions as valid whose psychical genesis he can trace.

Tetens and Kant agree in distinguishing sensibility and understanding; sensibility and understanding coöperate in the production of all knowledge. They also agree that the *a priori* functions do not give us knowledge of things-in-themselves. They differ in this: For Kant our knowledge has objective validity, while, according to Tetens, we never get beyond subjective validity. Both Tetens and Kant have been influenced by Hume and

Leibniz. Kant's inaugural dissertation of 1770 has influenced Tetens's work of 1777, while this latter work in turn influenced Kant. But Kant was influenced by Tetens only in his psychological views, perhaps by the psycho-genetic method in a negative manner. Tetens, in turn, was not seriously influenced by the *Dissertation*. He must have developed his standpoint before he read this work, otherwise he could not have misunderstood it as he did and simply read his own views into it.

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Logique de la volonté. Par PAUL LAPIE. Paris, Félix Alcan, Éditeur. 1902.—pp. 400.

Lapie defines a voluntary act as a phenomenon of which the ego believes itself to be the cause. The ego believes itself to be the cause of a phenomenon, when it has predetermined it by judgments. Hence, the will is the totality of the phenomena which seem to be determined by judgments. Between volition and its logical antecedents there is a rigorous parallelism ; all the characteristics of volition correspond with the characteristics of the antecedent judgments.

There are not in the mind two forces, of which the one is irreducible to the other. The theory of the will is a part of the theory of the understanding ; in logic the will finds the laws which it obeys and the precepts which it ought to obey.

Two questions present themselves. (1) What do the words mean : this act is good, this act is possible ? How do we conceive our ends and our means ? (2) Do the voluntary acts show characteristics which are irreducible to those of their intellectual antecedents ? The judgment : This act is good, signifies : This act is just. Justice is the establishment of an exact proportion between the actions (a) and the sanctions (s). It is realized, when in the formula $x = a/s$ the unknown quantity designates a constant quantity. But all men do not write the formula correctly. The judgment : This act is good, that is just, presupposes judgments in turn, two judgments of value, evaluation of the acts and evaluation of the sanctions. Men evaluate differently actions and sanctions, hence the difference in their willing and the errors made by them.

The voluntary act depends upon a group of judgments, the judgments of means, the means of attaining the end. We know these means by analytical reasoning, ascending from the end to its causes. That is, the judgment, 'I will,' springs from the union of two judgments : This act is good, this act is possible. In turn, the judgment : This act is good, *i. e.*, just, springs from the union of two judgments : This act has such a value, this act promises such a quantity of happiness. And each of these propositions is the conclusion from a lot of causal inductions. Every time we can attach an effect to the activity of an individual and to that alone, we modify our opinion of the value of the agent ; every time we note a causal

relation between an act and its emotional consequences, we make a judgment on the happiness of the person acted upon. It is efficient causality which creates human value, it is emotional fecundity which gives things their value.

On the other hand, the judgment: This act is possible, also results from causal inductions. We believe that an end is realizable when we observe, by analytical reasoning, a causal relation between the ideal conceived by me and the Ego that conceives the ideal. To will means to know; to act voluntarily, it is necessary to foresee the means and the end of the action.

But do these combinations of judgments, which lie at the root of willing, explain all volitions? What shall we say regarding emotions, which are also the cause of volitions? Well, their influence is due not to their emotional nature, but to their intellectual nature; they act upon the will only in so far as they are implicit judgments upon our value, upon our happiness, or our power. Pride is a judgment by which we exaggerate our value, fear is a judgment by which we foresee the limits of our power.

Every element of volition is an intellectual fact. But every intellectual phenomenon does not contain an element of volition. The will is a particular case of the exercise of the intellect, employed in determining the causes and the effects of the 'I.' Without intelligence, the will would be nothing. But without the will, the soul would be a succession of inductions and deductions, combinations and associations of ideas, following a uniform course. The will springs from the surprises which the conflicts of those intellectual operations or their objects excite. The monotonous succession of reasonings in accordance with the principle of identity is replaced by the inductions and equations of teleology, by the regressions of technology. When the ends are fixed, the means found, the act performed, the intellectual reasonings take their course again until a new shock causes a new volitional reasoning to rise up. Thus our mental life is made up of judgments and reasonings, but some are connected according to their contiguity, their resemblance, or their identity, the others are combined in order to determine the ideal and the possible. Being of the same nature as the understanding, the will is merely a particular mode of the understanding.

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L'année psychologique. Publiée par A. BINET, avec la collaboration de H. Beaunis, V. Henri, Th. Ribot. Huitième année, 1902.—pp. 757.

On the score of original articles, this number of the *Année psychologique* maintains the high standard of its predecessors. The investigations are, indeed, of unusual range and variety. The editor-in-chief contributes five papers on cephalometry; M. V. Henri writes upon the education of the memory; M. Féré (three papers) on the influence of rhythm upon work; the business editor, M. L. des Bancelles, on methods of memorising and on diurnal fluctuations of memory; while there are further articles by Dr.

Aars on attention, by M. Abt on mirror writing, by M. Bourdon on habit, by M. Marage on phonation and audition in recent French literature, and by M. d'Alonnes on the part played by voluntary effort in our estimation of lifted weights.

On the other hand, the reviews and abstracts — though many of them are as good as usual — are in many cases somewhat cavalier in treatment and dogmatic in tone. If this means that modern French psychology is ripening towards a system, we need not complain. So far, it is Germany that has provided our experimental systems, while France has given us memoirs and monographs. M. Foucault's *Psychophysique* (reviewed by the author himself in the number before us) is an apparent exception to this rule; but the book, useful as it is, cannot be ranked as systematic; the writer lacks historical perspective, and is oftentimes superficial in treatment. When, however, M. Binet becomes dogmatic, we may hope that there is a systematic background to his pronouncements. A modern French psychology, written from the experimental standpoint, would be a most welcome addition to our technical apparatus. E. B. T.

L'Etica evoluzionista: Studio sulla filosofia morale di Herbert Spencer.

Per DOTT. GUGLIELMO SALVADORI. Torino, Fratelli Bocca, 1903.
— pp. x, 476.

It has been the misfortune of the Spencerian philosophy that, in place of a dispassionate and impartial valuation of its merits, it has had to meet with an opposition so strong as to be almost virulent, or an indiscriminating welcome by eager disciples ready to accept unquestioningly the dicta of its author as the final authoritative pronouncement of scientific speculation. Hence neither depreciation nor appreciation has helped to develop the Spencerian system or to correct its failings, and we are still without that candid and thorough examination of the Synthetic Philosophy which, on the one hand, would avoid laying too great stress on the merely verbal inconsistencies, or even the logical deficiencies in Mr. Spencer's presentation of his thought, and on the other, would not slur the real shortcomings, whether metaphysical, psychological, biological, or ethical, of that thought itself, but would endeavor to reach and bring to light what is essential and unique in that conception of natural evolution which constitutes the *Leit-motif* of his philosophising, and to test critically, in the light of our latest scientific knowledge, the specific applications which he has made of this principle. It might seem as though the time had come, when such a valuation of the veteran philosopher's life-task might be made; but we do not obtain it in the work before us, though that work is by no means without value. Dr. Salvadori is an ardent disciple of Mr. Spencer, and it is as such that he discusses the Spencerian ethical doctrine. He is, however, a skilful advocate, who is not content with merely repeating the master's phraseology, but gives an intelligible and carefully reasoned explanation and defense of the Spencerian theory of ethics, insisting rightly that it

must always be studied in close and necessary connection with the rest of the Synthetic Philosophy. In one respect, at least, the defender of the system appears better equipped than its originator; for Dr. Salvadori is thoroughly at home, not merely in the literature which relates to the Spencerian system, but in the whole range of the ethical speculation of our day. If he over-rates the value of Mr. Spencer's attempts to harmonize or combine the doctrines of the opposed ethical schools, he appears to possess a clearer insight into the meaning of representative moralists than did the author of the *Data of Ethics*, and so can enforce the claims of the latter with a better chance of a favorable verdict from those who are familiar with the development of ethical philosophy. So, too, an adequate appreciation of the point of view of the various critics of the Synthetic Philosophy enables him not infrequently to meet them successfully on their own ground. Regarded, then, as a defense of the Synthetic Philosophy, this book may be confidently recommended; nothing so able on these lines has, I think, yet appeared in English, but it is too wholly a defense to be quite satisfactory as an exposition or as a criticism. In particular, the author all but ignores the essential weakness of the Spencerian metaphysics—a weakness which makes the most widely read of the volumes containing the Spencerian system, the *First Principles*, the most irritating and the least stimulating to the well-informed philosophical student. It is this crude and uncritical treatment of ontological and epistemological problems, which has blinded so many to the real value, within certain limits, of his evolutionary formula, and to the gain which has accrued to philosophical method by his constant endeavor to correlate it with that of science. Mr. Spencer's metaphysical theories, however, do not affect his ethics very directly, and Dr. Salvadori may be congratulated on having presented the latter in a manner calculated to diminish the misunderstandings and misrepresentations to which it has frequently been subjected. E. RITCHIE.

Les limites de la biologie. Par J. GRASSET. Paris, Félix Alcan, 1902.—pp. iii, 186.

In his preface, M. Grasset states that he here attempts "to show that biology is not the universal and sole science, that the biological conception and the biological point of view are not the only modes of thought and apprehension, and that biology has limits which separate it from other sciences and other kinds of knowledge." With this end in view, M. Grasset gives us a work which consists very largely of extracts from a somewhat heterogeneous mass of writers, no fewer than one hundred and eight being quoted. M. Grasset's own contribution to the question of the relation of biology to the other sciences does not appear wholly satisfactory. He seems to confuse two very different theses. In maintaining that biology is not the only science, or even the science 'par excellence,' he is on sure ground; and he has an easy task in pointing out a certain extravagance of pretention involved in the phraseology sometimes used by such writers as

Haeckel and Spencer. But he also aims to show that the various sciences, physics, biology, physiology, psychology, and ethics, constitute different kinds of knowledge, each of which may be pursued independently of, and as unrelated to, the rest. The author admits that this doctrine is old-fashioned, and we may well doubt whether it can ever be rehabilitated. It should be added that, while this little book is controversial in character, and contains not a little debatable matter, it is throughout fair-minded and courteous in tone.

E. RITCHIE.

Essais de critique et d'histoire de philosophie. Par S. KARPPE. Paris, Fèlix Alcan, 1902. — pp. 224.

Much of the matter contained in this volume is a genuine contribution to the study of a current of speculative thought, the importance of which has been hardly sufficiently recognized by most historians of philosophy. The part played by Jewish thinkers in moulding, or at least in modifying, the character of European speculation has been much greater than is commonly supposed. The perusal of the book before us leads to the wish that its author might give us in consecutive and complete form the whole story of this Semitic influence. The essays, with the exception of one on Herder as the precursor of Darwin, are concerned with certain phases of Jewish philosophy in relation to the thought of Christendom. The first deals with the system of Philo, as shaping the doctrines and determining the method of exegesis in the Early Church. The following essay shows the effects on primitive Judeo-Christianity of the Jewish gnostic sects, older than Christianity itself and in some sort anticipating it in spirit and dogma; their characteristics being anti-legalism and an insistence on the mediatorial idea.

The most interesting and important part of M. Karppe's work, however, will be found in those essays which are devoted to Maimonides and to Spinoza. In the third essay, the two thinkers are compared and the extent of Spinoza's indebtedness to the mediæval philosopher is discussed. Maimonides's influence is rightly viewed as most clearly shown in Spinoza's ethical intellectualism. In a very interesting discussion on Richard Simon and Spinoza, it is demonstrated that to the latter rather than to the former is due the title of the founder of Biblical Criticism. That the great Jew was by far the bolder and more clear-sighted critic is certainly true, but the *Histoire critique du Vieux Testament* had probably a stronger and more direct effect upon the current conception of the Biblical writings than had the *Tractatus Theologico-Politicus*. In the other essays of which Spinoza is the subject, a strong emphasis is laid on the mystical factor in his thought; this is not to be regretted, as so many of his commentators overlook or depreciate this in their endeavor to do justice to his scientific outlook and his logical acumen.

E. RITCHIE.

Studien zur Entwicklungsgeschichte der Fichteschen Wissenschaftslehre aus der Kantischen Philosophie. Von WILLY KABITZ. Berlin, Reuther & Reichard, 1902.—pp. 132.

In this volume we have a careful study of Fichte's philosophical development down to the time of the writing of the *Grundlage der gesamten Wissenschaftslehre*. Section I. gives a brief sketch of the development of Fichte's thought before his acquaintance with Kant's writings. Then follows, in Section II., a summary of those features of the critical philosophy which are important for the author's purpose. The third section discusses the modification and development which this philosophy passed through in the hands of Fichte, before he really worked out a system of his own; while the fourth and last section treats of the origin of the *Wissenschaftslehre*. Throughout the book, references are made to certain hitherto unpublished letters and fragments to which the author has had access, and some of which are here printed as an appendix.

In his account of Fichte's early philosophical development, Dr. Kabitz lays stress upon the influence of Lessing and Rousseau. Fichte's philosophy of religion shown traces of Lessing, while the influence which Rousseau exerted upon him appears in his interest in education and in his exaltation of practical over speculative matters. As to Spinoza, Dr. Kabitz is inclined to think that his influence upon Fichte during this period has been greatly over-estimated. Fichte undoubtedly knew something of Spinoza's doctrines, but there is no good evidence to show that he had read Spinoza; his acceptance of determinism may have been due to the influences of Crusius, with whose writings he was certainly familiar.

In the modifications which the critical philosophy received at the hands of Fichte, the rationalistic tendency which he shared with Kant becomes more and more apparent. This tendency was fostered by his acquaintance with Reinhold's doctrines. The influence of Reinhold is further seen in Fichte's attempt to give philosophy a psychological basis, rather than the logical one which Kant gave it.

The skepticism of *Aenesidemus* made a profound impression upon Fichte. It was the influence of this work which led him to that complete reconstruction of philosophy for which a long development had been preparing him. In his consideration of the origin of the *Wissenschaftslehre*, the author devotes himself to a study of an unpublished manuscript, in which Fichte discusses many of the problems which he afterwards dealt with in the *Grundlage* of 1794. This discussion is too detailed for consideration here. It is evident, however, that the manuscript is of considerable value, and it is to be hoped that it may be edited and published before long.

ELLEN BLISS TALBOT.

MOUNT HOLYOKE COLLEGE.

Les caractères. Deuxième édition revue augmentée d'une préface nouvelle.

Par FR. PAULHAN. Paris, Félix Alcan, 1902.—pp. xxxvi, 247.

The first edition of this book was printed in 1894, and exhausted some time ago. The demand for a second edition testifies to its readable character and the wide interest in its theme, and the controversial matter contained in the new preface gives some indication of the marked attention that both book and theme have received from French psychologists.

The theory of character forms for M. Paulhan the link between the psychological theory, stated in *L'activité mentale et les éléments de l'esprit* (1889), and the ethical theory, which has not as yet appeared in any systematic treatise. The teleological principle, which is so conspicuous in his psychology, makes the transition a very direct one. In psychology we are already dealing with modes of organization, and these enable us to define both the various possible types and the one ideal type. The book before us distinguishes abstract psychical groups in two ways: (1) by degree of internal organization, from perfect systematization to complete incoherence; (2) by the predominance of single tendencies, from special and egoistic to general and disinterested. These groups are by admission of the author abstract, because, when applied to actual individuals, they serve as marks for characterization, and not divisions for classification. And it is this method of study that M. Paulhan defends against his critics, notably MM. Fouillée, Binet, Ribot, and Malapert. The outcome of the discussion would seem to be the conclusion that in studies of character we are dealing not with types, but with indefinite variations of type. Some doubt is certain to arise in the mind of the reader as to the profitableness of an attempt to enumerate all the ways in which human nature might vary and still be human nature. A method such as that employed in this book lacks the exactness of distinctions made upon biological grounds, and the significance of distinctions made frankly upon ethical grounds. In detail the book is clever and interesting. The author is at his best in the field of portrayal and illustration.

RALPH BARTON PERRY.

HARVARD UNIVERSITY.

The Problem of Metaphysics and the Meaning of Metaphysical Explanation: An Essay in Definitions. By HARTLEY BURR ALEXANDER.

New York, The Macmillan Co., 1902.—pp. 130.

As the title indicates, the aim of the author is not primarily to reach a final solution, but to make explicit the meaning of certain concepts which must be understood in order to approach the metaphysical problem intelligently. At the outset it is argued that all knowing, whatever its form, finds its *motif* in an organic need felt by the individual. Knowledge is next shown to be of two kinds: (a) immediate knowledge, including direct intuition and rational insight; and (b) representative knowledge, including descriptive representation, wherein the meaning is partly contained in the symbol or may readily be substituted for it, and purely symbolical knowledge, wherein

the true meaning can never be substituted for the symbol. The object of knowledge is then discussed, with particular reference to Bradley's *Appearance and Reality*; and the conclusion is reached that a merely dialectical procedure results in ambiguities and evasions, that it "defines reality conceptually rather than in terms of things and qualities, and discredits fact for the sake of theoretical consistency." Passing on to the subject of explanation, the author shows that in all explanation there is presupposed an equivalence between symbol and object, which, however, is not an equivalence of quality but equality, *i. e.*, a likeness of function in thought. Explanation must hence proceed on the principle of identity, or the principle of causation, efficient or teleological, or the principle of sufficient reason. In explanations by the principle of identity, we proceed by emphasizing either the repetitions or the quality of the unit in terms of which the explanation is made, *i. e.*, we explain either in terms of quantitative measurement or by means of universals and generic ideas. The principle of causation includes final and efficient cause as its essential subdivisions, while the principle of sufficient reason, involving both identity and causation, concerns itself with the problem of purpose and intention, which is the problem of teleology, and to the solutions of which every ontology is only propædæutic. The desire for knowledge being created by our needs, the satisfaction of the need is the limit of knowledge and of explanation. Hence our truth must always be relative, human truth, and our ultimate gauge of reality is that reality is what it seems to us.

The conclusion reached by the author at the close of his careful discussion may be stated in his own words: "The problem [of metaphysics] itself may be variously stated; it may be a quest for the essence of things, or for a reality within things themselves, or for their truths. But in every case the real object of the inquiry is the discovery of a ground or *raison d'être* which shall seem to us a sufficient reason why reality is what it is. Such a ground, it has been held, can only be shown to be satisfying when it embodies a motive or a purpose intelligible to us in terms of our motives and our purposes. . . . Hence all our philosophy and all our science which is to amount to anything or mean anything must be anthropocentric and psychomorphic."

B. H. BODE.

UNIVERSITY OF WISCONSIN.

Psychopathological Researches. By BORIS SIDIS. G. E. Stechert, New York, 1902. — pp. xxii, 329.

This is a book on the 'subconscious self.' Dr. Sidis and Drs. William A. White and George M. Parker have here reported the details of several cases of mental abnormality which they have treated successfully through what they believe to be the control of the subconscious selves of the patients. Only a few typical cases are reported, and the discussion of the theories and principles underlying the method of treatment is relegated, as we are told in the introduction, "to another work soon to appear under the

title 'Principles of Psychology and Psychopathology.''' A brief outline of certain of the theories is sketched in the introduction by Dr. Sidis.

This method of only partially revealing theories which are evidently well advanced towards maturity in the minds of the writers, and of publishing applications before giving out explanations, makes it very difficult to form any final judgment of the value of the work. As mere cases of abnormality, these which are now reported add relatively little to the knowledge already at hand from the study of other cases. As cases which have been successfully treated, they are of much practical interest. If they are cases which have been more intelligently diagnosed than earlier cases, and have been cured by the application of more fully developed and more rational methods than have ever been employed before, then they may be cases of first class importance. But their first class importance is not obvious from the present discussion. It is by no means certain from the few cases reported, or from the manner of the progress of these cases, that the cure was due to the alleged control of the subconscious. The uncertainty in regard to the meaning of the cases may be due to the preliminary character of the reports, or it may be due to fundamental defects in the theories and methods of treatment which the writers are advocating. This is just the question which it is impossible to answer until more evidence comes in.

The first case is that of a girl of thirteen, who suddenly passed from her normal condition into a boisterous, profane, and dangerous abnormal state. She was hypnotized, and exhibited all the usual phenomena of hypnosis. During the hypnotic state it was suggested to her that she would return to her normal condition and again be good as she used to be. This suggestion could not be carried over directly from the hypnotic state to the usual waking condition of the patient, but it was possible to carry the suggestion over indirectly through normal sleep. During hypnosis suggestion was given as emphatically as possible, and then the patient was told to pass into normal sleep. This normal sleep seems to constitute a kind of link between the hypnotic state and the usual waking state. As the suggestion to be good began to affect ordinary waking life, the hypnotic experiments were abandoned for fear of interfering with the natural course of recovery.

The second case is that of a man who, through the use of alcoholic beverages, temporarily lost consciousness. Hypnotic experiments brought out the fact that his apparent loss of consciousness was not a change to mere automatism, but the substitution of a subconscious self for the normal self. This appeared in the fact that the subconscious self was reestablished in the hypnotic state and gave a full account of the man's doings during the period of its supremacy.

The third case illustrates the growth of a suicidal tendency in a young girl. It was traced through hypnosis to a series of events entirely forgotten by the ordinary personal consciousness. These events, which suggested suicide and were then apparently forgotten, continued to operate in the sub-

conscious self as sources of auto-suggestion. Periodically these auto-suggestions became strong enough to overwhelm the normal personality.

The fourth case is that of a highly organized system of melancholic ideas. The melancholic personality thus formed had to be broken up by appealing to a subconscious self which appeared in the hypnotic state and was much more cheerful. The method was the same in this as in the first case. After the cheerful personality was discovered, it was carried over through normal sleep to the waking life.

The fifth case is one in which a young woman had acquired an apparently permanent distortion of the ankles, a serious hypersensitiveness of the skin, and an abnormality of the circulation in the lower extremities through an accidental sprain. The sprain had entirely healed, so far as the tissues were concerned, and the case was not approachable through the ordinary means of clinical treatment. Because of restrictions imposed by the family, appeal to hypnosis was not possible in this case. Treatment here consisted in a series of efforts to secure voluntary movements on the part of the patient. It is significant for any evaluation of the cases reported in this book, that the suggestions in this case were addressed to the personality normally and ordinarily present. The case seems to fit only very loosely into any category of subconscious personality.

The sixth and last case is one which would ordinarily pass for epilepsy, but was shown by hypnotization to consist in a succession of irruptions of a subconscious self which was controlled by certain memories and motives not known to the normal personality. The subconscious self was brought under control in a series of hypnotic experiments, and was eliminated after a long struggle, by absorbing it into the normal self.

The theory which is somewhat incompletely suggested and applied to all these cases is that the abnormalities described are purely functional. The patients suffered on the physiological side from a functional separation or dissociation of certain formerly well-established neuron-aggregates. This functional dissociation is not an actual organic degeneration of neuron tissue, but is a preliminary stage, which, if not checked, will always be followed by true organic degeneration. The whole neuron system of the normal individual comes to be broken up by such functional dissociations into a series of systems which are functionally, but not organically, separate. Each sub-group of neurons is the physiological seat of a subconscious personality. Subconscious personalities produced by functional dissociation appear clearly in every case of hypnosis, which is itself nothing but a stage of functional division of the neuron system. The mode of treating a patient, based upon this theory, is to hypnotize him, get control of the various subconscious personalities, and then by suggestion knit together a normal and well-organized personality, thus absorbing the other personalities and making them subordinate to the one true personality.

Functional dissociation is the only type which can be successfully treated by the method advocated. If actual degeneration of the neuron tissues

sets in, the case passes out of the sphere of psychopathology into the sphere of physiological pathology. The method of determining whether a case is in the functional stage or is due to actual degeneration, is to search for recollections of the normal state or the pathological state by means of hypnosis. So long as the patient can recover the lost state through hypnosis, or can perform reactions appropriate to the normal personality, the case is one of functional insanity, and can be approached by the methods described for reorganizing the self.

The presentation of cases and of theory by these authors is not satisfactory to the unprejudiced reader. That there are cases of abnormal mental life which can be cured by a systematic effort to reconstruct personality around some rational nucleus, no one is disposed to doubt. That there are periods of conscious life which do not seem to integrate with the ordinary systems of association that constitute the recognized self, every one will admit who studies carefully even the most commonplace facts of normal life. That hypnosis is a form of dissociation comparable to these ordinary lapses from normal associative consciousness, though more marked and definite in type, seems to be the generally accepted view. If the term subconscious is needed to express certain of these facts and to guide in the efforts toward the reorganization of disorganized personality, then it is certainly important that the term should be clearly defined and intelligently used. If reorganization requires the use of means which are in themselves directly related to the dissociations which are to be overcome, then it is well that serious and extended experiments along these lines should be undertaken and fully reported. A few cases somewhat incompletely discussed will not establish the thesis of these writers.

There is at present a good deal of mythology about the 'subconscious,' and a good deal of apparent mystery about the motives of those who use 'suggestion' in its various forms. The only way to dispel this vagueness and uncertainty in our science of mental life is to be clear in theory and principle, and well supported in the materials on which to formulate these theories. The book before us is not satisfactory either in its theory or in its materials. The optimistic confidence of the writers on the basis of the cases reported is certainly not warranted. It is not impossible that in several of the cases the whole machinery of hypnotization was unnecessary by-play. Indeed, one case was successfully treated without the direct control of anything that could be called a subconscious self. Another one of the cases seems to have dragged along as it did just because the hypnotic experiment interfered seriously with the integration of the normal personality. The writers show themselves unable to consider the cases without prejudice and in the truly empirical spirit; for they continually reiterate, in regard to the case which was treated without hypnosis, the wholly unfounded belief that cure was slower than it would have been if they had been able to apply hypnosis. Furthermore, in a number of instances, especially in the one which dragged along so discouragingly,

they found it necessary to modify their methods, so that it was after all not the subconscious self which was most important for the recovery. There is certainly need of more light on all these matters, and there is need of a more critical and definite use of terms. The theory will be put on a valid basis only when its fundamental conceptions are such that they can be accepted by the psychology of normal life as well as by psychopathology. We shall look with interest for the forthcoming, more elaborate treatise, in which the writers may succeed in clearing up the difficulties which we find in this book, and may succeed in establishing a method of treatment which will be of first class importance in dealing with functional insanity.

CHARLES H. JUDD.

YALE UNIVERSITY.

Lamarck: His Life and Work. With Translations of his writings on Organic Evolution. By ALPHEUS S. PACKARD. New York, Longmans, Green, & Co., 1901.—pp. xii, 451.

This volume of Professor Packard's on Lamarck's life and work is both extremely interesting and very valuable. An extended sketch of Lamarck and his theory, as well as of his work "as a philosophical biologist," has been indeed a great desideratum, and the increasing interest in Lamarckism will find real satisfaction in the charming biography and careful treatment which Professor Packard has written. The author is peculiarly well fitted for the task, since he writes enthusiastically with a disciple's appreciation of a master. "The name of Lamarck," he says, "has been familiar to me from my youth up. When a boy I used to arrange my collection of shells by the Lamarckian system, which had replaced the old Linnæan classification. For over thirty years the Lamarckian factors of evolution have seemed to me to afford the foundation on which natural selection rests, to be the primary and efficient causes of organic change, and thus to account for the origin of variations, which Darwin assumed as the starting point or basis of his selection theory. It is not lessening the value of Darwin's labors, to recognize the originality of Lamarck's views, the vigor with which he asserted their truth, and the heroic manner in which against adverse and contemptuous criticism to his dying day he clung to them" (p. vii). In Professor Packard's opinion, it is with justice that the French regard Lamarck "as the real founder of organic evolution."

The materials for the biography have been most carefully and laboriously collated with a view to this work. Professor Packard has visited Paris and the place of Lamarck's birth; he has examined the family records, and in general has exhausted all available sources of information. The result is an unusually fine portrayal of Lamarck's life, from the time of his birth to the pathetic scene of his death and the tragic neglect of his burial. The illustrations, which include portraits of Lamarck from old engravings, pictures of his birthplace and place of burial, and reproductions of fac-similes of his autograph, form an attractive feature of the volume, while

the appended bibliography of Lamarck's writings will be convenient and serviceable.

During the progress of the biography, Professor Packard treats of Lamarck's share in the reorganization of the Jardin des Plantes and Museum of Natural History, and devotes a separate chapter (IV) to Lamarck's work as professor of invertebrate zoölogy at the museum. Chapters VII–XIII are concerned successively with Lamarck's labors in the fields of meteorology and physical science, in geology, in invertebrate palæontology (of which Lamarck is said to be the founder), in general physiology and biology, in botany, and in zoölogy. Chapter XIII presents the evolutionary views of Buffon and of Geoffroy St. Hilaire. The evaluation of Buffon's contribution to the development of the theory of evolution seems to the present reviewer somewhat severe. One may be irritated by Buffon's cautious (or ironical) presentation of tentative views, and recognize the fact that he was not of the stuff of which scientific martyrs are made, and still dissent from the dictum that "he possessed little of the spirit or aim of the true investigator" (p. 201). In Chapter XIV, the views of Erasmus Darwin are carefully stated, and his relation to Lamarck judiciously treated. The latter discussion is continued in Chapter XV, which deals with the question: "When did Lamarck change his views regarding the mutability of species?" Mr. Samuel Butler, in his *Evolution, Old and New*, has taken it for granted, on the strength of Isidore Geoffroy St. Hilaire's "incorrect" use of the word 'partisan,' that Lamarck was a "partisan of immutability till 1801," and intimates that the secret of Lamarck's sudden conversion lies in a French translation (1800) of Dr. Darwin's poem, *The Loves of the Plants*. Mr. Butler argues that "Lamarck — the most eminent botanist of his time — was sure to have heard of and seen this, and would probably know the translator [M. Deleuze], who would be able to give him a fair idea of the *Zoonomia*." In opposition to this irresponsible suggestion, and likewise in opposition to Krause's hasty assumption in referring to Lamarck as "evidently a disciple of Darwin," Professor Packard concludes, with apparent justice, it would seem, that "from the internal evidence of Lamarck's writings we therefore infer that he was in no way indebted to Erasmus Darwin for any hints or ideas" (p. 225). There is "every reason to suppose that Lamarck's theory of descent was conceived by himself alone, from the evidence which lay before him in the plants and animals he had so well studied for the preceding thirty years, and that his inspiration came directly from nature and not from Buffon, and least of all from the writings of Erasmus Darwin" (p. 231). "To Huxley's rather pointed question: 'It would be interesting to know what was the occasion of Lamarck's change of view between 1779 and 1802?'" — Professor Packard would agree with Osborn in answering that "this change was probably due to [Lamarck's] change of studies from botany to zoölogy, for it was upon animal life that his theory was developed" (*From the Greeks to Darwin*, p. 155). Moreover, Professor Packard takes issue with the generally assumed suddenness

of Lamarck's conversion, and, in Chapter XVI, essays to trace "the steps in the development of Lamarck's views on evolution before the publication of his *Philosophie zoologique*."

The succeeding three chapters give us the contents of the *Philosophie zoologique*, "Lamarck's Theory as to the Evolution of Man," and "Lamarck's Thoughts on Morals, and on the Relation between Science and Religion." In these accounts of Lamarck's speculative and theoretical views, the author has done wisely in preferring, by means of abstracts and translations, to let Lamarck tell his own story, rather than to comment at length "on points about which the ablest thinkers and students differ so much" (p. ix). Moreover, this plan is a matter of special commendation, inasmuch as the writings which Professor Packard has translated and incorporated in his volume, have been for the most part hitherto inaccessible to the ordinary student.

The closing chapter of the work, entitled "The Relations between Lamarckism and Darwinism; Neolamarckism," is written from the point of view of the author's well-known advocacy of Neolamarckism. It is important in that it gives a good sketch of the beginnings and development of Neolamarckism, and cites "the conclusions and opinions of upwards of forty working biologists, many of whom were brought up, so to speak, in the Darwinian faith, to show that the pendulum of evolutionary thought is swinging away from the narrow and restricted conception of natural selection, pure and simple, as the sole or most important factor, and returning in the direction of Lamarckism" (p. 424).

A. LEFEVRE.

The following books also have been received :

The Principles of Logic. By HERBERT AUSTIN AIKINS. New York, Henry Holt & Co., 1902.—pp. x, 489.

The Satire of Seneca on the Apotheosis of Claudius. A Study by ALLAN PERLEY BALL. New York, The Columbia University Press, 1902.—pp. viii, 256. \$1.25.

The Future of War. By JEAN DE BLOCH. Translated by R. C. LONG. Boston, Ginn & Co., 1902.—pp. lxxix, 380.

Addresses on War. By CHARLES SUMNER. Boston, Ginn & Co., 1902.—pp. xxvii, 319.

Investigations of the Department of Psychology and Education of the University of Colorado. Vol. I, No. 2. The Survival Values of Play, and a Statistical Study of Education in the West. By HARVEY A. CARR. Boulder, Col., The University of Colorado, 1902.—pp. 78. \$0.50.

Harvard Psychological Studies, Vol. I. Edited by HUGO MÜNSTERBERG. New York, The Macmillan Co., 1903.—pp. 654.

John Stuart Mill: Die Stellung eines Empiristen zur Religion. Von MAXIMILIAN LEWELS. Münster, 1902.—pp. 100.

Das Kant-Friesische Problem. Von Dr. THEODOR ELSENHANS. Heidelberg, 1902.—pp. 56.

Maine de Biran: Ein Beitrag zur Geschichte der Metaphysik und der Psychologie des Willens. Von ALFRED KÜHTMANN. Bremen, Max Nössler, 1901. — pp. viii, 195.

Neue Theorie des Raumes und der Zeit: Die Grundbegriffe einer Metageometrie. Von MELCHOIR PALÁGYI. Leipzig, Wilhelm Engelmann, 1901. — pp. xii, 48.

René Descartes Meditationes De Prima Philosophia. Nach der Pariser Originalausgabe und der ersten Französischen Uebersetzung, mit Anmerkungen neu herausgeben. Von C. GÜTTLER. München, Oskar Beck, 1901. — pp. iv, 250.

Malebranche. [*Les grands Philosophes.*] Par HENRI JOLY. Paris, Félix Alcan, 1901. — xii, 296.

Nouvelle classification des sciences: étude philosophique. Par A. NAVILLE. Deuxième édition entièrement refondue. Paris, Félix Alcan, 1901. — pp. vii, 178.

La théorie de l'émotions. Par WILLIAM JAMES. Paris, Félix Alcan, 1903. — pp. 168.

Le personalisme, suivi d'une étude sur la perception extreme et sur la force. Par CHARLES RENOUVIER. Paris, Félix Alcan, 1903. — pp. viii, 537.

Gazali. Par LE BON CARRA DE VAUX. Paris, Félix Alcan, 1902. — pp. viii, 322.

NOTES.

We regret to announce the sudden death of Professor Ritchie, of the University of St. Andrews, which occurred during the first week of February. Professor Ritchie graduated at the University of Edinburgh, and was at one time Fellow and Tutor in Jesus College, Oxford. Since 1894 he has been Professor of Logic and Metaphysics at St. Andrews. He has written extensively on philosophical subjects, having published a number of books and contributed important papers to philosophical magazines. In our next number we hope to publish a fuller account of Professor Ritchie's life and work.

Dr. Edward Franklin Buchner has been called to the Professorship of Philosophy and Pedagogy in the University of Alabama.

Dr. W. G. Smith, Lecturer on Experimental Psychology at King's College, University of London, and formerly Professor of Logic and Ethics at Smith College, has been appointed an Additional Examiner in Philosophy in the University of Edinburgh for a term of four years.

Professor Erich Adickes has accepted a call from Kiel to become Professor Ordinarius at Münster i. W.

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

THE PSYCHOLOGICAL REVIEW, X, 1 : *J. R. Angell*, A Preliminary Study of the Significance of Partial Tones in the Localization of Sound ; *Robert MacDougall*, The Affective Quality of Auditory Rhythm in its Relation to Objective Forms ; Discussion and Apparatus ; Psychological Literature ; New Books ; Notes.

MIND, No. 45 : *A. E. Taylor*, On the First Part of Plato's *Parmenides* ; *T. Whittaker*, A Compendious Classification of the Sciences ; *A. K. Rogers*, The Absolute as Unknowable ; *W. G. Smith*, Antagonistic Reactions ; *G. Galloway*, On the Distinction of Inner and Outer Experience ; *S. F. MacLennan*, Existence and Content ; Critical Notices ; New Books ; Philosophical Periodicals ; Notes.

THE MONIST, XIII, 2 : *T. Whittaker*, Appolonius of Tyana ; *G. Loria*, The Origin and Development of Geometry prior to 1850 (continued) ; *L. Arréat*, Religion in France ; *Paul Carus*, The Philosophical Foundations of Mathematics ; *A. F. Chamberlain*, Primitive Theories of Knowledge ; *O. Veblen*, Hilbert's Foundations of Geometry ; Book Reviews.

THE AMERICAN JOURNAL OF PSYCHOLOGY, XIII, 4 : *O. G. Libby*, The Bird Lover as a Scientist ; *Robert MacDougall*, Minor Investigations in Sense Perception ; *F. W. Bagley*, An Investigation of Fechner's Colors ; *J. W. Slaughter*, A Preliminary Study of the Behavior of Mental Images ;

S. P. Hayes, An Historical Study of the Edwardean Revivals ; Literature ; Index to Vol. XIII.

THE HIBBERT JOURNAL, I, 2 : *Sir Oliver Lodge*, The Reconciliation between Science and Faith ; *Henry Jones*, The Present Attitude of Reflective Thought toward Religion ; *John Watson*, James Martineau — A Saint of Theism ; *James Drummond*, 'Righteousness of God' in St. Paul's Theology ; *Lewis Campbell*, Aspects of the Moral Ideal — Old and New ; *W. B. Smith*, Did Paul write Romans ? *C. G. Montefiore*, Jewish Scholarship and Christian Silence ; Discussions ; Reviews.

THE INTERNATIONAL JOURNAL OF ETHICS, XIII, 2 : *L. C. Stewardson*, The Moral Aspects of the Referendum ; *J. E. McTaggart*, Some Considerations relating to Human Immortality ; *M. E. Robinson*, Marriage as an Economic Institution ; *I. W. Howerth*, What is Religion ? *Henry Sturt*, Happiness ; *J. B. Pratt*, The Ethics of St. Augustine ; Book Reviews.

ZEITSCHRIFT FÜR PSYCHOLOGIE UND PHYSIOLOGIE DER SINNESORGANE, XXX, 3, *Eugen Reimann*, Die scheinbare Vergrößerung der Sonne und des Mondes am Horizont (Schluss) ; *E. Wiersma*, Die Ebbinghaus'sche Combinationsmethode ; Literaturbericht.

XXX, 4 : *F. Schumann*, Beiträge zur Analyse der Gesichtswahrnehmungen, III ; *Herm. Ebbinghaus*, Ein neuer Fallapparat zur Kontrolle des Chronoskops ; Literaturbericht.

XXX, 5 u. 6 : *F. Schumann*, Beiträge zur Analyse der Gesichtswahrnehmungen (Schluss) ; *Robert Müller*, Zur Kritik der Verwendbarkeit der plethysmographischen Curve für psychologische Fragen ; *Robert Saxinger*, Dispositionspsychologisches über Gefühlscomplexionen ; *L. W. Stern*, Der Tonvariator ; *W. v. Zehender*, Zur Abwehr einer Kritik des Herrn Storch ; Literaturbericht.

VIERTELJAHRSSCHRIFT FÜR WISSENSCHAFTLICHE PHILOSOPHIE UND SOZIOLOGIE, XXVI, 4 (Neue Folge, I, 4) : *Hermann Götzl*, War Herder ein Vorgänger Darwins ? *S. R. Steinmetz*, Die Bedeutung der Ethnologie für die Soziologie ; Besprechungen ; Notizen ; Philosophische Zeitschriften ; Bibliographie.

ARCHIV FÜR SYSTEMATISCHE PHILOSOPHIE, VIII, 4 : *K. Twardowski*, Über sogenannte relative Wahrheiten ; *P. Schwartzkopf*, Nicht Metaphysik sondern Emphysik, eine Betrachtung zur Philosophie der Zukunft ; *D. Koigen*, Einsamkeit ; *Walter Smith*, What is Knowledge ? Jahresbericht.

KANTSTUDIEN, VII, 4 : *N. H. Marshall*, Kant und der Neukantianismus in England ; *J. E. Creighton*, Kantian Literature in America since 1898 ; *B. Petronievics*, Warum stellen wir uns die Zeit als eine gerade Linie vor ? *H. Vaihinger*, Houston Stewart Chamberlain — ein Jünger Kants ; *G. Brodnitz*, Ein französischer Romancier über Kant ; Recensionen ; Selbstanzeigen ; Mitteilungen ; Neue Kantlitteratur ; Sonstiges neu Eingegangenes ; Nochmals das Collin'sche Kantrelief.

REVUE PHILOSOPHIQUE, XXVII, 12: *F. Paulhan*, Sur la mémoire affective; *W. Kozłowski*, La psychogénèse de l'étendue; *T. Lannes*, Philosophes russes contemporains: V. Soloviev: Observations et documents; Analyses et comptes rendus; Revue des périodiques étrangers; Table des matières.

XXVIII, 1: *P. Sollier*, L'autoscopie interne; *F. Paulhan*, Sur la mémoire affective (suite et fin); *W. Kozłowski*, La psychogénèse de l'étendue (Suite et fin); Observations et documents: *H. Piéron*, La rapidité des processus psychiques; Analyses et comptes rendus; Revue des périodiques étrangers.

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THE
PHILOSOPHICAL REVIEW.

THE RELATIONS OF STRUCTURAL AND FUNCTIONAL PSYCHOLOGY TO PHILOSOPHY.

THE tendencies which have contributed to render psychology so largely independent of philosophy are for the most part identical with those which have brought it under the guiding influence of biology. The prevalent disposition to model psychological procedure upon biological patterns is a conspicuous expression of the force of this influence, and one which has led to some interesting anomalies in current psychological usages. When one undertakes to treat the mind as an organism, it is natural to suppose that one may adopt the practice of the biological sciences and proceed to the construction of a mental anatomy, dealing with the facts of psychical structure, and a mental physiology, dealing with psychical function. Indeed, this is apparently the precise program which many of our contemporary psychologists attempt to execute. The legitimacy of the distinction between the structure and the function of consciousness is assumed as essentially self-evident. In view of this fact, it is not without significance that psychologists should have failed to follow more consistently the example of the biologists, who have developed morphology and anatomy, on the one hand, and physiology, on the other, as relatively independent sciences. Certainly no psychologist has as yet attempted either a purely structural or a purely functional account of consciousness. Moreover, there is commonly no disposition to countenance the ideal implied in such an undertaking, and in practice psychology appears as a science engaged with both the anatomy and the physiology of the mind. It is the purpose of the present paper to

inquire into the nature and relations of these two phases of the psychological field, and to point out certain consequences touching the status of psychology among the philosophical sciences, which seem involved in the conclusions we shall reach. It will be convenient to begin with a brief examination of the concept of psychical structure.¹

On the negative side, it is clear that in psychology the term 'structure' cannot refer to spatial relations, as it does in anatomy and morphology; nor has it often been thought necessary since Descartes's time to call in question the spaceless character of consciousness. The morphological cell and the gross structures of anatomy accordingly find no immediate and perfect analogues in the psychical organism. But consciousness does report of itself a certain complexity of content revealed in the form of distinguishable conscious qualities. The physiological and the psychological organism have this point in common, then, that both are complex and thus describable (potentially) in terms of their constituent factors. To speak of the structure of the psychical organism is simply a convenient mode of indicating this fact of complexity. This, however, is the sole particular in which, on the positive side, the analogy with organic structure is really applicable to consciousness. Even this application requires some limitation, as we shall presently see.²

¹ For typical authoritative statements of the scope and problem of psychology, as contemporary writers regard these, see Wundt, *Philosophische Studien*, Bd. XII, 1896, pp. 1 ff.; also Münsterberg, "Aufgaben und Methoden der Psychologie," *Grundzüge der Psychologie*, Bd. I, pp. 1-199, *passim*. Professor Münsterberg's exposition in the *Grundzüge* is too elaborate to permit of ready articulation with the common formulæ and too recent to allow of confident condensation. The independence of psychology from philosophy is ably maintained by Dr. Scripture in an article entitled "The Problem of Psychology" in *Mind*, Vol. XVI, 1891, pp. 305-326. There is probably no more convenient statement of the generally accepted views concerning the relations of the philosophical sciences to one another than is afforded by Professor Ladd's *Introduction to Philosophy*.

² The ablest defense of structural psychology with which I am acquainted will be found in an article by Professor E. B. Titchener, entitled "The Postulates of a Structural Psychology," *PHILOSOPHICAL REVIEW*, Vol. VII, 1898, pp. 449-465. In connection with this should be consulted the two acute and cogent papers by Professor W. Caldwell, who, under the guise of a critique of Professor Titchener, aims a number of powerful shafts at the weak points in the armor of presentationism. See "Professor Titchener's View of the Self," *Psych. Rev.*, Vol. V, 1898, pp. 401-408; "The Postulates of Structural Psychology," *Psych. Rev.*, Vol. VI, 1899, pp. 187-

The situation comes clearly to view the moment we examine a specific instance of alleged psychical structure. When sensation, for example, is cited as a structural element of consciousness, as it is by many modern writers, the usual implication is that it represents a qualitatively irreducible psychic datum, roughly comparable to the atom of an earlier generation of physicists.¹ Such a psychical element as this evidently offers, even upon casual inspection, sufficiently important distinctions from the structural constituents of anatomy and morphology to make the two very imperfect counterparts of one another. That the one element is spatial in character and the other is not, we have already remarked. Moreover, the one element represents a relatively durable entity, the other does not. The sensation has at best (*pace* Professor Münsterberg) an existence covering a moment or two of time. Furthermore, it is reasonably certain that the morphological element, when actually obtained, is what it pretends to be, *i. e.*, a real portion of the organism of which it is supposed to be a constituent. Sensation, on the other hand, is by general consent admitted to be in a measure an artifact. At all events, it seems to be commonly agreed that the entire analytical process by means of which consciousness is resolved into its elements is of a vicarious character, resulting in the attainment of symbolic representatives of the components of actual experience, but not in the securing of the prototypes themselves. Certainly the limitations of this analytic procedure, through which the structural components are discerned, is in need of most careful scrutiny from the standpoint of what Professor James calls 'the psychologist's fallacy.' For it seems possible that the experience of normal psychical life, as distinct from the psychologist's experience, is only in a mediate secondary way

191. The position of phenomenalism in psychology finds its strongest advocate among English writers in Bradley. Cf. "A Defense of Phenomenalism in Psychology," *Mind*, N. S., Vol. IX, 1900, pp. 26-45. A trenchant critique of this type of view, in which Münsterberg appears as whipping-boy, is to be found in Seth's *Man's Place in the Cosmos*. A useful paper discussing matters germane to these is that of Miss Calkins: "Psychology as Science of Selves," *PHILOSOPHICAL REVIEW*, Vol. IX, 1900, pp. 490-501.

¹ Cf., upon this point and upon the whole question of the description of psychical contents, Münsterberg, "Psychological Atomism," *Psych. Rev.*, Vol. VIII, 1900, pp. 1-17.

complex. The complexity commonly manifested by states of consciousness is a complexity of reference beyond the psychical moment, rather than a complexity felt as inherent in consciousness itself. Viewed dynamically from without, consciousness is multipolar; viewed dynamically from within, as regards its feeling, it is ordinarily unipolar.

Such a structural element as sensation simply represents the psychologist's device to express the fact that consciousness, when viewed retrospectively, does not appear homogeneous, and that, among the unhomogeneous qualities which are thus distinguishable, certain ones appear to be incapable of further analysis, sensation being among these irreducibles. Whether we agree with Professor James that the analysis of perceptual experience into sensations is merely an analysis of the objects to which the perception refers, or whether we agree with Mr. Stout in his contention that our analytic distinctions are representatives of undistinguished differences in the original experience under consideration, it is at least clear that sensation is no discrete psychical entity compacted with other similar entities into the complex we call perception.¹

Moreover, when we rigorously distinguish the non-introspective experience which belongs to every-day life, from the post-mortem type of experience, with which the psychologist commonly deals, we find, as we have previously intimated, that the significance of the structural elements of consciousness is increasingly circumscribed and artificial. This is true even on the basis of the view which regards introspection as essentially a constructive process, producing a novel state of consciousness, which serves to represent ordinary experience. This conclusion must not be interpreted as a challenge to the tenability of every implication of the concept of psychical structure. It is intended simply to emphasize the disparity between this psychological form of the structure concept and that current in biology. As has been pointed out, the concept of *psychical* structure extends only to the implication of a specific kind of complexity. Beyond this it is irrelevant and inapplicable.

¹ It will be remembered that much of the criticism upon the significance of Weber's law issues in precisely this conclusion.

That the biological idea of function is applicable in a general way to the life of consciousness is hardly open to question. The precise lines of classification sometimes employed in biology, *e. g.*, functions of adjustments to the external environment, functions of internal organic metabolism, functions of reproduction, etc., may not be immediately available, but the general biological notion of organic activity certainly requires no essential transformation. The point which does, however, warrant a few words of explanation concerns the structural implications of certain psychological terms commonly employed to indicate functions, for example, judgment. As the main point that we desire to bring out in the remainder of the paper does not hinge upon this consideration, we shall dismiss the matter with a somewhat cursory comment.

It will undoubtedly be admitted that every description of function involves, tacitly at least, some reference to structural elements, just as the actual functions themselves involve structures. Thus, judgment as an act will be allowed to involve factors usually called structural, such as images for example. That judgment itself in its totality as a psychical event is also a structural component of consciousness, is not so likely to be admitted. To be sure, so high an authority as Brentano has accredited to judgment the position of a psychological ultimate; but Brentano's whole view is essentially of a dynamic and functional character, and his ascription of this position to judgment could not without more ado be cited as in any way a claim for the structural character of the process. But, if we direct our attention to actual psychical experience in its felt immediacy, the evidence justifying the view that judgment has a structural significance for consciousness is quite as good as that available for the assignment of the image to the ranks of psychical structures. If it be said that judgment is complex and that the image is relatively simple, we shall not deny this, but simply insist that we are under obligation to remember the limitations previously noted concerning the real meaning of complexity in states of consciousness. If the analogy of the psychological element with the biological cell, for instance, were altogether tenable, judgment,

supposing it to be structural at all, might then conceivably enough figure as the counterpart of a tissue or a gross organ. But we have already observed the defects in these analogies; and, in point of fact, the judgment as a process occupying time is not *merely* synonymous with the psychical elements capable of analysis out from the matrix represented by it. In its entirety it presents, when compared with the image, a unique segment, or phase of consciousness, which can with propriety be regarded as structural. Indeed, it is on the whole a truer representative of psychical structure than the image, because it is less of an abstraction than the image, less remote from actual conscious experience. This is possibly but a cumbrous way of contending for a specific *quale*, characterizing judgment in distinction from other psychical events. In any case, we have now devoted all the space to the matter which is appropriate, and we may sum up the position we wish to set forth in this way:—Many psychical processes ordinarily regarded as distinctly functional, *e. g.*, judgment, not only involve such elements as are commonly conceded to be structural, but are in themselves events possessing unique structural attributes.

Whether or not we agree with this view of the nature of judgment, it is certainly a suggestive fact concerning the general relations of structure and function in mental life, that the same terms are so often used indifferently to indicate either the one or the other. Probably the terms 'sensation,' 'image,' and 'affection' are as widely used in a structural sense as any that one could select. Yet each of these is also used in a functional sense. Thus, sensation is described as the psychical function by means of which the organism is first brought into contact with its environment. Again, the image is spoken of as the conscious process by which the world of objects and relations is symbolized and manipulated. *A fortiori* should we find a similar thing true of those psychological terms that are occasionally, but less commonly, regarded as structural, *e. g.*, conation. Now, were there nothing beyond the mere verbal identity in the terms applied to structures and functions, one might regard this fact simply as evidence of linguistic inadequacy, implying nothing positive as to the relations among the

psychical facts themselves. That our available terminology is defective, no one can question ; but this consideration is far from affording a complete explanation of the circumstance referred to. Fortunately our biological bias, which prepares us for almost any kind of intimacy in the relations of the structure-function elements, offers us a clue to the correct interpretation of the facts. Not only are we reminded in biology that every function involves a structure, an organ, for its execution, but we are also informed that these functions modify the structures. Especially is this true of the molecular arrangements in nervous tissue. In psychology, it might almost be said that the functions produce the structures. Certainly, so far as we may be considering any specific structural content of a state of consciousness, *e. g.*, a sensation (in distinction from the general fact of content), we shall always find that this sensation is determined by the demands made upon the organism by the environmental situation, *i. e.*, that it is functionally determined, and that it will vary with each specific situation with which the organism has to cope. One may, of course, hypostatize this sensation, and, dissociating it from its particular surroundings, regard it as a type of a relatively static structural element, for which specific function is a secondary and unimportant consideration. But the actual sensory experience, which constitutes the prototype of this hypostatized sensation, is not only capable of being viewed as an expression of functional activities ; it cannot be correctly viewed nor accurately described in any other way. It is never a mere sensation in general. It is always this specific sensation, produced by certain particular, momentary organic conditions. The forty thousand sensory qualities, more or less, which the psychologist describes, have no actual existence apart from his description, save when the exigencies of experience call them into being, *i. e.*, when there is functional demand for them. It appears, therefore, that the fundamental nature of functions, which biology discloses, is even more in evidence in psychology, where structure and function simply represent two phases of a single fact.

The considerations which we have thus far canvassed suggest that our psychology stands in need, not so much of a firmer

foundation for the distinction between psychical structure and psychical function, as it does of a further development of both branches of the inquiry, based upon the distinction and a clearer recognition of the real relation between the two. Upon the teleological nature of the distinction, it is, perhaps, unnecessary to comment. But certainly the present categories recognized as respectively structural and functional occasionally overlap, and thus emphasize the necessity for further clarification of their relations.

Despite the unquestioned applicability of the idea of function to consciousness, any psychology which calls itself functional is still, in certain quarters, viewed with a slight distrust. It is thus sometimes asserted, as an evidence of the superior reliability of the results of structural psychology, compared with those of functional psychology, that the former has settled down upon the elementary nature of sensation and affection, for example, with far greater finality (although this finality is a trifle precarious) than functional psychology has attained with reference to any of its categories.

Taken at its face value, this contention is of a somewhat specious character. It may be, as a matter of practical wisdom in the distribution of one's energies at the present moment, that more certain rewards may be anticipated from a pursuit of psychological analyses of the structural variety than from those of a functional character. But the evidence offered points less directly to the psychological superiority of the structural methods of work, than it does to the differences in complexity among the several kinds of psychical attributes, which the psychologist finds himself under obligation to analyze, describe, and, if possible, explain. Plenty of parallel cases might be cited from the biological sciences. Thus, for example, the anatomy of the lungs and the physiology of respiration have been much more completely worked out than the anatomy and physiology of the brain. Notwithstanding the limitations upon the analogy of psychical with organic structure, one may view the asserted superiority of structural psychology over functional psychology, if this superiority be conceded, as affording in general simply one more

instance of the tendency illustrated by the history of all science, *i. e.*, the tendency toward the development of scientific knowledge concerning the static and structural phases of the cosmos, prior to the attainment of such knowledge about its dynamic and functional features. However the facts may stand as regards the precise validity and import of this claim for structural psychology, there can be no reasonable doubt that the smaller the segment of consciousness one transfixes under one's introspective objective, the easier it is to emphasize the structural features of such sections, and the harder it is, because of the greater actual remoteness from life conditions, to do justice to their functional attributes. It will be remembered in this connection that the structural elements upon which there is widest agreement, *i. e.*, sensation and affection, are the products of elaborate analytical simplification, corresponding in no exact sense to any actual moment of conscious experience. The converse fact is equally obvious. The more complex the psychosis under examination, the more readily is one's attention directed to the functional activity involved, and the more difficult does it become satisfactorily to distinguish the structural characteristics of the complex. The psychology of attention affords an illustration of the case in point.¹

So long as psychology confines its examination to the structural aspects of consciousness, it seems to have a clear field and to be in no danger of trespass upon other branches of inquiry, either philosophical or biological. But the moment that functional problems are attacked, certain difficulties appear concerning the severance of psychology from the several other departments of philosophical investigation.² If the contention once be granted,

¹ Criticisms upon the value of psychology for educational practice, etc., which rest upon the asserted remoteness of the psychologist's facts from the actual facts of psychological experience obviously hold true, if anywhere, in largest measure when directed against structural psychology. Indeed, I have yet to meet any criticism of this type which appeared to me apposite when directed against the possibilities of functional psychology. The reasons for the retarded development of functional psychology, we have already mentioned.

² I do not know of any adequate formulation of the program of a functional psychology. The thing itself is about one on every hand in the contemporary psychological literature; but it is, perhaps, too young to have become fully self-conscious, and so has escaped the incubus of a creed. The following references, however, will all be found valuable in clarifying the scope of such an undertaking. Ebbinghaus,

however, that psychology cannot succeed in its effort to determine what consciousness is, as regards its make-up, without a determination of what consciousness does, the further inference is inevitable that psychology must proceed to inquire into the how and why of conscious operations. In other words, any complete statement as to what operations consciousness really performs necessarily involves an account of how and why these operations are executed. The practice of physiology illustrates and confirms this position. A description of the path traversed by a blood corpuscle in its circulatory cycle would in so far be a statement of what occurs in circulation. But how the results which arise from the circulation are produced would be entirely to seek, and no one would for an instant consider such an account as exhaustive or satisfactory. But if one does go further, it is patent that, in asking how the results mentioned do come to pass, one is simply investigating what other operations are involved. It is not only in the Hegelian Logic, therefore, that the adjective and the adverb reveal a dialectical interplay. In physiological and functional problems, the question 'how' is practically identical with the question 'what.' Moreover, any such physiological formulations of function as actually are met with contain a proximate response to the question 'why.' A complete account of physiological activities would clearly include answers to each of the questions, what, how, and why particular functions are operative. Accordingly, if functional psychology is in reality a mental physiology, we may expect to find it engaged with the search for answers to just these same questions in their application to the life of consciousness.¹

Now let us examine briefly, in the light of the preceding considerations, what relations are sustained by psychology to the

Grundzüge der Psychologie, Bd. I, pp. 161-169; Stout, *Analytic Psychology*, Vol. I, pp. 1-50, and *passim*; Dewey, "The Reflex-Arc Concept in Psychology," *Psych. Rev.*, Vol. III, 1896, pp. 357-370; "Principles of Mental Development," *Trans. of the Illinois Soc. for Child-Study*, 1899, pp. 65-83; Ellwood, "Prolegomena to Social Psychology," *Amer. Jour. of Sociology*, 1899, pp. 807-822.

¹ The force of the theory for which I am contending appears to me to be indirectly supported by the considerations set forth in W. McDougall's suggestive articles entitled "Contribution toward an Improvement in Psychological Method," *Mind*, N. S., VII, 1898, pp. 15-33, 159-178, 364-387.

normative philosophical disciplines. Theoretically it is a matter of indifference where we begin, practically it will be convenient to take up logic first. Logic and psychology obviously have their immediate point of contact in the cognitive processes. The psychological problem of cognition is generally supposed to be solved, when an account has been given of the constituents of the knowledge process and of the modes in which, under the actual conditions of practical life, these processes function. It has been usually maintained that for psychology the truth or falsehood issuing from any cognitive process is a matter of wholly secondary consequence, and on these lines a practical boundary between psychology and logic has been established. Logic, on the other hand, at any rate the formal logic, is commonly assigned the investigation of just these same cognitive processes, but now from the standpoint of their consistency, their production of valid conclusions, their avoidance of fallacy.¹ The development of the inductive logic has in recent years issued in an examination of this same principle of consistency and truth, as it is involved in the process of discovery rather than in proof. Many eminent logicians take great pains to emphasize the radical distinction between psychology and logic. Yet an examination of their treatises upon logic discloses a large amount of space devoted to analyses and discussions that are almost purely psychological, in the sense in which this implies that they are concerned with the content of the logical processes, and not primarily with the determination and formulation of canons of thought. The modern theory of judgment, which is so central in contemporary logic, is a case in point. The examination of the concept is another, and the list might be carried out at considerable length.² This fact has sometimes been explicitly recognized and formulated in the statement that logic borrows

¹ A brief and effective exposition of a frequently accepted view concerning the relations of logic and psychology is given by G. M. Stratton in an article entitled "The Relation between Psychology and Logic," *Psych. Rev.*, Vol. III, 1896, pp. 313-320. See also a criticism of Stratton's paper in the interests of rational psychology by G. H. Howison, *ibid.*, pp. 652-657.

² In Sigwart's great work on Logic, two thirds of the first volume is given over to an essentially psychological analysis of judgment and concept. Similarly, in Wundt's *Logic*, more than two hundred and fifty pages of the first volume are devoted to an

its raw material, *viz.*, the facts of the cognitive life of consciousness, from psychology. There is, however, seldom any economizing of space on this score.

If psychology could confine itself exclusively to structural problems, there would seem to be no theoretical difficulty in distinguishing its field from that of logic. Conversely, so long as logic rigorously confines its inquiry to the problem of determining the conditions under which valid thought processes arise, it need not traverse any territory preëmpted by structural psychology, even though in the execution of its task it employs psychological material—a material, be it said, which contains, as logic actually receives it, both structural and functional elements. But any systematic development of a functional psychology must inevitably result in the creation of a logic. This is, forsooth, precisely what logic is. Indeed, logic has often been called the applied psychology of reasoning. But it is more than that, for that would only apply strictly to the cases where, as in rhetoric, the subject was treated with reference merely to improvement in the exercise of argument, proof, or investigation. The essential identity of functional psychology and logic will appear more conclusively from the considerations which we shall next examine.

The tendency of modern logic, if one may trust such generalizations, certainly seems to be increasingly toward the placing of the criterion of validity and truth within the limits of the purely practical. Truth as the Absolute is chiefly a possession of the metaphysician and epistemologist. Truth or consistency, either of them, from the logician's point of view, is primarily resident in practice. The formulation which works in practice is the logically true and valid thing. The truth which can in some way be verified in experience is the logician's type of truth. The constant appeal for a criterion is to the facts of practice, and not to a transcendental standard of excellence apart from these concrete

examination of conscious processes which differs only in thoroughness from that which the ordinary psychological text affords. Whether one classifies the work of Hobhouse, *The Theory of Knowledge*, as logic or as epistemology, it is equally interesting to remark that the earlier chapters are almost wholly psychological in character.

details of actual life.¹ Even in the principles of formal logic, such as the laws of contradiction and excluded middle, the actual leverage for the doctrine is always obtained by reference to the objective world of every-day experience. This is as true of the significance attaching to deductive as to inductive procedure. It has, moreover, always been true of the plain man's manner of thinking. Ulterior and supposedly absolute guarantees of truth have never stood in his presence, when confuted by the facts of practice. Although the plain man is not of much consequence when he attempts consciously to philosophize, his practical procedure is nowadays gaining some repute as an arbiter in philosophic disputes. He is not introduced at this place as a demonstration, but simply as an additional piece of presumptive evidence regarding the justice of the balance by which modern logic is increasingly inclined to weigh truth.

The warrant for this insistence upon the category of the practical is, of course, peculiarly obvious and fundamental in the foundation of inductive and investigatory procedure. But the ultimately correlative character of deduction and induction renders the application of the category to deduction equally defensible. It is not, however, the practical as a mere category of the work-a-day world which is implied here. At all events, much more than this is implied. The idea which is here at issue involves the larger dynamic conception of experience itself as a universe or system, in which truth is ultimately synonymous with the effective, and in which error is not only identifiable with partiality and incompleteness, but particularly with that form of inadequacy which issues in the failure of practice when conceived in its entirety.² The contemporary logical treatment of the

¹ One of the most luminous discussions of the philosophical consequences of this logical conception is afforded by Professor James's address, "Philosophical Conceptions and Practical Results," delivered before the Philosophical Union of the University of California. Professor James announces himself as the prophet of Mr. C. S. Peirce, whose work in logic is so widely known. The special doctrine in question is set forth in a paper in the *Popular Science Monthly* (1878), under the title, "Illustrations of the Logic of Science."

² Interesting commentaries upon this general point of view will be found in the following places: Royce, *The World and the Individual*, First Series, pp. 265-342, Second Series, pp. 379, ff.; Venn, *Principles of Empirical or Inductive Logic*, pp. 32-36; Ladd, *Philosophy of Knowledge*, p. 468; Schiller, *Axioms as Postulates*,

judgment (in which modern logic seems to find its most characteristic mark) is essentially given over to an exposition of this function as a part of practice. The older severance of the reflective faculties, so-called, from the activities of mere practice has yielded to a point of view in which reflection and ratiocination are not only thought of as possible contributors to practice, but as constituting themselves immanently and immediately most important instances of it. For this type of view, constructive thought *is* practice in its most intelligently creative, formative stage. So far as modern logic has added anything to the achievements of the ancients, it is surely in just this protest, for which it stands, against the effort to treat the validity of thought as something capable of investigation and formulation apart from the actual facts of experience.

It is a far cry from all this, perhaps, to the complication of functional psychology with logic. But the point which it is sought to bring out is this, that logic in its search after the criterion of logical truth and consistency, its search for the principles of valid thinking, is intrinsically engaged in determining, not some purely abstract transcendental ideal, but the concrete principles of practice. The identity of this undertaking with certain problems currently accounted the exclusive possession of psychology (at least from the standpoint of functional psychology) now remains to be exhibited.

When it is said that the problem of psychology, so far as it deals with the cognitive processes, is confined to the investigation of what actually does occur in the knowledge-bringing operations, and in no way touches the question of what ought to occur, it is apparently implied that there is some absolute standard of consistency to which the rationalizing activities may conform, but often do not. Now, however this may be, in point of fact the actual account of reasoning and its subordinate processes, which are contained in our psychological text-books, are closely comparable with the statements one finds in the corresponding chapters especially pages 126-128, in Mr. Sturt's volume of collected essays entitled *Personal Idealism*. Despite his protests against the doctrine, Mr. Bradley hardly succeeds in avoiding its meshes. Cf. Bradley, *Appearance and Reality*, pp. 184-196 and 550. See also his *Logic*, pp. 18-21.

ters of our logics. They are impartial descriptions of the supposed processes concerned in these phases of mental procedure. In treatises of both varieties, the mechanisms of the inductive and deductive modes of thought are set forth, the evolution of the judgment and the relation of this to the concept are expounded, and, were it not for the fact that the authors generally call attention to the supposed distinction, one might read extended passages without the slightest suspicion of a radical difference between the logician's and the psychologist's analysis of cognition. To be sure, the psychologist usually foregoes an examination of fallacies and the logician commonly eschews any extended discussion of perception and imagination. But, despite such a nucleus of differences in the topics treated, the points of community already mentioned obstinately remain and refuse to yield to any interpretation which deprives them of their most obvious implication, *i. e.*, the implication that logic and one portion at least of psychology are really one. As we shall presently see, no effort to preserve the distinction that psychology and logic treat a common subject-matter from different points of view can be maintained, when functional psychology is allowed to enter the lists.¹

If one adopts the view, as most psychologists do, that consciousness is not merely epiphenomenal, but is really an efficient agent in the furtherance of the life-activities of the organism (the view of common sense), we must admit that one of the points at which consciousness is most obviously of value is presented in the cognitive functions. In the general mediation represented by the cognitive processes, through which the individual recognizes the beneficial or the harmful and thereby regulates his conduct, it is not for a moment a matter of indifference whether or not the results of the exercise of these processes are true or false. Not only in the case of everyday practical problems is this true, but also in every possible case of reasoning,

¹ To illustrate the similarity of subject-matter and treatment which is revealed by our psychologies and logics, we may take the following recognized representatives and compare the suggested passages: Creighton, *Introductory Logic*, pp. 1-16, 260-273, 329-334; Sully, *The Human Mind*, Vol. 1, pp. 434-474; Dewey, *Psychology*, pp. 202-234.

however abstruse and however seemingly remote from the immediate interests of the life-process. It is not primarily because such truth or falsehood may in its subsequent consequences be harmful or helpful, that we speak of the cognitive process as involving this category of organic value, although this is evidently one phase of the matter; but much more because the act itself, in which such a conclusion is reached, is an adjustment to environmental conditions conceived in their widest and truest aspect, and its truth or falsehood is simply another name for its successful or unsuccessful functioning in the total process of adaptation.

This brings us, then, to precisely the same point which we reached a moment ago in considering the tendency of logic. If psychology is permitted to discuss function at all — and we saw that, without being arbitrarily truncated, it cannot avoid so doing — the truth or falsehood of cognitive processes cannot be a matter alien to its boundaries, because such truth and falsehood are simply impressive names for relatively complete (*i. e.*, successful) and relatively incomplete (*i. e.*, unsuccessful) operations of adaptation. Whether false reasonings would in such a case form a chapter in functional pathology, is entirely unimportant at this time. It does not appear that this would necessarily follow.

It has, perhaps, been made sufficiently clear in the preceding statement, that there is in the view here advanced no necessary reference to immediate overt failure or success in the individual's adaptive activities. Such a result is, to be sure, often in evidence, but, in the realm of the higher and more abstruse thought processes, it is often so veiled as to baffle confident detection. In such cases, the doctrine we are here defending finds its application in the undeniable formation during all reflective activity of generally trustworthy or untrustworthy habits of mind. The evident deferment of the full and complete consequences in cases of this character cannot fairly be interpreted to the prejudice of the theory.

Unless one regards the cognitive function as a mere luxury of the organism, it is difficult to see how one can escape from the view just presented. If the knowledge-processes are of value

to the organism, it obviously must be because of what they do. No one questions that they serve primarily to reflect and mediate the external world; and this they can only do effectively provided they distinguish the true from the false. It would seem fairly clear, therefore, that a functional psychology, in any event, however the case may stand with a structural psychology, cannot possibly avoid a consideration of this aspect of the cognitive activities. But the problem to which this view leads is essentially identical with the accepted problem of logic.¹

At the risk of tedious iteration, a brief résumé of the argument is here offered. Modern logic shows an increasing disposition to locate truth in practice, to make truth a category not of the solely nor primarily transcendental, but rather of the distinctly immanent, variety. Truth is thus something which belongs to the reflective faculty, not as this appears when abstracted from practice and made purely theoretical, but as it really is when viewed amid its normal surroundings, *i. e.*, a part, and an integral part, of the universe of practice. Concretely this tendency is exhibited in the treatment of the judgment, the concept, the deductive and inductive forms of inference. Psychology, accepting the common-sense view of consciousness as efficacious in determining the fate of the individual organism, locates the deliberative and therefore controlling factors of consciousness in the cognitive processes. It is consequently by means of the knowledge processes that decisions of actual import are reached, and it

¹ Logics which, like Mr. Bradley's and Mr. Bosanquet's, include so much of the immanent criticism of the logical function in its entirety with so much of psychological analysis and so much of epistemological and metaphysical by-play, are of course peculiarly difficult to dispose of in any summary way. These writers (Mr. Bradley avowedly) have gone out exploring from the logical problem as a center into all the surrounding country, and they have unquestionably brought back with them most valuable spoils. But this general philosophical campaign, carried on under the banner of logic, makes it somewhat precarious to attempt treating its leaders as one might if they had confined themselves to the logical problem in its usual significance. I cannot, however, in any case, sympathize with the implication contained in the second part of the title of Mr. Bosanquet's scholarly work. Logical doctrine proper is certainly not to be called morphological. Whatever is explicitly morphological in logic is in reality material borrowed from structural psychology. Indeed, Mr. Bosanquet practically surrenders his position by admitting that his morphology must include function. It is clear what he means and equally clear that morphology is, therefore, not a felicitous word for his field.

promptly becomes a part of the attempt to understand how the adaptive activities of consciousness are carried on, to understand how truth and falsehood, consistency and inconsistency, practical success and practical failure are attained through the mediation of the various modes of consciousness. This is clearly true of any psychology which attempts to go beyond the mere elements of the process, and we have already seen the logical difficulty, if not impossibility, of stopping short at this point.

Let it not be supposed that there is any intention here to criticise the present provisional lines of distinction between psychology and the rest of philosophy. These lines are, to be sure, unsatisfactory in some respects. But our immediate interest is simply to show that the prevalent distinctions are even more practical and arbitrary than has commonly been confessed. For example, the statement that logic, ethics, and psychology treat an identical subject matter, though from different points of view, gives a working differentia which has proved useful. But, if the contentions advanced in this paper are warranted, this description of the facts is certainly not accurate. A thoroughgoing and courageous functional psychology must ultimately issue in investigations which are nowadays the exclusive possessions of logic, ethics, and æsthetics respectively. A cursory account of the case, as it stands in ethics and æsthetics, may render clearer certain phases of the position we are considering. We may conveniently examine the case of ethics first.

We must at the outset disavow any intention to discuss those purely anthropological and historical considerations which are often, and with much of propriety, included in ethical doctrine. What we have in mind is the more exclusively philosophical inquiry into the nature of right and wrong, the good and the bad. Precisely as in the case of logic, we meet here with a large amount of material which is obviously psychological in nature. The earlier chapters in almost all the modern text-books on ethics are dedicated to an investigation of impulse, desire, conscience, motive, ideal, etc., from the standpoint of the actual psychological processes involved in these elements of the ethical

life.¹ All this is ostensibly carried on, however, to the end that we may at length be able to describe what constitutes good and bad conduct. Now, logically considered, this mode of attacking the problem immediately suggests the localization of the good somewhere in actual practice, and not in a remote ideal which practice strives in vain to attain. Historically, too, the influences to which modern ethics has been exposed have led to emphasis upon the essentially social nature of the good and of right. In this manner, ethical value has come to be regarded not simply as something which has significance for practice, not simply as something at which practice ought to aim, but as resident in practice itself and as constitutive of the universal element in practice. This tendency is as characteristic of Mr. Spencer and the evolutionary ethical writers as it is of the advocates of T. H. Green's way of thinking.²

Needless to say, this is a view peculiarly identified with the psychologist's standpoint. If cognitive consciousness is looked upon by him as constituting a medium in which are devised adjustments of a more adequate type than are mechanically provided for in the physiological organism, much more must he regard volition and its issuance in overt conduct as the crucially significant feature of the case. It is obvious to the point of platitude that consciousness, if it be valuable at all to the organism, must be so in volition. But supposing it valuable is equivalent to supposing it selective of the beneficial. When taken broadly, good and bad conduct are, by the agreement of practically all contemporary ethical writers, however they express it, equivalent to Mr. Spencer's perfectly or imperfectly evolved conduct, to perfectly or imperfectly equilibrated individual and social influences, to the completest or most incomplete adaptation and develop-

¹ The critical and constructive treatise and the student's text-book are both replete with psychology. Illustrative of the former is Hodgson's *Theory of Practice*, in which almost all of the first volume is assigned to psychological considerations. Mackenzie's *Manual of Ethics* may represent the latter class. In this work one whole book (pp. 43-146) is explicitly reserved for discussions of psychological matters.

² Compare Spencer, *Data of Ethics*, Chap. iii and *passim*; Alexander, *Moral Order and Progress*, pp. 97-111; Dewey, *Outlines of Ethics*, pp. 95-102, 214-221; also, *The Study of Ethics: A Syllabus*, pp. 17-26, 124-129 and *passim*; J. Seth, *Study of Ethical Principles*, pp. 258-282.

ment of the individual in a similarly developed society. Nor does this position necessarily involve an oversight of the insistent distinction between ethical and biological value.¹ The distinction is, indeed, transcended in this view, not, however, by denying it, but by exhibiting its full implications and foundations. Moral value gets expression, then, in practical values represented by the activities of the developing individual in the developing environment. Moral action thus becomes, like logical truth, the practically effective action as over against the partial and incomplete, which accordingly represent badness and error.²

The dilemma which emerges from these considerations is plain. Either we must suppress functional psychology, or else admit that the so-called ethical examination of the element of value in conduct—being in point of fact simply an examination of the conditions of largest effectiveness in conduct—belongs in reality to the field of functional psychology; and we must admit further, that a functional psychology which did not give an account of these elements would be a bastard discipline and not what it pretended to be.³ The unavoidable coalescence of the problems of ethics and functional psychology is nowhere more obvious than in the realm of social psychology. This is not the place to attempt an exhaustive definition of the scope of this branch of psychological inquiry. But for the purpose in hand, it is sufficient to refer to such investigations as Professor Baldwin has carried on. A large portion of his work entitled *Mental Development: Social and Ethical Interpretations* might with equal propriety be classified as psychology or ethics. Nor does it escape the force of the dilemma to assert that social psychology is essentially a border-line field of inquiry, which

¹ Cf. Dewey; "Evolution and Ethics," *Monist*, Vol. VIII, 1898, pp. 321-341. Among the most acute and penetrating analyses of the concept of value are to be mentioned the following: Ehrenfels, "Werththeorie und Ethik," *Viertel. für wissen. Philos.*, 1893, pp. 76-110, 200-266, 321-363, 413-475, and *System der Werththeorie*; Meinong, *Psychologisch-ethische Untersuchungen zur Werththeorie*.

² The most searching analysis of certain phases of this general doctrine has been made by Professor Royce in his work entitled *The Religious Aspect of Philosophy*, especially pp. 449-460.

³ The following citations will suffice to exhibit the incorporation of ethical material into psychological writings: Bain, *Emotions and Will*, (3d ed.), pp. 264-299, 440-504, and *passim*; Dewey, *Psychology*, pp. 399-424; Sully, *The Human Mind*, Vol. II, pp. 155-171, *passim*; Baldwin, *Feeling and Will*, pp. 205-233, *passim*.

merges with ethics on the one side and with functional psychology on the other. A closer inspection of the facts will show that all psychological and ethical questions with which the sociologist concerns himself are fundamentally questions of how and why consciousness performs certain operations and what the results are, *i. e.*, are questions intrinsic to the conception of functional psychology. Again, as we said in connection with logic, it is not maintained that the present principle of demarcation between the two supposedly independent fields of investigation is especially prejudicial to the trustworthiness of the conclusions thus far reached by them. But the connection is surely more intimate and organic than is generally admitted.

The case of æsthetics is more complicated than that of either ethics or logic, because of the relatively inchoate condition of æsthetic doctrine. Whether we shall mean by the term 'æsthetics' a criticism of taste, an attempt to formulate canons for the production of art, the philosophy of beauty, or an analysis of the psychology of æsthetic appreciation, is largely a matter of individual opinion or caprice. When used in connection with properly philosophical subjects, it would seem that the most appropriate meaning to assign the term is that in which it is equivalent to the scientific theory of value in feeling. This correlates it at once with logic, which is devoted to the examination of value or validity in the knowledge process, and with ethics, which is concerned with the case of value in conduct.¹

Even the most formalistic of writers upon æsthetics feel it obligatory to give some account of the elementary psychological aspects of feeling.² This is in part a repetition, accordingly, of the situation which we found in current logical and ethical usage. In these discussions of the nature of feeling, and æsthetic feeling in particular, it is usually maintained that the value element in this phase of consciousness is immediate. Cognitive and volitional experiences, if valuable, are ordinarily regarded as being so because of some ulterior consequences which issue from them.

¹ A scholarly defense of æsthetics as being a normative philosophical science and not a merely empirical account of certain phenomena of consciousness, is to be found in Volkelt's *Æsthetische Zeitfragen*, pp. 195-222.

² For example, Zimmermann, *Allgemeine Ästhetik als Formwissenschaft*, Chap. i.

Kant is, perhaps, the classical exponent of this view of the immediacy of the value in æsthetic feeling.¹ Strangely enough this doctrine is held by writers who, if the principle were carried over and given its inevitable application in ethical experience, would reject it with asperity. 'Art for art's sake' is the shibboleth which presents, on the side of criticism and appreciation, the same conception that is involved in this view of feeling. The adequacy of the theory evidently cannot be considered at this point. But granted once that feeling does have its essential value in itself, it immediately becomes clear that it can only be understood when it is given its proper setting in the totality of conscious operations, *i. e.*, when it has been analyzed by a psychology of function. Much more is this true of any theory which locates the value of feeling outside itself. Now the moment that one inquires into the value of feeling and the criterion of such value, one is doing precisely what any functional psychologist must do. One cannot describe completely the function of feeling in organic life without attempting to discover how it operates and why. When these questions have been answered, its value will already have been exhibited, and the reasons will have been made plain for the lesser or greater desirability which we recognize as attaching to various forms of it.²

The intrinsic unity of the problems propounded by æsthetics and functional psychology is strikingly illustrated by certain recent attempts to give, in connection with the general description of affective consciousness, a biological or physiological account of the significance and origin of æsthetic feeling.³ The concep-

¹ Kant, *Kritik der Urtheilskraft*, S. 3-17 (Original Ausgabe).

² The dominance of psychological interests in present day æsthetic writers is well illustrated by two conspicuous books, *i. e.*, Hirn's *Origins of Art*, in which five of the first six chapters are devoted to psychological subjects, and Groos's *Der æsthetische Genuss*, which is from beginning to end largely and avowedly concerned with psychology. In its richness of psychological material, Fechner's *Vorschule der Ästhetik* furnishes the prototype of these works. The introduction of æsthetic analyses into psychological treatises is exemplified in the following works: Bain, *Emotions and Will* (3d ed.), pp. 225-263; Sully, *The Human Mind*, Vol. II, pp. 133-155; Dewey, *Psychology*, pp. 309-325; Külpe, *Outlines of Psychology* (trans.), pp. 250-258.

³ The best example of this tendency is probably Grant Allen's *Physiological Æsthetics*, in which he develops certain of Herbert Spencer's doctrines. Marshall's book, *Pain, Pleasure, and Æsthetics*, contains excellent critical expositions of these theories.

tion of feeling as representing the immediate response of the organism in its entirety to various kinds of stimuli, and the further conception of this response as indicative of the increased or decreased vitality of the organism, affords a practical instance of how a functional psychological doctrine of feeling must, in the nature of the case, include an account of the phenomena commonly called æsthetic, and how it must traverse the question of value in feeling, if it once enters this field at all.

In logic, ethics, and æsthetics we have, therefore, simply systematic developments of problems primarily belonging to a functional psychology. Or, put conversely, functional psychology, if not estopped, must issue in a logic, an ethics, and an æsthetics. The questions raised by the normative philosophical disciplines are, in every instance, of vital practical significance for the correct understanding of ordinary psychic activities, and no account of conscious function can disregard them without remaining obviously defective and incomplete.

The view here presented does not rest for its justification upon any special theory of the mental elements, either as regards their number or their nature. The psychologist who subscribes to the tripartite division of conscious elements is under no greater obligation to accede to the doctrine than the defender of the bipartite classification. Whatever view of the elements be adopted, a functional psychology must canvass the general processes at present termed cognitive, affective, and conative. In this canvass the questions treated by the normative philosophical disciplines under the head of value must arise, because they are synonymous with the problems of effective functioning. It remains, then, to formulate briefly the relations of functional psychology to metaphysics and epistemology.

By metaphysics I imply any inquiry which undertakes to solve the problem of reality, to ascertain its nature and content. Epistemology, as set over against this, is the problem of the nature and limits of knowledge in its most general and fundamental aspects. It is a familiar observation that metaphysics and epistemology, when thus conceived, are radically opposed to one another. For the metaphysician, who postulates or concludes

to a given form of reality, knowledge is already accounted for inside his scheme of reality. On the other hand, the epistemologist has tucked reality — along with unreality — into his little bundle of knowledge, and forthwith the metaphysician is deprived of his patrimony. To be sure, certain of our best modern writers do not concede this mutual antagonism of metaphysics and epistemology, maintaining rather that the two inquiries are essentially complementary treatments of a fundamental *Welt-räthsel*.¹

It would seem to be fairly clear that epistemology represents an effort to carry out to the last possible point the program of logic in its more inclusive conception.² From the standpoint of many writers, the psychology of the cognitive processes would seem to be even more intimately connected with such an inquiry than with logic. Psychology professes to investigate primarily the mere facts of cognition, the nature of the knowledge process taken at its face value, *i. e.*, a process reflecting in some manner a world outside of itself. Epistemology is an inquiry into the ulterior significance and warrant of this process, an examination really of the foundation upon which rests the tacit assumption in the psychology of cognition, to which we have already referred. This statement is not tantamount to the assertion that epistemological doctrine is itself free from similar tacit assumptions of the nature of the process which it undertakes to examine. On the contrary, it is probably here that we have the clue to the various forms of epistemological theory often classified as sensationalism, rationalism, etc.

Now it certainly does not require a very flexible interpretation of logic as concerned with a determination of the validity of the thought process, as involving an analysis of the means of avoiding error and securing truth, to make this discipline eventually synonymous with the epistemological inquiry into the ultimate nature of knowledge and consequently of the ultimate nature of the truth attained by logical procedure. Indeed, it is quite

¹ Cosmological investigations I do not discuss, because, despite the fact that they deserve a separate treatment, they are in their general character off-shoots of the metaphysical inquiries and for our purposes they may be omitted without harm.

² The inevitable entanglement of psychology with logic and epistemology is admirably brought out in a paper by D. G. Ritchie entitled "The Relation of Logic to Psychology," *PHILOSOPHICAL REVIEW*, VI, 1897, pp. 1-17.

within the limits of conservative statement to say that much of the interest in modern logic is distinctly of an epistemological character, in the sense in which this means that the interest has shifted from a determination of the mere mechanical details of the ratiocinative processes, in which it was chiefly resident during the ascendancy of formal logic, to a determination of the ulterior warrants and implications of the whole cognitive function. Mr. Bradley's definition of judgment as the "reference of an ideal content to a reality beyond the act" is, perhaps, a fair illustration of this disposition to introduce conceptions which belong to an epistemological and ultimate order of problems, in contradistinction to the more immediate and proximate problems involved in the older conceptions of logic. Fortunately, it is not necessary for us to pass upon the justice of the criticisms directed at epistemology. The latter may, of course, prove to be a futile and superfluous undertaking. But the epistemologist has succeeded in formulating a problem whose relations to logic and psychology it is entirely possible to point out. This task is our present business, and we shall be safe in concluding from the foregoing considerations, that if a functional psychology cannot be distinguished in point of content from a logic, it will be equally difficult to draw any sharp line of distinction between epistemology and either logic or psychology. This is evidently but another way of saying that, if one follow with sufficient persistency and thoroughness the question (which comes to light in a functional psychology) of the validity of thought processes and the mechanism by which they arrive at that which we call truth, one must come upon whatever reply is attainable to the problem of the ultimate nature, warrant, and significance of knowledge.

It is conceivable that all we have said about psychology and epistemology might be acceded to as a provisional statement, with the reservation that a precisely converse statement would be equally true. This reservation would mean that it answers quite as closely to the facts to view the whole psychological problem as in a sense an outgrowth of the epistemological problem, as to adopt the position which we have presented. A similar, but not identical, contention is often advanced as regards

both epistemology and metaphysics, but especially metaphysics, *viz.*, that psychology, like all other would-be natural sciences, rests on a foundation of unexamined assumptions and presuppositions, whose criticism and analysis is the peculiar business of these disciplines just mentioned. Now there is unquestionable warrant for this view, so far as concerns the exposition of the merely logical relations of the problems treated by these several inquiries. Psychology, as actually carried on, certainly does make such assumptions, and metaphysics undoubtedly does examine them.¹ There is, therefore, a possibility of setting forth the relations involved in other ways than those chosen in this paper. This fact, however, confirms rather than detracts from the force of the point which we are interested to make. Start from the psychological standpoint, and we insist that you cannot avoid certain functional statements. Once enter upon statements of function, and you cannot, save by purely arbitrary limitation, stop short of a logic, an ethics, and an æsthetics. Furthermore, in the same movement which carries you into logic, you will inevitably find yourself drawn back into epistemology. Nor is this transition accomplished after the conventionally accepted manner, as a result of merely changing your attitude toward a fixed material. The attitude is one and the same throughout, the attitude of really understanding the structure and function of consciousness.

It is, as already indicated, a matter of indifference for the general view set forth in this paper and outlined in the preceding paragraph, what theory one entertains as to the relations of epistemology and metaphysics.² The metaphysical problem sustains

¹ These psychological assumptions and certain points of contact between psychology and metaphysics are succinctly set forth by Professor James in his *Principles of Psychology*, Vol. I, pp. 183-184; Vol. II, pp. 569-579.

² So far as I am aware, the best brief statements concerning the matters under discussion at this point will be found in the following articles: D. G. Ritchie, "The Relation of Metaphysics to Epistemology," *PHILOSOPHICAL REVIEW*, Vol. III, 1894, pp. 14-30; A. Seth, "Epistemology and Ontology," *ibid.*, pp. 568-582; J. Dewey, "The Significance of the Problem of Knowledge," *University of Chicago Contributions to Philosophy*, Vol. I, No. 3, 1897; J. H. Tufts, "Can Epistemology be Based upon Mental States?" *PHILOSOPHICAL REVIEW*, Vol. VI, 1897, pp. 577-592. A luminous application of the conceptions of a functional psychology to the field of critical historical interpretation in philosophy is afforded by two of Professor A. W. Moore's papers, entitled respectively: "The Functional *versus* the Represent-

essentially the same relations to the logical and psychological problems of cognition as does that of epistemology. It represents the last step in one direction in the effort at complete rationalization of thought and conduct. It may accordingly be successful or unsuccessful; it may fall within the problem of epistemology on the ground that reality is a category intrinsically subordinate to knowledge; or it may be made to include the epistemological problem on the ground that reality must transcend knowledge, in the sense at least in which this means that reality must contain knowledge as one among other elements. Finally, either problem or both problems may be regarded as insoluble and essentially futile. These alternatives affect us not at all. We are merely concerned to recognize the psychological reality of these problems, and to point out that we must inevitably encounter them in any systematic functional psychology.¹

At this point the weary reader, reflecting that the rose by any other name would smell as sweet, may well remind us that the doctrine herewith set forth contains, even if true, no practical consequences for the interrelations of the disciplines which we have discussed. This is, however, somewhat too sweeping a statement. Such a view as we have outlined, if accepted, removes once and for all any possibility of regarding the fundamental philosophical sciences as merely incidental to one another. They are, on the basis of this conception, irrepressible outgrowths from a central and basic problem, which we have chosen to designate as the problem of the structure and function of consciousness. They are organic developments of a common root, and represent phases, or stages, in the solution of a single complex problem. There need be no fear of vagueness and confusion as a result of adopting such a view, for the functions with which these several inquiries (ethics, logic, æsthetics, etc.) deal are undoubtedly separable and distinct. The disposition to carry on

tational Theories of Knowledge in Locke's Essay," *University of Chicago Contributions to Philosophy*, Vol. 3, No. 1, 1902; and "Existence, Meaning, and Reality in Locke's Essay and in Present Epistemology," *University of Chicago Decennial Publications*, Vol. 3, 1903. See also Paulsen's *Introduction to Philosophy*, *passim*.

¹ Professor Ladd, in his *Philosophy of Mind*, p. 73, states explicitly that all philosophical problems emerge from the attempt to develop a complete scientific psychology.

the investigation of these functions with a measure of independence is thus thoroughly justifiable, and the prevalent practice accordingly finds its warrant not only in the extrinsic advantages arising from a division of labor, with its consequent economizing of time and effort, but also in the intrinsic differentiations actually found in the operations of consciousness itself, which these disciplines reflect. Finally, it may be said that, in the writer's opinion, the position advanced in the present paper is not so much a formulation of a mere program capable, if authorities agree, of being put into effect, as it is a description of tendencies clearly operative in contemporary psychology and philosophy.¹ Certainly one can hardly survey the unchecked invasion of ethics, logic, and æsthetics by psychology without recognizing that, however fondly tradition and theory may cling to their existence, the time-honored boundaries between psychology and these sciences have in practice been extensively obliterated. Nor can one pass in review the more important psychological writings of the day without detecting the intrusion into them of investigations, discussions, and theories, which, dealing ostensibly with mental functions, trespass in reality upon the preserves of the normative philosophical sciences. If a center of gravity for the detached portions of philosophy be necessary, psychology possesses as a claimant for this honor the notable advantage over its rivals, that it is explicitly devoted to the study of the individual as such, from whom all philosophical problems emanate, and to whom all solutions of them revert. When this psychological study is interpreted in a functional as well as in a structural sense, the theoretical distinctions between psychology and philosophy have ceased to exist.

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¹ For an interesting statement of a view in many particulars similar to that herein developed, see two articles by Professor Dewey, "The Psychological Standpoint," *Mind*, Vol. XI, 1886, pp. 1-19; "Psychology as Philosophic Method," *ibid.*, pp. 153-173. See also a criticism of these papers entitled "Illusory Psychology" by Shadworth Hodgson in the same volume of *Mind*, pp. 478-494, and Professor Dewey's reply in *Mind*, Vol. XII, 1887, pp. 83-88. Professor G. H. Mead has suggestively outlined a theory of the relations among the philosophical sciences, when these are conceived from the functional standpoint, in an article entitled, "Sugges-

tions toward a Theory of the Philosophical Disciplines," PHILOSOPHICAL REVIEW, Vol. IX, 1900, pp. 1-17. Cf. also Croom Robertson's valuable paper on "Psychology and Philosophy" in *Mind*, Vol. VIII, 1883, pp. 1-21, in which a position is taken regarding the intimacy of relationship between psychology and philosophy not wholly foreign to that advanced in this discussion.

ALTRUISM IN HUME'S *TREATISE*.

VARIOUS views have been held of the attitude Hume takes in his *Treatise of Human Nature* and in the *Enquiry concerning the Principles of Morals* on the subject of egoism and altruism. Some interpreters, as for example Green and Lecharrier, regard Hume as committed to egoistic principles in both works, and treat passages incompatible with this interpretation as grudging concessions to inevitable fact. Other writers, as Jodl and Pfeiderer, contend that while the *Treatise* is fundamentally egoistic, the *Enquiry* represents human nature as largely moved by unselfish considerations. Professor Albee¹ agrees with Jodl and Pfeiderer in the interpretation of the *Enquiry*, but instead of finding the *Treatise* unmistakably egoistic, he discovers an "exasperating ambiguity" in that work. And yet it would seem that the preponderating evidence is, in Professor Albee's opinion, decidedly in favor of the egoistic interpretation, for he says that "Hume's position in the *Treatise* apparently is that human nature is essentially egoistic."

It is the purpose of this paper to examine the position of the *Treatise* on this subject. The result, as the writer believes, will show that Hume admits the existence of an original altruism as fully in his earlier as in his later work. This is not, of course, a new interpretation of the doctrine of the *Treatise*. Gizycki's work on Hume's ethics is written on the assumption that both in the *Treatise* and in the *Enquiry* Hume contends for the disinterestedness of sympathy and benevolence. But Gizycki's treatment of this subject is not critical. He does not enter into an examination of the passages which are usually taken to prove that the *Treatise* is egoistic; but in view of the current interpretation of the *Treatise* such an examination is demanded of any one who takes Gizycki's position.

Before going any farther, however, we must define our terms. As Butler has pointed out, we may give to selfishness such a

¹ *History of English Utilitarianism*; see the chapter on Hume, particularly pp. 92-99.

meaning as to make impossible the theory that any human action is ever unselfish.¹ Now if any discussion of egoism is to be fruitful, we must differentiate egoism from non-egoism by taking as our basis of division the *end* of action. By the end of action is meant the result of action so far as it is foreseen and desired by the agent. The question of the mechanism of desire is pertinent to the problem at all, only so far as any desire is supposed to be aroused by means of a mechanism which is set in motion by a more ultimate desire for an egoistic end.

Now it is true that many English associationists have explained sympathy and benevolence as connected by association with one's desire for a selfish end. What makes this view egoistic is not that association is employed to explain benevolence and sympathy, but that it explains them by reducing them to self-love. The mere fact that an author uses association to explain any apparently altruistic emotion does not make that author egoistic; we must look further to see what is the ultimate term to which the associational explanation leads. It is only when that ultimate term is desire for one's own good² that the explanation can be properly called egoistic. These cautionary remarks are necessary because many critics seem to assume that associationism inevitably implies egoism. Historically, the relation between associationism and egoism has, of course, been very close, but there is no necessary logical connection between them, and in Hume we shall find the employment of association to explain certain altruistic emotions without explaining them away.

Having thus made it clear that no action is to be considered egoistic unless it is motivated directly or indirectly by a desire for the agent's own welfare, let us turn to the question whether Hume in his *Treatise* represented all human actions as egoistic. We shall first look at the general drift of his psychological theory as it is presented in that work and note its bearing on our question; and then we shall take up the passages in which he applies

¹ Butler's *Sermons*, Preface.

² It makes no difference how this good is conceived, whether as pleasure or perfection or some other state or possession of the agent. In the seventeenth and eighteenth centuries, egoism was generally hedonistic, and, therefore, our question is whether Hume regarded the agent's pleasure as the only proper end of action.

his theory in detail to the phenomena of love, sympathy, and benevolence. It would be desirable also to examine all the statements which appear to be at variance with the view we shall find to be the prevailing one in the *Treatise*, and to see how far it is possible to explain them in harmony with this view. But the limits of this article make such an investigation impossible here. It would be true, however, to say that there are very few statements in the *Treatise* which do not easily find their explanation in the interpretation here advocated — so very few that they should not be allowed to count against an interpretation which is necessitated by the logic of Hume's general position and by Hume's expressly elaborated doctrine put forward in all the passages in which he devotes himself primarily to the exposition of his views on love, benevolence, and sympathy. The counter-statements are rather in the way of careless *obiter dicta*, and do not occur in connections which could give them much exegetical significance.¹

Hume's philosophy is admitted on all sides to be atomistic. The self is "nothing but a bundle or collection of different perceptions, which succeed each other with an inconceivable rapidity, and are in a perpetual flux and movement."² All these perceptions are either simple or are analyzable into simple perceptions; and since they "are different from each other, and from every thing else in the universe, they are also distinct and separable, and may be consider'd as separately existent, and may exist separately, and have no need of anything else to support their existence."³ These simple perceptions are of two kinds, impressions

¹ What I mean by this can be illustrated by comparing the passages in Book I, Part III, of the *Treatise*, in which Hume so carefully develops his doctrine that there is no objectivity in the causal relation, with other passages in which he employs language that taken naturally would seem to imply a recognition of the objective character of causation. Commentators do not maintain that because of the existence of these latter passages Hume is ambiguous as regards the subjectivity of this relation.

² *Treatise*, Book I, Part IV, Section VI; Selby-Bigge's edition, p. 252; Green and Grose's edition, I, p. 534. Hereafter all references, not otherwise specified, will be to the *Treatise*; and for the sake of brevity they will take the form "I, IV, 6"; the large capitals designating the Book, the small capitals the Part, and the Arabic numeral the Section. "S-B." will stand for Selby-Bigge's (1888), and "G." for Green and Grose's (1882) edition. The text used in the quotations is Selby-Bigge's.

³ I, IV, 5; S-B., p. 233; G., I, p. 518.

and ideas. Under impressions Hume comprehends "all our sensations, passions and emotions, as they make their first appearance in the soul" "with most force and violence."¹ By ideas he means "the faint images of these."¹ Impressions are divided² by him into original and secondary or reflective. "Original impressions or impressions of sensation are such as without any antecedent perception arise in the soul, from the constitution of the body, from the animal spirits, or from the application of objects to the external organs. Secondary, or reflective impressions are such as proceed from some of these original ones, either immediately or by the interposition of its idea. Of the first kind are all the impressions of the senses, and all bodily pains and pleasures: Of the second are the passions, and other emotions resembling them."² By "original," therefore, in this classification, Hume has reference not to the psychic character of sensation as compared with passion or emotion, but to the fact that original impressions "without any introduction make their appearance in the soul."² They are not caused, in the Humian sense of causation, *by other perceptions*, but "depend upon natural and *physical causes*."³ Secondary impressions are called secondary because they arise "either from the original impressions, or from their ideas";⁴ *i. e.*, because they always follow some *other* perception. But this secondary character they have in point of temporal sequence must not be supposed to be incompatible with the original or primary character that belongs to them as unanalyzable.

The originality of the passions, in the sense of their unanalyzableness, makes it "impossible we can ever, by a multitude of words, give a just definition of them."⁵ "The utmost we can pretend to is a description of them, by an enumeration of such circumstances, as attend them."⁵ "They produce merely a simple impression, without any mixture or composition," and "are sufficiently known from our common feeling and experience."⁶ This means that

¹ I, I, I; S-B., p. 1; G., I, p. 311.

² II, I, I; S-B., p. 275; G., II, pp. 75-6.

³ II, I, I; S-B., p. 275; G., II, p. 76. Italics are mine.

⁴ II, I, I; S-B., p. 276; G., II, p. 76.

⁵ II, I, 2; S-B., p. 277; G., II, p. 77.

⁶ II, II, I; S-B., p. 329; G., II, p. 121. Hume here speaks of love and hatred; but what he says of them in this regard is true of all passions.

a passion is always what it seems to be; it is never some other passion in disguise. To use Berkeley's language, its *esse* is its *percipi*. Hence what Hume says of the difference between belief in matters of fact and reveries of the imagination, is true of the difference between the simple passions: "There is nothing but the feeling, or sentiment, to distinguish the one from the other."¹

It is of the utmost importance to keep this fact in mind when we read what Hume says of the "derivation" of certain passions. When he "derives" a passion from some other perception, he does not thereby reduce it to any lower terms, as Gay does. He merely states *the law of its occurrence*; he does not define its *nature*.

Hume divides passions into those which "arise from a natural impulse or instinct, which is perfectly unaccountable,"² and those which are "founded on pain and pleasure."³ Now it is quite true that Hume does not explicitly make this division till he has nearly done with the passions. It has therefore the appearance of an afterthought. But if it be an afterthought, at all events it occurred to Hume long before he came to the Section, "*Of the direct passions*." Some seventy pages earlier in the work we find a reference to these passions not "founded on pain and pleasure." There Hume says: "But tho' the desire of the happiness or misery of others, according to the love or hatred we bear them, be an arbitrary and original instinct implanted in our nature, we find it may be counterfeited on many occasions, and may arise from secondary principles."⁴ Again, about fifty pages farther on, he speaks of "certain calm desires and tendencies, which, tho' they be real passions, produce little emotion in the mind, and are more known by their effects than by the immediate feeling or sensation. These desires are of two kinds; either

¹Appendix; S-B., p. 624; G., I, p. 556.

²II, III, 9; S-B., p. 439; G., II, p. 215.

³II, III, 9; S-B., p. 438; G., II, p. 214. Properly speaking it is the *direct* passions Hume thus divides; but as the direct passions have heretofore been defined as those which "arise immediately from good or evil," it is obviously incorrect to divide them into passions *not* founded on pain and pleasure. The logical way of restating Hume's division is given above in the text.

⁴II, II, 7; S-B., pp. 368-9; G., II, p. 155. The *whole of the preceding section* is devoted to the discussion of the arbitrariness of the two passions, benevolence and anger.

certain instincts originally implanted in our natures, such as benevolence and resentment, the love of life, and kindness to children; or the general appetite to good, and aversion to evil, consider'd merely as such."¹

A higher criticism of the *Treatise* might try to distinguish between egoistic passages which were written first and non-egoistic passages which were afterwards inserted without proper re-writing of older passages in the interest of complete consistency. But whatever may be the truth of such a view, we must remember that the recognition of the existence of instinctive passions, as opposed to passions founded on pleasure and pain, was an integral feature of the *Treatise* as it was published by Hume. Even if, in his haste which he afterwards repented "a hundred and a hundred times," he had failed to bring every part into harmony with every other part, still his general view at the time this first child of his "fell dead born from the press" can very well be made out, and no great amount of modification is necessary to bring almost all other passages into conformity with the doctrine that there are passions in no way derived from pleasure and pain. We must therefore reject as utterly unfair to Hume's *Treatise*, in the form in which it appeared, the assertion that pleasure and pain are for that work the only motives which influence the will. That they are regarded as "the *chief* spring or

¹ II, III, 3; S-B., p. 417; G., II, pp. 196-7. Although these passions are spoken of as calm, and therefore not very patent to introspection, in the next paragraph we are told that "beside these calm passions, which often determine the will, there are certain violent emotions of the same kind, which have likewise a great influence on that faculty." The distinction between calm and violent is of no particular moment. By comparing the passage just quoted with that referred to above (II, III, 9; S-B., p. 439; G., II, p. 215) we can identify "the desire of punishment to our enemies, and of happiness to our friends" with "resentment" and "benevolence," and can make out the following catalogue of these instinctive passions: *private benevolence, resentment, love of life, kindness to children* (= parental love?), and a few *bodily appetites*, such as *hunger* and *lust*. It is worth while to remark that Hume makes a sharp distinction between the instinctive love of life and the non-instinctive "general appetite to good, and aversion to evil, consider'd merely as such." This distinction would be found important, if we were to speak at length of Hume's view of self-love. Contrary to the usage of Hobbes, Hume did not include the self-preservative instinct in self-love. In this he showed fine psychological discernment. The instinct which prompts us to cling to life has no conscious end in view, any more than hunger has.

actuating principle of the human mind" ¹ seems to be a doctrine which runs through the whole *Treatise*; but that they are the *only* motives to action is, I believe, nowhere asserted in the whole work.

If one were to ask why, if this be so, Hume made so little of these instinctive passions, which are not "founded on pain and pleasure," the reply is that such a question is not properly put. For while, in Book II, Hume devotes little space to the instinctive passions, in Book III he assigned to one of them, viz., private benevolence, an immense influence.² The small space given to the instinctive passions in Book II has a most obvious explanation. That Book, while bearing the general title "Of the Passions," yet in fact is almost entirely taken up with the sole question of their origin. In one passage, it is true, Hume says that the "nature, origin, causes and objects" of love and hatred are the subjects of his "present enquiry."³ But when we look at the performance and compare it with this programme, we shall find that Hume acknowledges that the nature of these passions admits of little discussion. They are elementary affections and cannot be defined. Hence he lightly passes over the subject of their nature. We shall also find that the "causes and objects" of these passions are treated only in so far as they throw light upon their origin. We may, therefore, safely say that *the whole of Book II is concerned primarily with the problem of the origin of the passions.*

This problem is solved in accord with Hume's idea of origin, an idea familiar to all his readers. The origin of any perception is explained for him only if he can lay his finger on the relations which obtain between that perception and the perceptions which immediately precede it. But inasmuch as the instinctive passions "arise from a natural impulse or instinct, which is perfectly unaccountable,"⁴ it would be futile to spend any time on the

¹ III, III, 1; S-B., p. 574; G., II, p. 334; italics are mine. Compare with this passage another almost identical with it: "There is implanted in the human mind a perception of pain and pleasure, as the chief spring and moving principle of all its actions." (I, III, 10; S-B., p. 118; G., I, p. 417). The "all" makes this assertion more sweeping, but the "chief" still leaves it qualified.

² See below, pp. 295-6, especially footnote 1, p. 296.

³ II, II, 1; S-B., p. 329; G., II, p. 121.

⁴ II, III, 9; S-B., p. 439; G., II, p. 215.

question of their origin. The passions of pride and humility, of love and hatred, on the other hand, can be accounted for, so Hume thought, in terms of association. But as the explanation was new and very complicated, he devoted one hundred and twenty pages¹ to it. This does not signify that he thought these passions of more practical importance than benevolence, to which he gives very little space in this Book. Hume expressly says that pride and humility "are only pure sensations, without any direction or tendency to action."² And yet to this pair of inactive passions, which are conceived as not attended with any appetite or desire, one of the three Parts of this Book is exclusively devoted. This statement shows that no inference as to practical or moral importance can be drawn from the amount of space here assigned to any passion. The reason for what to us seems such a disproportion, is that Hume was here solely interested in seeing how far he could carry out his theory of association. Where he could successfully apply this theory, he lingered with loving tenderness over every little detail. Where he met with difficulties insoluble by this method, he frankly admitted that he was face to face with what Mill afterwards called "a final inexplicability." He did not try to force his theory on his facts. His own opinion of philosophers who apply themselves "to the explaining the ultimate principles of the soul," was not very flattering.³ For himself, as he tells us, he derived "a more delicate satisfaction from the free confession of his ignorance, and from his prudence in avoiding that error, into which so many have fallen, of imposing their conjectures and hypotheses on the world for the most certain principles."⁴ In the matter before

¹ In Selby-Bigge's edition.

² II, II, 9; S-B., p. 382; G., II, p. 166.

³ Introduction to the *Treatise*; S-B., p. xxi; G., I, p. 308.

⁴ *Ibid.*, S-B., p. xxii; G., I, p. 309. Nothing could be more unfair to the *Treatise* than Mr. Selby-Bigge's statement that it was written with the "intention to reduce the various principles of human nature, which appear distinct to ordinary men, to some more general and underlying principle." (See the Introduction to his edition of the *Enquiries*, 1894, p. xxiii.) The two passages quoted by Mr. Selby-Bigge to prove his statement do not prove it. The thought in both of them is that we "ought not to multiply causes *without necessity*" (italics are mine). This is a very different matter from reducing all principles to one, and is a sound methodological rule. Nor is it in the least at variance with Hume's attitude in the *Enquiry concerning the Principles of Morals*. There, in a passage quoted by Mr. Selby-Bigge, Hume

us, Hume showed his prudence by not attempting to apply his theory of association to explain private benevolence or parental affection. But inasmuch as he could not explain them, he could not consistently give them much room in that Book of the *Treatise*, whose function it was to explain the origin of such passions as were explicable by his method. The most that could be expected of him in this Book is an open declaration of the limitations of his method, and this we actually find. In Book III, on the other hand, we discover the relative values Hume placed on the various passions in the moral life; and there pride plays a very small part, while instinctive benevolence becomes a most important factor.²

We have already seen that, in addition to the instinctive passions, Hume recognized a class of passions "founded on pain and pleasure."³ But what is meant by a passion's being founded on pleasure and pain? The expression is ambiguous. Does Hume mean that only ideas of pleasure and pain arouse these passions, or does he mean that present pleasure and pain arouse them? One passage at the beginning of the *Treatise* would justify us in accepting the former alternative, if it stood alone. It runs: "An impression first strikes upon the senses, and makes us perceive heat or cold, thirst or hunger, pleasure or pain of some kind or other. Of this impression there is a copy taken by the mind, which remains after the impression ceases; and this we call an idea. This idea of pleasure or pain, *when it returns upon the soul*, produces the new impressions of desire and aversion, hope and fear, which may properly be called impressions of reflexion, because derived from it."⁴ But later on in the same paragraph Hume qualifies the statement by saying that "the impressions of reflexion, *viz.* passions, desires, and emotions . . . arise *mostly* from ideas."⁴ But this sentence overstates Hume's objects to certain attempts at reducing all benevolent affections to self-love. "All attempts of this kind have hitherto proved fruitless, and seem to have proceeded entirely from that love of *simplicity* which has been the source of much false reasoning in philosophy." (*Enquiry*, Appendix II; S-B., p. 298; G., p. 269.) It is one thing not to multiply causes *beyond necessity*; it is another thing to put forward an hypothesis *entirely from a love of simplicity* and without regard to facts.

² See below, pp. 295-6.

³ II, III, 9; S-B., p. 438; G., II, p. 214.

⁴ I, I, 2; S-B., pp. 7-8; G., I, p. 317. Italics are mine.

view, as we shall see, and must be classed with the above-mentioned *obiter dicta*. The first full expression he gives to his views we find in the section entitled, *Of the influence of belief*. "Pain and pleasure have two ways of making their appearance in the mind; of which the one has effects very different from the other. They may either appear in impression to the actual feeling, or only in idea, as at present when I mention them. 'Tis evident the influence of these upon our actions is far from being equal. Impressions always actuate the soul, and that in the highest degree; but 'tis not every idea which has the same effect. Nature has proceeded with caution in this case, and seems to have carefully avoided the inconveniences of two extremes. . . . Nature has, therefore, chosen a medium, and has neither bestow'd on every idea of good and evil the power of actuating the will, nor yet has entirely excluded them from this influence. . . . The effect, then, of belief is to raise up a simple idea to an equality with our impressions, and bestow on it a like influence on the passions. *This effect it can only have by making an idea approach an impression in force and vivacity.*"¹ The passage is too long to quote entire, but even what is quoted above shows that for Hume an idea of future pleasure prompts to action, not because it is an *idea of future pleasure*, but because, and only in so far as, it is *at present vividly pleasant*. Hume's view, here expressed, is that when we are influenced by pleasure to perform an action, we always act *from* pleasure, not always *for* pleasure; and that even when we do act for pleasure, we do so because of the immediate pleasantness of the anticipated pleasure. Pleasure is not so much an inducement and allurement, it is rather an incentive and instigation. It is not always an end, and even when it is an end, it is such only because the pleasantness of the idea of that end is an efficient cause, in Hume's sense of cause.

¹ I, III, 10; S-B., pp., 118-119; G., I, p. 417. Italics are mine. This view of the function of pleasure strikes us as so modern that we are at first startled to find it in Hume; but Hume's words speak for themselves. The view is of course not hedonism, for hedonism is the doctrine that pleasure is the only, or the only rational, end of action. As Professor Seth remarks, we must distinguish between "a *pleasant idea* and an *idea of pleasure*." See his *Study of Ethical Principles*, 6th edition, pp. 70-71. This distinction is very properly made much of by Meinong and von Ehrenfels.

Now, if we bear in mind that, when Hume speaks of passions "founded on pain and pleasure," he does not mean passions having pleasure and the avoidance of pain as their object or end, we can understand how Hume can say that such passions proceed from some impression of sensation, "either *immediately* or by the interposition of its idea;" and also that "bodily pains and pleasures are the source of many passions, both *when felt* and considered by the mind."¹ If all passions founded on pleasure and pain were related to pleasure and pain as ends, then they could not possibly appear except in sequence upon *ideas* of pleasure and pain; for ends are never present as sensations, but only as ideas. Hume's recognition that *sensations* of pleasure and pain give rise to passions, must therefore be interpreted as logically bound up with his expressly stated doctrine which we have already examined—the doctrine that pleasure and pain function in producing passion, not because they are the only conceivable or rational ends of passion, but only *in so far as they are present sensations or approach in intensity to present sensations*. This doctrine that pleasure and pain function dynamically, and not teleologically, in the production of passions, will also throw much light on Hume's treatment of the indirect passions.

As is well known, Hume divides passions into 'direct' and 'indirect.' This division is based on the relation which exists between the passions and pleasure or pain. "By direct passions," he says, "I understand such as arise immediately from good or evil, from pain or pleasure."² By indirect, such as proceed from

¹ II, I, 1; S-B., pp. 275-6; G., II, pp. 75-6. Italics are mine.

² Much misunderstanding has arisen from this identification Hume constantly makes between good and pleasure, between evil and pain. One is tempted to infer, and many evidently do infer, that such an identification proves that (for Hume pleasure must be the sole object of desire.) For if good is defined as *Hobbes* defines it in the *Leviathan* (Chapter vi), by saying: "Whatsoever is the object of any mans Appetite or Desire; that is it, which he for his part calleth *Good*;" and if this good is identified with pleasure as Hume does identify it, then, of course, pleasure becomes the sole object of desire. But Hume does not define good as the object of desire. He simply identifies the good with pleasure and the evil with pain; and the relation of good and evil to desire is not in any way prejudged by him when he makes this identification. On the contrary, he recognizes different relations which obtain between desire and the good. Sometimes the good produces desire, and sometimes conversely desire produces the good. (II, III, 9; S-B., p. 439; G., II, p. 215.) Hence

the same principles, but by the conjunction of other qualities."¹ To the indirect passions Hume devotes much the larger part of Book II. To the direct passions he devotes about ten pages. Here, again, we must observe that the amount of space allotted to the two classes of passions is no indication of the relative value of these passions in actual life. The reason why the direct passions have so little space assigned them is that it takes little space to say all that Hume had to say about them, except with regard to the part they play in determining our "moral sense," and this does not come within the scope of Book II. Book II is a book of origins, and in it passions without an associative genealogy get scant courtesy. [Direct passions, just because they are direct, have no associational pedigree. It is simply an ultimate fact of human nature that pleasure and pain, when sufficiently intense, arouse the passions.] As Hume puts it, "there is *implanted* in the human mind a perception of pain and pleasure, as the chief spring and moving principle of all its actions."²

But not only is the origin of direct passions inexplicable by association. The nature of some of them is likewise inexplicable. It is indefinable, inasmuch as all simple perceptions are just what to feeling they seem to be. But since at least two of the direct passions, viz., hope and fear, are not simple, Hume takes some space to show what the elements are of which they are compounded. This accounts for about nine of the ten pages devoted to the direct passions.

In addition to the insoluble problems of the nature and of the origin of the direct passions, there is the problem of their object. This Hume treats in one sentence, and one sentence is enough, considering what it says. "The mind by an *original* instinct

we have no right to assume that the passions "which arise from good and evil" thus arise *because* good and the avoidance of evil are the only possible *objects* of these passions. *Desire* proceeds from good and evil only in the sense that good (pleasure) when sufficiently intense is constantly followed by desire for it, and that evil (pain) under like conditions is followed by aversion to it. What the desire is directed towards depends upon the original constitution of human nature, as we shall see below (p. 289 footnote 2). Because a passion is produced by the good, it is not necessarily a *desire* directed toward the good. Only the *direct* passions founded on good and evil have good and evil as their object; but not so the *indirect* passions, as will soon appear.

¹ II, I, I; S-B., 276; G., II, p. 76.

² I, III, 10; S-B., p. 118; G., II, p. 417. Italics are mine.

tends to unite itself with the good, and to avoid the evil, tho' they be conceiv'd merely in idea, and be consider'd as to exist in any future period of time."¹

Thus we see that what Hume, in accordance with the plan of this Book, had to say of the direct passions needed only a short chapter for its adequate saying. *Their origin, their nature, and their objects are inexplicable by association.*

Of this short chapter on the direct passions not all is taken up with the direct passions founded on pain and pleasure. One paragraph is given up to the statement we have already quoted, that some are not founded on pain and pleasure. They "arise from a natural impulse or instinct, which is perfectly unaccountable."² These passions have a right to be considered direct, as they cannot be accounted for by the principle of association. They are not direct, however, in the sense of proceeding immediately *from good or evil*. This Hume takes pains to say: "These passions, properly speaking, produce good and evil, and proceed not from them, like the other affections."²

Having thus examined Hume's theory of the instinctive passions and of the direct passions founded on pleasure and pain, let us proceed to the consideration of his doctrine of the indirect passions. By these, Hume understands such as proceed from pain or pleasure, "but by the conjunction of other qualities."³ But before turning our attention to these "other qualities," let us guard against one very serious possible misconception. An indirect passion is not, by reason of the fact that it is indirect, reducible to more fundamental and original psychic elements. An indirect passion may be as simple and unanalyzable as any direct passion. As a matter of fact, the two sets of indirect passions to which Hume devotes his attention, are both expressly stated by him to be "simple and uniform impressions,"⁴ "without any mixture or composition."⁵

But if Hume is not trying to analyze the indirect passions, what is he trying to do with them? The answer to this ques-

¹ II, III, 9; S-B., p. 438; G., II, pp. 214-5. Italics are Hume's own.

² II, III, 9; S-B., p. 439; G., II, p. 215.

³ II, I, 1; S-B., p. 276; G., II, p. 76.

⁴ II, I, 2; S-B., p. 277; G., II, p. 77.

⁵ II, II, 1; S-B., p. 329; G., II, p. 121.

tion can be given only if we take into account his atomistic view of mind. As we know, Hume finds in himself only a bundle of perceptions, succeeding or coexisting with each other. But while all of these perceptions are "different from each other, and from everything else in the universe,"¹ still there are certain relations found to subsist between perceptions, and at least some of these relations are qualities "by which two ideas are connected together in the imagination."² Such a relation is a "bond of union," "an associating quality, by which one idea naturally introduces another." It is a "uniting principle among ideas," and we are to regard it "as a gentle force, which commonly prevails."³ Thus although each perception is absolutely distinct and separable from every other, still certain perceptions are constantly conjoined with each other, and where that is the case we can sometimes discover certain relations which constantly obtain between them. These relations are then accepted as an explanation of the conjunction, simply because it is not possible to push the matter further. Now indirect passions are passions which stand in ascertainable relations with precedent perceptions and are thus explicable by these relations. The explanation thus afforded, however, is an explanation of their origin, not of their nature.

In Book I, Hume deals only with one explanatory relation, viz., the "association of ideas." The reason for this is that in Book I Hume's main aim is to account for the origin of such *ideas of the understanding* as do not seem to correspond to any previously experienced sensation. Sensations cannot be explained by Hume, because his explanations are given in terms of association, and inasmuch as sensations are original, i. e., dependent only upon natural and physical causes, and not on precedent perceptions, of course no explanation in terms of association is possible for them. Associations as psychologically explanatory principles

¹ See above, p. 274.

² I, I, 5; S-B., p. 13; G., I, p. 322.

³ I, I, 4; S-B., pp. 10; G., I, p. 319. It is not my intention to inquire here how such a view is compatible with the view Hume develops, according to which force is given a subjective and not an objective value. The question that concerns us here is not whether Hume is consistent in his epistemology, but how, taking his epistemology for granted, he applies it to our present problem.

are regarded by Hume as obtaining only between two perceptions, not between a perception and an anatomical or physiological fact. It is beside Hume's purpose to go into what we now call psycho-physics.¹]

But when we come to secondary or reflective impressions, the case is different. [For these never appear except in sequence upon some sensation or some idea of sensation.] Hence it is quite possible to discover some relation obtaining between these reflective impressions and the perceptions that precede them. If these relations always obtain in certain designable cases, then they can be accepted, according to Hume's philosophy, as explanations for the appearance of the reflective impressions in these cases.

Now, as we have already seen, there are some reflective impressions, or passions, which appear in sequence upon certain perceptions without any discoverable constant relation between them and the perceptions which precede them. These are the instinctive passions, if the precedent perceptions are not perceptions of pleasure or pain; they are direct passions "founded on pain and pleasure," if the precedent perceptions are those of pleasure or pain. But, in addition to these two classes, Hume discovers other passions, which indeed are always preceded by perceptions of pleasure and pain, but *which are besides always connected with the preceding perceptions by certain ascertained relations*. Now, assuming that relations are "uniting principles," the constant presence of these ascertained relations must be assumed to unite these particular passions with the precedent perceptions. They account for the *place* these passions occupy in the uninterrupted progress of our perceptions. These passions are called indirect because these relations *mediate* between them and the precedent perceptions. This mediation, however, does not in any way alter the nature of these passions as unanalyzable perceptions, whose character is "sufficiently known from our common feeling and experience."²

Let us now look at the uniting principles discovered by Hume and used to explain not the nature, but the occurrence of these

¹ II, I, I; S-B., pp. 275-6; G., I; p. 76.

² II, II, I; S-B., p. 329; G., II, p. 121.

indirect passions. "The *first* of these is the association of ideas, which I have so often observ'd and explain'd. . . . When one idea is present to the imagination, any other, united by these relations, naturally follows it, and enters with more facility by means of that introduction.

"The *second* property I shall observe in the human mind is a like association of impressions. All resembling impressions are connected together, and no sooner one arises than the rest immediately follow. Grief and disappointment give rise to anger, anger to envy, envy to malice, and malice to grief again, till the whole circle be completed. In like manner our temper, when elevated with joy, naturally throws itself into love, generosity, pity, courage, pride, and the other resembling affections."¹ In other words, when some one pleasant impression appears for any reason in consciousness, it has the tendency by this law of the association of impressions to call up all other pleasant impressions indiscriminately.²

But "one impression may be related to another, not only when their sensations are resembling," *i. e.*, when the impressions have what we should now call like affective tone, "but also when their impulses or directions are similar and correspondent."³ That is, when a passion with a certain definite end appears in consciousness, any other passion with a similar end will be likely to appear also. Hume calls this the "principle of a parallel direction."⁴ It must be observed with reference to the association of impressions by resemblance, whether the resemblance be that of affective tone or of direction, that it operates as a uniting principle, not by reason of any *past* association between the united elements, but *de novo*. The first time a certain pleasant passion is experienced, it tends

¹ II, I, 4; S-B., p. 283; G., II, p. 82.

² The reason Hume did not mention this law of the association of impressions in Book I is that that book deals with the understanding, and this law is a law of the passions. Hume has a way of stating any psychological law only when he is about to use it. The same remark applies to the next law discussed below, the "principle of a parallel direction." We should naturally have expected to have it enunciated here, but Hume holds it in reserve until he comes to phenomena which he desires to explain by it. This unsystematic way he has of bringing forward his laws has laid him open to the charge of making up laws to fit every occasion.

³ II, II, 9; S-B., p. 381; G., II, p. 166.

⁴ II, II, 9; S-B., p. 384; G., II, p. 168.

to call up all other pleasant passions. This point it is important to emphasize, because it differentiates Hume's employment of association in explanation of certain passions from that of Gay and others, who made association account for the object of the altruistic passion by virtue of past experience of certain constant conjunctions.

These three principles, viz., association of ideas, association of impressions by the resemblance of their affective tone, and parallel direction, are the "other qualities" to which Hume refers when he says that the indirect passions proceed from pain or pleasure, "but by the conjunction of other qualities."¹

To put the matter briefly, the process is as follows: There is an initial complex of perceptions which we may characterize as a certain object with a certain quality which pleases² me *immediately*. The fact that I am pleased tends to arouse, by the principle of association of impressions by resemblance of affective tone, all the pleasant passions indiscriminately. But some one of these associated passions may have in addition to pleasantness another original quality, which may serve as a basis of operations for a second principle of association to unite it with the initial complex of perceptions. If so, this one passion has *two* relations connecting it with that initial complex, while all other pleasant passions have only *one*. It will therefore have pre-*cedence* over its rivals. The double association will "introduce" it and will exclude all the other passions. The double "pull" gives it a prerogative, a prior right to appear. Such is the general statement of the working of Hume's "double association." Let us see how it operates in the case of love.

I meet, or think of, some person who has some quality which is immediately pleasing. I am therefore in a mood to experience all the pleasing passions in turn; and if pleasantness were the only relation which obtained between any of the pleasant passions and my present mood of pleasure in a person, all these passions would actually appear in succession, "till the whole circle be compleated."³ Among these passions love would of course be

¹ II, I, 1; S-B., p. 276; G., II, p. 76.

² For brevity's sake, I omit reference to displeasing qualities.

³ II, I, 4; S-B., p. 283; G., II, p. 82.

found, because it is a pleasant passion. As Hume puts it, its "sensation" "is always agreeable."¹ But while it would thus appear in due course, it would be no more closely related to the sentiment of pleasure in another person than hope or courage or pride would be.

As a matter of fact, however, love has another associative connection with the experience of pleasure in *another person*. For love is a passion whose object, "determin'd by an original and natural instinct,"² is *another person*. The "other person," which is always the object of love, connects love with the experience of pleasure caused by some quality of "another person." This is an association of ideas; the idea of the object of love, being always an idea of a person, resembles the perception of the person who immediately pleases. This association gives love a priority of "introduction" over the other pleasant passions. Hence it is that we love a person who pleases, rather than hope for him or take pride in him. If the quality which immediately pleases belonged to *me* and not to another person, then not love but pride would be aroused, for pride has the *me* as its natural and original object. Hume's own words are these: "I choose an object, such as virtue, that causes a separate satisfaction: On this object I bestow a relation to self; and find, that from this disposi-

¹ II, II, 7; S-B., p. 331; G., II, p. 122.

² I, I, 5; S-B., 286; G., II, p. 84. It is true that in the passage referred to here Hume is speaking of pride and humility, not of love and hatred. But later, when he comes to speak of love and hatred, he is careful to tell us that "there is so great a resemblance betwixt these two sets of passions, that we shall be oblig'd to begin with a kind of abridgment of our reasonings concerning the former, in order to explain the latter. As the immediate *object* of pride and humility is self . . . so the *object* of love and hatred is some other person. . . . This is sufficiently evident from experience. Our love and hatred are always directed to some sensible being external to us; and when we talk of *self-love*, 'tis not in a proper sense, nor has the sensation it produces anything in common with that tender emotion, which is excited by a friend or mistress." (II, II, 1; S-B., p. 329; G., II, p. 121.) By comparing this passage with what Hume has formerly said about the object of pride and humility, it is obvious that the word "immediate" above is an "abridgment" of the expression "determin'd by an original and natural instinct." In fact, in the *Treatise*, *all passions, except sympathetic ones, have their objects determined by instinct*. We have already seen that this is the case with the *direct passions*. (See above, pp. 276 f., 283-4.) Were it not the case with the *indirect passions* the mind "wou'd have no foundation for action, nor cou'd ever begin to exert itself" in employing its principles of association. (II, I, 3; S-B., 280; G., II, p. 80.) Sympathetic passions get their objects from the passions sympathized with, as will appear below, pp. 291 ff.

tion of affairs, there immediately arises a passion. But what passion? That very one of pride, to which this object bears a double relation. Its idea is related to that of self, the object of the passion: The sensation it causes resembles the sensation of the passion. That I may be sure I am not mistaken in this experiment, I remove first one relation; then another; and find, that each removal destroys the passion, and leaves the object perfectly indifferent. But I am not content with this. I make a still farther trial; and instead of removing the relation, I only change it for one of another kind. I suppose the virtue to belong to my companion, not to myself; and observe what follows from this alteration. I immediately perceive the affections to wheel about, and leaving pride, where there is only one relation, *viz.* of impressions, fall to the side of love, where they are attracted by a double relation of impressions and ideas. . . . But to make the matter still more certain, I alter the object; and instead of vice and virtue, make the trial upon beauty and deformity, riches and poverty, power and servitude. Each of these objects runs the circle of the passions in the same manner, by a change of their relations.”¹

This is perfectly unambiguous. There is nothing said of past experience, nothing about the previously ascertained conduciveness of the loved object to my pleasure, for the sake of the re-enjoyment of which I now am doing anything. Association does not begin with self-love and change it into a love for another, neither does it introduce the very least element of self-love into the nature of my love for another. [On the contrary, it is the *original* qualities of love which make it possible for the double association to work. And one of these original qualities is the fact that love is “always directed to some sensible being external to us”;² that is, the original and invariable altruism of love is *presupposed* by Hume’s associational explanation; the associations do not produce the altruism.] Without the altruism the associations could never begin to exert themselves. Hume’s

¹ II, II, II; S-B., pp. 336-7; G., II, pp. 127-8. The fullest account given of the working of the double relation of impressions and ideas is found in II, I, 5; S-B., pp. 285 ff.; G., II, pp. 83 ff.

² See above, p. 289, footnote 2.

associationistic psychology of the passions therefore does not concern in any way the nature of the passions, but is merely a mechanical¹ device for explaining the occurrence of the passions. And this device works only on the supposition that love is originally and always altruistic. Pleasure plays a part in the mechanism by which the passion is "introduced." But this part is not that of an end or an object of the passion, but simply the part of cause. To put it succinctly, we love others because for some reason they please us ; but we do not love them in order to get pleasure either from them or from our love for them.

But because not every one pleases us, we do not love every one. "In general, it may be affirm'd, that there is no such passion in human minds, as the love of mankind, merely as such, independent of personal qualities, of services, or of relation to ourself."² Let it be remarked, however, that this sentence does not deny the existence of "an extensive benevolence"; that is, of a desire of the happiness of persons who do not please us by reason of their personal qualities, their past services, or some other relation to ourselves. As we shall see, Hume makes a very marked distinction between love and benevolence, and this sentence refers to love, not to benevolence. Benevolence extends beyond the limits of love. Mr. Selby-Bigge ought not to quote this sentence as an instance of "passages which sternly limit" the "extent and influence" of benevolence.³ As will soon⁴ appear the passage *extends* that influence.

Let us now see how Hume accounts for pity. Pity is sympathy with another's pain or with his desire to rid himself of that pain, and sympathy is in the *Treatise* a general term applied to any lively perception whatever, provided it is produced in a certain peculiar way. The idea of self is a part of the machinery which produces the sympathetic perception, but the sympathetic

¹ In the concluding paragraph of the *Dissertation on the Passions*, Hume himself says of this double association of impression and ideas: "It is sufficient for my purpose, if I have made it appear, that in the *production* and *conduct* of the passions, there is a certain regular *mechanism*" (*italics* are mine). The "mechanism," however, does not give *objects* to the passions.

² III, II, 1; S-B., p. 481; G., II, p. 255.

³ See the Introduction to his edition of the *Enquiries*, p. xxv.

⁴ See below, p. 296, where another sentence of this passage is quoted.

perception, when produced, does not contain within itself any marks imprinted upon it by the machinery which has produced it. For we must remember that always in the *Treatise* all simple perceptions are original existences in the sense that they do not admit of any analysis. If, therefore, [we sympathize with a simple perception in another person, the perception we experience by sympathy is as simple as its prototype.] If that prototype has no reference to us, neither does the sympathetic perception have any reference to us. This lack of reference to ourselves in such a sympathetic perception is not due to the fact that it has been worn away by custom. *It was never there to begin with.* This is one of the most important points to grasp in order to understand the nature of sympathetic perceptions as presented in the *Treatise*. The failure to bear this point in mind is accountable for the [erroneous characterization of sympathetic perceptions as egoistic] on Hume's showing. Let us now make good our assertion of the non-egoistic character of sympathy in the *Treatise* by an examination of the passages which deal with the mechanism that produces it.

"When any affection is infus'd by sympathy, it is at first known only by its effects, and by those external signs in the countenance and conversation, which convey an idea of it."¹ For example, John Smith has some affection, and we get an idea of this affection he has from the various indications that give expression to it. Suppose that affection be a desire to get rid of a certain pain he has. The idea we get, from the various indications given by him, is, then, an idea of a desire to get rid not of our own but of *John Smith's* pain. Therefore, John Smith's desire to get rid of his own pain, when it first makes its appearance in our mind as an *idea*, does not become an idea of a desire to get rid of *our* pain. Our pain does not enter into the content of the idea at all. "[This idea] is presently converted into an impression, and acquires such a degree of force and vivacity, as to become *the very passion itself*, and produce an equal emotion, as any original affection."² Or as Hume puts it in another pas-

¹ II, I, II; S-B., p. 317; G., II, p. III.

² II, I, II; S-B., p. 317; G., II, p. III. Italics are mine. An image we form of the affection of another is not an idea of *our* affection; but is *our* idea of

sage, "'tis also evident, that the ideas of the affections of others are converted into the very impressions they represent, and that the passions arise *in conformity to the images we form of them.*"¹ This change which thus takes place does not transform the idea of a desire to get rid of John Smith's pain into an actual desire to get rid of our pain; it is still *John Smith's* pain that is in question. And as the thought of our pain is not contained in our idea of John Smith's pain, so the thought of our pain is as alien to the nature of this sympathetic idea after it is enlivened as it was before. [The process of enlivening has not made our idea of a desire to get rid of his pain an egoistic desire; and yet that process is all that takes place in the production of our pity for him.]

But it will be said in reply that we have slurred over the nature of that process, and that if we were only to look more carefully at the way in which our idea of another man's desire gets access of liveliness, we should see that the resultant lively desire must be egoistic. Let us see.

Where does this liveliness come from? From "so lively a conception of our own person, that 'tis not possible to imagine, that anything can in this particular go beyond it."² Does not this intervention of the idea of *self* make the sympathetic desire egoistic? By no means, unless the idea of self is taken over into the passion so as to make the passion a desire for relief from my own pain. *This, however, does not occur.* [The only thing that the idea of self does is to make over some of its *liveliness* to the idea of another's passion.] What is "conveyed" to the idea of the passion is not any part of the content of the idea of self, but merely the vivacity with which that content is endowed.]

This conveyance is made possible by the relation which obtains between ourselves, of whom the idea is so lively, and John Smith, *another's* affection. This according to Hume's general principles is nothing but a faint reproduction, in our consciousness, of another's affection as it exists in his. But as it exists in his consciousness, it is an affection with the avoidance of his pain as object; hence when it is reproduced in us it is a fainter affection, but still with the avoidance of his pain as object. When this fainter affection becomes stronger, it does not change its object.

¹ II, I, 11; S-B., p. 319; G., II, p. 113. Italics are mine.

² II, I, 11; S-B., p. 317; G., II, p. 112.

whose pain we have an idea of a desire to avoid. The mere resemblance which consists in the fact that we are all human beings, is enough "to make us enter into the sentiments of others."¹ Other more particular relations, "any peculiar similarity in our manners, or character, or country, or language" "facilitates the sympathy."¹ But it is to be observed that these accessory relations do not introduce any egoistic element into the sympathetic passion. All they do is to facilitate the conveyance of the liveliness from the idea of self to the idea of some one's else passion. "The stronger the relation is betwixt ourselves and any object, the more easily does the imagination make the transition, and convey to the related idea *the vivacity* of conception, with which we always form the idea of our own person."²

It is thus seen that in the *Treatise* sympathy does not consist in the fact that we unconsciously put ourselves in the place of the person sympathized with, and, in a sense, feel for ourselves, rather than strictly feel for him. Sympathy does not make us feel *for* ourselves, but makes us *ourselves* feel for the same object the same passion which the other man feels. We feel for the other man, just what he feels for himself.³

Let us now take up the subject of benevolence,⁴ and see what

¹ II, II, II; S-B., p. 318; G., II, p. 112.

² II, II, II; S-B., p. 318; G., II, p. 112. Italics are mine. Let us observe that it is the *vivacity* of the conception, not the conception itself, which is thus conveyed.

³ Of course I am not attempting here to justify Hume's psychological account of sympathy. All I am trying to do is to show what that account is and also to show that it has absolutely no egoistic implications. The question is not whether the psychology of sympathy in the *Treatise* is perversely ingenious, but whether it is egoistic.

⁴ In the *Treatise* benevolence is distinguished from love as an active from a passive affection. Love is an undefinable emotion; the nearest we can come to saying what it is, is by describing it as a tender pleasure in some other person. But it is "attended with a certain appetite or desire" (II, II, 9; S-B., p. 382; G., II, p. 166). This appetite is private benevolence, or "a desire of the happiness of the person lov'd, and an aversion to his misery" (II, II, 6; S-B., p. 367; G., II, p. 153). Hobbes made a similar distinction in *Human Nature* (Chapter IX), when he speaks of "the *love* men bear to one *another*, or pleasure they take in one another's company" (§ 16); and then (in § 17) says: "There is yet another passion sometimes called *love*, but more properly *good-will* or *charity*. . . In which, first, is contained that *natural affection* of parents to their children . . . as *also*, that affection wherewith men seek to *assist* those that adhere unto them" (Molesworth's edition, *English Works*, Vol. IV, pp. 48 and 49). Hutcheson makes a somewhat

Hume has to say concerning it. The distinction he makes between public and private benevolence is a distinction based on the difference of the objects of the passion. In the one case we feel benevolence towards some one we love, and in the other case we feel benevolence toward some one with whom we sympathize, and even toward the lower animals. As Hume puts it, this latter "concern extends itself beyond our own species."¹

As we have already seen, private benevolence is an "arbitrary and original instinct implanted in our nature."² By this Hume means, as he always means when he speaks of anything as arbitrary or instinctive, that he cannot explain its appearance in the conjunction in which it appears. Benevolence is inexplicably conjoined with love. "This order of things, abstractly consider'd, is not necessary."³ There is no discoverable mechanism of association, which calls up benevolence when once love has been aroused.⁴

Private benevolence appears in Book III under the title of "confin'd generosity,"⁴ "limited generosity,"⁴ an "insatiable, perpetual, universal" avidity "of acquiring goods and possessions . . . for our nearest friends";⁵ and is there regarded as one of the two coöperating principles of human nature, from which

similar distinction, in his *Inquiry*, between the love of complacency and the love of benevolence (see Selby-Bigge's *British Moralists*, I, pp. 85 f); but the love of complacency is for him aroused by moral qualities alone. Butler speaks of the "love of society as distinct from affection to the good of it" (Sermon 1, "Secondly").

¹ III, II, 1; S-B., p. 481; G., II, p. 255.

² See above, pp. 276 ff.

³ II, II, 6; S-B., p. 368; G., II, p. 154.

⁴ There is one passage in which Hume gives an explanation of this conjunction in terms of association. But there he defines benevolence differently, for he makes it "an original pleasure arising from the pleasure of the person belov'd, and a pain proceeding from his pain: From which correspondence of impressions there arises a subsequent desire of his pleasure, and aversion to his pain." (II, II, 9; S-B., p. 387; G., II, p. 170-1.) This is an isolated passage, as regards private benevolence. But even if it were the prevailing doctrine of the *Treatise*, that doctrine still would not be egoistic. For Hume does not say that my desire for the pleasure of the person beloved is due to my desire of my own pleasure which would follow upon my knowledge of his pleasure. In other words, my original pleasure in his pleasure is here a *cause* of my desire of his pleasure; its repetition is not said to be the *end* of that desire.

⁵ III, II, 2; S-B., pp. 495, 494, 491-2; G., II, pp. 267-8, 264.

justice derives its origin.¹ The other principle of course is self-love.

"Extensive benevolence" or "extensive generosity" is something quite different from private benevolence, so far as origin is concerned. As the name implies, it is a desire of the happiness and an aversion to the misery of persons whom we do not love.² This desire and aversion are due to sympathy. "We pity even strangers, and such as are perfectly indifferent to us."³ "'Tis true, there is no human, and indeed no sensible, creature, whose happiness or misery does not, in some measure, affect us, when brought near to us, and represented in lively colours: But this proceeds merely from sympathy."⁴ This broad sympathy is part of "the original frame of our mind," although "'tis only the weakest" part.⁵ Being weak as compared with other principles of action, it cannot be regarded as the principle from which

¹ Interpreters frequently assert that in the *Treatise* Hume is concerned to prove that justice is ultimately based on practically egoistic principles. Such an assertion sounds strange inasmuch as Hume in the Section, *Of the origin of justice and property*, seldom mentions self-love without also mentioning private benevolence as contributing to that origin. The egoistic interpretation of the origin of justice is difficult to understand, especially in view of the fact that one part of the argument of this Section closes with this summary, italicized by Hume himself, "Here then is a proposition, which, I think, may be regarded as certain, that 'tis only from the selfishness and confin'd generosity of men, along with the scanty provision nature has made for his wants, that justice derives its origin." (III, II, 2; S-B., p. 495; G., II, pp. 267-8.)

² Though this extensive benevolence does not proceed from love, it may produce love, by the principle of parallel direction. For it works toward the happiness of its object, as does private benevolence. Now, this similarity between them may cause love, which is originally and arbitrarily conjoined with private benevolence, to appear in connection with public benevolence. (II, II, 9; S-B., p. 382; G., II, pp. 166-7.)

³ II, II, 7; S-B., p. 369; G., II, p. 155.

⁴ III, II, 7; S-B., p. 481; G., II, p. 255.

⁵ III, II, 2; S-B., p. 488; G., II, p. 261. It is often represented that in the *Treatise* extensive benevolence is regarded as the result of artificial conditions. This is not true. What is absent "in uncultivated nature" is not extensive benevolence, but "strong extensive benevolence." (III, II, 2; S-B., pp. 495-6; G., II, p. 268.) "Benevolence to strangers is too weak" "to counter-balance the love of gain" (*ibid.*; S-B., p. 492; G., II, p. 265), but it is not absent, for, as we have seen, it is part of the "original frame of our mind." By this phrase Hume means, as the context shows, human nature as it appears before the advent of civilization with its artificial virtues. The originality of sympathy here asserted is not incompatible therefore with the assertion made elsewhere of the derivative origin of sympathy.

justice sprang, for the immediate effect of justice is to control these stronger principles. A weaker principle, however, cannot produce an effect which immediately more than counteracts a stronger principle. But when once the stronger principles have been made to control themselves¹ and thus give rise to a general regard to the property of others, then extensive benevolence can begin to act, for then it is no longer opposed to the promptings of selfishness and private benevolence. Its contribution to the moral consciousness is now made, and consists in the "moral approbation which attends the virtue of justice."² Such is Hume's argument.

This examination of the attitude Hume takes in the *Treatise* on the subject of altruism has necessarily been inadequate. But if the general results we have gained are trustworthy, we can say that the relation of the *Treatise* to the *Enquiry concerning the Principles of Morals* is much closer than recent critics would admit. The difference between the two works is not due to any change in Hume's view of the irreducible motives that actuate human conduct. The *Enquiry* does not correct any views put forth in the earlier work on this point. It suppresses certain psychological explanations of certain passions. It does not even deny the correctness of the explanations. It merely expresses doubt as to the success of any such explanations, and refuses to discuss such explanations as not germane to its purpose. "It is needless to push our researches so far as to ask, why we have humanity or a fellow-feeling with others. . . . It is not *probable*, that these principles can be resolved into principles more simple and universal, whatever attempts may have been made to that purpose. But if it were possible, *it belongs not to the present subject*; and we may *here* safely consider these principles as original."³ Here we have expressed by implication the real difference between "that

¹ III, II, 2; S-B., p. 489; G., II, p. 262.

² III, II, 2; S-B., pp. 499-500; G., II, pp. 271. (Hume's italics omitted.)

³ *Enquiry concerning the Principles of Morals*, Section V, Part II, footnote; S-B., pp. 219-220; G., pp. 207-8. Italics are mine. It is worthy of remark, however, that in the *Dissertation on the Passions*, Section III, Sub-section 4, Hume seems to return to his earlier account of compassion. "It seems to spring from the intimate and strong conception of" another's sufferings; "and our imagination proceeds by degrees, from the lively idea, to the real feeling of another's misery."

juvenile work, which the Author never acknowledged" and the maturer work which he desired to have alone "regarded as containing his philosophical sentiments and principles." The former work attempted to elaborate an explanation of the passions by the principle of association, and to apply the explanation to some of the passions—not by any means to all. The latter work, accepting the existence of exactly the same passions, did not attempt to enter upon that problem; partly because Hume had a passing skepticism regarding the explanation he previously gave, and doubted whether any solution could be reached; and partly because Hume had now come to see that abstruse speculations were not popular. But in refusing to deal with the problem, [Hume did not modify in the least his view of the relative preponderance of fundamentally altruistic over fundamentally egoistic principles in human conduct.] In both works he admitted the presence of both kinds of springs of action, and in the earlier as well as in the later he found that it is "rare to meet with one, in whom the kind affections, taken together, do not over-balance all the selfish."¹]

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¹ III, II, 2; S-B., p. 487; G., II, p. 260.

THE FUNCTIONAL THEORY OF PARALLELISM.¹

AT a meeting of the Association last year, I read a paper on "The Functional Theory of the Relation between the Psychological and the Physical,"² in which an attempt was made to show that the distinction between mind and matter may be interpreted in a teleological or functional, rather than in an ontological or structural sense. It is my purpose in the present paper to develop more fully this same line of thought by an examination of three concepts current in recent psychological discussion: (1) the concept of 'function,' (2) the concept of 'mental activity,' and (3) the concept of 'unconscious mental states.'

I. There is an ambiguity in the concept of 'function,' as used in biology and psychology, which suggests certain questions: In what sense, if any, may we speak of consciousness as the functioning of the brain? Or, if this is too narrow a conception of the 'seat of consciousness,' is there a sense in which consciousness may be viewed as a functioning of the organism? Or, again, since any distinction between organism and the extra-organic is somewhat arbitrary, is there a sense in which the psychological may be viewed as a function of the entire universe — coming to a focus at a definite point in space and time?

According to Haeckel, consciousness is a functioning of the brain; still he insists that he is a monist or a parallelist, giving recognition equally to both aspects, the psychological and the physical. He eschews materialism as well as spiritualistic idealism. The same is true of Huxley and his theory of 'conscious automatism,' in which he states that the mental is only symbolic, and at the same time asserts that he is more of an idealist than a materialist. Is it not a much fairer interpretation of these writers to endeavor to square their explicit statements with the intent or hidden logic of their thought, rather than to condemn them off-

¹ Read in part before the American Philosophical Association, Washington, December 31, 1902.

² Published since in the *PHILOSOPHICAL REVIEW*, Vol. XI, No. 5 (September 1902).

hand, in spite of their disavowal of materialism? Shall we not be able to remove the chief difficulty which has forced the biologist to the postulate of psychophysical parallelism, if we can show that consciousness is in some sense a functioning of the organism?

In what sense, then, is consciousness the functioning of the psychophysical organism? To-day it is unnecessary to show that consciousness is not a mere material functioning of structure; that mind is not simply a secretion of the brain, as bile is a secretion of the liver. Such crude materialism is no longer accepted by anyone. We must, then, conceive function in some other sense.

In the case of a person who has substituted the typewriter for the pen and become skilled in its use, there is acquired a new modification of brain substance. In order to interpret completely the function of such a structural change, we have to go back to the beginning of the new coördination, to the inception of the habit. It is impossible to interpret the automatic writing of the expert typewriter except by reference to the original process by which this dexterity was acquired. This is equally true of all functional distinctions, their significance being traceable in all cases to the original or initial performance of the act. All function or operation in (automatic) activity goes back ultimately for its meaning to the genesis and growth (in consciousness) of that activity. Automatic activity is entitled to be called the functioning of the organ only so far as it implies an end, and this end, in the first instance, involves consciousness. One does not speak of the random activities of an organ as the functioning of that organ. The organ functions when it acts in a more or less orderly way toward the accomplishment of some end. Indeed, the so-called random movements of the child or animal in play or in experimental curiosity are distinguished as such, *i. e.*, as random, wholly by their relation to definite, coherent lines of activity which have been already brought under control by being mechanized. The truth is that absolutely random or haphazard movements never occur in the organism. If such were assumed to exist, biological and psychological science would be defeated in their purpose at the very outset. The fact that all structure is thus related to some end or meaning, however vague, renders possible

a science which professes to embrace in its scope the whole natural realm.

What, then, is signified by function in relation to structure? By function is meant orderly, continuous activity with reference to an end, and this activity consists of changes in structure.¹ Hence the only significance of function over and above mere structure must lie in the end subserved, in the meaning or significance of these changes, in this order and continuity with reference to some aim or purpose. The essential idea in function lies in the use, value, or utility of the structure for some end. Function and functioning, ultimately, are not material processes, but ideal significances or meanings. In this sense it is not so startling as it might seem to say that the brain is conscious, that matter thinks. What else is there to be the bearer of these psychical significances? What we need to do is not to cry 'materialism!' when mind is called the totality of the functioning of matter, but rather to revise our conceptions of matter. Exact science to-day is not materialistic. It does not affirm that the physical is the cause of the psychical; it does not even assert that one physical fact is the cause of another physical fact. It states only that *if* certain conditions are given, *then* certain results are also given. This is an equational, not a causal statement. Science does not assert that body causes mind, but that, *given* certain bodily conditions, then what we call mind is *likewise given*. This is a statement of relation, not between cause and effect, but between means and end. Hence even this statement of consciousness as the function of the brain, though partially true, is not wholly adequate. Instead of saying that the psychical is the functioning of the physical, it would be truer to say that the psychical and the physical are constituent and correlative functions within experience.

The same result may be arrived at in another way. For this purpose, I will adapt one of Professor Ernst Mach's arguments, modifying it into a form which I am bold enough to suggest is the inner meaning of his whole treatment of the subject.² One's

¹ Cf. the relation of digestion to the stomach and to food.

² See Mach, *Monist*, Vol. I, pp. 394 ff.; also, *Analysis of Sensations*, pp. 27 ff.

experience depends upon the brain, which is alleged to be the seat of consciousness. But in ordinary experience one never sees one's own brain. Unlike feelings and sensations, its existence is merely inferential. Psychology is the science of this immediate experience of feelings and sensations. Physiology is the science of this inferred part — the brain. The relation between one's mind and the molecules in the brain is not different in principle from the relation between one's mind and the stone in the street. Let *ABC* represent the world of objects. Let *DEF* represent my organism. Let *GHI* represent my states of consciousness. I say that I perceive a tree with green leaves (*A*), with a hard trunk (*B*), and rustling leaves (*C*). If, however, I close my eye (*D*), and my ears (*E*), and withdraw my feeling hand (*F*), then *ABC* disappear. *ABC* are what they are for me, only in a certain relation of dependence upon *DEF*. But the same is true, of course, of *GHI*; they also are dependent upon *DEF*, as is plainly seen if the sense organ is absent or defective. My concrete experience, therefore, is made up at once of all these; and the three series are, or are not, thus distinguished by abstraction *within* this concrete experience, according to the purpose for which the abstraction is made.

Or, let the question be approached in this way. Changes in *ABC* are accompanied by changes in *DEF* and *GHI*, as, for example, when improper food leads to indigestion and this to mental depression. On the other hand, changes in *GHI* are accompanied by changes in *DEF*, and, ultimately, by changes in *ABC*, as, for example, when a powerful emotion or idea bursts forth into impulsive actions and these, in turn, produce changes in the external world.

A careful analysis shows that, scientifically, it is arbitrary to separate *DEF* from *ABC*, the organism from the rest of the universe. The empirical ego may be extended so as ultimately to embrace the whole world. The organism is of a piece with the fabric of the entire system, representing, so to speak, the whole system brought to a focus in a finite center. In other words, *DEF* is continuous with *ABC*, and this gives us *ABCDEF*. The problem resolves, therefore, into the question of the relation

between *ABCDEF* and *GHI*. Shall *GHI* also be put into this series, thus yielding *ABCDEFGHI*?

An answer to this question may be sought in the following way. Is there any difference, as to *content*, between the sensations *GHI* and what is represented in *ABCDEF*? One never has sensations in the abstract, sensations at large, but always sensations *of* something: they are sensations of color, of space in three dimensions, of an odor, of a sweet or sour object. As to content, *GHI* are not only *like*, they are *identical* with *ABCDEF*. The content of my sensations (*GHI*) is the tree with the green leaves, the hard trunk, and the rustling leaves (*ABC*), standing in a certain relation to eye, ear, and hand (*DEF*). My sensations as to content *are* the objects.

But there *is* a difference, it will be insisted, between *ABCDEF* and *GHI*. Yes, but the difference is simply a difference of form, a functional, not a structural difference. Mr. Bosanquet says that a fact is only a familiar theory; they are the same in content but differ in form. Professor Dewey says that a theory is simply a fact that is doubted, that an idea is simply a tentative view of the fact; they are the same content, differing only in form. Theories are simply indirect descriptions of the facts, says Mach, and facts are simply undeveloped potentialities of theory. Something like this is the difference between what we call the psychical and the physical, between *GHI* and *ABCDEF*.

There is a green light; that is, if one were to speak of it at all, it would be called green. But let it be reacted to instinctively or habitually. The engineer pulls the throttle of the engine automatically, without the process coming to consciousness. That situation or experience would be called physical; at least, it would not be psychical. Suppose, on the other hand, that some doubt arises as to whether the light is really green or red. This doubt brings the situation to consciousness; it makes it psychical—or, rather, it brings what we call the psychical into tension with what we call the physical. The two phases are related here as two functions within one growth process. They are organically related. Experience at one time is equilibrated or automatic; at another time it is tensional or conscious. When

it is conscious, two aspects come into tension. The relatively stable and permanent aspect of experience is taken as given, as there, as actual. The relatively fluid and changing aspect is regarded as the possible or potential merely, as ideal. Experience, or the real, is the interaction of the actual and the ideal; it is the realization of the ideal in the actual. One throughout as to content (structurally), as to form it is twofold—actual (physical) and ideal (psychical), according to the demands of the reconstructive or growth process (*i. e.*, functionally). The dualism or parallelism is a difference of value or meaning, not a difference of existence or substance. It is a parallelism, as Paul Carus says,¹ not between two entities, but between two abstractions from one and the same entity. Such a parallelism is not an ontological duality, but rather methodological or teleological.

The current doctrines regarding the relation of the psychical to the physical exhibit three fallacies. One is the theory that consciousness must be attached in some manner to a thing in order to be real. A second is the view that consciousness is itself an entity or a kind of substance or thing. The third is the error of supposing that consciousness, or the psychical, is less real or objectively significant, less universal and necessary, when identified with meaning than when called a substance or entity. The functional view escapes all these fallacies by showing that the difference of 'thought' and 'thing' is simply a difference of emphasis. A 'thought' is a thing that is doubted; the 'thing' is a thought so thoroughly taken for granted that it is conceived as relatively fixed and given rather than as undergoing mediation or reconstruction in consciousness.

When such questions suggest themselves as: What is the seat of the soul? In what parts of the brain are the different psychical functions localized? Where is my consciousness? In my head? In my body as a whole? Is it not around the corner as truly as within my skin? If it can be located at all, is there not equal reason for making the whole universe, as for making any particular organism, the seat of the soul?—such questions as these confuse, not so much *things* which in reality are separate, as two

¹ *Monist*, Vol. I, 403.

different kinds of abstractions or *judgments* about the one reality of experience.

A study of the logic of scientific method shows that science makes two fundamentally different kinds of judgments, judgments of fact, existence, or subject-matter, and judgments of meaning, significance, or value.¹ The first are existential, factual, or instrumental judgments; they are judgments concerned with means. The second are significative, interpretative, or evaluative judgments; they are judgments concerned with ends. These terms represent, however, rather limiting conceptions in scientific method than mutually exclusive types of judgment. In practice, there is neither a pure existential nor a pure evaluative judgment, but there is a difference in every scientific judgment which enables us unmistakably to determine it as either existential or evaluative in its force.

The existential judgment deals, as Professor James says, with the object or event in respect to its nature, constitution, origin, history. It answers the questions, What? How? and, How did it come about?² The evaluative judgment has to do with the meaning or significance of the object described, and answers the questions, Why? What of it? What is its importance for the future? Either judgment can be deduced, ultimately, from the other, since they represent simply functional phases of one process of cognition. But for the practical purposes of the systematizing of our knowledge, all our actual scientific judgments take one or other of these forms.

Here, then, lies the only real incompatibility of mind and matter. The psychical and the physical are incompatible only because we have made them so in the development of our scientific description of the universe. The distinction is no less real because *we* have made it, but it has no existence in nature apart from the intelligence that makes it. It is a real distinction, and this dependence upon intelligence is perhaps the central core of its reality. But this reality of the distinction is conditioned by the methodological or epistemological demands which first gave

¹ Cf. W. James, *The Varieties of Religious Experience*, p. 4.

² *Ibid.*

rise to it. The distinction is a functional one, instrumental to the practical ends represented in these methodological demands.

Various writers have emphasized the incommensurability and incomparability of the psychical and the physical, of the extended and the non-extended, of the material and the immaterial, and have deplored the inability of language to express the true relation between the two. We are told that there is no recourse in this case other than to accept the ultimate paradox — that mind and matter possess nothing in common, but still are parallel; that mind and matter are identical, but only in a realm beyond our knowledge (not phenomenally). But surely, as Professor James Ward says, 'parallelism' is a strange word by which to express identity or absolute incompatibility. Is this where our "most obstinate attempts to think clearly" land us? Is it true that metaphysical thinking leads us into such hopeless contradictions?

It certainly *is* true, if in our use of terms and the distinctions for which these terms stand, we neglect to interpret these distinctions and terms in the light of the conditions which evolved them. Our logic needs to be psychologized. It is necessary to get behind the logical concepts and logical formulas employed so uncritically by both scientists and metaphysicians, to the psychological functions in experience which these represent. There is constant need of bringing back the abstractions which we employ methodologically in science and philosophy, and reinterpreting them in terms of that concrete experience which, since the time when those abstractions took definite form, has been undergoing development and evolving new meanings.

The ontological distinction of mind and matter doubtless served a useful purpose at one time in the history of reflective thought. But, since the time when this was a valuable working distinction, our conceptions of the nature of reality and experience have changed. This ontological theory, in the light of the newer dynamic and organic conception of reality, fails to express to-day the only possible meaning that can be attached to the terms 'mind' and 'matter,' and we are forced to interpret these words in terms of our present understanding of that concrete experience in which alone their true reality is found.

If, now, the bringing back of these concepts for reconstruction in terms of our actual experience, results in showing that they stand simply for a functional division of labor in the building up of that experience as a systematic whole, then there should be no hesitation in being thorough with any criticism and revision of our metaphysics which this might involve. There is nothing sacred in metaphysical terminology; the only merit it can have lies in the fact that at some time or other it has served the truth. Any view, then, deserves consideration which will serve equally the interests of the philosophical search for unity and the scientific demand for accuracy in detail; which will sacrifice no well-established law of science, and yet not leave us in a mere meaningless dilemma.

II. Light is thrown upon this conception from another direction, if we ask ourselves what is meant by the concept of 'mental activity' current in psychological usage. This is one of those questions which can be answered adequately only by digging very deep in a metaphysical soil. The term 'mental activity' is an ambiguous phrase, which simply serves as a cloak for our ignorance until a future science shall break it up into its elements and clearly reveal the mutual relations of the partial truths which lie confused together within it.

Mental activity is not a special sort of activity. There is not a special kind of activity in the organism over and above nervous and muscular activity. Mind is not a different mode of energy from matter. Mind is not energy at all; it is the *form* which a certain content takes under conditions of tension in an organism. This content is not adequately described by the term 'physical energy.' But it is only confusing categories to call it mental energy or mental activity. There is only one kind of energy in the universe—that which we *call* physical energy. This is not saying that the universe is adequately explained when we look at its physical aspect alone. The world appears as physical when we ask, What is it made of? What is its structure? But when we ask the further questions, How does it operate? What are its functions? we are compelled to explain in terms of 'mind.'

Mind, as it is here viewed, is the totality of the functioning of matter (in so far as function may be said to imply end or purpose). The psychical is the *meaning* of the physical. It is only making this more specific to say that consciousness is the functioning of the psychophysical organism under conditions of organic tension. Mind is simply a collective idea for all the psychic functions of an organism—and the psychic functions are coextensive with the growth of the organism. Mind is not an entity behind the process of consciousness in an organism; it is that process itself. Mind is just as truly a growth as any other living thing. All life means growth from less to more, from lower to higher. We might almost go to the length of saying that mind represents the universe at its growing-points. But mind could not be such a growth, if it were the fixed absolute entity which it is often conceived to be. It can be a growth only if it is of the nature of a process. Mental life is a continual synthetic construction. It is simply a name for the orderly, continuous functioning of an organism under conditions of tension in adaptation.

When, therefore, we speak of mental activity, we are certainly speaking of the activity of this living machine that we call the organism. Mental acts are not different from other acts in the world. The sole difference consists in their being tensional or conscious acts instead of stable or habitual acts. Not all the activities of the organism are conscious. Fully nine-tenths are unconscious or automatic. Digestion, assimilation, circulation, respiration, etc., are, under normal conditions, almost wholly subconscious operations. The problem narrows down, then, to the question of the conditions under which this activity becomes conscious. When does the unconscious act become a conscious act? And when does the conscious act become unconscious? These are the fundamental problems of mental growth upon which psychology has been striving to throw some light.

The most fundamental conception of experience is that which views it as an activity, a process. Though we may not be feeling or thinking, we are always *doing* something, and a careful analysis reveals that even these functions or processes are modes

of activity. While not so gross or overt as muscular action, feeling an emotion or thinking a thought is as truly doing something as playing the piano or riding a bicycle. The activities involved in emotion and thought are, for the most part, hidden, and, frequently, remote alterations in the circulatory, respiratory, and muscular organs of the body, interrelated by means of the nervous system.

This action of the organism is unconscious when smooth and unimpeded; only when interrupted or checked in its onward movement does it become conscious activity. Take the case of a man traveling along a straight road. His progress is smooth and, possibly, quite automatic so far as his choice of route is concerned. He has been simply following the road before him because there was nothing else to do, no alternative to draw his attention in another direction. As far as this phase of it is concerned, his experience has been habitual or automatic. But now he encounters a fork in the roads. Alternative courses are open before him. Which shall he take? Which road leads him to his destination? If this is the first time that he has travelled this road, and he has received no previous instructions, the question of direction cannot be answered in a purely automatic way. It requires conscious deliberation and choice. This illustrates what is meant by saying that consciousness never arises without a certain tension.

The organism, with the brain as its neural center of gravity, is a machine made up of a delicate system of balances. When these are in relative equilibrium, acts are unconscious or automatic. When this equilibrium is disturbed beyond a certain point, which varies according to the inheritance and previous history of the particular organism, consciousness emerges. Consciousness represents what, comparatively, we may call the tensional equilibrium of the organism, whereas habit represents its relatively stable equilibrium.¹ This conception is divested of all

¹ "The theory of consciousness which seems best to conform to the conditions of brain structure and its observed unity is that each conscious state is an expression of the total equilibrium of the conscious mechanism, and that intercurrent stimuli are continually shifting the equilibrium from one to another class of activities."—Herrick, in Baldwin's *Dictionary of Philosophy and Psychology*, Vol. I, p. 135.

objections from the metaphysical side, if it be constantly borne in mind that consciousness is no more an entity than habit, and that, like habit, it simply represents the life of the organism under a given set of conditions.

Sleep is a relatively stable equilibrium lasting for hours. Moments of absent-mindedness and motor automatism exhibit a transitive and localized equilibrium, which differs from that of sleep only in its briefer duration and its restriction, perhaps, to a single organ or group of organs.¹ On the other hand, conscious acts may be viewed as automatic acts in the making. They represent "the felt struggle of the organism to do deliberately what later it comes to do naturally and by way of habit." They represent habits in the process of becoming mechanized. It is possible in this way to show how previously unconscious activities come into the focus of consciousness, and how, under other conditions, they pass out of the focus of clear consciousness through successive phases of decreasingly distinct consciousness until they become unconscious again as habits.

Viewed in this light, then, the 'psychical' and 'physical' are simply limiting conceptions, like the concepts of structure and function in biology, or the concepts of habit and attention in psychology. In the words of Professor Moore: "'Life'-experience is one inclusive activity of which consciousness and habit — the psychical and the physical — are, to the last analysis, constituent functions."²

This, it seems to me, is what Ernst Mach is feeling towards when he says: This dualism of feeling and motion "is to my mind artificial and unnecessary. Its origin is analogous to that of certain pseudo-mathematical problems — having come from an improper formulation of the questions involved."³ "I see, therefore, no opposition of physical and psychical, no duality, but simply identity. In the sensory sphere of my consciousness, everything is at once physical and psychical."⁴ This is the truth that men of science have been moving towards in their various

¹ This may remain true in principle, no matter what theory of sleep be adopted.

² *The Functional versus the Representational Theory of Knowledge in Locke's Essay*, University of Chicago Contributions to Philosophy, Vol. III, No. 1, p. 67.

³ *Analysis of Sensations*, p. 191.

⁴ *Ibid.*, p. 195.

statements of the identity hypothesis and agnostic monism. To quote Mach again: "Not the subject, but the direction of our investigation, is different in the two domains."¹ "The fundamental constituents . . . would be the same."² "I only seek to adopt in physics a point of view that need not be changed the moment our glance is carried over into the domain of another science; for, ultimately, all must form one whole."³

This is Mach's doctrine of the "complete parallelism of the psychical and the physical,"⁴ which he calls a heuristic principle of modern scientific research. "There is no rift between the psychical and the physical, no *within* and *without*, no *sensation* to which an outward, different *thing* corresponds. There is but *one kind of elements*, out of which the supposititious within and without are formed — elements which are themselves within and without according to the light in which, for the time being, they are viewed."⁵ "The world of *sense* belongs to the physical and psychical domain *alike*."⁶ "The boundary-line between the physical and the psychical is solely practical and conventional."⁷ The German physicist is groping here towards the functional view, but he oscillates in his statements between a materialistic and a parallelistic method of representation. What, then, is needed, I think, is a complete renovation of our ontological conceptions of mind and matter in terms of a functional psychology of experience.

III. If what has been said is true, then Locke was right when he insisted that "whatever idea is in the mind, the mind is conscious of."⁸ Nothing can be in the mind of which the mind is unconscious. "Unconscious mental states" is a contradiction in terms. The same is true of such phrases as 'unconscious mental modifications' (Hamilton), 'subconsciousness' (Ward), 'unconscious psychical dispositions' (Stout), 'unconscious elements of feeling' (Carus), 'infra-consciousness' (Morgan.) The unconscious background of the conscious is not mental but neural.

¹ *Op. cit.*, P. 15.² P. 17.³ P. 23.⁴ P. 30.⁵ P. 151.⁶ *Ibid.*⁷ *Ibid.*, p. 152. These passages are from Williams's translation. (Open Court Publishing Co., Chicago).⁸ *Essay on Human Understanding*, Book II, chap. i, § 9.

The subconscious is the mechanized background of the conscious; and this is just what we ordinarily mean by the physical as distinguished from the psychical.

Continental thought, as culminating in Leibniz, Kant, and Hegel, may be taken broadly as standing for the insistence on the reality of unconscious mental states, unconscious sensations and ideas, faculties and mental powers, just as, on the other hand, English philosophy, as represented by Locke, Berkeley, and Hume, may be taken as standing for the non-existence of unconscious mental states, as standing, indeed, for the denial of any possible meaning in such phrases as 'unconscious ideas' and 'subconscious mental states.' Neither the Continental nor the English conception of experience is an adequate one, but the English empiricist is nearer the truth on this point than the Continental philosopher, and this view is not without its advocates at the present time. "The psychology and the philosophy of the so-called 'Unconscious' has no terms to employ and no arguments to present, which are not themselves the products of human consciousness."¹ "At the beginning of our investigations we find the psychical and the conscious to be wholly identical, for we can form no idea at all of what an unconscious sensation or idea might be."² "From the outstart, the conception of 'unconscious psychical processes' is for us an empty conception."³ "If there be unconscious mental phenomena, we know absolutely nothing about them."⁴ "Unconscious knowing and unconscious willing are phrases which defy all interpretation."⁵ "A psychic fact is by definition a fact of consciousness, and an unconscious fact of consciousness is as impossible as a straight curve."⁶ "The endless difficulty about unconscious mental states disappears in a minute, when we consider consciousness as an attendant phenomenon upon neurological processes, which is present under definite conditions only, but which always presupposes nervous activity. All unconscious mental action

¹ Ladd, *Philosophy of Mind*, p. 382.

² Ziehen, *Introduction to Physiological Psychology*, p. 4.

³ *Ibid.*, p. 5. ⁴ Binet.

⁵ Bowne, *Theory of Thought and Knowledge*, p. 237.

⁶ Calkins, *Introduction to Psychology*, p. 208.

may be relegated to physiology.”¹ At this time, when so great an authority as Professor James is setting forth a doctrine of the ‘subconscious self’ as the psychological basis for the interpretation of religious phenomena, we need to be reminded that there are still a goodly number who regard such terms simply as a ‘mixing of categories,’ as Mr. Bradley would say.

IV. The whole question is a striking instance of a new idea trying to express itself in an old terminology. The emphasis which Professor Baldwin, in his recent book *Development and Evolution*, puts upon ‘psychophysical’ evolution, insisting upon the equal continuity, uniformity, and universality of the parallelism of the two series, yet ignoring the underlying philosophical problem, seems to me to indicate the line along which future investigation will be pushed. All the phenomena of scientific biology and psychology will be treated as *psychophysical* facts, irrespective of any theory of the relations between the psychical and the physical. In this way a standpoint and a terminology will gradually be developed which recognize that the distinction after all is only a methodological one, and when this result has been reached, the problem of the relation between mind and matter will have vanished. It will have been relegated, like the epistemological problem, to the limbo of the unanswered and unanswerable, because wrongly propounded, riddles.

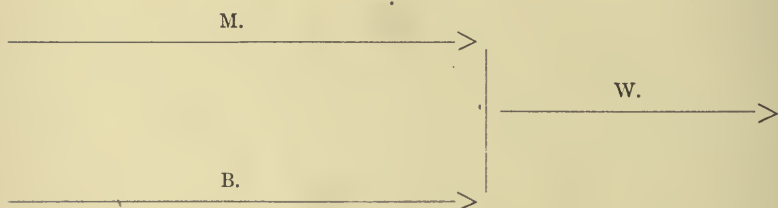
While he makes no explicit statements with reference to the subject, yet it seems to me that Professor Baldwin by his doctrine of psychophysical evolution is forced to adopt the functional interpretation of the relation of consciousness to the organism, if he is going to carry out the philosophical implications of the term ‘psychophysical.’ Consciousness, he insists, is a factor in evolution, but only such in connection with the correlative nervous process. Consciousness and nervous process are always joint-cause or joint-effect in evolutionary growth. “The brain is not a brain when consciousness is not there.” “So consciousness does not, on the other hand, produce movement without a brain.”² A cause, as Mr. Bain and Mr. Bradley have insisted,

¹ *Development and Evolution*, p. 130.

² Patrick, *Psychological Review*, Vol. IV, p. 302.

is always a psychophysical or mind-body fact ; an effect likewise is always a psychophysical fact. Hence, Professor Baldwin affirms, the mechanical and the teleological (or psychological) statements are equally true, only we do not, and perhaps never will, understand *how* they are to be reconciled. This leaves us still with the problem, but restated so as to take into account both the physical and the psychical, the mechanical and the teleological series.

But this is either to ignore the relation between mind and body, or it is to take a step towards the functional point of view. From the standpoint of biology, this problem can be passed over, for the time being ; but not so in philosophy. Hence I have interpreted Professor Baldwin's statements on the subject, in this book and also in his *Dictionary*, as an approximation to the functional view. In both places Professor Baldwin represents the present status of the problem by the following diagram :



This he describes in the following words: "The general state of the problem may be shown by the accompanying diagram, which will at any rate serve the modest purpose of indicating the alternatives. The upper line of the two parallels may represent the statements on the psychological side which mental science has a right to make respecting the determination of mental change ; the lower of the parallels may represent the corresponding series of statements made by physics and natural science, including the chemistry and physiology of the brain. Where they stop an upright line may be drawn to indicate the setting of the problem of interpretation, in which both series of statements claim to be true ; and the further line to the right

then gives the phenomena and statements of them which we have to deal with when we come to consider man as a whole. Now our point is that we cannot deny either of the parallel lines in dealing with the phenomena of the single line to the right, nor can we take either of them as a sufficient statement of the further problem which the line to the right proposes. To take the line representing the mechanical principles of nature, and extend it alone beyond the upright, is to throw out of nature the whole series of phenomena which belong in the upper parallel line and do not lend themselves to statement in mechanical terms. And to extend the upper line alone beyond the upright is to allow that mechanical principles break down even in their own sphere, for the brain is a part of nature, even when accompanied by a mind.

“As to the interpretation of the single line to the right, it may always remain the problem that it now is. The best we can do is to get points of view regarding it; and the main progress of philosophy seems to be in getting an adequate sense of the conditions of the problem itself. From the more humble side of psychology, the growth of consciousness itself may teach us how the problem comes to be set in the form of seemingly irreconcilable antinomies, and this it is the merit of the genetic theories to have recognized. The person grows both in body and mind, and this growth has to have two sides—the side facing toward the past, the ‘retrospective reference’ which embodies all determinations already made, and the side facing the future, the ‘prospective reference’ of growth, and of the consciousness of growth which anticipates further determination. The positive sciences have by their very nature to face backward, to look retrospectively, to be ‘descriptive’—these give the lower of our parallel lines. The moral sciences so-called, on the other hand, deal with judgments, appreciations, organizations, expectations, and so represent the other, the ‘prospective’ mental attitude and its corresponding aspects of reality. This gives character largely to the upper one of our parallel lines. But to get a construction of the third line, the one to the right, is to ask for both these points of view at once; to stand at both ends of the line

— at a point where description takes the place of prophecy, and where reality has nothing further to add to thought.

“This third alternative is, accordingly, to think psychophysical change in a category under which both mechanical processes and ideal changes — the realization of ends and values — are present at once. And the problem becomes that of the interpretation of the world in general; how can a mechanical system be also teleological? — the issue of philosophy in which all the others are pooled, and on the general solution of which that of this problem must depend.”¹

This task of “getting an adequate sense of the conditions of the problem itself” is exactly what the functional view is striving to accomplish. It seeks to show, in terms of means and ends, how the psychical and the physical are functionally related in experience, how the distinction emerges and vanishes in relation to the process of reconstruction or growth. In terms of Professor Baldwin’s diagram, it seeks to make plain the relation of the single to the double lines. In the former paper, the attempt was made to trace the evolution of the distinction, as represented in the theory of the *νοῦς* of Anaxagoras, the doctrine of ‘matter’ and ‘form’ of Aristotle, the evolution of the ideas of the psychical, the individual, and the subjective.² The attempt was there made to show also the fluidity of the distinction by several illustrations taken from the psychology of concrete experience. In the present paper, this argument has been extended by a criticism of three ambiguous concepts current in modern psychology — the concepts of ‘function,’ of ‘mental activity,’ and of ‘unconscious mental states’ — with the conviction that the truth lies in the direction of a functional interpretation, which views both mind and matter as phases of a process, rather than as distinct entities or things.

“In all regions of phenomena the belief in entities has retarded the progress of knowledge. Light, heat, electricity, magnetism — each in turn has been conceived, not as the result of certain con-

¹ *Dictionary of Philosophy and Psychology*, Vol. II, p. 84.

² The terms ‘subjective’ and ‘objective’ having just reversed their meanings since the period of the Middle Ages.

ditions, but as a mysterious principle controlling the conditions.”¹ So also with consciousness. It, too, has been conceived as an occult force. But if our argument is true, consciousness is not a separate thing, but a function, a meaning of reality under certain conditions. What we call matter is a meaning of reality under other conditions. Matter is a meaning for reality (a meaning *in* experience) under conditions of relative equilibrium. Mind or consciousness is the meaning of reality or experience under conditions of relative tension. The reality or experience itself in its fullness is the process thus expressed — in both these phases. These two meanings arise together in experience, the one as focal, the other as marginal. The material thing is never the thing which is undergoing mediation; it is never reality as idea. It is reality as (treated as) already mediated or as not requiring mediation. The physical is the *act*-ual, as contrasted with the psychical, which is the *idea*-l (*i. e.*, reality as idea). Reality, in other words, may be either stable (equilibrated) or tensional. Spencer and Huxley both have the essence of this idea, when they call mind and matter symbols; but they do not work it out.

“Colors were first supposed to be in the outward objects, then in the light coming from these objects, then in the eye that perceives this light, then in the nerve acted upon by the eye, then in some part of the brain acted upon by the nerve, and a very small step remains to perceive that colors, and that every sense-perception is an activity of the mind.”² But ‘mind’ itself now comes to be reinterpreted. It is no longer conceived in terms of an immaterial substance. The significance of the functional statement is not that color reduces to an “activity of the mind,” but that color thus shows itself to be capable of interpretation in terms of activity, either as psychical or as physical. The concepts of both mind and matter undergo a thorough revision in a functional view of reality, a revision so radical that reality would seem to lie in action or process rather than in any substance or entity or thing; and in any phase of reality, such as color, the distinctions between subjective and objective are

¹ Macpherson, *Spencer and Spencerism*, pp. 84–85.

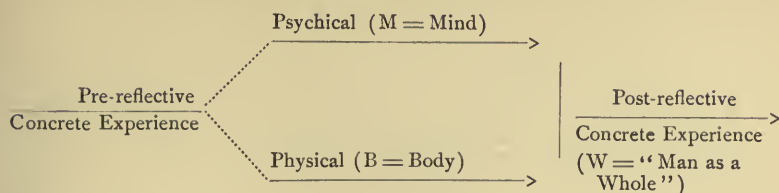
² W. Lutoslawski, *International Journal of Ethics*, Vol. V, p. 318.

relative only, the meaning of these terms being determined, not by any fixed ontological relation, but by the point of view of the discussion. To ask whether all reality or experience presents these two aspects of the physical and the psychical is like asking whether every circle has both a circumference and a center. Every experience has a focal point in consciousness and a marginal area which with reference to this focal point is called the external world. This focus of attention is identified with the subjective or psychical self; this external world is called the objective or physical not-self. But both are aspects of, or factors within, experience, just as the center and circumference are essential elements in the circle.

Experience is not psychical all the time either in the individual or in the race; nor is it physical; it is both, or either, only at critical points. Pre-reflective experience splits into distinguished aspects of conscious reflection only to reunite again in a post-reflective unity. Highly organized beings have more of these critical reconstruction points or periods than the less highly organized, and for this reason are ranked psychically as higher in the scale. But such a being is just as truly higher in the physical scale as well, since these are reciprocal phases. It is an historical fallacy either to read back the relatively continuous psychical life of the human being into the lower animal and plant and so-called inorganic forms, or to interpret the reflective, tensional life of the higher forms exclusively in terms of the pre-reflective life of these lower forms.

Professor Baldwin makes the same point with reference to the single line to the right in his diagram, that the present writer made with reference to the single line to the left in a similar diagram.¹ He shows that the post-reflective stage cannot rightly be interpreted in terms of either alone of the parallel lines, because they represent abstractions from the concrete experience represented in the single line, just as the pre-reflective experience for the same reason cannot be so interpreted, as shown by the present writer in his diagram.

¹ See diagram on opposite page, which combines both points of view. The original diagram was given in an article on "The Psychological Theory of Evolution" in the *Journal of Comparative Neurology*, Vol. XI, pp. 253-255.



In other words, the distinction of the psychical and the physical is one which throughout must be interpreted in terms of the process of reconstruction of experience, and this process of reconstruction implies the recurrent breaking up of relatively fixed activities (instincts, habits) in consciousness and the mediation thereby of new acts. The span of consciousness which measures this stage of tension in reconstruction, between the unmediated (impulsive) and the mediated (rational) act, carries with it not only this relation of polarity expressed by the terms psychical and physical, but many other dualities or even pluralities, according to the demands of the experience. This problem of mind and matter is, in reality, only a phase of the larger problem which modern psychology has transformed from its abstract statement, as the problem of the many and the one, into the more intelligible statement as the relation of means and end. This parallelism, like all others, is one that develops *within* the psychological process; and it appears as a problem only because of the fact that our experience is not yet completed, that, as Professor Baldwin says, it still has a career before it. Its complete solution would, of course, mean a world in which there was no change, no breaks and readjustments, and hence no problems — a world quite inconceivable to us. Hence the only solution which we can expect to find, so long as we remain the living, growing, expanding beings that we are, is the solution that we actually do find in our life of action. The psychical and the physical really become compatible and their parallelism intelligible every time we perform an act in the world of space and time. Action is the solution of every paradox of thought, and it is the only solution which a growing experience demands.

H. HEATH BAWDEN.

REVIEWS OF BOOKS.

Aristotle's Psychology: A Treatise on the Principle of Life. (De Anima and Parva Naturalia.) Translated with Introduction and Notes by WILLIAM ALEXANDER HAMMOND. London, Swan Sonnenschein & Co.; New York, The Macmillan Co., 1902.—pp. lxxxvi, 339.

The psychology of Aristotle possesses a unique interest in the history of science. Before Aristotle, Greek philosophers had boldly speculated concerning the nature of the soul; some of them had made acute observations on its phenomena. But Aristotle was the first to conceive of psychology as an independent discipline. He defines its nature and scope, discusses its methods, surveys the opinions of his predecessors on its fundamental subject-matter, the soul, and then elaborates his own views in the first systematic psychological treatise ever written, the *De Anima*. What the influence of this one work has been on human thought would be difficult to estimate. Certainly for the student of the history of psychology, for the historian of the development of the human mind, its importance can scarcely be exaggerated. But the work possesses more than merely antiquarian interest. The modern science of psychology has become positivistic; it eschews 'metaphysics,' it will know nothing but 'phenomena' and their 'laws.' There is good reason for this attitude; nobody denies its necessity or its value. But it is easy to forget its methodological character. Ultimately we demand the philosophical interpretation. Aristotle aims at a knowledge of the essential nature of the soul as well as of its empirically determined attributes or phenomena. Empirical psychology and philosophy of mind are not yet distinguished. They had to be distinguished, even separated. But in the end they must be reunited. This is the ideal of complete science. And Aristotle represents this ideal at the very beginning of the science. Hence it is not without reason that Hegel could say, in the Introduction to his *Philosophy of Mind*, that the books of the *De Anima* are "still by far the most admirable, perhaps even the sole work of philosophical value on this topic," adding that "the main aim of a philosophy of mind can only be to reintroduce unity of idea and principle into the theory of mind, and so reinterpret the lesson of those Aristotelian books." Perhaps not the least of the imperishable lessons of this work is that of the importance in psychology and philosophy alike of the genetic method.

Besides the *De Anima*, Aristotle wrote a number of shorter treatises, the so-called *Parva Naturalia*, which contain much material of value to the student of his psychology. These little works, nine in number according to the traditional titles, but really seven, have for their professed object the discussion of the most important biological functions or attributes common to the soul and the body. They are directly connected by the author with the *De Anima* and form a natural transition between that work and the other larger biological treatises. The last half of them, as to bulk, have nothing whatever to do with what we should call psychology, though they significantly illustrate by their position in this group of writings Aristotle's conception of the soul as the vital principle and the general biological point of view from which he treats its phenomena. They consist of a treatise on longevity and one on life and death, the latter including a long discussion of respiration and an incidental explanation of youth and old age. A treatise on sickness and health, not extant, was intended to follow. But the first half contains the treatises on sense-perception and its objects, on memory and reminiscence, on sleep, on dreams and on sleep-divination or prophetic dreams, and these are precious documents which no student of the history of psychology can afford to neglect. They are among the first attempts at a scientific treatment of their respective topics, and, moreover, include many items of special interest, *e. g.* — to name only a few — the anticipation of Hobbes's doctrine of imagination as 'decaying sense,' a formulation of the laws of association, the beginnings of a science, based on observation and experiment, of illusions of sense and the beginnings, in the work on prophetic dreams, of a critically sober psychical research.

In making this whole material accessible to the student in an English translation, with an introduction giving a connected account of Aristotle's psychology and with brief explanatory notes appended to the text, Professor Hammond has done a work of happy inspiration, and he has done it, I may add, with more than ordinary success. The *De Anima*, to be sure, has been long familiar to English students in the serviceable translation of Edwin Wallace; more recently W. Ogle published, with introductions and notes of great value, a reliable translation of the work on youth and old age, life and death, and respiration; and, as is well known, parts of the second chapter of the *De Memoria* dealing with the associative processes in recollection were rendered, very inadequately, to be sure, by Hamilton in a note in his edition of Reid. But, apart from the quite impossible version

of Thomas Taylor, Hammond's is the first complete translation in English of the *Parva Naturalia* yet published. And he is the first to bring together practically all of Aristotle's psychological writings in a single volume. Moreover, a comparison with the work of his predecessors in the same field shows the superiority of the new rendering at almost every point. This is true in respect of accuracy and particularly true as regards brevity. The sentences here correspond more closely to the original text and give a truer impression of its pregnant brevity. Thus, to take a single illustration at random: Wallace's translation of Bk. III, chap. 7 of the *De Anima* contains over 900 words, Hammond's only about 750. And this saving of words, great in the aggregate, is accomplished in the main without any loss of clearness, rather with a gain in clearness.

The writings of Aristotle present difficulties to the translator greater, perhaps, than those of any other author, and, except in the *Metaphysics*, these difficulties are nowhere greater than in the *De Anima* and the *Parva Naturalia*. The technicalities of the vocabulary, for which it is hard to find exact English equivalents, the corruptions and uncertainties of the text, the pregnant constructions, above all the apparent disconnectedness of much that seems intended to be connected argument, afford problems which no one who has not attempted to grapple with them can appreciate, and which no one can hope ever to fully solve. Professor Hammond is probably more conscious of shortcomings in respect to the ideal to be aimed at than the majority of his reviewers, but certainly any one who reads his translation of, say, the 6th and 7th chapters of the *De Sensu* and the 2d chapter of the *De Memoria*, must feel either that the translation has failed to bring out the sense or that 'the wisest of wise Greeks,' or whoever is responsible for the text attributed to him, sometimes wrote nonsense. My own judgment is that the responsibility must be shared. The result would have been more satisfactory for the English reader, if the translation had been accompanied by a marginal analysis of the argument. Had this been done, we should have had a different distribution of the paragraphs than that which comes from adherence to the traditional divisions of the text, which are often as misleading and confusing as the traditional divisions of the Scriptures prior to the revised versions of recent times. And although Aristotle's words have frequently the appearance of loosely connected notes, and doubtless in many cases are so, still careful attention sometimes reveals a continuity not evident on the surface. Some of the confusions in the translation are due, it seems to me, to failure at this point.

An illustration of what I mean occurs in the passage *de mem.* 2.451 a 20-b 10, the passage in which Aristotle gives his preliminary description of reminiscence. He begins by saying that reminiscence, or recollection, is neither an ἀνάληψις nor a λήψις of memory, here translated (p. 203) "neither the recovery nor the acquirement of a memory." But a few lines further on, he seems to be made to contradict this, for we read that recollection takes place when one 'reacquires' (note the word, ἀναλαμβάνη) "whatever the mental possession be to which we apply the term memory," the next sentence being, "the process of memory takes place and memory ensues." I confess I do not see here any clear distinction between memory and reminiscence; and especially I do not see how, on this showing, reminiscence is not an ἀνάληψις μνήμης. Immediately sequent on the sentence last quoted is a statement, in the translation, to the effect that the phenomena of recollection, if "the repetition of a previous recollection," do not follow absolutely the same order, a statement explained in the note as meaning (though it is difficult to see how it can mean this) that a given association may at one time awaken a recollection, at another time not; and then follows, as a quite independent proposition, "It is possible for the same individual to learn and discover the same thing twice." This last proposition appears in the original, however, as a reason (γάρ) for the preceding; but what would be the logical connection between learning over again and the diversity of order followed by a recollection which is "the repetition of a previous recollection"? The passage, as translated, concludes with asserting that "there is need of greater initial latitude here [viz. in recollection] than is the case with learning" — an original rendering for ἐνούσης πλείονος ἀρχῆς ἢ ἐξ ἧς μανθάνουσι, and certainly wrong, as I think even Professor Hammond would convince himself by comparing the Latin, French, and German translations, and especially Themistius's excellent paraphrase of the passage (ed. Spengel, 242, 28). The discontinuity and confusion which appears in the translation of this passage does not, it seems to me, exist in the original. We have really to do with a closely connected argument, the purport of which is to mark the distinction between the process of reminiscence and the formation or reacquisition, *i. e.*, the formation over again, of a memory. Aristotle begins by mentioning three facts about memory which serve to distinguish it from reminiscence or recall: (1) It is a ἔξις or πάθος consequent on actual experience; (2) taken strictly, we 'remember' only after a certain time has elapsed; (3) there may be memory without actual recall. Then, positively, he defines reminiscence, the

process of which is described in the sequel, as the reacquisition, not indeed of a memory, the *ἐξίς* or *πάθος* previously spoken of, but of some knowledge already possessed in memory. It is a calling to mind of this knowledge with remembrance as a result and memory as an accompaniment (*ἡ μνήμη ἀκολουθεῖ*). All this, however, he goes on to say, is not to be referred without qualification to every case of the revival of past knowledge; that depends on the cases (*ἔστιν ὥς, ἔστι δ' ὥς οὐ*), the passage in which Hammond so curiously finds a reference to the eccentricities of association), "for the same person may happen to learn and discover the same thing twice. So that reminiscence must be distinguished from these (latter) cases; it takes place when there is already more in the soul to start from than we have to start from in learning" — namely, the knowledge already possessed in the memory and capable of recall.

It is impossible to translate Aristotle in such a manner as to make him intelligible without interpreting him. Here, of course, there is wide range for differences of opinion. But if one has no clear idea of what he means, no exact rendering of his meaning can be given. And it is particularly true of Aristotle that to interpret him correctly every word, every connecting particle, must be weighed. A good passage for illustration is *de insom.* i, 458 b 15 ff. In this passage Aristotle makes the interesting observation that dreams are, or may be, accompanied by other processes of thought. Anyone, he says, might convince himself of the fact who should carefully try to remember his dream on rising. He then continues: *ἤδη δὲ τινες καὶ ἐωράκασιν ἐνύπνια τοιαῦτα, οἷον οἱ δοκοῦντες κατὰ τὸ μνημονικὸν παράγγελμα τίθεσθαι τὰ προβαλλόμενα· συμβαίνει γὰρ αὐτοῖς πολλάκις ἄλλο τι παρὰ τὸ ἐνύπνιον τίθεσθαι πρὸ ὀμμάτων εἰς τὸν τόπον φάντασμα.* Hammond translates this as follows: "There have been persons who have in this way observed their dreams, as *e. g.*, those who try to arrange their deliverances in accordance with the precepts of the mnemonic art. For it often happens in their case that, along with the dream they put something else, an image before their eyes, in the place in question" (p. 232 f.). We naturally ask, what "the place in question" can possibly, in this connection, where there was no obvious question of a place, mean. The passages which Hammond cites in a note, *top.* 163 b ff. — it should read 163 b (Wz.) 28 ff., 159 b being the page in the Berlin edition — and *de an.* 427 b 19, indicate a reference to some mnemonic device. Now little is known of the artificial memory systems of the Greeks, but a comparison of Cicero *de oratore* II, 350 ff. and the unknown author of the Rhetoric *ad Herennium* III, 38 ff., where we

find explicit statements concerning mnemonic 'loci' and 'imagines', makes it tolerably certain that the *τόπος* which Aristotle here alludes to is neither a literal place nor one of the 'topics' or commonplaces so frequently referred to in the Rhetoric, but a place in the fixed arrangement of a mnemonic scheme. Besides leaving this unclear, the translation misses the point of the contrast expressed by the *ἥδη δέ τινες καὶ κ.τ.λ.* between the experience of these 'certain persons' and that which, as Aristotle says, everybody might experience by a little attention. Moreover, *τοιαῦτα* cannot mean 'in this way,' as though it were *οὕτως* qualifying *ἐωράκασιν* and referring to observations made after waking, and certainly "those who try to arrange their deliverances" is quite impossible for *οἱ δοκοῦντες κ.τ.λ.* The true interpretation, it seems to me, is as follows. That we have other ideas in sleep besides the dream-imagery is apparent, Aristotle says, to any one who carefully reflects on his dreams after waking up. "Indeed," he continues, "some have actually dreamed such dreams," *i. e.*, I take it, have clearly carried on such distinct trains of thought while dreaming, "*e. g.*, persons who suppose themselves to arrange the suggestions of the dream by rules of mnemonic art; for it frequently happens that they mentally picture something else besides the dream, namely, an image duly 'placed' in the mnemonic scheme." If this interpretation is correct, it explains the statement, *de mem.* 2. 452 a 13, that people sometimes seem to recall *ἀπὸ τόπων*, which Hammond translates "from local suggestions"; but this appears to have no significance in the context, where the illustration given is of a series of associative links from 'milk' to 'autumn.'

A difficulty of another sort is afforded by the passage *de mem.* 452 b 7 ff. Here we have to do with a corrupt text and the absence of a diagram. Themistius, Grouchius, Thomaeus, among older interpreters, and more recently Freudenthal and Ziaja, have attempted to reconstruct the figure, but with very doubtful success. Hammond finds the passage hopelessly difficult and merely translates Biehl's text as best he may with a reproduction and explanation of Freudenthal's figure, which Biehl also approves, in a note. I am unable to find in the text or the context the many wonderful things Freudenthal discovers there. Both he and Ziaja make short work with the question *τί οὖν μᾶλλον κ.τ.λ.* (18), which seems to me to furnish the principal clue to the meaning of what follows. The explanation is possibly simpler than the commentators have made out. For those who may be interested, I venture to suggest the following, the only emendation of the text being I for M in l. 20 — which seems required by l. 22 —

the vulgate, not Biehl's reading, being accepted for l. 13. The question is, How do we represent the time element in reminiscence? Discrimination of time-intervals, answers Aristotle, is presumably like the discrimination of spatial magnitudes. "For we think of things great and remote in space not by the mind literally stretching out to and embracing them," but by symbolical representations of the size or distance in our mind. These mental magnitudes are smaller than the real, but analogous. But the representation may be of various sorts. It is not necessary that it be absolutely uniform; it is enough if it stands in a certain definite relation to the object. The very same distance can be represented on various scales. The important thing is that we observe the ratio. Suppose, *e. g.* — here the diagram comes in — the isosceles triangle *ABE* with the base *BE*. We can represent this base by a line *CD* drawn parallel to it and bisecting the two sides. The lines representing the sides of the smaller inscribed triangle will then stand to those of the original triangle in a certain ratio, *e. g.*, $AC:AB::H:I$. *H* and *I* can be anything, say 1:3. But we might equally well have taken the point *F* lower down instead of *C* and drawn *FG* instead of *CD*, the ratio in that case not being as *H:I*, but, say, as *K:L*, *e. g.*, 4:5. Thus, in drawing the line which represents the height of a distant object, it makes no difference on what scale the lines are drawn, provided only the proportions are observed. This seems to be the whole point of Aristotle's illustration: we can think the larger objective magnitudes and the larger times — larger, that is, than the mental symbols — by corresponding extents in the 'movements' or representations of our thoughts, provided only the representations correspond relatively to the intention, without determining precisely how great or how small these representations must be. "What then will be the difference when the mind thinks the greater? Will it not be that it thinks those magnitudes rather than the less? . . . And perhaps just as we can take one figure inscribed within a given figure as its analogue, so in the case of the intervals of time." I make no pretense of positively claiming this as Aristotle's meaning, or that the way described is the only way the diagram could be drawn. With the text as it stands, I should say that any such pretense must be futile. But the above is, I think, the simplest explanation. Whether it throws much light on the psychology of the time-consciousness is another question.

There would be no end to the discussion of particular passages, but every review must have an end, and so I will content myself with briefly noting only a few more of the passages, taken at random, in

which, as it seems to me, Professor Hammond's translation is wanting in accuracy.

P. 244. The passage *de insom.* 461 b 26 ff., on which G. A. Becker remarked, "locus hic, quo difficiliorem vix novi," is rendered as follows: "On experiencing this sensation the master-sense makes the above deliverance," viz., that the object perceived is Coriscus, "provided it is not entirely inhibited by the blood, just as without sensation this movement is set up by the processes latent in the sense-organs." If this were correct, the remark would be unmeaning. In spite of various suggested emendations of the text, the reading of EMY, the best class of MSS, appears to me to yield perfectly good sense. The translation would be: "Now that by which while perceiving we affirm this, is excited, unless its activity is completely suppressed by the blood, just as if it were actually perceiving, by the motions (immanent) in the special senses."

P. 245. Persons hearing in sleep the faint crowing of a cock or the bark of a dog, have recognized them, we are told, "as loud voices" on waking. "Voices" is probably a misprint for "noises." But what Aristotle says is that they have distinctly recognized them (*σαφῶς ἐγνώρισαν*), the difference in intensity being not here in question.

P. 246. "In certain instances men have never in their lives known themselves to have a dream." Aristotle says straight out, some persons have never dreamed in their lives. The *ἐνύπνια ξεωραζέσθαι* in this passage may be commended to the translator for the interpretation of *ἐωράχασιν ἐνύπνια τοιαῦτα* in the passage 458 b 20 noticed above.

P. 233. We are startled to find Aristotle stating that there is no seeing, hearing, or sensation of any sort in sleep, and then immediately concluding, "The hypothesis that there is no vision is, therefore, untrue." What he really says is, "Well, (*ἄρ' οὐδ'*, a common formula somewhat equivalent to the French, *Eh bien!*), it is true that we do not *see* anything, but not true that sense is altogether unaffected."

P. 237. "Eyes are *constituted* in the same way . . . as any other bodily organ" is an inexact rendering of *τὰ ὄμματα διακρίται* ζ. τ. λ. The point of the remark, as Themistius already saw (ed. Spengel, 280, 12), rests on the assumption that the condition of the whole body is affected by the catamenial disturbance, and especially that of the eyes with their rich supply of blood-vessels (*φλεβῶδες* — the reference is not limited to 'veins').

The translator's use of English is usually unimpeachable, but there are occasional lapses, as, *e. g.*, where he speaks of the "effort" (*κίνησις*) being applied, as a seal might be applied, to running water (p. 199),

the influences "discharged" (for derived) from sight and hearing (p. 243), the salt on artificial frogs put into water being "melted off" (for dissolved, p. 244), the residual movements "set free in the small amount of blood remaining in the sense-organs" as "stirring themselves" (Aristotle speaks of their untrammelled movement and change, like figures in clouds).

Not the least valuable part of the book for the average student is the introduction, which contains the best account of Aristotle's psychology that has yet appeared in English. Particularly noteworthy is the full and excellent report of the various functions ascribed to the 'common' sense (p. lii ff.), also the interpretation (p. lxxi ff.) of the 'pathetic' and 'creative' reason, that crux of the commentators. Hammond's view of this latter distinction is that the 'pathetic' reason is the rational potentiality of the content of the 'common' sense, and that the 'creative' reason is the power which converts this potentiality into actual rational forms or meanings. This view is based on considerations that lie partly outside the two chapters in the third book of the *De Anima*, where Aristotle discourses of the subject with such tantalizing brevity, and has much to commend it. There are, however, aspects of the problem which are not here discussed, *e. g.*, the relation of the reason of the fifth chapter which as 'matter' is potentially all things, and which seems to be identified with the 'pathetic' reason of the close of the chapter, and the reason of the beginning of the fourth chapter which is also pure potentiality, but impassive. Are these the same or different? If they are the same, then, as Aristotle is evidently speaking of the higher faculty in the latter case, 'pathetic' reason and 'creative' reason would seem to be two distinguishable aspects of one and the same power. But then, how can one of these 'aspects' be really separate from the other, as Aristotle holds that the 'creative' reason is separable from the 'pathetic' as being alone immortal? On the other hand, if they are not the same, but the latter is identical with the 'creative' faculty, how can that which is, in any sense, pure potentiality be said to think constantly? The whole vexed question of personal immortality comes in here, but that question is not touched on. Professor Hammond handles the problem from the point of view of Aristotle's theory of knowledge, and from this point of view, which is no doubt the principal one, has dealt with it skillfully, but Aristotle's own treatment blends with this other elements, to combine which into a consistent unity of doctrine is extremely difficult, perhaps even impossible.

As with the translation, so with the introduction, there are many points of interpretation which the careful reader will call in question. It seems to me, *e. g.*, altogether false to say that Aristotle's analysis of consciousness finds only ideational and affective elements, no third element, such as will or conation (p. lxviii). This is a view of modern structural psychology unknown to Aristotle. Moreover, Hammond contradicts himself when he goes on to enumerate the elements of Aristotle's analysis in detail, as (1) an idea or presentative element, (2) an element of feeling, and (3) an element of effort or activity. And there are other points of comparison with modern views to which I should take exception. Thus, it seems to me entirely misleading to seek a correspondence between Plato's division of the faculties of the soul into reason, appetite, and the 'spirited' nature and our cognition, feeling, and conation (p. xxvi), to suggest (p. xxiv) the possibility of an analogy between Aristotle's vital heat and the hypothetical ether of modern physics (the author apparently had Aristotle's 'ether' in mind, a very different thing), and to say (p. xli) that Aristotle approximates the modern ether theory by resolving color into a form of movement of a medium; for color is with Aristotle the quality of the *surface* of a body in a diaphanous medium, whose *qualitative* change brings about the perception of the color, a view which has almost nothing in common with the modern theory apart from the fact that a medium appears in both. And when Professor Hammond, referring to the perception of distant objects in sight, hearing, and smell, says that these perceptions are marked by *actio in distans* (p. xlvii), he states the very thing which the introduction of a medium is intended to obviate. The reference to vision suggests to me one other point: Why is it that English translators of Aristotle persist in rendering his term for the organ of vision (*zóρη*), described as something "within the eye" "composed of the element of water" (p. xxxviii), by "pupil"? Clearly it is not the aperture in the iris of which Aristotle is thinking, but rather the vitreous humor, possibly not distinguished from the lens.

I have tried to indicate some of the weak points in this book as well as some of the strong. That was the critic's function. There are some passages in the translation which, in my judgment, are obviously at fault, more where the niceties of expression, particularly as affecting the consecution of the thought, have not been sufficiently attended to, more still, perhaps, where there is room for an honest difference of opinion. But whatever the defects of the work may be, its merits very greatly outweigh them. No translation of Aristotle can take

the place of the original, but a translation as good as this may be of immense help to the student in using the original, while it will serve to convey to the great majority not trained to deal with the Greek a very fair measure of its spirit and a very fair notion of its teaching. The book is to be welcomed, moreover, as indicating that attention is being paid to scholarship—in the English sense of the term—among students of philosophy at our American universities. And it is to be welcomed, perhaps, most of all as indicating a new interest here in Aristotle, an interest which, it is to be hoped, it will help to foster. For Aristotle is still in many ways “the master of those that know,” not, indeed, the master to furnish the intellect with materials of knowledge, but the master without a peer to supply it with a method and a discipline whereby it is forged into an instrument of power for highest and finest use.

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Die Grenzen der naturwissenschaftlichen Begriffsbildung: Eine logische Einleitung in die historischen Wissenschaften. Zweite Hälfte. Von HEINRICH RICKERT. Tübingen und Leipzig, J. C. B. Mohr, 1902.—pp. x, 305-743.

The first half of this work, which dealt with the nature and limits of the conceptual processes of natural science, was reviewed in this journal, Vol. VIII, pp. 58-60. The whole work is a development of the ideas outlined in Windelband's *Rectoratsrede* on *Geschichte und Naturwissenschaft*. The outcome of the first part is a sharp delimitation and separation of the spheres of natural and historical science. The purpose of natural science is to discover formulæ for the theoretical and practical mastery of the immeasurable multiplicity (*unübersehbare Menge*) of its data. Natural science attains this end by neglecting the individual and unique features of these data. Its goal is the formulation of general or universal concepts, based on the common features of its objects. The outcome of natural science (of which, I suppose, the archetype is mathematical physics) is the reduction of concrete data to a system of highly abstract concepts. In dealing with the physical world, this procedure is very successful. When we come, however, to the organic world, this method cannot be completely carried out. Biology is a partially historical science. The evolutionary method of classification, for example, is more or less historical in character, while, on the other hand, physiology approximates to the

type of physics. The more completely things and processes can be reduced to general terms, the more susceptible are they of quantitative treatment. The confusing complexity of facts is simplified. Nature, in the meaning it has for science, is reality treated with reference to the universal (p. 212).

Professor Rickert would include psychology in the natural sciences. Psychology, he says, treats the soul naturalistically, *i. e.*, without any reference to those effects of historical development which he includes under the general name 'Kultur.' Moreover, psychology neglects the uniquely significant aspects of the individual soul. Its aim is to find *general* laws of connection between mental processes. Hence Professor Rickert objects to the classification of sciences into natural and mental. Now, it is true that general psychology is usually treated by a method analogous to that of the natural sciences. But the term is already in use, with qualifying adjectives, to designate investigation into psychical differences of individuals, the study of social institutions from the psychological view-point, etc., and I doubt whether it is now possible or desirable to exclude the historical element from psychology. The psychologist is precluded, by the nature of his subject matter, from confining his attention to the purely *natural* processes of his soul, as distinguished from the products of history or 'Kultur.' He must begin with his own mind; and that, as well as most of the other minds he studies, is a product of historical development from which the 'Kultur' factor cannot be eliminated.

The result of the procedure of the natural sciences is not a representation of empirical reality, but a transformation of it. The more completely the process of forming general concepts is carried out, the further is natural science removed from the real world of empirical perception; and the narrowness of natural science has hitherto consisted in its failure to recognize any science other than that which deals with abstract universals. The empirical reality, according to Professor Rickert, is given in perception as individual and non-repeatable (*einmalig*). As such, it is the subject matter of history, and the latter stands much closer to the actual reality of things than natural science. When Professor Rickert speaks, in this connection, of reality as unique and individual, he seems to treat it as an objective datum which suffers no transformation in our ordinary experience, or, indeed, through any kind of reflection except that of the natural sciences. He does not seem to take due account of the difficulties which lurk in the assumption that the empirical reality is a datum which remains one and identical with itself, whilst scientific reflection, in transforming it,

moves away from it. Hence there is in his treatment a hiatus between the assumed reality of common experience and the beginnings of scientific (which after all is only *systematic*) thinking. And later, when he faces the problem of objectivity, the relation between his ultimate norm of objectivity and the given reality, taken as the material of history, seems to be ignored or at least slighted.

That portion of Professor Rickert's work now under review consists of two long chapters dealing respectively with "The Formation of Historical Concepts" and "The Philosophy of Nature and the Philosophy of History." The former chapter contains the author's specific contribution to historical methodology; the latter, in brief, his theory of the ultimate foundations of historical knowledge in relation to his general theory of knowledge. History is the description of individuals; whether actions, persons, groups of persons, whole periods, or nations, matters not, since all these can, and indeed the entire solar system, if we knew enough about its history, could be treated as *individual wholes*. If, then, science were limited solely to universals, history would not rank as a science. History employs universal concepts, but treats them as means, whereas for natural science they are ends. The unity and indivisibility of an individual rests on its uniqueness, and this is constituted by its relation to a recognized *value* or *worth* (*Wert*). The historical value of the individual lies in a unique significance, and any individual possessing a unique significance is so far universal and a subject for historical science. The value-judgment (*Werturtheil*) is unavoidable in history. The individual may get his historical position by reference to any universal value, political, æsthetic, scientific, ethical, religious, etc. The consideration of these values makes the process of formation of historical concepts a teleological process. History is concerned with significant individualities, and it presents these in a concretely intuitive manner (*anschaulich*); for reality is itself intuitable and history is the science of reality. To the demand that the individual shall be placed in his historical connections, Professor Rickert replies that in every case history treats the connection itself as an individual and unique fact; hence the mode of treatment is the same, whether we are considering a single personality, a nation, or an epoch. So far as this demand requires that every historical event or personage shall be accounted for on the principle of the identity of cause and effect, Professor Rickert rejects it entirely. He holds that history involves the recognition of human freedom, and that the relation of cause and effect in history is neither one of sameness of nature nor of quantitative equivalence.

In the section on historical development, the notion of progress is handled with great skill. History, we are told, must not treat any period simply as a preparation for the next, for this would involve an infinite process; no standard of value could be found and the whole process would lose meaning. If a standard *is* set up for testing the various stages of historical development, then this standard is taken from a specific point in history which is thus made absolute. But history must treat every specific historical formation with reference to its own peculiar significance. The only scientifically fruitful idea of development is one which presents a teleological unity, and thus can be related in its uniqueness to a universal value. (We might, I suppose, for example, treat the historical development of religion in this way.) Professor Rickert admits the use of universal concepts in history, such as general characteristics of nations, periods, epochs of civilization, etc. But these, he says, are obtained by abstraction from a few individuals taken as typical of the race, age, etc. (*e.g.*, Luther, as a typical German), and are subservient to the real end of history, *viz.*, the exposition of unique individual wholes or unities constituted by relation to a common value. It follows that a single world-formula is a logical contradiction with reference to empirical reality, and Professor Rickert rejects the notion of historical laws. History, he holds, has nothing to do with laws, since history is the exposition of the whole in its wholeness, and laws, the products of conceptual abstraction, can deal only with parts or fragments. Reality is non-rational and not susceptible of reduction to concepts.

Professor Rickert next makes clear the distinction between historical science and the mental sciences. He admits that they are closely related. History is concerned chiefly with psychical processes. Still it also takes physical processes into account. Moreover, even when psychology deals with individual differences, it considers them not in their uniqueness, but as instances of a species, whereas history always concerns itself with the unique. Then, too, a practical knowledge of men is different from a psychological acquaintance with them, and it is insight of the former kind that the historian needs. The connecting link between historical and mental science lies in the idea of value. It is only mental beings who posit values. Hence mental beings (*geistige Wesen*) are the controlling centers of historical exposition. The values which control historical writings are social, human values. These make their appearance and assert their supremacy only in the social life of civilized man. Hence history is the science of culture (*Kultur*). The culture-values are normative, universal, social values.

Culture is a teleological-historical system. Science is itself a historical product, springing from, and dependent on, a socially recognized value. In the treatment of particular aspects of culture, as the State, Art, Religion, etc., no universal method can be laid down.

In the last chapter, Professor Rickert discusses the general philosophical outcome of his theory of history. The fundamental objection to all naturalistic philosophies of history is that they furnish no principle for the selection of historical material, and history must work selectively. A principle of value has no place in natural science. In particular, the attempt to make Darwin's principle of natural selection a historical standard is a failure, since, according to this theory, every stage would be only a preparation for the next, and everything that exists would be equally good, in fact the best thinkable.

There remains the problem of objectivity. Natural science and history are both transformations of the empirical reality. Their objectivity cannot consist in literal agreement with this reality from which natural science *abstracts* and history *selects*. Objectivity in natural science depends on the validity of unconditioned universal judgments, and objectivity in history on the validity of unconditioned universal values. Empiricism could not put natural science in any better case, for every search for a law or uniformity of nature takes us beyond the empirically given. We must transcend the given, if we are to find a basis for objectivity. Professor Rickert rejects all attempts to base the objectivity of science on metaphysics. Metaphysics, he finds, is vitiated by the assumption that the real is absolutely rational and can be evaporated into concepts, whereas in truth reality is non-rational. I cannot find that Professor Rickert has anywhere fully justified this assertion. Moreover, like many another German professor to-day, in his haste to disavow the dreadful name of metaphysician, he unwarrantably limits the application of the word to rationalistic systems. Is it not time that he and some of his colleagues awoke to the fact that metaphysics does not necessarily connote the Hegelian or any other apparatus of 'bloodless' categories?

After pointing out that the real world is one of qualitative differences to which every materialistic theory must be inadequate, Professor Rickert faces the alternative of an epistemological subjectivism as the possible outcome of his theory. He makes the important distinction between a subjectivism which reduces science to a mere series of ideas in the individual subject, and one which makes science depend on an evaluating subject. The latter is his own view. He holds that the subject on which knowledge depends (for matter and

form alike) is an over-individual subject (*Bewusstsein überhaupt*) in contradistinction to the empirical Ego. The relation of these two is not made plain, however. He shows that no judgment is possible without the assumption that this over-individual subject is the universal evaluating subject, and he tries to show that factual (*thatsächlich*) truth is dependent on this subject. From this starting point he reaches his own theory of *critical objectivity*. Over-individual validity is the presupposition of knowledge. The culture value of natural science is itself over-individual. The very possibility of seeking truth presupposes the recognition of the value of truth. The basis of truth, then, is over-logical. It is the consciousness of duty. We could, by the examination of particular spheres of historical valuation, set up a system of values which would be dependent for their objectivity on the over-individual and supreme value. The reality of values presupposes a transcendental subject, but this is not a being (*Sein*) but an ought (*Sollen*). The objectivity of truth and the reality of human values rest on a transcendental *ought*.

Professor Rickert's basis for critical objectivity is an emasculated reproduction of Fichte's thought in its first period. I say 'emasculated,' because it lacks the dogmatic fervor which made Fichte's personality seem the incarnation of his principle, and thus brought it down from the limbo of abstractions. Professor Rickert tells us that whoever will think historically need only assume that the temporal world is related to an *absolutely unknown value*. Verily we have left logic behind! What right have we to assume any particular relation of our individual and sensuously conditioned experiences to an absolutely unknown *value*? What duty have we to an unknown, and, for all we know, absolutely unrealizable *ought*? The ultimate value on which objectivity is based becomes a blind postulate devoid of content. We may admit that science involves the recognition of duty, that duty is the recognition of a value, and we may properly hold that, unless these ineradicable convictions of ours have a root in ultimate reality, science becomes a contradiction. But it seems to me that we have here only the barest beginning of an objective foundation for historical or any other science. Professor Rickert seems ready enough to bring in a minimum of metaphysics provided that it is couched in terms of the transcendental ought. But a mere *ought* does not get sufficient content, power, and authority to be the ultimately real support of *human* values simply by being dubbed *transcendental*. And a supreme value, over-empirical and unknown, needs, I venture to say, some metaphysical filling before it can serve as the explanation and justification

of empirical values. Otherwise, objectivity seems to be left hanging in the air. A further metaphysical development is implied in Professor Rickert's views, just as Fichte's first period required the second for its completion.

Professor Rickert concludes his work with some remarks on a historical *Weltanschauung*, in contrast to a naturalistic one, and he gives illustrations of the applications of his general theory to the theory of ethics and of the state.

The entire book is to me a convincing proof that our epistemological investigations, when carried out to the bitter end, land us in metaphysics. Knowledge cannot live on vague postulates alone. Apart from the insufficiency of the conclusion, Professor Rickert's book is a thoroughly valuable piece of work; indeed, the best recent discussion of the logic of history that I know. It seems to me that he establishes his main contention in regard to the relations of natural science and history. He develops his theory of historical knowledge with painstaking acumen and a many-sided outlook. He is particularly skillful in careful definition and minute analysis. The style is clear and interesting, though there is some unnecessary repetition.

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The Psychology of Ethics. By DAVID IRONS. Edinburgh and London, Wm. Blackwood and Sons, 1903.—pp. xviii, 176.

It is somewhat startling to find a theory of emotion the central theme in a psychological introduction to ethics. At first glance, one is inclined to suspect that the author had a theory of emotion ready to hand, and that he wished to write an introduction to ethics, and consequently exercised his ingenuity in inventing a plausible argument to unite the ill-matched pair. A closer examination, however, dispels the suspicion, and leaves the reader wondering whether the author deserves more praise for the ability and skill shown in the elaboration of his argument, or for the insight that led him to attack his problem from such an excellent coign of vantage.

The ethical theory to which Dr. Irons's investigations lead does not differ widely from that set forth by Professor James Seth in his *Ethical Principles* and called by him Eudæmonism. Though the name suggests a variety of Hedonism, the theory asserts that "the moral end is not the attainment of pleasure," and that "hedonic results as such are therefore extrinsic to it" (p. 170). At the same time, "the supreme end does not require the absolute suppression of the hedonic tendencies" (p. 169).

The critics of Hedonism, in their psychological introductions to ethics, usually devote much attention to the theory of desire that identifies its object with pleasure; for they see that such a theory almost inevitably leads to Hedonism. Dr. Irons joins issue on a broader question.

The hedonistic theory of conation regards "pleasure-pain as the source and end"—"the alpha and omega of all activity." "This doctrine is an integral part of the general view of mind originated by Locke and rigorously developed by Condillac. It is the *tabula rasa* theory applied to conation" (p. 122). Dr. Irons assails the Presentationistic explanation of conation, not for the express purpose of rendering the Hedonist uncomfortable, but to prepare the way for "an adequate treatment of the principles of conduct." Yet, he points out that, if Presentationism be "carried out to its logical conclusion, it leaves no room for pleasure-pain any more than for conation" (p. xvii). Equally fatal to Hedonism is the alternative theory which he advances. For he finds that "emotion prompts to activity apart from all considerations of hedonic consequences"; that "there are principles of activity which are demonstrably not hedonic" (p. 108); that the "primary tendencies spring from the very nature of the individual" . . . and "tend to assert themselves . . . regardless of consequences, and therefore without reference to hedonic results" (p. xvi).

Presentationism is the natural consequence of the undue prominence given to the psychology of cognition and the neglect of the emotional and volitional aspects of the mind. Cognition received more than its fair share of attention because of its importance for metaphysics. Locke appealed to psychology for a satisfactory theory of knowledge to enable him to lay his metaphysical doubts. The 'Mental Philosophy' of an earlier generation is a strange medley of psychology and metaphysics, in which writer and reader pass and repass from one to the other, unconscious of differences in problems and methods. In recent years, the intellectualistic bias, shown in the undue prominence given to the psychology of cognition, "has received support and encouragement from the spread of experimental psychology, since cognition lends itself most readily to experimental treatment" (p. xi). Presentationism, sanctioned by history and fostered by a scientific psychology, presents a formidable front to the champion of a different theory of conation.

Logical Presentationism assumes but one irreducible mental element, sensation. Pleasure-pain is simply one among other proper-

ties of sensation. A modified form of Presentationism admits pleasure-pain to an equality with sensation, but denies the will admission to the sacred circle of elements. Even when Presentationism is explicitly disavowed, the intellectualistic bias persists in identifying the will with attention, although "the will is declared to be an ultimate aspect of mind" (p. xii). "The facts that pertain to the reactive side of mind" are ignored to the detriment of a sound theory of the principles of human conduct.

Presentationism explains the phenomena of conduct in terms of sensation and pleasure-pain. So far as tendencies to reaction are concerned, the mind is as a "sheet of white paper void of characters." "The *tabula rasa* doctrine has been generally abandoned as untenable in the realm of cognition. It is recognized that knowledge would be impossible if definite intellectual tendencies did not exist. These tendencies spring directly from the nature of the mind" (p. 122). Since "the *tabula rasa* hypothesis has been found inconsistent with the facts of cognition" (p. xiii), surely it is not rash to claim that "it can be shown to be at variance with the phenomena of conduct"? This Dr. Irons does by showing that emotion presupposes "primary tendencies to action" more fundamental than the emotions connected with them; and that "the psychical individual as such has a definite character which expresses itself in a multiplicity of primary reactions," which are "directly conditioned by the constitution of his nature" (p. 171). It is, therefore, as a criticism of Presentationism in ethics that Dr. Irons's book challenges careful examination. His theory of emotion, if established, involves the overthrow of Presentationism. He did not elect to attack by the more spectacular method of *reductiones ad absurdum*, or by a severe application of the logical test of consistency. His appeal is to facts. When he has made clear what the facts declare the nature of emotion to be, he shows what such a view of the nature of emotion implies about the nature of man. The success of this method depends upon the facts brought forward. Are they trustworthy? Are they exhaustive?

Dr. Irons's final court of appeal is introspection. Thus, in speaking of the consciousness of activity, he says: "Here introspection is the only possible guide, for introspection alone can give a verdict in regard to the ultimate qualitative distinctions between psychical phenomena" (p. xvi). Elsewhere he summarizes the results of an examination of the view that emotion is "the sum of organic sensations aroused by the bodily disturbance," thus: "This view does not seem to harmonize with introspective results" (p. 56). Again, when

considering qualitative distinctions in emotions, he says: "In a case like this, as Külpe maintains, it is to introspection that the final appeal must be made" (p. 19). "Introspective observation," as Professor James says, "is what we have to rely on first and foremost and always." (*Psychology*, Vol. I, p. 185). But to what extent is it trustworthy? Must we, with Professor James, admit that "introspection is no sure guide to truths *about* our mental states"? (*Ibid.*, Vol. I, p. 197.) May we accept with unquestioning faith the report of introspection so far as it relates to the 'that,' but accept with reserve what it reports about the 'what' of a psychical state? Whatever our final opinion of the reliability of this method may be, we cannot withhold our admiration and gratitude for this acute and thorough analysis of emotion as it appears to introspection. For here, at least, "in multitude of counsellors there is safety."

Dr. Irons's theory of emotion is too familiar to the readers of this REVIEW to make it necessary to state his argument at length. The appeal to introspection, the comparison of emotion with cognition, with pleasure-pain, and with conation, and the critical review of current theories convince him that emotion must be regarded "as an ultimate aspect of mind." "The final result of this whole discussion regarding the nature of emotion is now evident. Emotion is not only introspectively distinct from cognition, pleasure-pain, and conation, but has, in addition to its unique character as a conscious fact, definite conditions of its own and other features absolutely peculiar to itself. It is, therefore, unanalyzable and irreducible, and must be regarded as an ultimate and primary aspect of mind (p. 39). A review of current theories "discloses the fact that emotion is not usually identified with pure cognition, pleasure-pain, or conation." While psychologists usually admit that emotion differs in some respects from other aspects of mind, they attempt in various ways to explain away this difference. "The difference between emotion and the other aspects of mind has not been successfully explained away" (p. 72).

What is the nature of emotion? "I have used the term 'feeling-attitude' to indicate, not to define, this apparently unique aspect of mind. The word 'feeling' expresses subjectivity and diffusedness. Emotion is subjective in much the same sense as pleasure-pain. It is a centrally-initiated reaction, however, while the latter is pure subjectivity. Briefly, the one is subjectivity as reaction; the other is subjectivity as receptivity. The word 'attitude' is employed to mark this distinction and to emphasise the fact that emotion, in virtue of its character as reaction, has an outward direction or objective reference" (p. 7).

"Emotion must be regarded as an ultimate aspect of mind with a distinctive influence on conduct" (p. 73). The interest now centers in "the manner in which emotion functions as a principle of activity." In order to determine this, Dr. Irons finds it expedient first to ascertain the primary emotions, or the "qualitatively distinct forms which feeling-attitude assumes." "The primary emotions seem to be the following: satisfaction, dissatisfaction; anger; fear; ill-feeling and its opposite; repugnance; scorn, admiration; respect, contempt" (p. 106). As factors in conduct, the fundamental 'feeling-attitudes' "regulate the behavior of the individual in regard to the varying phases of the world of things, persons, and events, which constitutes his environment" (p. 106). "All these emotional tendencies to action are distinct from the hedonic impulses. Whatever be the conditions under which an emotion arises, it prompts to activity apart from all considerations of hedonic consequences" (p. 108).

What evidence is there to establish the existence of primary tendencies to action? If it be granted that such tendencies exist prior to the experience of the hedonic consequences of action, then it is possible to maintain that the end of conduct may not be pleasure. It is at this point that Dr. Irons's theory of emotion makes its greatest contribution to ethics. "In various ways," he says, "the existence of primary tendencies can be established. From the concrete phenomena of emotion and pleasure-pain, as well as from more general considerations in regard to the nature of human interests, the same conclusion follows" (p. 119).

Emotion is a reaction. "Emotion is the manner in which we react" (p. 14). It is self-evident that there can be no reaction unless certain tendencies already exist in that which reacts. If the *tabula rasa* hypothesis were true, the mind might passively receive, but could not react. Emotion, then, presupposes primary tendencies to action.

The phenomena of pleasure-pain in a similar manner lead to the conclusion that primary tendencies exist. "The pleasures which are supposed to condition those tendencies are themselves conditioned by the latter. If there were no tendency, and therefore no desire, for effective manifestation of the self, success in this respect would not be pleasant. The attainment of success is pleasant because it is desired; it is not desired because it is pleasant" (p. 115).

Similarly the facts of interest point to the existence of primary tendencies to action. "Interest in objects is not determined exclusively by hedonic relations" (p. 113). For example, the interest which is excited by the sight of another in distress cannot be attributed

to the pleasure derived from witnessing distress. The implications of interest may be made clear by an example. The interest manifested in the respect which one has for the efficiency of others "can be explained only if we suppose that each individual has a natural tendency to make his existence effective in some way" (p. 113).

The primary principles of activity, or ways in which the primary tendencies express themselves, are discussed under such headings as: the tendency of function to realize itself; the principle of inertia; sociability; self-preservation and self-assertion; the property instinct; the destructive and constructive instincts; and the various forms of each.

"But if man were endowed only with the tendencies already mentioned, no system of conduct would be possible. Each individual would be resolved into a multiplicity of warring elements" (p. 144). It is thus the problem of the last chapter is introduced. Here psychology surrenders the discussion to ethics. To make a system possible, an all-inclusive end is necessary. Is there a supreme end of intrinsic worth? An ideal of worth is presupposed by the facts of admiration and scorn, which are excited by the presence or absence of worth in others. The sense of personal dignity, the feeling of shame, the sense of propriety are intelligible only by reference to an ideal of worth. "This ideal of worth has the characteristics of a supreme regulative principle, for it furnishes an all-inclusive end, a universal criterion, and a supreme motive" (p. 150).

But what modes of behavior are worthy of the individual? What does the supreme end require? "The supreme end is the realization by the individual of his distinctive capacities" (p. 159). "The content of moral obligation is defined by the distinctive nature of the individual and of his environment, that is, by his place in the system of things" (p. 172).

It is thus Dr. Irons sums up the results of his inquiry. "The psychological individual as such has a definite character which expresses itself in a multiplicity of primary reactions. These reactions are directly conditioned by the constitution of his nature; are not determined by pleasure-pain; and are themselves the sources of hedonic results. They also give significance to persons, things, and events. When this significance is recognized, a peculiar reaction of feeling takes place which is called 'emotion.' The various emotions are different feelings in reference to different objects, and give rise to special impulses. All these particular tendencies assert themselves as opportunity offers, and if left to themselves are perpetually at variance with

one another. The psychical individual, however, is an organic being, and there is a principle of synthesis in his nature. He has an ideal of worth, and feels obliged to act in accordance with it. What the individual regards as worthy of himself is the realization of his distinctive nature" (p. 171).

One cannot refrain from expressing admiration for the ability of the author, for the lucidity of his style, and for the scientific precision and brevity of statement, the accurate observation and acute analyses, that make this little volume a model of its kind.

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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.]

LOGIC AND METAPHYSICS.

La place de la vie dans les phénomènes naturels. F. LEDANTEC. *Rev. Ph.*, XXVII, 10, pp. 329-358; XXVII, 11, pp. 504-516.

This inquiry naturally falls into two parts: first, an objective study of the activity of matter, organic as well as inorganic; and secondly, a study of the nature of knowledge. (1) In the first division of the inquiry, appeal is made to the atomic theory, the fruitfulness of which has demonstrated its legitimacy. No matter how far the division of a homogeneous and continuous substance, like the imaginary substance of mathematics, is carried, the parts remain identical in form and behavior with each other and with the whole. The unit of measure is conventional, and a certain volume is great or small only in comparison with bodies arbitrarily chosen. But the case is different with certain other bodies, *e. g.*, water. At a certain point in the process of division, water changes its properties, becoming something which is not water. It is possible, then, to find for water an absolute unit of measurement. This brings us to the molecular hypothesis of the structure of bodies like water. A drop of water consists of a number of molecules which cannot be divided without losing their characteristic properties. Of the inner structure of matter, this hypothesis teaches us nothing; only from the chemist do we learn to divide water into simpler elements, hydrogen and oxygen. We find it difficult to represent decomposition to ourselves, because we cannot compare it to any of the phenomena which we directly apprehend by sense. We instinctively represent atoms as motionless bodies, and think of movement as molar movement, forgetting that it is only by its molecular movements that matter manifests itself to us. Many are astonished at the apparent spontaneity of movement in living beings, when, as a matter of fact, it is only the result of a transformation of molecular into molar motion. Connected with the instinctive belief in the immobility of bodies is the anthropomorphic conception of force as a static source of activity. The truth is, that there are no static forces, but only transformations of motion. So the agencies at work in decomposition are

not of static origin. Only in their reactions, however, do the chemical properties of bodies manifest themselves ; we give the name of chemical repose to the periods separating the reactions, because during those periods the internal movements of the molecule are a sealed book to us. Action at a distance is an illegitimate conception, which gives support to the theory of vital forces in biology. Only by the transfer of motion from one to the other can there be a relation between two distant bodies. Biology has shown that every living being is constantly changing. This alone renders experimental proof of freedom impossible, showing, consequently, that a vitalistic theory cannot be based on the apparent spontaneity of animal movements. Animals, like other natural bodies, are transformers, not creators, of motion. We find in physics and chemistry all that is necessary to an understanding of vital phenomena ; and, on the other hand, the belief in immaterial principles comes from inexact physical notions, *e. g.*, the notion of force as static. The distinctive property of living bodies is a chemical one, namely, assimilation. Assimilation differs from chemical reaction in purely physical bodies in that it is marked by a reconstruction of molecules identical with those broken up. Life, then, is essentially chemical in nature. (2) The great law insisted upon in the second part of this inquiry is that we know only the movements of matter. If we have knowledge of a body which appears motionless, it is because its molar repose conceals its molecular motion. Our knowledge of a distant object results from modifications of our substance by movements carried from that object. In dealing with the question : How can a modification of our substance give rise to a sensation in us ? we ought to confine ourselves to verification, and not make any attempt at explanation ; human explanations are only comparisons, and we can compare the faculty of knowledge with nothing but itself. Knowledge is limited on one side by the very great, and, on the other, by the very small. Beyond these limits lies the unknowable, a domain indifferent to man, since only the knowable can act upon him.

M. S. MACDONALD

L'Idée d' objet. E. CHARTIER. *Rev. de Mét.*, X, 4, pp. 409-421.

To perceive is to know an object as the one source of manifold sensations, to know something which no single sense can experience. There is for us no other object than the bond uniting the several sense-images into a unity. Thus, to know a so-called thing is to know a law, since a thing is nothing but the image of a relation between our sensations and our movements. A being possessing only the sense of touch could reason about, but never perceive solidity. For such a notion supposes the activity of sight, by which to imagine the interior parts of a solid body which are not immediately tangible. But sight alone is equally helpless. To perceive a plane surface is to realize — through the suggestions made by the eyes — that any movement in a given direction would be accompanied by an impression of constant resistance. Otherwise expressed, a visual image

is the anticipation of a tactile impression. In the same way, to hear or taste is to be aware that we may see, feel, etc. That is, to perceive the universe at all we must *think* it, not merely theoretically but practically. Thus, perception depends upon the laws of the mind, rather than upon the properties of the senses. Only by showing that nature itself presupposes — if it be presented to consciousness — the principles found in knowledge, can the final agreement between mathematical deductions and experience be explained. Since to know the position of a body is to know the movements necessary to reach it, Kant's paradox, "space *is* before things," holds good. And as the precondition of the idea of any object is the idea of the whole universe, of indefinite space, it follows that space is indivisible. For if the knowledge of it as a whole precedes the knowledge of any particular point in it, space cannot be regarded as a sum of parts.

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The Non-Existence of Matter. A. S. HAWKESWORTH. Westminster Review, CLVIII, 4, pp. 382–390.

Metaphysical matter, as opposed to common matter that we feel and see, cannot exist. The atomic theory, as a theory of ultimates, evidently abstracts into meaningless absolutes, properties which have only a meaning as relatives. It speaks of only one matter, when all that we know are many matters. We cannot know the atomic matter, nor can the atom account for the outer world of objects. Our sensations of color, light, and heat, are, as shown by science, only produced by wave motions. Nothing else can affect our senses, and yet we term the synthesis of all our sensations matter, while sensations are in reality subjective and caused by these wave motions. Moreover, atoms as dead matter can never produce these wave motions, nor again can any matter be conceived as causing them, for sensuous matter has been shown to be the product of these wave motions, and hence we cannot predicate them as its product. A transcendental theory of matter is also useless, for matter is what we touch and see. We may term the cause of the motions God or simply *x*, but we cannot employ the sensuous term 'matter' in this connection.

R. B. WAUGH.

Ueber sogenannte relative Wahrheiten. K. TWARDOWSKI. Ar. f. sys. Ph., VIII, 4, pp. 415–448.

Absolute truths are those judgments which are unconditionally true for all times and places, without any restrictions whatever. Relative truths, on the other hand, are such judgments as are true only under definite conditions and restrictions; they are not true always and everywhere. The fact that this is the meaning of the terms 'relative' and 'absolute' is shown by the way in which these words are applied to other spheres than that of truth, *e. g.*, beauty. In regard to the existence of relative truths, few people express doubt; many, indeed, maintain that relative truths are the only ones attainable by man, and that there are, for man at least, no

such things as absolute truths. In opposition to this wide-spread view, the writer upholds the thesis that there are no judgments which would be true only under certain circumstances and conditions, and which would cease to be true and become false when these circumstances and conditions are changed; that, on the contrary, every true judgment is true always and everywhere, and, therefore, that judgments which are 'relative' in the above sense never are, never have been, and never will be true. The relativists, or advocates of the theory of the existence of relative truths, base their arguments upon examples which seem to manifest only conditional truth. But closer analysis shows that the relativistic position rests upon a confusion of an inaccurate verbal proposition with the judgment itself as a psychic activity. The expressions chosen to illustrate the relative character of truths are in fact nothing but abbreviations for the real judgments which they represent. If one says, for illustration, that 'this flower has an agreeable odor,' that 'cold baths are salutary,' or that 'it is raining,' the verbal statements omit essential elements that enter into the judgments of which they are the expression. The judgments themselves are but imperfectly or elliptically represented, since they include the so-called conditions as vital or essential parts of the psychic activity. No one but a 'relativist' ever supposed that the statement, 'it is raining,' could ever become false; the judgment never implied that it was raining always and everywhere even when no conditions are mentioned. The judgment, when expressed exactly, would read that it is raining here and now, in a definite place and on a definite date, when one reckons according to a conventional calendar. The point to be noted is that such a judgment is either true or false. If once true, it can never *become* false. The so-called circumstances are not extraneous to the judgment, and the judgment, when exactly stated, is always true or always false. The application of such a logical criticism to 'relativistic ethics' is obvious. Every ethical judgment or moral norm, if once true, is always true, in spite of the fact that certain principles, which at one time and in certain states of society are regarded as moral, are at other times and under other circumstances condemned as immoral. Likewise, in the sphere of logic, when the relativists say that an hypothesis or theory is true only under certain circumstances, and may become false with a change of the conditions, the argument rests upon a confusion. An hypothesis is either true or false from the beginning. If it were false at the time of its assumption, it nevertheless appeared at that time to be the most probable of all possible hypotheses, on account of an incomplete knowledge of the facts. But if false, the identical hypothesis can never become true. Finally, relativism cannot find support in epistemological subjectivism, *i. e.*, it cannot be deductively proved from the nature of the psychophysical organism.

A. L.

The Distinction of Inner and Outer Experience. G. GALLOWAY. *Mind*, 45, pp. 59-78.

The problem indicated by the title of this article may be considered from the standpoint of genesis, or of validity. The notion of inner as opposed to outer reality, since it implies conceptual thinking, can only be developed by intersubjective intercourse. But the germ of the distinction is found in that experience of individuals which among all primitive peoples gives rise to animism. The theory of 'introjection' to account for the process of 'inreading' is plausible but unconvincing: to say that internality is first assumed of the mental life of fellow beings, and then by analogy transferred to personal experience, is to presuppose the original psychic impulse. As to the validity of the distinction, Kant maintains that outer sense is a necessary postulate: the contrasted permanence given by external perception conditions the recognition of inner changes, and so the determination of ourselves in time. Dr. Caird's supposition is that inner is merely outer experience at a more highly articulated stage. But this overlooks the important qualitative difference, and inverts the order of development. The elementary fact is an active self, which gradually distinguishes its environment, and, by conceptual thought, postulates part of its total experience as external. Reference of the percepts of various individuals to one and the same thing is only explicable upon the hypothesis of a transsubjective reality. For obviously there is no constraining power either in the individuals themselves or in their abstract common experience as such. Thus, although objects are admittedly ideal constructions, these constructions can only be valid interpretations of an independent existence. A definite conception of reality is formed, and the unsatisfactoriness of Mill's 'permanent possibilities' and Kant's 'things-in-themselves' is avoided, when we, recognizing other human subjects as centres of thought or will, acknowledge manifold spiritual substances or causalities — subjects at lower developmental planes — upon whose activities the qualities of the known world depend. A perceiving subject can only represent the mutual determination of different spiritual substances under the form of space, and must postulate time as the sole common term to which his own mental states and those of others can be reduced. So much validity has the spatial-temporal reference, involved in the dichotomy of phenomena. This account avoids the two errors of treating space and time as independent reals or as mere subjective fictions.

ANNIE D. MONTGOMERY.

PSYCHOLOGY.

Eine Willenstheorie vom voluntaristischen Standpunkte. N. LOSSKY. *Z. f. Ps. u. Phys. d. Sinn.*, XXX, 1 u. 2, pp. 87-133.

Voluntarism may be defined as that tendency of psychology which declares that all phenomena of mental life which relate the individual consciousness to the ego take place according to the pattern of voluntary acts,

that the acts of will are typical forms of conscious processes. In other words, in the realm of the ego there are no permanent states but only purposive acts. This commonly accepted definition, since it does not definitely outline its position, is held but tentatively. It is the business of voluntarism, as an empirical tendency, to more clearly define every one of the expressions used, to precisely determine just what should be included under the concepts will, acts of the will, and ego. The acts of choice are taken as a starting point, since they contain the most highly differentiated elements, and are therefore peculiarly characteristic. The analysis of typical instances shows that we may designate as voluntary all acts containing the following elements: (1) 'my' striving, (2) the feeling of 'my' activity, and (3) the changes which appear entirely, or partly, as the result of 'my' ego, although it is not always 'my' state of consciousness. Each of these elements in turn must be analyzed before there is afforded a starting point for a theory. According to Pfänder, one can designate as striving only those conditions of consciousness which have as their characteristic element a peculiar unanalyzable feeling of 'crowding in' which he called the striving feeling. Efforts (or strivings) may be of three kinds: (1) those apparently proceeding directly from the ego and having the characteristics of freedom, decision, spontaneity, which may be called 'my' efforts; (2) those ultimately proceeding from the ego, but occurring under the pressure of outside influences, which may be called efforts 'forced from me'; and (3) those which do not seem to originate in the ego at all, and can be designated as mine only in so far as my attention is directed upon them. These are termed efforts 'given me.' Further examination shows that, in one class of conscious states related to voluntary acts, the effort is accompanied by a relatively pleasurable idea of the event which is the object of the impulse, while in another the anticipation of the resulting experience does not take the form of an idea, but is mere undifferentiated consciousness. The former, the 'known' effort, is a characteristic of impulses in general, while the latter, the 'unknown' or merely conscious effort, occurs abundantly in mental life in the form of blind impulse. Passing to the feeling of activity, which is the connecting link between the effort and the corresponding change, it is found that, like all conscious states, it may have the character of being 'mine' or being 'given to me,' the former, or feeling of inner activity, characterizing voluntary muscular action, and such mental processes as reflection, recollection, etc., and the latter, or feeling of external activity, accompanying perceptions of the external world and many organic sensations. Analysis further shows that these feelings are distinct and separate, that the feeling of inner activity can in no sense be derived from the feeling of outer activity, neither is it a constituent part of the motor sensation, as first stated by Münsterberg and others, but afterwards modified by him so as not to be contradictory to the purpose of voluntarism. The change which follows my effort and the corresponding feeling of activity is threefold: (1) one in which the change throughout

its whole extent appears to be 'mine,' 'my internal act'; (2) one in which the elements 'mine' and 'given me' are mingled, 'my incomplete internal act'; and (3) a change in which the elements appear to be wholly 'given,' 'my external act.' The last-mentioned change is to be carefully distinguished from one which may be designated as an inner psycho-reflex act containing the idea which is the object of the effort, the feeling of effort, and an unconscious change corresponding to reflex action. Some psychologists designate such phenomena ideo-motor acts; but this term is too broad for the purpose of this article, since it may include all acts following upon the motor idea, and also too narrow, since it excludes psychical changes which are not accompanied by corresponding changes upon the periphery of the body. A complete analysis of the individual consciousness shows, in addition to the above described acts of the will and internal psycho-reflex acts, a third class of phenomena designated by the author as conscious states. To show the ultimate '*Willenscharakter*' of all mental life, there remains yet to consider only this last group of phenomena. A detailed examination of the cases to be considered leads to the following generalization: Each conscious state, in so far as it is perceived as 'mine', contains all of the elements of voluntary acts, viz., 'my' effort, the feeling of 'my' activity, and a change accompanied by a feeling of relative satisfaction; and it appears to be produced by me. A more careful survey of the general field also shows that, of all the elements of volitional acts, effort is the only one which can be perceived as 'mine' when not accompanied by the others, which leads to the belief that it gives to the others this coloring, and forms a starting-point and cause for all psychical processes perceived as 'mine.' Growing directly out of this observation is the ultimate generalization and final definition of the position of voluntarism, viz: All conscious processes, in so far as they are perceived as mine, contain all the elements of volitional acts and are the result of my effort. That what we may conveniently call the will sustains a causal relation to all such processes, would appear to be further substantiated by the fact that voluntary acts bear not only all of the marks claimed for the causal relation by empirical science, but also contain in addition the three following still more important characteristics: — (1) The relation here found not only preserves the chronological ordering of its events, as demanded by empirical science, but is also perceived immediately in the feeling of activity. (2) There occurs a peculiar correspondence between cause and effect which justifies the designation of voluntary acts as purposive acts. (3) This relation always sustains a creative character. Thus the immediate feelings seem not to have deceived us in indicating the ultimate volitional character of the conscious life, but are corroborated by the results and inherent nature of purest induction in giving first place to voluntarism among the psychological tendencies.

CLARENCE E. FERREE.

La pensée sans images. A. BINET. Rev. Ph., XXVIII, 2, pp. 138-152.

This paper is an account of experiments made to determine the rôle played by images in ideation. The conclusions drawn from the experiments are as follows: The image is only a small part of the complex phenomenon to which the name thought is given. The illusory belief in the importance of representation for thought is due largely to the ease with which the mental image can be described. The psychology of Taine has popularized the idea that the image is a repetition of the sensation, and that we think in images. Moreover, the clinical studies of Charcot on aphasia have shown the distinction between visual, auditory, and motor images, and have increased the importance of the image in psychology. There is, no doubt, a sensory element in thought; but it is a mistake to over-emphasize its importance. To materialize thought is to render it unintelligible; the laws of ideas are not necessarily the laws of images; to think is not simply to be conscious of images; to attend is not simply to have one image stronger than others. The experiments have shown that certain thoughts occur without images; that in other thoughts the images illustrate only a small part of the phenomenon; and even that the image may not be coherent with the thought — one thing is thought and another represented. Added to, but separate from, the preceding discussion, is an hypothesis as to the mechanism of thought. Words presuppose a prior thought which directs and organizes them. On the other hand, words react on thought, giving it a precision which it would otherwise lack. Thought is an unconscious (in the sense of imageless) act of mind, which becomes fully conscious principally through the aid of words and images. But however difficult it may be to represent to ourselves a thought without the help of images, such a thought none the less exists. It constitutes a directive and organizing force comparable to the vital force which models the form of beings, and guides their evolution.

M. S. MACDONALD.

ETHICS AND ÆSTHETICS.

Du rôle de la logique en morale. F. RAUH. Rev. Ph., XXVIII, 2, pp. 121-137.

An honest man aims at a certain unity in his acts, at logical consistency in his conduct. In morals, as in science, conceived systems of unity stand in need of experimental verification. This verification does not at all consist in the agreement between our ideas and a certain objective fact, but in the agreement between those ideas and a certain moral experience. In a book soon to be published, the author will show the conditions of this experience, an undertaking which is as distinct from an analysis of the moral life as the rules of experimental method are from the work of the laboratory. In this paper no more is aimed at than a glimpse at moral experience. To be logical is (1) to be consistent in action, and (2) to persist in a belief, if there is no other reason for change than egoism or interest. Upon this principle is based a part of man's duties to himself and to oth-

ers. It is not even necessary that the contents of an action be morally qualified, in order that a contradiction without reason or motivated by interest appear immoral. We regard as despicable a man who changes his habits or clothes simply to please a superior. The cause is not far to seek. The tendency of a thought to maintain itself corresponds to a duty, namely, the duty of non-contradiction. The habitual or dominant in consciousness is for us the reasonable, which we cannot contradict without good grounds. Accordingly, the 'sentiment of rationality,' and, therefore, the consciousness of duty, can arise from any feeling or act whatever. The feeling of right arises in the same way. It is a feeling of expectation, the expectation that others will do their duty towards me, springing, like the feeling of obligation or of rationality, from habitude or repetition. The rule of non-contradiction can, then, be laid down as an essential rule of moral thought. But this rule is subject to one condition: the moral belief in which one perseveres will always appear true only if opposed or limited by no other belief. In a conflict of duties, our decision is based, not upon any supposed superiority of one set of duties to another, but upon an experience which varies with the time and place. In such a case, the question which concerns the honest man is whether, in limiting one principle by another, a concession is made to reason or to interest. The name logic designates an operation different from that just described. I reduce two beliefs to a common belief, or extend to one domain of life a belief used in another. This principle of logical extension is distinct from the principle of non-contradiction. Logical extension, when really necessary, is to go no further than is required by objective experience in the theoretical, and by moral experience in the practical, sphere. It is often artificial. One belief can be attached to another by a characteristic which is common but superficial. This artifice may be resorted to for the purpose of self-deception. But it may also have a higher object, as when, to avoid disturbing accepted beliefs, new ideas are disguised in the dress of the old. In this replacing by artificial synthesis the contradictions and the profound syntheses of belief, there lies the danger of perverting conscience and substituting Pharisaism for life.

M. S. MACDONALD.

La dernière idole (Étude sur la "Personnalité Divine"). ABBÉ M. HÉBERT. Rev. de Mét., X, 4, pp. 397-408.

Modern thought protests against Christianity's last idol, a transcendent God. The fallacies of ecclesiastical logic—especially the *a priori* conclusions of faith and desire—are strikingly illustrated in Thomas Aquinas's proofs of the existence of a personal Deity. In his argument for God as a prime mover, the question is begged three times: (1) in the absolute separation of *natura naturans* from *natura naturata*; (2) in the spatial reference to a series of objects, each communicating its motion to another; (3) in the unwarranted substitution of movement *ab alio* for movement *a se*. The second proof—God as an efficient cause—makes *cause* synonymous

with *condition*; while the arguments for a necessary cause, an ultimate reality, and a governing mind tacitly assume a supernatural being. But there is no authority for thus separating Deity from things. Reason postulates, instead, a divine force, distinguishable from, but immanent in, nature, constantly striving towards perfection. Reality is its own law of evolution. The category of the ideal is not 'The world is God's realization,' but 'God is.' Such an objectification of the intrinsically unknowable is excusable as being our only escape from subjectivism. Primitive despotism is largely responsible for the notion of a Divine Ruler; its gradual elimination is paralleled by the change from an implacable Jehovah to a heavenly Father. Yet Divinity is conceived of as personal through perfectly legitimate demands of the religious consciousness. Only thus does the notion become accessible to the masses. Metaphysics freely admits the practical advantages of such a representation, but rejects it as intellectually dangerous and not ultimate, pointing out its threefold error. (1) Reason is thereby dethroned in favor of faith. (2) A knowledge of the human personality is presupposed. Again, even granting such a knowledge, the denial of some human attributes to Deity invalidates the predication of any. (3) In the usual statement of the problem: Do consciousness, will, and personality properly pertain to God? the creator is already isolated from the creatures, and so the moot question is assumed. Yet theology and metaphysics are not mutually destructive. They satisfy distinct, but equally persistent, longings of humanity to know one inexhaustible truth. The danger is that the symbol should become an idol.

A. D. MONTGOMERY.

NOTICES OF NEW BOOKS.

Hegel's Logic : An Essay in Interpretation. By JOHN GRIER HIBBEN.
New York, Charles Scribner's Sons, 1902.—pp. x, 313.

If one may judge from the number of books on Hegel now appearing, one is justified in inferring that Hegel is at last coming into his own. After having been laid on the shelf for half a century in his own native Germany, his works are evidently taken down and dusted and exported to England and America, where they are actually read. The significant literature on Hegel is found in English, and this has been the case for many decades. With the exception of Kuno Fischer's exposition, no work of first rank on Hegel has appeared in Germany since Hegel's narrow-minded followers brought an undeserved contempt upon their master by lifting up his name unto vanities. The disgusted public naturally reasoned, 'Like disciples, like master,' and turned their attention away from 'the speculative philosophy' and did obeisance to 'the inductive philosophy' of John Stuart Mill, and later to 'the evolutionary philosophy' of Charles Darwin. And it was right in giving Hegelianism up, if the Hegelians knew the mind of Hegel. It has been reserved for foreigners to discover that Hegel's 'speculation' was not a spinning of cobwebs, but a serious attempt to do justice to the concrete experience of every-day life; that, far from being a mere theorist, Hegel was trying to see life as it is, an experience which begins in seeming disconnectedness and mere sensation, and which gradually evolves into an intelligible order to which the emptiness of mere conception and the blindness of mere perception are equally alien. His schematism, his triadism of thesis-antithesis-synthesis, is an inheritance which he came by from his philosophical progenitors. He took this barren legacy, and by dint of hard, honest work in the world of facts he made it into solid wealth. He gave back to the form the content of which it had been disembowelled, and yet because he kept the form he was called a formalist. He restored logic to its vital connection with reality, and yet, because he insisted upon seeing the logic of things, he was called a panlogist. He showed the particulars to be not mere particulars, isolated and atomistic, but concrete exemplifications of concrete universals, standing in organic connections which must be discovered by scientific thought. He attempted to ascertain what these connections are, and to discover the relations which obtain between one connection and another, as these connections actually appear in experience; and for his pains he was accused of being the manager of a ballet troupe of bloodless categories.

But a prophet is not without honor save in his own country, even though in other countries he may have stones thrown at him by those who have taken not a few words of prophecy out of his mouth. Meanwhile the build-

ing of his tomb and the garnishing of his sepulchre goes on apace—but as yet it is mainly at the hands of gentiles.

In the work now before us, Professor Hibben has made his contribution to the rehabilitation of Hegel's reputation. It is "an attempt to render intelligible the fundamental Hegelian doctrines by means of simple statement and illustration" (p. viii), and the attempt has been most happily achieved, so far as simplicity of statement goes. Professor Hibben understands the secret of lucidity in writing, and he has written a book which every one can understand who will go through the operation of reading, even without much philosophical preparation. His endeavor "to simplify all technical terms and explain their significance in the light of the definitions as given by Hegel himself, and as indicated in the context where such terms severally occur" (*ibid.*) is quite successful up to a certain point. "The proverbial obscurity of Hegel" (*ibid.*) has been in many places illuminated by the crystal clearness of the expositor, and the general reader who may wish to get a general notion of Hegel's problem and of his solution of that problem will doubtless get from the book what he wants. The book evidently was intended for such readers, and also for college undergraduates studying the history of philosophy and needing to get an idea of the part played by Hegel in that history. It does not promise aid to those who have already begun a serious study of Hegel's Greater Logic. The exposition is based on the *Logic* of the *Encyclopædia*, and is open to criticism.

In the first place, not all technical terms are explained. For instance, '*an ihm selbst*,' as seemingly distinct from '*an sich*,' receives no attention; and yet the former term is very puzzling to any one who is wrestling with the chapter of the Greater Logic on *Daseyn* as well as with many later passages. Are the two terms really distinct, or are they not? If they are, what is the difference? In the second place, is '*Qualität*' adequately explained in the chapter on Quality? Is it correct to say: "Quality may be defined as the internal determining factor of being; and quantity as the external determining factor" (p. 93)? It does not seem to accord with Hegel's own definition: "Die Bestimmtheit so für sich isolirt, als seyende Bestimmtheit, ist die Qualität;—ein ganz Einfaches, Unmittelbares" (Werke, III, 1841, p. 108). Still again, it is questionable whether it is correct to say: "Any object of thought is *gesetzt* which is necessarily and explicitly determined by the logic of the situation. Whenever that which is given in thought leads by the very necessity of the thought processes themselves to a conclusion depending upon it, that conclusion is always described by Hegel as *gesetzt*. Every phase of the dialectic process is *gesetzt* in the sense of following by the very momentum of thought itself from the nature of the stage immediately preceding it" (p. 301). Is it not also true that anything is *gesetzt* which is due to the activity of "die setzende Reflexion"? Hegel says (in Werke, IV, 1841, p. 16): "Dies ist das Gesetzseyn; die Unmittelbarkeit rein nur als Bestimmtheit oder als sich reflectirend. Diese Unmittelbarkeit, die nur als Rückkehr des Negativen

in sich ist, — ist jene Unmittelbarkeit, welche die Bestimmtheit des Scheins ausmacht, und von der vorhin die reflectirende Bewegung anzufangen schien." Whatever is *gesetzt* is, according to this, the immediate from which the dialectic begins, and which it transforms into an element of a higher unity, rather than what results from the operation of the dialectic. Professor Hibben's definition may be true of *gesetzt* in certain passages, but it is not generally true.

There are many other points made by Professor Hibben to which exception might be taken. For instance, he says: "The best illustration of the Hegelian significance of being-for self is, however, not found in the sphere of plant life? It is found in the higher sphere of consciousness, in the nature of personality, of the Ego. The personality of selfhood remains unchanged amidst the innumerable alterations of its manifold activities, and so far forth partakes of the nature of that absolute permanency which is an essential attribute of the infinite. The idea of the Ego, of consciousness apart from its concrete manifestation in any particular individual (the Kantian *Bewusstseyn überhaupt*) may be regarded as the most comprehensive type of the Absolute" (p. 100). This last sentence seems to contravene one of the main contentions of the *Logic* and of all Hegel's philosophical writings, that *Bewusstseyn überhaupt* is not knowledge at all; that consciousness apart from its concrete manifestations is a mere chimera of the brain, a pure invention of abstract philosophers, to which nothing ever did or ever could correspond. The view here advocated by Professor Hibben would be hard to reconcile with one of the few points on which practically all recent interpreters of Hegel have agreed. Kant's *Bewusstseyn* is not Hegel's absolute thought, for that thought was not abstract, as Professor Hibben also recognizes elsewhere. Consciousness in general is, according to Hegel, only the veriest abstraction of the concrete thought. Hegel's thought is always thought concerned with facts. In Hegel's absolute system, sensation and perception get their rights, and thought is not a transcendental function imposing its abstract unity upon the manifold of sense, as it would be if it were anything even remotely like Kant's *Bewusstseyn überhaupt*.

How Professor Hibben can bring his view of Hegel's Absolute into harmony with his own interpretation of Hegel's attitude to experience is difficult even to guess. He says truly that for Hegel "it is the nature of thought . . . to seek the universal significance of every particular experience by which it is confronted" (p. 5). In other words, thought is a function which discovers an immanent unity in the experience apart from which it has no existence. It discovers unity in particulars, because particulars are not mere particulars. And particulars are not mere particulars, because they are particulars in essential relation to other particulars. These relations are what we call the laws of nature. The fact, however, that these laws of nature are discoverable by thought is an indication that thought is not something absolutely apart from nature. Thought finds in

facts principles which it can understand. It is at home in the world of experience ; it is not a stranger and pilgrim on the earth, seeking a better country, that is, a heavenly — a country, in which it can be *Bewusstseyn überhaupt*, and not *Bewusstseyn der realen Objecte*.

Kant was not content with the fact that we know objects. He had to explain this fact by a mechanism. He argued that either thought must be made by fact or fact by thought, if thought is to correspond with fact. He accepted the latter alternative. Hegel refused to see the necessity of explaining this correspondence of thought and fact by making it the creation of one of the corresponding elements. Hegel's identity of thought and fact was only the fact of the correspondence of thought and fact. In this correspondence, thought still remains thought with all its uniqueness of nature, and fact remains fact with all its objectivity. But while each was thus recognized as irreducible to the other as that other had been abstractly conceived, each was also recognized as having its significance only in its relation to the other. Fact is fact only as intelligible, and thought is thought only as thought engaged upon fact. Pure thought, in the sense of thought thinking nothing — and that is the only sense in which there can be thought apart from its concrete manifestation — that kind of pure thought is not what actual thought really is, as Hegel was at pains to reiterate. And fact as mere fact, absolutely inaccessible to thought, so that thought cannot even think it to be fact, is not what any scientist ever attempted to ascertain. Hegel's Absolute was the indissoluble correlation of concrete fact and concrete thought.

Another criticism which I would make on Professor Hibben's book is that he gives teleology too high a place in Hegel's system. He says that the doctrine of the notion is given "in answer to the question, *to what end*" (p. 69). This narrows Hegel's *Begriff*. Teleology plays a part, and an important part, in Book III ; but it is not the final category. It appears at the end, not of the third, but of the second division. In the final division, it is present only as a transcended moment in the Absolute. The validity of teleology is recognized in the *Logic*, therefore ; but it does not control the Absolute Idea. There are elements of purposiveness in the Absolute, but in the Absolute not all is purposive.

This brings me to say that Professor Hibben treats with too much contempt the Hegelians of the left. He brushes them aside with the remark that they are materialists (p. 43). Of course nobody can accuse Hegel of being a materialist, and, as Feuerbach and Strauss were materialists, they cannot be Hegelians. But were they materialists? They did indeed emphasize the function of sensation in the Absolute ; they might then be called sensationalists, but surely sensationalism and materialism are not one and the same thing. The real sin of the left-wing Hegelians in Professor Hibben's eyes evidently was their failure to see in the Absolute the personal, planning God of orthodox theology. But Hegel was not a Hegelian of either the right or the left, of the right-center or the left-center,

nor even of the center itself. His relation to these wings is exactly Socrates's relation to the Socratic schools. Hegel's system contained elements which, taken apart from their unity, could be and were developed into the warring wings. It was this internecine warfare which brought 'Hegelianism' into disrepute. Too much theology in logic is apt to make logic a barren dialectic. Logic, of course, has its theological implications, and, as Hegel worked it out, it had for him a very deep theological significance; but if he had not dwelt so much upon that significance, perhaps he would now rank as a greater logician than he is commonly recognized to be; for his theology was the rock on which his school split into fragments, and sank into obloquy.

As a rule, Professor Hibben is very happy in his concrete illustrations of the dialectic, yet even here he reads too much teleology into natural processes, as when he says that the expansion of water just before freezing "seems to be a warning note" to indicate a forthcoming radical change (p. 126).

Taken all in all, the book will well serve, as was said above, the purpose of giving the lay reader who is not working on Hegel an appreciation of the questions which Hegel sought to answer in the *Logic*, and of the way in which he set about the task. It will also be a very convenient reference book or even text-book for the very large class of elementary students who are getting their history of philosophy at second hand. Technical philosophers, however, will hardly find any answers to the more difficult questions which the reading of the *Logic* is sure to raise.

EVANDER BRADLEY MCGILVARY.

CORNELL UNIVERSITY.

The Mind of Man. By GUSTAV SPILLER. London, Swan Sonnenschein & Co., 1902.—pp. xiv, 552.

It is very difficult for the reviewer to do justice to a work of the kind that Mr. Spiller presents to us. He has undoubtedly written one of the most original books on psychology that has appeared in recent years, and for that reason one can with difficulty avoid too much praise for the point of view, or too great condemnation because he does not find what he has learned to expect in a work on psychology. The general plan of the work is undoubtedly a development from Mr. Stout's doctrine of systems, but the departure from the original is very great. Sensations and all other elements are frankly given up, even as convenient fictions. We need only consciousness and phases of consciousness to construct a psychology; these alone are given in experience. In fact, one is tempted to parody the theory by the statement that mind is merely a point of view with nothing to observe.

The method of the work is purely empirical. Introspection alone can be used in the investigation of mind. And introspection, he insists, can be applied directly, the statements of Wundt, Titchener, and others to the contrary notwithstanding. For they all admit the possibility of retrospection,

and retrospection is introspection. If introspection is not possible, then mind must be a blank. In spite of his empirical point of view, the author is very impatient of experiment. He rails at the men who would employ quantitative methods, dismisses such work as Ebbinghaus's on memory as settling nothing, and deplors the publication of columns of figures which mean nothing. Evidently we are not dealing with a man who is in the least bound by tradition.

The first of the constructive chapters, "Systems as Distributed," is devoted to a discussion of the attention. Attention depends upon the classification of the mental system at the time, and that upon the needs of the moment. Sensations in common with pleasure-pain, feelings of effort, emotions, etc., are all put in one class, and are regarded as slightly differentiated sub-heads under the touch system. The whole field of sensation is disposed of in two sections of about nine pages. The chief interest for the author which sensations possess is the law of their change in quality and quantity, so they can be conveniently treated under the head of attention. Chapter III, "Systems as Organized," contains a very interesting discussion of habit under its different aspects. Habit is said to take its origin from the fact that attention energy is limited in amount. Thinking must, therefore, be reduced to the simplest forms, and as much work as possible be thrown upon the automatic mechanisms.

The discussion in the following chapter, "Systems as Need-satisfying," supports the thesis that every thought process is an outgrowth of a primary or secondary need. To name the need is for the author a sufficient explanation of the mental state that results in its satisfaction. Memory appears under the heading, "Systems as Redeveloped." Again reference is to needs. As existence became more complicated, it was advantageous to play the drama of life upon the mimic stage of memory before the time for real action appeared. With this need came memory. It is insisted that the real and memory world are not different even in degree, but merely in the position which they occupy in the course of the development of a system.

Chapter VI, "Systems as Disturbed," offers perhaps the most radical departure from the current use of terms, or at least seems to on casual reading. Under this head is discussed pleasure-pain. These are said to fall neither under the head of sensation nor of feeling. When we look a little closer, however, it is seen that feeling means merely the vague sensations that are usually brought under that head in ordinary speech, and there is no intention of denying consciousness to the processes. On the whole, the treatment of this problem is Herbartian, but it is more immediately influenced by Stout. Each process is due to a disturbance of neural equilibrium. Pleasure arises when the tendency to the normal or undisturbed state is checked, pain when such a tendency prevails unchecked. Pleasure is also defined as semi-opposed disturbance, pain as opposed disturbance — a definition at once more in harmony with the trend of his own

discussion, and with its historical predecessors. Both are denied any efficiency in the control of either thought or action. It is at most a sign, never a cause of activity.

Will, or the mental control of bodily action, is discussed under the heading "Systems as Need-determined." As the title implies, movements grow out of needs, effort is entirely purposeless. Accomplishment depends upon the development of the bodily structure, and its functional tendencies.

"Systems as Unified," the last of the constructive chapters, reasserts the essential unity of all parts of experience. Body and mind are on exactly the same plane, all the data of existence are but different ways of organizing the same material. The concluding chapters, on "Mental Syntheses," discuss the relations of man to his environment, of the genius to the spirit of his times, and consider the æsthetic problem. Beauty is said to depend upon the degree to which the object can attract and hold the attention.

Two points of criticism suggest themselves at once in a work of this kind. First, it seems that the outcome leaves much to be desired, before the explanation of mind can be regarded as completed. To say that all mental processes grow out of different needs, without showing the relation between the need and its method of satisfaction, seems to take much for granted. Certainly all needs are not satisfied as soon as felt, and even feeling the need is not an unanalyzable datum of experience, but itself requires some consideration. Even granting that the theory is an adequate explanation of the foundation plan of mind, it does not offer a sufficient number of separate headings under which to treat of concrete facts. One feels in every chapter that much more material is brought in than is needed to illustrate the fundamental statements, and yet there are still many omissions from the factual content of psychology, even in its present state of advancement. One may be perfectly ready to admit that all conscious processes are aspects of one whole; but the present work is proof that that statement in itself cannot serve as a basis of discussion for the concrete facts of mind. It is perhaps not necessary to hypostatize the products of intellectual abstraction to the extent that is at present in vogue, but more principles of classification are needed than the present theory admits.

Although it cannot be said that Mr. Spiller has completely succeeded in his undertaking, and he would be the last to claim that his book offers a final solution of the problem, yet the volume is extremely suggestive throughout. Many of the descriptions of the concrete phenomena are unusually felicitous, and the book emphasizes, although too strongly, a point of view that is often too completely overlooked.

W. B. PILLSBURY.

UNIVERSITY OF MICHIGAN.

Social Control: A Survey of the Foundations of Order. By EDWARD A. ROSS. New York, The Macmillan Co.; London, Macmillan & Co., 1902.—pp. xii, 463.

The object of this book is to set forth the means by which human society

maintains order, and restrains the anti-social impulses of the individual. The author begins with a survey of the sentiments which tend to establish what he calls 'natural order' among men, such as sympathy, sociability, and the sense of justice, which he maintains are not sufficient for the purpose in view. On the contrary, he holds that the interests of the individual are antagonistic to those of society, and that the individual can only be held in check by an elaborate system of direct and indirect control. He denies that there is a natural tendency to order in the mass of men, as some thinkers maintain, and says: "It would be, in truth, much juster to assume a state of disorder. We ought to take for granted that men living in proximity will continually fall afoul of one another. We ought to expect in the normal person not, it is true, the malice, lust, or ferocity of the born criminal, but certainly a natural unwillingness to be checked in the hot pursuit of his ends" (p. 4). This assumption of antagonism between the members of society is the keynote of Mr. Ross's book, and is the guide to the understanding of all he says.

But if the impulses of the individual are so inimical to society, it is hard to see how order was ever established at all, and this is evidently Mr. Ross's own view. I am not quite sure what he means by society, for his remarks on this point are equivocal. In one place he speaks of society as "something distinct from a bunch of persons. For we can regard this society as a living thing. . . . Or we can regard this society as a person having its good and its evil and a knowledge of this good and evil" (p. 67). Yet elsewhere he says far more truly: "The fact is, society is not a being, but just people in their collective capacity. The only welfare there is is the welfare of persons present or to come" (p. 418). But if that is the case, how can the welfare of the persons be antagonistic to that of society? The truth is, Mr. Ross greatly underrates the power of the moral sentiments, and he overlooks the fact that the individual cannot satisfy his desires to any considerable extent without the coöperation of his fellows. He says in his preface that he began this work six years ago with the belief that nearly all the goodness and conscientiousness in society are due to social influences; and, though his views on that point have been somewhat modified, he still maintains that "the social group, by drilling its members to observe certain forbearances toward one another, *manufactures* conscience" (p. 28). And throughout his discussion he shows a very inadequate conception of what morality is.

The problem that Mr. Ross set himself to solve is a very simple one, and if he had been properly equipped in philosophy, as he evidently is not, he would not have regarded the existence of social order as anything strange. Men maintain order because they like order and dislike disorder. They like order for its own sake and for the sake of helping one another, as well as for the sake of the benefits which they themselves derive from it. The human individual is not the monster of wickedness that Mr. Ross represents him to be. His theory of the antagonism of the individual to

society is, in fact, the old Calvinistic doctrine of total depravity, masquerading in the garb of 'sociology.'

But it must not be thought that there is nothing good in the book. On the contrary, in describing the means by which society exercises control over the individual, the author gives a good deal of information which will doubtless be useful to young students of social life. He describes the phenomena of government, of law, of religion and the church, considered as agents for preserving order and also the influence of education, custom, art, and other agencies whose effect is more indirect. It must be said, however, that there is nothing new or original in his remarks on these subjects, and hence his work, whatever value it may have for students, will have no effect on the progress of thought on the problems of social life.

JAMES B. PETERSON.

Die Dogmen der Erkenntnistheorie. Von FRED BON. Leipzig, Wilhelm Engelmann, 1902.—pp. viii, 349.

Since the days of Plato the philosophical dialogue has often been chosen as a method of exposition, but during the past century it has somewhat fallen from favor. Writers have seemed to feel that the gain in vivacity and in human interest was more than outweighed by the increased difficulty of clear and systematic treatment. Its decline in popularity renders the present choice of the dialogue on the part of Herr Bon the more daring, and in one respect his selection of the literary form for his work is justified by the result. His disputants, of which there are two, have sufficient individuality to make them seem more or less alive. They are not mere pegs upon which to hang arguments, and this impresses one as especially fortunate, when one considers the character of the arguments presented. The objection to most dialogues, even to some of Plato's, is that all the participants save one are men of straw set up for the especial purpose of being knocked down by the destined victor. In the present case, however, so far as arguments go, there is little choice between the disputants—both are equally deserving of defeat. Of course one of them escapes his just deserts, annihilates all objections to his own theories, and even succeeds in converting his opponent to the major part at least of his views; but one constantly feels that, like some of the heroes of Greek tragedy, he could never have thus succeeded without the direct intervention of the gods.

The book is prefaced by an interesting allegory which seems to describe the assaults of the dogmatists upon the upholders of the true doctrine, and even to suggest that the struggle is not yet ended. The book proper is divided into five discussions of the dogmas of Berkeley, Hume, Aristotle, Kant, Locke, and Descartes respectively. All of these writers are defended by the bearer of what is under the circumstances the strange name of Misodogmos. Episthemos, on the other hand, attacks one after another of the theories advanced by his opponent, all of which he classes together under the opprobrious title of epistemology, the modern form of

sophistry. The true doctrines, on the contrary, have nothing to do with epistemology; they are scientific, and to arrive at them one needs first of all technical knowledge. Some men of science have fallen into the errors of the epistemologists, the technician never. The theories thus obtained are grouped around an assumption of the most naïve type of the existence of something transcendent which is yet immediately known to us. The main thesis and its corollaries, all of which are justified on the ground of biological necessity, are presented in so crude a form and with so little understanding of the subjects discussed that their reproduction or criticism would be a thankless task.

GRACE NEAL DOLSON.

WELLS COLLEGE.

The following books also have been received:

- Human Personality and its Survival of Bodily Death.* By FREDERIC W. H. MYERS. 2 vols. New York, Longmans, Green, & Co., 1903.—pp., Vol. I, xlvi, 700; Vol. II, xx, 660. \$12.00.
- Pure Sociology: A Treatise on the Origin and Spontaneous Development of Society.* By LESTER F. WARD. New York, The Macmillan Co., 1903.—pp. xii, 607. \$4.00.
- A History of the Problems of Philosophy.* By PAUL JANET and GABRIEL SÉAILLES. Translated from the French by ADA MONAHAN. 2 vols. London, Macmillan & Co., 1902.—pp., Vol. I, xxx, 389; Vol. II, xvi, 375. \$6.50.
- Heredity and Social Progress.* By SIMON N. PATTEN. New York, The Macmillan Co., 1903.—pp. vii, 214. \$1.25.
- Agnosticism.* By ROBERT FLINT. New York, Charles Scribner's Sons, 1903.—pp. xviii, 664. \$2.00.
- The Path of Evolution through Ancient Thought and Modern Science.* By HENRY PEMBERTON. Philadelphia, Henry Altemus Co., 1902.—pp. xxix, 374.
- A History of American Political Theories.* By C. EDWARD MERRIAM. New York, The Macmillan Co., 1903.—pp. xv, 364.
- Hegel and Hegelianism.* By R. MACKINTOSH. New York, Charles Scribner's Sons, 1903.—pp. viii, 291. \$1.25.
- Happiness: Essays on the Meaning of Life.* By CARL HILTY. Translated from the German by F. G. PEABODY. New York, The Macmillan Co., 1903.—pp. x, 154. \$1.25.
- The Basis of Morality.* By ARTHUR SCHOPENHAUER. Translated from the German by A. B. BULLOCK. London, Swan Sonnenschein & Co., 1903.—pp. xxiv, 285.
- Ethics; Civil and Political.* By DAVID ALLYN GORTON. New York and London, G. P. Putnam's Sons, 1902.—pp. vii, 237.
- The Practice Curve.* By JOSEPH HERSHEY BAIR. Supplement to The Psychological Review, Vol. V, No. 2, November, 1902.—pp. 70.

NOTES.

On the 4th of February, just a year after the death of Professor Adamson, of Glasgow, and at the same age (of fifty), Professor Ritchie, the occupant of the corresponding chair in the University of St. Andrews, passed suddenly away. It would be difficult to measure the loss to philosophical teaching in Scotland which the death of these two men, both cut down at the very height of their usefulness, means. David George Ritchie was born in 1853, the son of the Rev. George Ritchie, D.D., minister of Jedburgh. Like Professor Adamson, he was an Edinburgh student, a pupil of Professors Campbell Fraser and Calderwood. Going up to Oxford, he continued at Balliol College those classical studies which he had already pursued with great distinction at Edinburgh. In 1878 he was elected to a Fellowship at Jesus College; from 1881 to 1894 he was Tutor of Jesus College, and from 1882 to 1886 Tutor of Balliol. In 1894 he was elected Professor of Logic and Metaphysics in the University of St. Andrews. There he established himself at once as a teacher of the first rank, combining originality and scholarship with brilliant lecturing power, and showing a fine appreciation of the difficulties of his students and a keen interest in all that concerned the welfare of the university. In philosophy Professor Ritchie was a distinguished member of the Neo-Hegelian school which grew up in Great Britain under the teaching of Green and the present Master of Balliol; but he was hardly less under the spell of Plato and Aristotle, and the influence of the Darwinian theory upon his thought was also very marked. Perhaps his chief interest was in ethical and political theory, and there can be no doubt that the practical significance of philosophy had always for him a special fascination. His remarkable culture and his finely tempered spirit gave a subtle and unfailing charm to his personality. A frequent contributor to the philosophical reviews, and to the pages of THE PHILOSOPHICAL REVIEW from the first, Professor Ritchie was the author of a series of important volumes. His first publication was an Essay on "The Rationality of History," in *Essays in Philosophical Criticism* (1883). This was followed by a translation (in collaboration with others) of Bluntschli's *Theory of the State* (1885); *Darwinism and Politics* (1889); *Principles of State-Interference* (1891); *Darwin and Hegel, with other Philosophical Studies* (1893); *Natural Rights* (1895); *Studies in Political and Social Ethics* (1902); *Plato in the "World Epoch-makers"* Series (1902).

J. S.

Dr. George F. Stout, editor of *Mind*, was recently appointed to the Chair of Logic and Metaphysics in St. Andrews University in succession to the late Professor Ritchie. Dr. Stout is a Fellow of St. John's College, Cambridge, and Wilde Reader in Mental Philosophy in the University of Oxford.

Dr. Bernard Bosanquet has been chosen to fill the chair of Moral Philosophy at the University of St. Andrews, as successor to Professor Knight.

At the close of the session of the Faculty of Divinity at the University of Edinburgh, which took place recently, Professor Robert Flint announced to his students that he did not intend to enter upon the duties of his chair another session. The announcement, which came as a surprise, was received with great regret. While compelled by his health to resign from the position which he has held for the last twenty-seven years, it is understood that Professor Flint hopes to be able to continue his literary work. Among his publications are the following: *The Philosophy of History in France and Germany* (1874); *Theism* (1877); *Anti-Theistic Theories* (1879); *Vico* [Blackwood's 'Philosophical Classics'] (1884); *History of the Philosophy of History* (1894); *Socialism* (1894); *Sermons and Addresses* (1899); and *Agnosticism* (1903).

Following immediately on the announcement of the forthcoming retirement of Professor Flint, comes that of the resignation of Professor Laurie, who leaves the chair of the Theory, History, and Practice of Education in the University of Edinburgh. Curiously enough, Professor Laurie entered upon the duties of his professorship simultaneously with Professor Flint, twenty-seven years ago; and now, like Professor Flint, he wishes to devote more time to purely literary work. The following are among his more important publications: *Philosophy of Ethics* (1866); *Primary Instruction in Relation to Education* (1867); *Notes on British Theories of Morals* (1868); *Life and Educational Writings of John Amos Comenius* (1881); *Metaphysica Nova et Vetusta* (1884); *Ethica: or, The Ethics of Reason* (1885); *Mediæval Education and the Rise and Constitution of Universities* (1886); *Language and Linguistic Method in the Schools* (1890); *Institutes of Education* (1892); *A Historical Survey of Pre-Christian Education* (1895).

Dr. Margaret F. Washburn, Assistant Professor of Psychology at the University of Cincinnati, has accepted a call to Vassar College, as Associate Professor of Psychology.

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

THE INTERNATIONAL JOURNAL OF ETHICS, XIII, 3: *Mrs. Francis Darwin*, The Religious Training of Children by Agnostics; *Josiah Royce*, What Should be the Attitude of Teachers of Philosophy towards Religion?; *George Tyrrell*, Christianity and the Natural Virtues; *G. Schubert*, The Political Babel; *G. L. Roberts*, The Domain of Utilitarian Ethics; *G. E. Moore*, Mr. McTaggart's Ethics; Book Reviews.

THE AMERICAN JOURNAL OF PSYCHOLOGY, XIV, 1: *Justus Gaule*, What is Life?; *H. C. Stevens*, The Plethysmographic Evidence for the Tridimensional Theory of Feeling; *G. S. Hall* and *T. L. Smith*, Reactions to

Light and Darkness ; *E. B. Titchener*, A Plea for Summaries and Indexes ; *G. S. H.*, Note on Moon Fancies ; *I. M. Bentley*, The Simplicity of Color Tones ; *G. S. Hall*, Child Study at Clark University ; *G. M. Whipple*, A Compressed Air Device for Acoustic and General Laboratory Work ; *I. M. Bentley*, Professor Calkins on Mental Arrangement ; Literature.

THE PSYCHOLOGICAL REVIEW, X, 2 : *E. C. Sanford*, Psychology and Physics ; *F. G. Bonser*, A Study of the Relations between Mental Activity and the Circulation of the Blood ; *G. T. Ladd*, Direct Control of the ' Retinal Field ' : Report on Three Cases ; Discussion and Reports ; Psychological Literature ; New Books ; Notes.

THE MONIST, XIII, 3 : *J. G. Hibben*, The Theory of Energetics and its Philosophical Bearings ; *J. H. Hyslop*, Kant's Treatment of Analytic and Synthetic Judgments ; *G. R. Wilson*, The Sense of Danger and the Fear of Death ; *Paul Carus*, The Foundations of Geometry ; *H. Gunkel*, The Religio-Historical Interpretation of the New Testament ; Discussions ; Book Reviews ; Notes.

ARCHIV FÜR GESCHICHTE DER PHILOSOPHIE, IX, 2 : *Fritz Rintelen*, Leibnizens Beziehungen zur Scholastik ; *Otto Baensch*, Die Schilderung der Unterwelt in Platons Phaidon ; *Anton Thomsen*, Über die Entwicklung der ethischen Theorie Benekes ; *Ernst von Aster*, Über Aufgabe und Methode in den Beweisen der Analogien der Erfahrung in Kants Kritik der reinen Vernunft ; *James Lindsay*, The Ethical Philosophy of Marcus Aurelius ; Jahresbericht.

IX, 3 : *Paul Tannery à Pantin*, Un mot sur Descartes ; *Fritz Rintelen*, Leibnizens Beziehung zur Scholastik (Schluss) ; *Ernst von Aster*, Über Aufgabe und Methode in den Beweisen der Analogien der Erfahrung in Kants Kritik der reinen Vernunft (Schluss) ; *G. Milhaud*, Aristote et les Mathématiques ; *James Lindsay*, The Place and Worth of Oriental Philosophy ; Jahresbericht.

ARCHIV FÜR SYSTEMATISCHE PHILOSOPHIE, IX, 1 : *Rudolf Holzapfel*, Wesen und Methoden der sozialen Psychologie ; *Berthold Weiss*, Gesetze des Geschehens ; *Achille Marucci*, Saggio critico della dottrina dello conoscenza ; Jahresbericht.

ZEITSCHRIFT FÜR PSYCHOLOGIE UND PHYSIOLOGIE DER SINNESORGANE, XXXI, 1 : *Conrad Rieger*, Über Muskelzustände ; *Theodor Lipps*, Fortsetzung der " Psychologischen Streitpunkte " ; Literaturbericht.

XXXI, 2 : *M. Sachs und J. Meller*, Untersuchungen über die optische und haptische Lokalisation bei Neigungen um eine sagittale Achse ; *E. Wiersma*, Untersuchungen über die sogenannten Aufmerksamkeitsschwankungen, III ; *Hugo Feilchenfeld*, Zur Lageschätzung bei seitlichen Kopfneigungen ; Literaturbericht.

XXXI, 3 : *H. Piper*, Über Dunkeladaptation ; *Th. Ziehen*, Eine Hypothese über den sog. " gefühlserzeugenden Prozess " ; Literaturbericht.

REVUE PHILOSOPHIQUE, XXVIII, 2 : *F. Rauh*, Du rôle de la logique en morale ; *A. Binet*, La pensée sans images ; *G. Rageot*, Sur le seuil de la vie affective ; *C. Ribéry*, La phrénologie en Amérique ; Analyses et comptes rendus ; Revue des périodiques étrangers ; Nécrologie : *M. Pierre Laffitte*.

XXVIII, 3 : *F. Le Dantec*, Instinct et servitude ; *G. Cantecor*, La philosophie nouvelle et la vie de l'esprit ; *L. Winiarski*, Le principe du moindre effort comme base de la science sociale ; *A. Godfernaux*, A propos d'une philosophie de la solidarité ; Analyses et comptes rendus ; Revue des périodiques étrangers.

REVUE NÉO-SCHOLASTIQUE, X, 1 : *D. Nys*, L'individu dans le monde inorganique ; *H. Meuffels*, Un problème à résoudre ; *C. P. de Ribaucourt*, Les théories de Nietzsche sur l'origine et la valeur de la morale ; *C. Piat*, L'idée du bonheur d'après Aristote ; *D. Mercier*, La dernière idole ; Mélanges et documents ; Bulletin de l'Institut supérieur de Philosophie ; Comptes rendus.

REVUE DE MÉTAPHYSIQUE ET DE MORALE, XI, 1 : *H. Bergson*, Introduction à la métaphysique ; *É. Durkheim*, Pédagogie et sociologie ; *J. Perrin*, Le principe d'équivalence et la notion d'énergie ; *L. Couturat*, Le système de Leibniz d'après M. Cassirer ; *P. Jacob*, La crise du libéralisme ; *A. Landry*, La superstition des principes ; Livres nouveaux ; Revues.

XI, 2 : *L. Weber*, La notion idéaliste de l'expérience ; *J. Perrin*, Le "second principe" de la thermodynamique ; *F. M.*, Essai d'ontologie ; *Marcel Hébert*, Anonyme ou Polyonyme ? seconde étude sur la "personnalité divine" ; *H. Delacroix*, Novalis : La formation de l'idéalisme magique ; *D. Parodi*, La crise du libéralisme ; Livres nouveaux ; Thèses de doctorat.

RIVISTA FILOSOFICA, VI, 1 : *F. Bonatelli*, Alcuni schiarimenti intorno alla natura del conoscere, del volere, della coscienza, e della percezione ; *G. Zuccante*, La Donna nella Dottrina di Socrate ; *V. Alemanni*, La filosofia di Pietro Ceretti ; *G. Rigoni*, I metodi psicofisici ; *R. Mondolfo*, L'educazione secondo il Romagnosi ; *C. Cantoni*, L'ultimo carteggio di Kant ; Rassegna bibliografica ; Notizie e pubblicazioni ; Sommari delle Riviste Straniere ; Libri ricevuti.

THE PHILOSOPHICAL REVIEW.

THE PROBLEM OF METAPHYSICS.¹

MANY tendencies in recent thought indicate a revived interest in the problem of metaphysics. While philosophers for the last few decades have never wholly neglected the problem, their treatment has been, until very recently, largely historical. Old theories have been restated in the light of renewed study, but the statements have usually followed traditional lines which had become fixed. There have been few instances of attempts to state and solve the metaphysical problem as an immediate problem of human experience. But the recent work in logic and epistemology, with its return to the immediate facts of life for its subject matter, has tended to turn our attention to the same source for the study of metaphysics. The work of science in criticising its fundamental conceptions has been largely metaphysical in its character, even when writers like Mach and Brooks repudiate, with feeling, the imputation. *Energy* begins to take its place along with *matter* and *spirit* as a metaphysical concept indicative of the nature of reality. These newer tendencies have something of scorn for traditional and historical philosophy. With a boast, akin to that of Descartes, they would claim to be without presupposition, without hypothesis, and without substantial dependence on the past. But this is an idle boast. These newer tendencies are what they are because of the history of thought which has preceded them. They get their freshness because much of the work of the past has won general recognition, and it is, consequently, possible to

¹ Read as the Presidential Address at the third annual meeting of the Western Philosophical Association, April 10, 1903.

proceed without the preliminary critical discussions which have characterized the historical method. It is this fact which gives to the outlook for metaphysics its encouraging character. The study of history has taught us much, and we begin to find ourselves in a position, where, with this knowledge as a basal possession, we can restate the problem of metaphysics with immediacy and directness. These considerations have led me to attempt the suggestion of this restatement in the light of the lessons we have learned from the historical treatment of the problem.

The history of philosophy has, in the main, been dominated by two ideas, those of evolution and classification. The great systems have been presented in their mutual antagonisms, dependencies, and supplementations, as moments in an historical development; and they have been classified in accordance with a nomenclature traditionally accepted and rendered almost classic by treatises on the introduction to philosophy. But we have at last begun to be suspicious of the result. Aristotle reads so much like a modern that we can conceive his writing after Hegel with no great change in his system. And we look in vain for the thorough-going materialist, spiritualist, pantheist, and the rest, of traditional phraseology. The great men refuse to be classified in this ready way, and persistently present us with conceptions which the evolutionist has told us could not possibly have been entertained in their time. The recognition of these things is bringing us freedom, so that we no longer find it necessary to regard our work as merely the next evolution out of the unfolding process, or to classify ourselves under some department of the traditional scheme. We would drink deep of the past, and, so invigorated, proceed to our task with the independence and originality of which we may be capable. But we proceed with the experience of the past behind us, and with the lessons of its history.

We have learned not only that the great systems of the past refuse to be classified in accordance with the traditional characterizations, but also that these characterizations cannot stand for us for any adequate description of ultimate positions. The types

of metaphysics, made classic by our terminology, seem to render reality, as Professor James is fond of pointing out, implicitly or explicitly an accomplished fact at one stroke. They thus do violence to experience, in that they leave no room for its movement, its novelty, its variability. Just for this reason they have never won the unqualified approval of anybody. They have gained their absoluteness of statement only by insisting on our ignorance of the very conditions on which such absoluteness is made to depend. They have insisted that they would be satisfactory if only we had the knowledge to make them so. If we only knew enough about the nature of matter or spirit, we should then see how everything is somehow their result. But we have become at last bold enough to say, that just because we do not know that much, and apparently can never know it, we will not let our ignorance determine the character of our metaphysics. We desire firmer ground to stand on, and shrink no more aghast before objections and arguments that rest on unverifiable hypotheses. We will take raw experience as ultimate, before we will bow to any theory which radically changes its evident character. So we have learned that the classification of metaphysical systems, such as Paulsen has laid down in his *Introduction*, for instance, does not indicate the lines we must follow, or the names by which we must be called.

We have learned also that the gulf set between appearance and reality, and between the subjective and the objective, has resulted in our stultification rather than in our enlightenment. The meaning of the reduction of everything we know to the phenomenal or the subjective has at last dawned upon us. It is, indeed, a revelation, but not the revelation it was supposed to be. Instead of turning out to be an ultimate characterization of what we know, it has turned out to be a recognition that we have returned to our point of departure. For the reduction of everything to one character whose opposite has been so shut out from us that we can neither know nor formulate it, makes of that opposite something which we do not need and cannot value ; and it gives to what we do have its old primary interest and its old need of metaphysical handling. The assertion that we can have no metaphysics, no

insight into the nature of reality, is only the recommendation to begin metaphysical inquiry anew along lines which will not lead to this stultifying result. Absolute phenomenalism, subjectivism, and solipsism are to be rejected, not because they are false, but because they are meaningless and barren of all enlightenment. To be of value, the distinction between appearance and reality, the subjective and the objective, the single ego and its other, must be so understood as to render the implied opposition clear and illuminating. So we have learned that the reduction of everything to a character which has no intelligible opposite, is not metaphysics.

We have learned also the desirability and necessity of having a metaphysics which rests on its own foundation, in as complete independence as possible. Here the reversal of history is interesting and instructive. There was a time when science and religion had to fight long and hard for their independence of metaphysics. Now, we have to contemplate the struggle of metaphysics to free itself from science on the one hand and from religion on the other. We have, in my opinion, looked with a too jealous glance on science and its achievements. We have coveted a name which has won distinguished glory apart from our participation and aid. We have blushed at the imputation of not being scientific in our work. We have sought to make metaphysics a result of science, an outgrowth from it, a rounding out of it, a sort of sum-total and unity of all scientific knowledge. We have done these things, but we are beginning to realize, and the great systems of metaphysics have taught us this, that we have a claim of our own to recognition quite independent of the revelations of science, a birthright by no means to be despised. It may be unfortunate that so useful and general a term as *science* should have come to have its present restricted meaning. Yet, on the whole, I am inclined to think that the distinction has been a gain, and, for my own part, would plead for a fuller recognition of it. I modestly shrink from a calling that imposes upon me the necessity of completing the fragmentary work of the physicist, the chemist, and the biologist, or of instructing these men in the basal principles of their respective sciences.

My work lies in a totally different sphere, deals with totally different problems, and can be pursued in independence of them as much as they pursue their work in independence of me. There is scientific knowledge and there is metaphysical knowledge, and these two are widely different. They involve different tasks and different problems. Science asks for the laws of existence and discovers them by experiment. Metaphysics asks for the nature of reality and discovers it by definition.

The recognition of this difference is a great gain. It points at once to a need of method on our part. But a method, as Professor Ormond has pointed out, "is not defined fundamentally when we say that it is either deductive or inductive, synthetic or analytic. The real nature of a method is determined only when we bring to light the underlying concepts and presuppositions on which its procedure rests." We need for definition a method which will do just that; and that method, in proportion to its perfection, will distinguish still more clearly science from metaphysics. A definition of reality is that at which metaphysics aims, and the introduction to the attainment of that end is the method or logic of definition. The recognition of this is to secure for metaphysics something of that independence which it deserves. To be sure, the different departments of knowledge cannot proceed in absolute independence of each other and succeed. But there is a relative independence for each specific branch growing out of consideration of the concepts and underlying presuppositions on which that branch rests. This is the independence which metaphysics should have, and I think we may call that day happy when the metaphysician recognizes that his work lies in a restricted field. He will glory then in a distinction of his own without sighing for that other glory which is the scientist's pride.

Metaphysics needs to be equally independent of religion. Kant did us a world of harm by his renewed insistence that the three things with which metaphysics has fundamentally to do, are God, freedom, and immortality. These may turn out to be legitimate subjects of metaphysical inquiry, but to admit them as the sole and basal subjects, is to prejudice the definition of real-

ity at the outset. The suspicion and the hope that metaphysicians are really poets or theologians in disguise should both be dispelled. And to that end, the emotional atmosphere should not be that in which the philosopher does his work. That work may turn out to have emotional value of the highest kind, but such value is not his aim. His definition of reality may show what the reality of God must be, but of itself that may imply no more than the exhibition of what the reality of the yet unrealized future must be. It is doubtless an excellent thing that philosophers busy themselves so much about the meaning and content of religion, but in doing this they are only doing their duty as men, not their duty as metaphysicians. The motive which leads to metaphysical inquiry is as purely theoretical as that which leads to scientific inquiry. Ultimately both must react upon human life for its perfecting. Yet in the pursuit of knowledge we must recognize the relative independence in aim and method.

We have learned also that metaphysical knowledge is, in large measure, non-explanatory in character. Of course, all knowledge aims at some sort of explanation; but there is a very wide difference between explanation by definition, and explanation by laws of connection. The phenomena of existence in all their manifold interdependence may be left untouched by metaphysics. The definition of reality may leave unformulated and unknown the general and specific laws of the occurrence of events. That is quite true historically. The method of metaphysics has not given us the laws of any of the sciences. But metaphysical inquiry is not thereby rendered useless. Let the 'soul' or the 'will' be a metaphysical concept, and we cannot say that the clarification of that concept has given us a single law of the connection of mental processes. The concept of purpose occurs repeatedly in much of our thinking, but it does not explain how the spider spins its web. The history of science has been, in one of its aspects, the history of the rejection of concepts that do not explain by leading to the formulation of laws. But these concepts may turn out to be the ones most important for a definition of reality. Indeed, they may reveal a truth of the greatest

significance, namely, that metaphysics is non-explanatory in the sense in which these concepts are such. They may free us from the besetting prejudice of metaphysicians, that a knowledge of reality is itself quite sufficient for all the uses of man, both speculative and practical. And not only that : they may also reveal their own use as concepts which we still must retain in order to preserve sanity in our thinking, to keep it from being absolutely detached and meaningless. One of the most significant illustrations of this is the concept of purpose. We may deny design in nature, we may reject final causes as explanations of existence ; but we cannot define a single problem, isolate a single field of inquiry, determine the requisites of the solution of a single question without this concept as the determining factor. So deep seated in all our thinking does it disclose itself, that we are tempted to say it defines the nature of reality in at least one of its essential characters. It has, therefore, that much use. If this use is for a moment thought to have only speculative validity, that need not abash us, for speculative validity has everywhere high importance in the realm of science, no less than in that of metaphysics. But it has also the greatest practical importance. It validates the purposeful life of man. It fills nature with a content of surpassing value. It makes human history worth the reading. Admit that it does not explain, but admit also that it does define. This admission may tentatively carry with it that of the general proposition, that much of metaphysical knowledge, just because it is knowledge by definition, is non-explanatory in the sense in which laws explain.

Once more ; we have learned that the distinction between epistemology and metaphysics is apt to be quite valueless, even if it has proved to be methodically useful. The history of this distinction and its bearing on metaphysical inquiry is full of suggestiveness. The great work of Kant cannot be too highly valued. He has done more to clarify our view of philosophical problems than any other philosopher. In his attempt to determine and define precisely what it is to know, we find a field for the most important logical inquiry. But Kant's metaphysical conclusion does not appear to follow necessarily from his critical

analysis. For the discovery that knowledge can be defined in independence of its object, that so defined it is not representative, but synthetic, constitutive, and regulative in character, does not enlighten us at all as to the metaphysical bearing of this discovery. When once knowledge is defined from an analysis of its own nature, there still remains the question, Does knowledge apply with success to any concrete content? If this question is not raised, the results of epistemology are without great significance. Knowledge may be a regulative and constitutive synthesis in time and space, in the categories, in apperception, and in reason; but if things-in-themselves will submit to such a synthesis, they cannot be so shut out from our experience as Kant would make them. We know, at least, that they are adaptable to knowledge; and I cannot see how the fact that this conviction rests on the experience of success, renders it invalid. Indeed, even if things-in-themselves should somehow refuse to admit of the synthesis of knowledge, we should know at least that much about them. To recognize the general truth here involved is, indeed, to find oneself in possession of a pretty intimate acquaintance with things-in-themselves. They admit of spatial and temporal construction, they admit of causal arrangement and necessary connection, they infinitely surpass any finite comprehension of them in a completed system. The absolute separation of knowledge from its object can have, therefore, no metaphysical significance.

That is the lesson we have learned from the futility of such a separation. We can in no sense define reality in a way which makes it unrelated to knowledge, but this does not make a definition of reality impossible. It shows us rather that the conception of reality thus unrelated is quite meaningless. Knowledge is thus disclosed to be a real relation between things, a form of connection which has ontological significance in the general determination of reality's definition. Whatever may be the nature of reality, it is, in a measure at least, held together in a degree of continuity by the knowing process, and to that extent definitively characterized. And it must be further recognized, that, because reality is so characterized, it admits of numberless

changes and transformations. For knowledge breaks forth into action, and reality becomes modified as the result. Reality thus not only allows knowledge to synthesize it, but it allows those transformations within it which such knowledge makes possible. And so the breaking down of the barrier between knowledge and reality, which had been set there because knowledge was found to be non-representative, reveals anew the possibilities of metaphysics.

These, then, are some of the lessons that we have learned from the historical method of handling the problem of metaphysics : the weaknesses in the evolutionary conception and in traditional terminology, the futility of the distinction between appearance and reality, the necessity of an independent metaphysics, the need of a logic of definition, the non-explanatory character of much of metaphysical knowledge, with a recognition of the value of such knowledge, the metaphysical failure of the distinction between epistemology and metaphysics. We have doubtless learned others of importance, but these have appeared to me to be among the most important. The recognition of them ought to serve us in determining in a positive way the general nature of the problem of metaphysics.

This problem is naturally the nature or character of reality. What is reality? How is it to be defined? is the metaphysical question. But such a question has its own meaning apart from any answer which may be given to it. For a search for the concrete characterization of reality implies the abstract form which is to receive the concrete content. The problem of metaphysics involves, thus, first of all, its detailed formal statement. We have to ask in most general terms, What does the solution demand in principle, under the conditions which we may discover as determining it logically? Here we come at once upon one of the most significant positive results of our previous discussion. It is this : reality cannot be defined intelligibly as a system absolutely external to the one who formulates it, nor a system in which the one who formulates it is a mere incident, or of which he is a mere product. That is the positive contribution made by the weakness discovered in the traditional types of metaphysics, in the

breach between reality and appearance, in all thorough-going evolutionary conceptions, and especially the weakness in the distinction between epistemology and metaphysics. The moment the definition of reality makes of reality an explicitly or implicitly complete system over against the metaphysician, or makes of him a merely incidental occurrence in its otherwise independent operations, reality has been put beyond any intelligible grasp of it. Reality absolutely external to the metaphysician will give him nothing besides himself. And reality, become momentarily conscious in the metaphysician, will give him no more than his moment of consciousness. Here, as I have said, we are back once more at our point of departure, with the metaphysical curiosity still unsatisfied. The failure results from the destruction of the only point of view from which anything can be defined, namely, the point of view which allows an independent position over against the matter to which it is directed. Destroy such independent positions, and the possibility of definition is destroyed. This fact is, of course, practically recognized. From some point of view, as independent, we define an object which from that point can be viewed and defined. But we should give to this epistemological principle its metaphysical significance, and recognize that the definition of reality involves numberless points of departure from which reality may be grasped, and that each of these points, in its relation to what is thereby defined, is an absolute and undivided individual.

Thus we may claim that the problem of metaphysics is fundamentally the problem of individuality, the definition of reality is primarily the definition of the individual. But individuality cannot be defined away or argued out of existence. Its definition must give to it the fullest ontological recognition. No metaphysics must be allowed to vitiate the basal proposition about reality, namely, that it consists of that which can be defined and grasped solely from points of departure absolutely individual in character. If reality is a system, it is a system of individuals. If it is not a system, individuality is one of its essential characters. Whatever it is, individuals enter somehow into its constitution. If one should claim that thought immediately demands that we

should transcend individuality, we can answer that the attempt to transcend it is to reinstate it. Thus it is that individuality cannot be defined or argued out of existence. It is there to stay.

The definition of individuality is thus the first problem of metaphysics. From the nature of the case, this definition must be non-explanatory in the sense indicated in our previous discussion. If individuals are ultimate, we can never hope to show how they originate or what the laws of their occurrence are. We can define them, so to speak, only denotatively. We can exhibit in many ways their presence. We can show how they are repeatedly involved. We can employ other terms and conceptions to make them more palpable. Here such categories as *activity*, *change*, and *the transient* may be found to be of use. They exhibit that to which the term individuality is applied in its concrete bearings. The whole of the logical doctrine of universals and predication may serve in the desired determination. But our concern here is one of method and not of content. We may therefore leave the general consideration of the problem with these suggestions, since the definition of individuality has been pointed out as the primary problem of metaphysics, and the methodical character of this definition has been noted.

It is to be observed, however, that the attempt to carry over the idea of individuality into the realm of concrete determination, and, indeed, the attempt to construe what we mean when we say that reality has somehow individuals as its primary ingredients, involve new questions in the general determination of the problem of metaphysics. For we wish to know more of these individuals, their number, their kind, their order, and in this attempt we find ourselves involved in new problems. Then, too, that indefinite term *somehow*, which has been used to indicate the way in which individuals enter into the constitution of reality, demands determination. As these things are reflected on, the second basal problem of metaphysics arises, that of continuity. Individuality and continuity are bound together in all our thinking. Indeed, the assertion that thought demands that individuality be transcended, is really the demand for continuity as a supplementary conception. Again, we should give to these epistemological prin-

ciples their metaphysical significance. If we are bound to recognize that individuality enters into the constitution of reality, we are equally bound to recognize that continuity enters also. But before concrete significance is attached to this fact, we should concern ourselves with the problem of method.

It is to be noted that, while individuality and continuity are supplementary and correlative, they are radically opposite in nature. Continuity is not itself individual, but is the denial of individuality in the realm where it applies. We may dismiss at once, therefore, all attempts to derive individuals from a continuum, or to construct a continuum out of any number of individuals. The two facts may go together, may even imply each other, yet the one may not, therefore, be deduced from the other. This is, in fact, but another way of asserting that the concept of continuity, like that of individuality, is non-explanatory in character. It may be admitted that the character of the continuity may be determined by reference to the character of the individuals, as I shall attempt to show later, but the fact of its presence in reality may not be so explained or determined. The logical universal may serve here as a passing illustration. Any number of individuals may exist in a general class. The fact of class cannot be deduced from that of individuality, nor the latter fact from the former. But the character of the class may be determined by the character of the individuals. So it may turn out that the continuity of reality gets its character from the individuals, or from one individual, as Aristotle maintained; but such a result would not militate against the recognition of the distinctness of the two conceptions. As I return to the consideration of this question later, I submit at present no farther discussion of it.

Individuality and continuity are supplementary, but essentially different in nature. It is quite possible, therefore, that the continuity may also have a character essentially different from that of individuals. One such character, at least, is readily recognized, that of infinite divisibility. This cannot be ascribed to individuals, but it appears to be of the very nature of a continuum. But as individuals cannot be deduced from a continuum, they cannot be

arrived at by a process of infinite division. Again, the points determined in any way we please by intersecting directions in a continuum are not true individuals. But such points may involve individuality in their determination. A continuum cannot determine itself or make its own directions intersect. Such a determination must come ultimately from outside the continuum, from an exterior point of departure. And when once this determination has originated, the continuum will present necessary relations between the points defined and all that beauty of a causal nexus which is so much admired. The impossibility of deducing necessary connection from individuals was the classic contribution of Hume to metaphysics, and it can hardly be claimed that Kant successfully supplanted it. But it may be recognized that necessary connection is the nature of a continuum determined in any direction. Such a consideration suggests quite different metaphysical conclusions to be drawn from the famous antinomies. Instead of indicating an inevitable dialectic of reason with itself, they point to a radical diversity in the constitution of reality.

Any attempt to grasp individuals in a continuity involves permanent acquisitions or relations for knowledge, at least. Of course, it is abstractly conceivable that individuals, even in a continuity, should be of such a character that every attempt to relate them would be futile. Yet this is not true as a matter of experience. Whatever the nature of our individuals and their continuity may be, the fact of their supplementation does involve successive changes which result in permanent acquisitions. The processes of reality are conservative. Individuals exist in continuity in such a way that the result is cumulative. Each individual, if it alters in any way, alters thereby the continuum in such a way that the alteration is not wholly lost. The continuum takes it up and preserves it. We can express this fact in no other way than by saying that the existence of individuals in continuity gives to such an existence the character of purpose. Thus the problem of purpose appears to be another fundamental problem of metaphysics.

It is by no means necessary to the conception of purpose that

it be defined as something superimposed upon the individuals or existing prior to them, either temporally or logically. All that we need to embody in our definition is the recognition that the alterations in individuals are cumulative in effect. Such a recognition provides for the constant approach of this accumulation toward definite issues through the elimination of useless factors. Thus far the definition of purpose involves no explanatory elements. It is rather descriptive and definitive of the nature of reality. But we may inquire after the character of this purpose. This inquiry may reveal an explanation of the character of purpose through its reference to the character of the individuals or of their continuum. Here we return to the general problem of which farther discussion was promised. Our attempt to define reality may show that there must enter into this definition three basal facts, individuality, continuity, and purpose. We may recognize that the nature of reality is such that these facts do not admit of deduction from each other or from any original, and consequently that they are non-explanatory in character. But we cannot hold these facts in such isolation that there will result between them no unity of any sort. This desired unity, no matter what may be its origination, will be, in one aspect at least, a unity of character, that is, the three facts will present the same aspect in certain directions. We may ask, then, Whence does this unity of character arise?

It has been suggested already that the continuum may get its character from the individuals or from one individual. An illustration of this may be seen in the character of a people's history arising from its individuals and great men. But the converse of the general proposition does not appear to be true, namely, that the individuals get their character from the continuum. For such a supposition reduces continuity to individuality. It not only distinguishes continuity from individuality, but isolates it, and we should require a further continuum to bring our individuals and the first continuity thus isolated together. We should find ourselves here on the well-traveled road to no conclusion. We must recognize, therefore, that the continuity gets its character from the individuals. This is, indeed, but another way of saying

that the continuity is progressive, cumulative, purposeful. And so our further question is answered, and we recognize that ultimately purpose gets its character from the individuals.

We are thus in a position to ask whether the character of continuity and purpose alike is to be derived from all the individuals, or from a restricted number? The answer to this question carries us into the material side of metaphysics, which it was the purpose of this address to avoid as far as possible. But the following suggestions are offered. We may recognize at once that all individuals must enter into the determination of the character as a whole. The question can refer only to the dominating characteristics. If these are to be ascribed to a single individual, this individual must be regarded as holding a unique and dominating position. Again, if knowledge, as indicated above, is a real connection between the elements of reality, and if we are entitled, therefore, to regard knowledge as in any sense the dominating character of the continuum, we may conclude that the individuals who can know are the essentially determining factors. Such a conclusion would involve a recognition that a unique individual, if insisted on, would very likely have a character akin to these factors. Even if the argument should not be pursued in this particular way, its general line of procedure has been indicated.

Purpose involves, as we have seen, that the alterations which may take place in the world of individuals are accumulated and conserved. We may admit that the bare conception of individuality does not oblige us to think of individuals altering in any way. But however *a priori* our conceptions may appear on analysis, they are never given apart from certain determinations of experience. We are obliged, therefore, when we view individuals in their existence, to recognize that they alter. Indeed, as noted above, *alteration, change, movement*, are concepts well calculated to assist in a fuller determination of the definition of individuality. Since individuals do alter, we find another problem of prime importance for metaphysics, namely the problem of potentiality. This problem is bound up not only with the fact of individuality, but with that of purpose also. For the fact of accumulation and the narrowing of this accumulation down to definite

results to the exclusion of others, forbids our entertaining the supposition that the future is wholly without determination. We may admit that a given event may never occur, but if it should occur, we are forced to recognize that it will occur within certain restrictions which it calls into being. The acorn may never become an oak, but should it become one, there exist already in some shape the conditions which are to determine that result. This fact is the fact of potentiality. In all the determinations of our knowledge, few concepts are of greater value. We constantly ascribe to the elements with which we deal certain potentialities which allow us to formulate the possible results. Instead of recognizing this practice as an epistemological infirmity, we should recognize its ontological significance, and conclude that the potential is itself an element in reality's constitution. We should have thus a fourth factor in our general definition of the metaphysical problem.

The fact that it seems impossible to formulate the potential with any exactness before it loses its character, leads us easily to reject its validity. But it was pointed out as long ago as Aristotle, that this rejection drives us to the alternative of affirming the whole realm of being to be in a state of changeless actuality. Violence is thus done to the facts of life. Alteration is driven out of the realm of the real. Such a result cannot dominate us long. Change and motion still persist, no matter with what amount of unreality we may designate them. We must give some status to the bare potential, even if the task appears most difficult. We may recognize at once that the bare potential contains within itself no elements which can lead to its own realization. To be more than a mere possibility, something else must supervene. The whole of existence at any moment faces the future, therefore, with untold possibilities. Each of them, if started on the road toward realization, has its path determined but from the point of view of potentiality, all are equally possible. The determined path presents us with all the elements of a necessary connection, but we look in vain for such connection when we seek among the untold possibilities the one which is in effect to be. Something new must add itself, must emerge, as it

were, out of non-existence into being. An arbitrary point of departure must arise, and when once it has arisen, the movement proceeds with definiteness. It is thus, whether we like it or not, that the doctrine of chance originates. To adopt again the argument of Aristotle, the elimination of chance is the elimination of the potential. For if there had always existed the elements necessary to transform the potential, it would have always been transformed, and so motion and alteration could have no place in the scheme of things. Chance along with the potential would thus appear to be essential elements in the definition of reality.

It is very easy to misconstrue the doctrine of chance. Too readily we conclude that it destroys the possibility of exact knowledge in all spheres of inquiry. We fail to observe that all our knowledge up to the most exact rests on presuppositions which give to it all the validity it can claim. If conclusions are always drawn from premises, if every consequent must first have its antecedent, we may well conclude that this necessity in knowledge has its significance for reality as well. Indeed, if we knew all the conditions that are necessary to any result, we should know that result. But the moment we inquire after these conditions we are led to others, until the admission is forced from us that our knowledge will never free itself from ultimate contingency. Only a lack of broad reflection on the problems of existence can lead us to ascribe this result to the imperfection of our knowledge. It is far more rational to ascribe it to the nature of reality itself, and to recognize that the elements which enter into the constitution of reality force us to admit that any result can be determined only when a point of departure is first determined, and that this determination, if original, as it must be to preserve potentiality, is something new and underived in the scheme of things. And here we are back again at the recognition of individuality from which our discussion started.

The considerations here briefly outlined have aimed at stating the problem of metaphysics in terms of its most essential elements, and in independence of its concrete content. In their light, an inquiry concerning the nature of reality appears to be

an inquiry whose results are to be expressed in terms such as individuality, continuity, purpose, potentiality, and chance. The complete definition of these concepts would be a very close approach to the complete definition of reality. Their recognition would enable us, I think, to approach the solution of the problem of metaphysics with an independence and directness highly to be desired. I have confined the discussion closely to the formal side of metaphysics, avoiding as far as possible its material content. The advantages of such a procedure are evident. Before the solution of the problem can be effected, it is necessary to have its statement, to formulate its equation, as it were. We must know beforehand the conditions which our solution is to fulfil, in order to determine its correctness when attained. This general consideration applies to metaphysics with as much cogency as to any other branch of inquiry. The indication of these things was the purpose of this address.

Although this purpose has, as I hope, been in a measure attained, I should like in conclusion to emphasize in a summary form the more important points of the discussion. The concepts, in terms of which the problem of metaphysics has been stated, have been regarded as ultimate and underived. In logical terms, they have no common genus in terms of which they can be defined, and they cannot be deduced from each other or from a common conception. To adapt an idea of the Scholastics, they are to be regarded rather as ultimate differentia than as species under a common genus. The definition of them can be accomplished, therefore, only by exhibiting them in their concrete form and analyzing their concrete content. It is the status of their existence and the concrete modes of their operation which have to be determined. Yet even if they are ultimate and incapable of deduction, they exist together and supplement each other. They do this as a matter of fact, and not as a matter of deduction, or under conditions which themselves need analysis and explanation. In other words, the moment we attempt to grasp reality, we find ourselves compelled to grasp it in these terms, in full recognition of their absoluteness and their supplementation. We are compelled to recognize that reality is

not a term which covers something which has no irreducible internal differences, but a term which covers ultimate differences in supplementation. Finally, let it not be urged as an objection that this is to elevate as the test of reality's ultimate constitution, the imperfections of knowledge, the poor, weak fact that every proposition, to convey a meaning, must have a subject and a predicate which are different. For when we say that there are certain conditions which must be fulfilled in order that knowledge may be knowledge, we must recognize that it is the constitution of reality which determines these conditions. We may ascribe what *a priori* powers we like to knowledge; but these powers would never receive an atom of significance in experience, if reality did not call them out and fit into them. We must most certainly give up the ways in which alone it is possible for us to know, if those ways will not work, and most assuredly it can be nothing but reality which is to determine which of our possible ways is to succeed. If, therefore, reality baffles us until we recognize that we must seek to grasp it in some such terms as indicated in our discussion, we may recognize in these terms the elements of the problem of metaphysics and the ultimate determinations of the constitution of reality.

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PROBLEMS OF SCIENCE AND PHILOSOPHY.

THE title which I have chosen for this essay is partly a subterfuge for a classification of the sciences, and partly an excuse for the discussion of some related questions. Had I chosen this alternative title, I should have started preconceptions which I wish partly to avoid, at least for the present, though I wish some connection to be recognized between what has been regarded as classification of the sciences, and various problems of human reflection which may extend beyond some of the meanings attached to the term 'science.' The course here taken, which is practically an adoption of both titles, will help to prevent misunderstanding at the outset. Usually the relations of the sciences have been expressed in terms of territory, and not of problems. It is possible to make both ideas more or less convertible, as territory also delimits certain problems. But, in spite of this fact, the coincidence does not define them. Though problems may vary with a variation of territory, they are not clearly defined by this circumstance. Hence it may be well to study the relations of the sciences in terms of their distinct problems, rather than in their real or apparent differences of field.

I half suspect that the primary motive in many, if not all, classifications of the sciences, has been the love of systematization, a desire for some unified conception of the forms of human knowledge. No doubt the attempt is often prompted by the discovery that certain sciences are in some way related to each other. For example, logic and psychology have both to do with mental phenomena, though one of them does not exhaust the field, and the other does not occupy itself with the same problems as the first. Sociology is in some way closely connected with history, economics, and politics. Mechanics is often treated as a department of physics. Similar illustrations might be chosen indefinitely, but they would only indicate what may be obvious to every one, namely, the fluctuating relations which subsist in various minds between the sciences suggesting a systematic method of classifying them. For this the illustrations given suffice.

If I were bent on the task of rejecting certain systems of classification and accepting others, it might be profitable to undertake a review of some of them ; but, as it is possible to assign at least a relative value to all consistent classifications, I do not find it necessary to pursue an invidious task, or at least to study the work of the past with a view to repudiating it. But I shall call attention to two systems of classification, partly for the purpose of initiating this discussion of their problems, and partly for showing a relative justification of both. They are the classifications of Comte and Spencer.

Comte's system I shall call the *serial* method of classifying the sciences, because it was not his purpose to represent them in the relation of genus and species. It was rather a relation of dependence of certain sciences upon others for at least a part of their method and results. He did not attempt any complete and exhaustive consideration of the special fields of human inquiry, as his object did not require this. He confined himself to the more general sciences and their relations to the problems which mainly occupied his mind as a student of politics or sociology. After recognizing the two fields of phenomena, organic and inorganic, he adopts the following as the order of relation between the general sciences : Mathematics, astronomy, physics, chemistry, physiology, and social physics (sociology). He makes also the distinction between the abstract and the concrete sciences which Spencer afterward adopts, but he does not make the use of it which the latter finds appropriate. It is interesting, however, to note that Comte makes no mention, for obvious reasons, of philosophy, metaphysics, or psychology. His intention was to recognize nothing but what he regarded as legitimate fields of investigation and to be himself the sole judge of what man should study. But in thus excluding certain problems with which men have actually occupied themselves, and in not specifying problems within the limits of the sciences which he does recognize, he has given a very meager conception of the real interests of the human mind, though the serial method of viewing the relation of the sciences is capable of very fruitful application.

Spencer adopts what I shall call the *logical* method of classi-

fication. It is a division of the sciences into genus and species, and applies the principle of territory, in the main at least, as the ground of distinction between them. His classification is carried out with considerable clearness and detail. I think it is far more exhaustive of the fields of human inquiry than most attempts of the kind, and has high merit. Accepting the fundamental principle of division, I would have no specially serious criticisms to make upon it, as I recognize that any classification may be correct, as judged by the purpose for which it is made and the conceptions of terms as assumed. These are always elastic enough to demand some tolerance for variations. But if I were to criticize Mr. Spencer's classification, it would be for its fundamental principle of division. This is his distinction into abstract, concrete, and abstract-concrete sciences. I have no special objections to raise against the way in which the special sciences are distinguished from each other after this principle has been adopted, though minor differences of opinion would suggest themselves; but I do not think that his fundamental principle expresses the real nature of the distinction between the sciences. This, I think, is apparent from the place occupied by logic and mathematics. Their classification as coördinate species ought to imply a closer relation in subject matter than actually exists. It is like classifying trees under the principle 'tall' or 'short.' Besides, we could as well put ethics under the head 'abstract' as logic and mathematics. I think it will be found that ethics is quite as formal a science as logic, and may be considered quite as abstract. It does not seem right, again, to make sociology a subordinate division of psychology. What Spencer has seen here is the fact which Comte's serial classification observed, namely, that sociology depends on certain psychological functions and phenomena for its meaning; but he did not observe that, as actually studied, it deals with a wholly different set of phenomena. If the meaning of sociology were determined, as it ought to be, by the principle of division, there would be no objection to the place assigned it by Spencer, but the term would not have the import which students give it, and which Mr. Spencer's own discussion of it in his *Synthetic Philosophy* as-

sumed. Mr. Spencer's difficulty, and hence liability to objections, arose out of his attempt to give a classification which would satisfy two incompatible conditions at the same time, namely, an ideal and the actual conception of the sciences. He was trying to impress the actual conception of the sciences into a frame which gave them an ideal meaning different from that which custom and usage had assigned to them. Consequently, he confused territorial and problematic considerations in his system.

Now what I wish here to undertake is a combination of the objects indicated by the systems of Comte and Spencer, namely, a logical and a serial classification of the sciences or problems of human thought and action that will recognize both territorial and relational facts at the same time. It will combine the logical and serial methods in a way to show both the intimate connections and the distinctions between the various sciences, and will be as exhaustive as the case requires. The important premisory remark, however, to be made at the outset, as a precaution against misunderstanding, is that the classification is based, not on any definite conception of the various sciences, or terms naming them, as generally understood, but on what the conceptions must or ought to be as determined by the principle of division adopted. I shall not attempt to classify the sciences as their territory *is* defined, but as it *ought* to be in an ideal system. At the same time, I shall have no quarrel with the accepted meaning of terms as they have been historically developed. I merely find that it is impossible to discuss a theoretical and a practical problem on the assumption that actual and ideal usage shall coincide.

I think we may reduce the fields of human interest to three, in the widest acceptance of the terms. I shall call them the world of *events*, the world of *worths*, and the world of *causes*. This is a slight modification of the division by Lotze, which was the world of *facts*, the world of *laws*, and the world of *worths*. I discard the term 'facts' because I wish to assume that all three worlds are 'facts.' In the first of these fields or problems, we wish merely to ascertain what the events are which we have to observe and systematize. I shall describe this field as the *Phenomenological* problem. Ultimate explanation may be excluded

from this problem. I shall subdivide this phenomenological field into two classes of subordinate problems, which I shall call the *Ergological* and the *Nomological*. I have coined the word 'Ergological' for the purpose of distinguishing the question of the *laws* of events from the mere fact of their occurrence and unsystematic apprehension. I might have adopted some other term, such as 'pragmatological'; but on the whole, owing to the use of the Greek term $\tauὰ \xi\rho\gamma\alpha$ for 'facts,' I decided for the former. It is intended to express the nature of the first problem of human interest, namely, the bare knowledge of the events which suggest other problems after they are accepted. The nomological problem represents the demand for the *laws* of events, the systematic order of their occurrence, the determination of the coexistences and sequences of phenomena. Superficially, phenomena may seem to occur without order, and that order has to be an object of quest whenever it is not apparent. Ergological and nomological problems, therefore, represent two distinct fields and methods of inquiry, which I shall further consider in the serial representation of the sciences that fall under them.

I shall also describe the world of *worths* as representing what I shall call the *Ideological* problem. By this I mean, in general, the field of *ideals*. The origin of the term and this conception of it are apparent without further comment. But I shall subdivide it into two distinct classes of problems, which I shall call the *Orthological* and the *Teleological*. By the orthological problems I mean the question of *norms* or criteria of values in every field of human interest. By the teleological problems I mean the question of *means* to ends which may be either ideally or actually adopted for action. In general, they represent the field of the arts as distinct from the sciences. The problems and sciences serially related to these will appear in the tabular representation.

The world of *causes* I shall describe as *Ætiological*. I use the term to comprehend both *material* and *efficient* causes, and subdivide its problems into two classes according to this distinction, and so have what I shall call the *Ontological* and the *Noumenological* problems. The special meaning of this latter term and the reason for the use of it are found in the fact that we need

some expression for the mind's habit of seeking something that *transcends* the phenomenon to be explained, something that is not given *in* it though implied by it, and that may be of a different kind from that whose explanation or ground of occurrence is to be determined. The term is borrowed from the usage of Kant, as is apparent, but has not exactly the same import and implications.

It is not necessary in this last class of problems to assume that the field is a legitimate one. So far as the general question is concerned, we may admit with Comte that metaphysics is not a legitimate inquiry. But it is a fact that men have indulged in inquiries or speculations which they have chosen to denominate as the world of causes, or facts and realities other than mere phenomena. All that I am required to do is to recognize it as an actual human interest, and not to decide whether it is legitimate or illegitimate. I am merely concerned to know and recognize that men have been curious to ascertain the existence of certain realities which they supposed to have been supported by the evidence of phenomena. With this proviso, I now give below the tabular classification to be discussed afterward.

CLASSIFICATION OF THE SCIENCES, OR PROBLEMS OF SCIENCE AND PHILOSOPHY.

Phenomenological.		Ideological.		Ætiological.
				Noumenological
Ergological.	Nomological.	Orthological.	Teleological.	Ontological.
A	Mathematics	.....	... ..	Metrology
B	Physics	.....	Engineering	Hylology
C	Chemistry	.... ..	Pharmacy	-----
D	Physiology	Hygiene	Therapeutics	.....
E Anthropology	Psychology	Epistemology	Pedagogy	Pneumatology
F .....	.....	Æsthetics	Art	.....
G	Ethology	Deontology	Prattology	.....
H Relig. Annals	Sci. Relig.	.....	.....	Theology
I Pol. Annals	Sociology	Jurisprudence	Politics	.....
J	K	L	M	N

Before entering into an exposition of this classification, I must premise a statement as a precaution against any misunderstanding. It is that no term in this table can have any other meaning than that which its position in the table and the principle of division

predetermine for it. The classification, I repeat, is not an attempt to assign the actual meanings of the terms in all cases, but the meaning which they must or ought to have in such a system. This meaning may or may not conform to accepted usage in its breadth and depth. All the concession that I have endeavored to make to conceptions in existence is found in the place assigned to a name. In this I have in most cases taken that meaning which is nearest the meaning that the term obtains by the principle of division, and have left to the reader to limit or extend that meaning to suit the particular situation. Were it not for this proviso, which conditions the use of the terms, I should have to face the objection that many of the sciences involved are not conceived in their acceptable or accepted import, for instance, anthropology, jurisprudence, and politics. But with the explanation given, the reader will understand that I intend to admit that actual usage does not always coincide with the ideal conception of the distinct problems which I am here trying to define. I can but approximate this ideal in my terms. Objections I shall consider later, some of which arise from the omission of sciences which the reader might think ought to be included.

As I have already remarked above, the classification is partly territorial and partly problematic. The divisions represented by phenomenological, ideological, and ætiological involve both territorial and problematic distinctions, and are *logical* in their treatment of the matter. That is, both the field and the questions involved are distinguished. It is the same with the subdivisions of each of these general classes. But the horizontal lines of classification represented by the letters from A to I indicate identity of territory, but a distinction of problems. That is, the sciences involved deal with the same phenomena, but with a different object in view. The vertical lines of classification indicated by the letters from J to N represent the *serial* classification, and involve a distinction both of territory and problems, but a *connection* of the two. The dotted lines indicate that there is no accepted term for the field or problem corresponding to it. The hyphenated line under hylology indicates that this term may be and should be used to cover the field occupied by chemistry, etc. I have

omitted phytology or botany, between chemistry and physiology, as representing the vegetable world, because there are not representatives of it in any of the other parallel positions, unless under the teleological head we accepted horticulture. If desired, this can be supplied by the reader.

I have omitted certain sciences from the table, because they may be considered as subdivisions of the general sciences mentioned. For instance, it will be remarked that I have not included astronomy in the list. The reason for this is that we may treat it either as a combination of mathematics and physics, or as a division of physics in the general sense, which it really is. We may then treat such subjects as mechanics, hydrostatics, optics, acoustics, etc., as departments of physics. Similarly, we may subdivide sociology into history, economics, and politics in the usually accepted sense of that science. What I have presented here is the most general conceptions of the sciences in a way to show their interrelations with each other, and at the same time such a distinction of problems as will aid in their more exact definition when necessary.

One other fact I wish to notice. I have tabulated them in the order which represents the chronological succession of problems. First, we have the simple and unsystematized facts to catalogue. In this, we do not primarily take account of anything but the fact of occurrence. This is the ergological problem. After ascertaining our facts or phenomena, we proceed to ascertain the law which governs them. Here we begin the problem of systematization. Unity and order of a certain kind are determined by this question. It is the nomological problem. We may disregard the metaphysical question of causes altogether, and be content with mere coexistence and sequence, as practical life may not be concerned with any other result. But when we come to the orthological problem, we begin a process of selection among our phenomena. In the nomological problem, we must treat all facts or phenomena alike. We make no distinctions of a moral or æsthetic kind. Good and bad, right and wrong, normal and abnormal are explained in the same way without reference to any ideal considerations.

But in the orthological question, we have to deal with criteria of values. Validity is the fundamental issue, that is, the choice of facts and phenomena to be estimated above or below others in practical conduct and adjustment. Then, finally, there is the determination of the *means* to these ideals after the selection is made, and this is the teleological problem as explained above.

The positivist or phenomenalist would stop at this point, and admit no other subjects of investigation into his system. For certain purposes it may not be necessary to go further, or to inquire about anything else. But the human mind has insisted on speculating on other real or imaginary problems, and I have chosen to denominate these the ætiological, by which I may also express the metaphysical questions. These are metrology, hylology, pneumatology, and theology. They represent problems of the existence and nature of realities or facts other than mere phenomena, or phenomena as known to sensory experience. By metrology I mean the metaphysics of space and time as the principles of continuity and individuation, and so determinative of the basis of all applications of mathematics. Hylology represents the question of the existence and nature of matter, and so includes all speculations such as the atomic theory and various attempts to determine the ultimate nature of this reality. Pneumatology is the problem of the existence and nature of the soul, of a reality other than the brain to account for the phenomena of consciousness. Theology seeks to determine the existence and nature of God, or an Absolute, assumed to underlie and control the whole universe of reality. These sciences or speculative inquiries are given in the order of their dependence. Space and time are the first given data of knowledge in this class. We may take them as the most certain, and as representing the properly static universe, as they involve no change, no phenomenal aspects. In the next, hylology is a reflex of certain phenomena which are supposed to have a center of reference, a substantive background, which we agree to call matter. These phenomena are comprehended in certain changes or activities, which require us to suppose some other reality than space and time as their ground. If all phenomena or changes can be referred to matter

as their substantive ground, there will be no reason for supposing a soul. Pneumatology will have no place in metaphysics, if we have no evidence of consciousness apart from material organisms. It is conditioned upon the existence of facts that require us to suppose something besides matter to account for them. But as long as consciousness is associated with a physiological organism, pneumatology will sustain the same relation to hylology that psychology sustains to physiology. It will be dependent upon it for at least a partial explanation of its phenomena. The relation between theology and pneumatology will be analogous. The existence and nature of any other intelligence than man in the universe will depend, first, on the discovery of phenomena for which matter cannot supply an explanation, and secondly, upon the discovery of a mental reality other than the brain to account for consciousness and as an indication that matter is not the only reality in existence. Whether any such result can be achieved, it is not my purpose to assume or assert. I am only defining the problem as it has been conceived, or ought to have been conceived. It places theology as the last science in both its nature and its certitude, the last problem which man has to solve, if it be legitimate and soluble at all.

This classification is intended as an aid in the definition and delimitation of the various sciences which it has often been difficult to distinguish clearly. The objections which will suggest themselves are founded on the differences of conception which various men have of the particular sciences. For instance, it may be fairly objected that jurisprudence is not an orthological science, a science of what is ideally right in social and legal relations between men, but a science of positive law. It is true that the definition of this science has varied from the time of antiquity to the present, and has been affected by the exigencies of thought in each age. Ulpian regarded it as the science of the just and unjust. Later writers like Holland regard it as the science of positive law, but are careful to say that it is not "applied to actual systems of law, or to current systems of law, or to suggestions for its amendment," but is "abstracted from positive law." I need not question that there is such a problem,

or that jurisprudence may be a proper name for it, but, as indicated above, I think that this very conception of it comes near enough to that which is determined by the orthological problem to place the term in that column, at least provisionally. It is the same with the term politics. That term, as used to denote a science, might very well be chosen to represent the place occupied by jurisprudence in some respects; but it has also come to have a practical meaning, and it is this which I give to it in this connection, to indicate that there is a practical problem in social matters after the ideal has been determined. Objections to other terms would be of the same kind, and would be answered in the same way. Considering, then, that I mean only to apply my terminology provisionally for the purpose of defining the various problems of knowledge, and as predetermined by the principles of classification, I may well refrain from criticising the prevailing conceptions of the sciences, as various human interests have determined them. In actual usage and investigation, the conception of a science is largely determined by the mental interest of the inquirer. For example, if he is not interested in metaphysics and theology, he is likely to insist that psychology is an 'empirical' science, and whether it actually becomes so or not will depend wholly upon the extent to which investigators into mental phenomena actually adopt that limitation of their inquiries. If he is interested in other matters than the mere determination of mental phenomena and their laws, he will introduce other problems into psychology and define his science accordingly. It will be the same with every other science. Nomological, orthological, teleological, and ætiological interests inevitably become intermingled in the treatment of phenomena, because human interests are stronger than the restraints of abstract and logical definition. They have their uses also. Hence I shall not quarrel with the various actual conceptions which serve an important function in the synthesis of phenomena, if only I may show the distinctions and connections of the various inquiries so embodied, and I think the classification which I have given helps to accomplish this object.

Two or three things more should be noted. It will be re-

marked that logic has found no specifically mentioned place in the system. The reason for this is that it may be treated as a department of epistemology. I conceive epistemology as the science of the validity of knowledge, or of the processes and criteria of knowledge, including perceptual, conceptual, judicial, and ratiocinative functions. Logic is the name for this last process, and may include the two previous functions, but not the first. Ethics finds a place in the system only by being divided into three separate sciences. These are ethology, or the mere systematising of human customs ; deontology, or the science of the ideal or duty, the ultimate end of conduct, and hence theoretical ethics ; and prattology, or the science of the conduct or actions which are necessary to attain the ideal, and hence practical ethics.

It will be noticed also that under the noumenological and ontological heads there is but one vertical column of sciences, real or imaginary. The reason for this is that I should have been forced to coin terms for all instances except theology and pneumatology. The last term exists, but has no current use, and when used in the past had not the exact meaning which I attach to it here. Consequently, I have been content with single terms for the two sets of problems which are comprehended under the two subdivisions of ætiological science. Actual custom has embodied all discussion of these problems under the head of philosophy or metaphysics, as the case may be, and no effort has been made to distinguish one problem from another. Sometimes the discussion of them has been associated with speculations in psychology, epistemology, or even physics. But I mean here to insist that the inquiry regarding any realities or facts other than phenomena shall be kept distinct from the methods and objects of the phenomenological and ideological sciences. If we prefer, we may adopt the comprehensive term metaphysics for the treatment of all the questions involved in the separate disciplines under ætiological conceptions, and so assume that noumenological and ontological questions are simply aspects of it. These must be explained.

The term 'noumenon,' or 'noumenological,' is an unfortunate one. It suggests all the difficulties, obscurities and dubious

problems of Kant's *Ding-an-sich*. I do not mean here to import them into the problem which I wish to describe by it, though I wish to admit that Kant's distinction between phenomena and noumena, if rightly defined and qualified, has an important function for human reflection. I use the term here to denote the ground or subject of an event or phenomenon, as distinct from its 'nature' compared with other such realities in terms of properties expressing identities and differences in the case, and hence denominated the ontological aspect or problem. I mean that the distinction between the two shall be that of sufficient reason or efficient causality and the principle of identity and difference, or, if we like it, the principle of materiality or material cause. Consequently, by noumenon I shall mean any reality or fact whatsoever which transcends the event that may be the subject of investigation and explanation by a center of reference, commonly expressed in a term for substance or subject of attributes. Whenever we recognize an event, an activity, a change, a phenomenon, which we may conceive as a function of something, or, if you like, as an attribute, static or dynamic, of something, we adopt some term to indicate the existence of that center of reference which we make, in some sense of the word, other than the fact to be so referred. Thus, if we discover certain events in connection with the behavior of the nitrogen in the air different from the nitrogen obtained from organic compounds, we suspect the existence of a new substance, and investigation shows that this new substance exists. The term argon is adopted to express it. It is the same with absolutely every substantive concept. This is actually the process by which the term matter is obtained. We observe certain events and uniform activities, or attributes, static or dynamic, and refer them to a subject or substance which we choose to call matter. It is not the phenomenon itself, but the ground of it. Whether we have a right to suppose any such thing is not the question, but only whether we actually do it or not. I am simply indicating the facts which give rise to certain modes of thought and speculation, and endeavoring to show that it applies equally to all physical science as well as metaphysics. Hence noumenolog-

ical inquiries are directed to ascertaining whether there is anything beyond the event or phenomenon which we observe in experience ; and a reality other than the event will be assumed on every occasion on which the evidence goes to show that existing realities will not explain the fact involved, as in the case of argon, etc. They are simply the permanent centers of reference or reality, subjects which have these events or activities as their modes of behavior, functions, attributes, properties, etc. The noumenological problem, therefore, is only the question of determining evidentially the question whether any such thing or things exist besides the event to be accounted for. We have in speculation various representatives of this process, namely, matter, ether, soul, God ; and the recent doctrine of energy as a substance shows the tendency to think in this way. The first problem of speculation has been that of matter. No other reality can be admitted, according to the law of parsimony, unless there be facts or phenomena that cannot be traced to the causal or functional influence of this subject or substance. Such a thing as a soul, a center of reference for consciousness other than the organism, must be rejected unless there be evidence that organization cannot account for it. Hence the problem to determine whether there be a soul is a problem wholly apart from the question of the laws of mental action, which may be the same for a materialistic as for any other theory of consciousness. Then follows the theological or theistic problem quite analogous to the last. They all deal with the cause or ground of phenomena.

After the mind comes to the conclusion that there is something besides the mere event, it seeks to ascertain its 'nature' in comparison with other assumed realities. This is what I have called the ontological problem, using that term in one of its scholastic meanings to denote the material as distinguished from the efficient cause of things. If there be only one kind of reality, that is, if absolute monism be the accepted doctrine, the ontological and the noumenological questions coincide. The only criterion of the 'nature' of a thing is what it *does* in that case. No comparison between it and other things for determining the unity or diversity of reality can be instituted on that supposition.

But if once a doctrine of pluralism be admitted, the question of identities and differences arises, and the ontological problem is to find the resemblances and differences between the units of reference in phenomena. That is, the different qualitative realities will be reduced to the smallest possible number. For example, the various realities or substances in the physical universe are classified and reduced to the seventy or more elements, all compounds being explicable by the union of the elements in various ways. In this way, unification of kind in realities is obtained and some conception of an ontological order acquired. It is effected by the study of the phenomena that suggest similarity of origin or attribution, so that the idea of cosmic unity is secured. The noumenological problem may not take us beyond a chaos, but the ontological problem may discover a unified nature and order that simplifies the world for knowledge. The former applies the principle of efficient causation and the latter the principle of material causation, and both determine the definition of metaphysics in its full scope. Whether any such science or discipline be possible, I do not here undertake to prove. I describe only the way in which men actually think on all speculative questions. It may be that metaphysics has no practical value, so far as this scheme is concerned. We may concede that practical life requires nothing more than the uniformities of coexistence and sequence, and may not be involved in any problems of the 'nature' of things. I shall not attempt to decide that matter. All that I am interested in effecting is the proper separation of problems as actually conceived in the history of thought, and thus aiding to define them in a way to pacify the passions of controversy and to show how the order of solution proceeds from the simpler to the more profound.

JAMES H. HYSLOP.

THE THEORY OF INDUCTION.¹

AN examination of the different theories of induction shows us that there are two questions at issue: (1), What is the nature of the process called induction? And (2), What is the validity of the process?

The first question is answered as follows: Induction is defined in a general way as a process of inferring from the particular to the universal. That is, whenever we derive a general statement from a particular statement or facts, we have induction. Most writers would be willing to accept this as a rough definition of the process. Some distinguish between scientific induction and unscientific induction, but look upon both forms as coming under the definition.² Others, however, reject the unscientific form, or simple enumeration, and accept only that phase of induction which derives from particular facts the law of their necessary connection. According to them, induction seeks to discover not the casual, but the causal connections.³ Of these, some identify induction with scientific method in general, including under it the forming of hypotheses, deducing their consequences, and verifying them.⁴

The second question also receives various answers. According to some thinkers, only so-called perfect induction is certain; imperfect induction is merely probable.⁵ Nearly all seem to agree, however, that induction is grounded on the principle of the uniformity of nature. This principle is interpreted differently by different thinkers, sometimes merely called by another name. Some speak of it as the principle of identity. What is once true will always be true; whatever is, will remain so: the world is identical with itself.⁶ Some express the same idea by saying that

¹ Read before the joint meeting of the American Psychological Association and the Western Philosophical Association, Chicago, January 1, 1902.

² Bacon, Mill, Veitch, Lotze, Wundt.

³ Sigwart, Ueberweg, Bosanquet, Hibben, Welton, Creighton; Shute, *Discourse on Truth*; Hamelin, *Sur l'induction*.

⁴ Sigwart, Jevons, Hamelin.

⁵ Apelt, Whately.

⁶ Lotze, Kromann, Bosanquet.

the particular is the expression of the universal.¹ Some call the principle the principle of necessary connection: the given is necessary.² Some identify it with the law of causation: every event must have some cause.³

Moreover, this principle of uniformity is conceived by some as a postulate of our thinking,⁴ by others as the product of experience.⁵

Let us now attempt to answer the first question: What is the nature of induction? Induction is a process of inference. We must be careful to distinguish between inference and association of ideas. The perception of fire may arouse in the child's consciousness the thought of a burn, simply because these two things have been experienced together before. A knock at the door may arouse in my consciousness the image of a man making certain movements. But in neither case is there necessarily inference. In order to infer, I must consciously relate one judgment with another. I must ground it on some other judgment, or draw it from some other judgment. I must say, *Because* this is so, that is so; or, this is so, *therefore* that is so. In the words of Ladd: "The thinking subject reaches genuine logical inference whenever two judgments are related in such manner that one is made the 'reason' or 'ground' of the other, with a consciousness of the relation thus established between them."⁶ There are two kinds of reasoning, deduction and induction. Both are processes of inference, and therefore essen-

¹ Aristotle, Hegel.

² Sigwart, Ueberweg, Hibben, Welton, Creighton.—Venn, *Empirical and Inductive Logic*, defines it thus: "Perhaps indeed as near an approach as we can get to any definition is reached by saying that wherever any two or more attributes are repeatedly found to be connected together, closely or remotely, in time or in space, there we have a uniformity. And the general expression, the uniformity of nature, is intended to cover all such partial connections, and to imply that their existence may be detected or reasonably inferred throughout all phenomena whatever" (p. 93).

³ Mill, Jevons, Veitch, Benno Erdmann.

⁴ Sigwart. Lotze, Kromann, Bosanquet, Hibben, Welton, Creighton. — Venn, *Empirical Logic*: "I am very decidedly of opinion that the difficulty does not admit of any *logical* solution. It must be assumed as a postulate, so far as logic is concerned, that the belief in the Uniformity of Nature exists, and the problem of accounting for it must be relegated to Psychology" (pp. 131 f.).

⁵ Mill, Jevons, Benno Erdmann.

⁶ *Psychology, Descriptive and Explanatory*, pp. 463 f.

tially the same, that is, both consciously relate judgments with other judgments. In both cases a certain judgment is accepted on the ground of another; this is so, we say, *because* that is so; or, this is so, *therefore* that is so. The difference between the processes consists in this: in induction we ground our judgment on particular instances, that is, pass from particulars to a universal proposition concerning them; while in deduction we ground our judgment on a universal proposition, that is, we start from a universal proposition and draw from it other propositions according to the principle of identity. "In induction, then, we conclude that all A is B, because we have observed that a₁ and a₂ (all essentially alike and capable of being grouped under A) are B. In deduction we know, or assume as known, that A is B, and conclude that a₃ (which we have never met with before) is B."¹ When I infer that all swans are white, because the swans I have seen were white, I am reasoning inductively. In induction we leap from a particular case or cases to all; we infer that because a certain thing is true of a certain case or cases, it is true for all cases resembling the others.

And here it is well to remember several important points. (1) So far as the principle is concerned, it makes no difference whether the induction is true or false. It is just as much an inductive inference to conclude that all crows are black because some are, as to conclude that all men are mortal because some are. Hasty induction is induction, as much so as careful and scientific induction. The characteristic mark of induction consists in making the so-called 'inductive leap,' in jumping from one or more instances to a general conclusion.²

(2) Nor is it correct to limit induction to the discovery of causal relations. Wherever we infer a universal statement from a particular case or cases, leap from the particular to the universal, we have induction. We do not strive to know merely the causes of things; we are interested in other relations also, for instance, in the co-existence of certain qualities, whether they are

¹ Ladd, *Psychology*, p. 478.

² "An imperfect, hasty, or unwarranted induction is still an induction, only a bad one." Veitch, *Logic*, p. 461. See also Mill, *Logic*, p. 233, note.

causally related or not.¹ Our purpose is to discover regularity, uniformity everywhere. Of course, if we identify causality with uniformity, as some writers do, if we call all those relations causal in which there is uniformity of sequence or co-existence, then induction means to discover causality. But if we do not define causality that way, if we do not conceive all uniform sequences and co-existences as causally related, then we cannot define induction as the quest for causal relations; for, as was already said, we are interested in all kinds of regularity or orderliness. It is true that, wherever we find such regularity, we are tempted to read causality into it; but that is another story.

(3) And this leads us to another point. It is held by many writers that induction seeks to discover the inner, necessary relations existing between things. In a certain sense, this is true. The thinker is always eager to find out what qualities are connected necessarily, that is, he wants to feel not only that certain qualities go together, but that they must somehow go together. He is not satisfied with the statement that all swans are white, because he does not understand the inner relation existing between swan nature and whiteness, he does not see why swans should be white, he does not see any necessary relation here. He seeks to discover connections between things which will satisfy him. "Take, for instance, the simple effect of hot water cracking glass. This is usually learnt empirically. Most people have a confused idea that hot water has a natural and inevitable tendency to break glass, and that thin glass, being more fragile than other glass, will be more easily broken by hot water. Physical science, however, gives a very clear reason for the effect, by showing that it is only one case of the general tendency of heat to expand substances. The crack is caused by the successful effort of the heated glass to expand in spite of the colder glass with which it is connected."² That is, the scientist aims to bring his proposition under a proposition which is more general in its scope, one which expresses a more constant connection between objects than the other, and therefore impresses us as necessary. He seeks for a simple formula under which he can embrace a

¹ See Veitch, *Logic*, p. 461; Venn, *Logic*, p. 93; Sigwart, *Logik*.

² Jevons, *Lessons in Logic*, p. 257.

great many cases that seem to have nothing at all in common. "Suppose some one observes that (*a*) the addition of fuel, (*b*) the action of blowing, and (*c*) cold weather increase the flame of the fire. He may at first be satisfied with the assumption that every one of these three phenomena is a cause of the increase of the flame. But when he discovers a great number of phenomena which are followed by an increase of flame, he finds it hard to think of them all. But if he can find that every time the flame is increased, something was added to the fire which, according to analysis, contains oxygen, he will reduce the manifold experiences to the simple formula : All things which contain oxygen and are added to fire increase the flame. He will probably go farther and say : Oxygen is the cause of the increase of the flame."¹

The truth is, the thinker aims to understand his facts, that is, to assimilate them to the known, to bring them into relation with what he already knows. You tell him that heat cracks the glass because heat is motion, expansive motion ; he understands that because he has seen many examples of motion breaking things. "We did not reject the assertion that there are black swans," says Mill, "while we should refuse credence to any testimony which asserted that there were men wearing their heads underneath their shoulders. The first assertion was more credible than the latter. But why more credible ? So long as neither phenomenon had actually been witnessed, what reason was there for finding the one harder to be believed than the other ? Apparently because there is less constancy in the colors of animals than in the general structure of their anatomy. But how do we know this ? Doubtless, from experience. Experience testifies that among the uniformities which it exhibits or seems to exhibit, some are more to be relied upon than others."² But it must not be forgotten here that it is induction to conclude from our observations that heat cracks glass, that blowing makes the fire burn, that chlorine bleaches, even if we do not understand the reasons or see the so-called necessary connections. "We learn empirically that a certain strong yellow color at sunset, or

¹ Uphues, *Grundlegung der Logik : Nach Shute's Discourse on Truth bearbeitet*, p. 182.

² Bk. III, ch. iv. See also ch. iii.

an unusual clearness in the air, portends rain ; that a quick pulse indicates fever ; that horned animals are always ruminants ; that quinine affects beneficially the nervous system and the health of the body generally ; that strychnine has a terrible effect of the opposite nature ; all these are known to be true by repeated observation, but we can give no other reason for their being true, that is, we cannot bring them into harmony with any other scientific facts ; nor could we at all have deduced them or anticipated them on the ground of previous knowledge.”¹ Induction is induction, whether we can bring it into harmony with other scientific facts or not. It must further be remembered that deduction frequently enters into those cases in which we reach so-called necessary connections. I discover by induction that heat cracks glass. I refer this empirical law to a larger induction, that heat expands substances. I say heat must crack glass under certain circumstances, *because* heat expands substances. If heat expands substances, it must expand glass ; and if the colder parts of the glass connected with the heated parts do not expand fast enough, the glass will break. This is really deduction. I subsume the case under a general rule. I think I understand it better when I see that it is really an instance of a general occurrence with which I am very familiar.

4. This brings us to another point. Several thinkers define induction as forming hypotheses, drawing their consequences, and verifying them. This, it seems to me, is a false definition. If we define it in this way, then we apply the name induction to different operations, we include under it both induction and deduction. If induction is both induction and deduction, then what is the process called induction, which with deduction constitutes induction ? Of course, we may, if we choose, apply the term induction to scientific methods in general, to the method which everybody uses in the pursuit of truth, and which embraces all the operations of the mind that lead to truth. But in that case what is the process called induction proper ? And why should we use one term for two processes, first for a combination of induction and deduction, then for induction itself ? The

¹ Jevons, *Lessons*, p. 256.

logical thing to do is to restrict the term induction to induction proper, to the process of inferring a general truth from particular instances, and to use another name for the combination of this process with deduction. In his smaller book Jevons calls this method, which he designates as induction in his *Principles of Science*, the combined or complete method. "What Mr. Mill has called the deductive method, but which I think might more appropriately be called the combined or complete method, consists in the alternate use of induction and deduction. It may be said to have three steps, as follows :—(1) Direct induction ; (2) Deduction, or, as Mr. Mill calls it, ratiocination ; (3) Verification. The first process consists in such a rough and simple appeal to experience as may give us a glimpse of the laws which operate, without being sufficient to establish their truth. Assuming them as provisionally true, we then proceed to argue to their effects in other cases, and a further appeal to experience either verifies or negatives the truth of the laws assumed."

5. There is another point to be observed. It is held that when I infer from one or more cases to all like them, I base myself either consciously or unconsciously on the principle of the uniformity of nature. That is, I reason thus : This is true of these cases ; what is true of some cases is true of all like them ; hence this is true of all. In other words, induction is really deduction. This, however, does not seem to me to be the case. In fact, the statement that what is true in some cases is true in every case like them, is the very thing that is inferred in induction. We infer that this will always happen because it has happened. As soon as we observe the coexistence or sequence of certain qualities several times, we naturally draw our conclusion, we make the inductive leap. We say, *sometimes*, hence, *always*. Why we do so, it is impossible to say ; it is one of those inexplicable facts, a natural function of the human mind, a way we have of thinking, that is all. We expect repetition. We may have no right to expect it, but the fact remains that we do expect it and conclude that it will come. We infer when we find a ground or reason for our proposition. Everything is a ground for us that really satisfies us. Closer thinking may

destroy our satisfaction, but so long as we have grounded our proposition upon some other proposition and are satisfied, we have reasoned. We may have reasoned wrong, but we have reasoned. Inductive inference is a function of the mind aroused by the experience of recurrence, in which we regard the particular as a type, as having universal significance. It is frequently hasty and its results are frequently discovered to be false, but that does not affect its nature. The point to be emphasized here is that induction consists in making the leap spoken of, regardless of whether we have any warrant for doing so or not. We say, what is true of these particular instances is true of their class, and, after having made many such inferences, we finally reach the belief that nature at large is uniform. The belief in the general uniformity of nature is a late product in the history of civilization, and is not even universally accepted to-day. It is preceded by, and grows out of, the belief that a particular instance will repeat itself.

This brings us to our second fundamental question: What is the validity of the process of induction? What is its warrant? Here we may discuss two problems. (a) How can we reach the greatest possible certainty in particular inductions? (b) How can we prove induction in general?

(a) Certainty is a feeling. We feel certain that a proposition is true; the proposition is certain because it arouses in us the feeling of certainty. What must we do to reach such certainty in a particular induction? We increase our feeling of certainty in many ways. We notice that qualities go together. The more often we observe it, the more certain we feel that they will continue to go together. When we observe that when one fails to appear the other fails to appear also, and that when one varies the other varies, we feel still more certain that they go together, that our induction is true. The purpose of the so-called inductive methods is to bring this certainty to the highest possible degree. We feel most certain of propositions which have been verified countless times, and of which we have experienced no contradictory instances. It is for this reason that we strive to subsume all other propositions under such

propositions, that we try to consider them as instances of these. We have had a great deal of experience with motion, for example; hence, if we can reduce a phenomenon to motion, we feel that we know something about it. In other words, we reach the greatest possible certainty for our particular inductions when we subsume them under generally accepted principles, or *prove them deductively*. That is why sciences become more and more deductive in the course of time.

It is also to be noted here that, wherever the connection is believed to be a causal connection, one case is as good as a thousand. When I believe that two phenomena are causally related, I am sure that one will always follow the other, because causal connection means a necessary connection, because the notion of cause implies that when one phenomenon appears the other must somehow appear also. When I conceive of a particular case as a case of causality, when I say in this particular case a was the cause of b , I do not need any other cases to convince me that there is a universal relation. I conclude from one to many, because I have already assumed uniformity by assuming causality. Similarly, wherever I conceive of phenomena as necessarily related in any other way, one case is as good as a thousand. When I see that the sum of the angles of a triangle is equal to two right angles, having proved it for a particular triangle by showing that it follows necessarily from the definition of a triangle, then I am satisfied that it will be true of all triangles; and there is no need of my examining any more.

These cases, however, are not cases of induction. When I say, this phenomenon caused that one in this particular case, therefore whenever I have this phenomenon in other cases I will have the other also, I am reasoning *deductively*. By saying that a particular relation is a causal relation, I am implying that it has universal validity. I reason: If a and b are causally related, then when a appears b will appear also. Now a and b are causally related. Hence, when a appears, b will appear also. This is deduction.

(b) How can we *prove* induction? By proof we mean deduction. Our question therefore means: What must we do in order to deduce a conclusion which has already been derived induc-

tively? In deduction we consciously draw a proposition from premises in which it is already implied; we explicate it. Here our conclusion will give us a feeling of absolute certainty, that is, we will feel that if the premises are true, the conclusion must be true, unless we have made a mistake in our reasoning. It is not difficult to construct a syllogism in which the inductive proposition forms the conclusion. For example, if it is true that nature is uniform, that nature repeats itself, that it is a reign of law, then we have a proof for induction. One should remember, however, that this does not make induction deduction. Induction is induction; by *proving* a proposition that has been derived inductively, we do not make induction deduction, we simply apply another process, deduction, to a proposition that has already been derived inductively. The process of *proving* the inductive proposition is not induction, but deduction. Here the certainty of the proof will, as always, depend upon the certainty of the principle of uniformity. The more we believe in this principle, the more certain we shall be of our inductions, the more satisfied we shall be with them.

Induction, therefore, may be proved by assuming the law of uniformity. We are warranted in leaping from part to whole by the regularity, or orderliness, or uniformity of nature. If it is true that nature is uniform, that nature repeats itself, we have the right to conclude from a few instances to all like them. The only problem here is to discover the particular combinations, the co-existences and sequences in nature.

But the question at once arises: What warrant have we for saying that nature *is* uniform? It may perhaps be said that this principle is a postulate of thought, and that it carries its warrant in itself. We cannot prove its truth, but we feel certain that it is true; we accept it without cavil. But is it really a postulate of thought? Does everybody really accept it? Does it inhere so in the nature of our thought that we must accept it?

That depends entirely upon what we mean by it. If we mean by it the clearly conscious thought that nature at large, internal and external nature, is governed by law, that it is a unified system, then we cannot regard the principle as a postulate of thought. In this sense, it is plainly a product of development, the result of much

reflection upon the world, and even then not at all universally accepted. There are many persons who will not admit that external nature is a closed system, exempt from interference, and there are still more who will not admit that the mental realm is subject to law. Interpreted in the above sense, the principle of uniformity must be regarded as the result of reflection upon our experiences. We have noticed many particular uniformities ; we conclude that nature at large is uniform, that is, we consciously ground our proposition upon our past experiences. In this sense, the principle of uniformity is an induction : Because there are uniformities, there is uniformity. And if we try to base the inductive process upon the principle thus understood, we are really reasoning in a circle, as has been so often pointed out. We prove the uniformities by the uniformity, and the uniformity by the uniformities. We say we are warranted in inferring from the particular to the universal, because nature repeats itself, because nature is uniform ; and we say we know nature is uniform, because we discover particular uniformities and conclude from these that there is general uniformity.

We may, however, mean by the principle of uniformity of nature as a postulate of thought, not a clear conviction that nature as a whole is a unified system, subject to law, but the feeling in every particular case that this particular experience, will come again. Here we form no conception of nature as a whole ; but every time we have a particular experience, we expect it to recur. After having a particular experience a number of times, we feel that it will come again, we expect particular things to repeat themselves. Our feeling of expectation here may be called a postulate of thought, and it becomes the psychological ground of our inductive inference. That is, there is no reason for *inferring* that a particular co-existence or sequence of qualities will recur except the *expectation* that it will recur. We feel that what happens in this particular case will happen so again, we *expect* it to happen so again ; we therefore *infer* or *conclude* that, because it happened once, it will happen again. That is, I have no other warrant for inferring that a combination of qualities will recur than the feeling of expectation that it will do so.

THE EXPRESSION OF EMOTIONS IN MUSIC.¹

A COLLECTION of little lines, scattered about without plan or order, is a rather uninteresting, meaningless affair; it has no further significance, and thus it fails to arrest our attention, and sends us on to other, more interesting objects. If, however, the lines are grouped into a geometrical figure, *e. g.*, a square or an octagon, our eye lingers a moment longer; there is plan, unity in the grouping, and we are confronted with a recognizable form. And if, finally, they are arranged so as to give a crude representation of a house, a tree, or a human being, they immediately make an electric connection with our nature, to use an expression of Professor James; they acquire a meaning, and thus possess an interest far beyond that of the collection or the geometrical figure.

So, also, if from a distance we listen to the hubbub of noises from a busy street. At first we get merely a medley of sounds, suggestive of their various origins, perhaps, if we attend to them separately, but without any further significance. If we pick out from this auditory chaos the rhythmic clatter of a horse's hoofs, we obtain a certain individualized, ordered series of sounds, an auditory form, somewhat comparable to the geometrical figure mentioned above. If, finally, we hear somebody shout from the street, announcing some public calamity or cause for rejoicing, we immediately prick up our mental ears and strain our necks to get a glimpse of the speaker. The sounds which produce this effect also have a significance, a meaning, an important symbolic value, and it is this which gives them their firm grasp on our attention.

Poetry, painting, and sculpture deal with meanings and symbolic values like these. Their creations are enlarged and complicated cases similar to those of the crude sketch and the significant utterance. Like these latter, they represent, have meanings,

¹ This essay is a condensation, with certain additions, of the first two of a series of lectures on "The Meaning and Power of Music," delivered at the College for Women, Western Reserve University, during the autumn of 1900.

only their representations are more delicate and detailed, their meanings more extended and comprehensive. Even the highest creations of these arts form no exception to this rule ; the statues of Phidias, the paintings of Raphael, the tragedies of Shakespeare, all have the function of imitating, portraying, expressing, and conveying meanings, as does the crude representation or the startling announcement from the street.

What, then, is the case when we turn from poetry and the fine arts to music? If I sound a tuning fork or strike the note C on the piano, nobody will find a representative value in the tone he hears ; this tone is a mere tone, and, as such, corresponds to one of the scattered lines, or one of the meaningless sounds referred to. Even when I combine it with E and G, I am confident in asserting that the resulting triad embodies no representative or expressive value, no meaning or significance, similar to that which we discovered in the sketch or the startling announcement. It corresponds rather to the geometrical figure formed from the scattered lines : it is an auditory form, pleasing to the ear, to be sure, but without any further recognizable purport. Indeed, even when I bind together a few elementary chords in successive tone-combinations, as students of harmony do in their first exercises, meaning and significance would still seem to be lacking ; I merely get an *extended* auditory form, a *succession* of pleasant tone-combinations, similar in its members to the triad C, E, G, and with an agreeable interconnection of these members. If the triad was comparable to a regular geometric figure, the chord-sequence in question is comparable to a shifting, connected series of such figures, similar to the changing shapes of a kaleidoscope.

Now, does the matter assume a different aspect when we come to longer musical passages, worked out in greater complication and detail, or to complete compositions, like the sonatas and symphonies of Beethoven? The scattered lines and the sounds from the street assume a representative, expressive nature ; does the music in itself also become expressive of extraneous facts?

The question, simple as it seems, does not admit of a simple answer. It is a question, indeed, to which the answers have been

highly divergent, and which has formed the basis of endless controversies. On the one hand, there are the 'formalists,' headed by the brilliant Viennese critic, Eduard Hanslick, who maintain that music is nothing but a beautiful play of tones—tones which are effective solely through their formal relations, and without pointing to or imitating extra-musical realities. On the other hand, there are the 'expressionists,' who maintain that music, like poetry and the fine arts, has, in addition to its purely formal aspect, a significant content, a meaning, on which it depends for its main effect, and which raises it from the level of a worthless kaleidoscopic pastime to that of a true and noble art.

The decision between these two views, as just stated, is not an easy matter. True, if music consisted only of the isolated tones and chords, or the harmonic exercises, mentioned above, we should not long hesitate as to our decision, but should immediately take sides with the formalists. But when we turn to compositions like the Pastoral Symphony of Beethoven, with its "Scene at the Brook," its "Peasants' Merry-Making," its "Storm," and its "Shepherd's Song," in which states of mind as well as objective occurrences are so charmingly suggested; when we recall the wonderfully descriptive overtures of Mendelssohn, the vivid tone-pictures of Berlioz, the exquisite sketches of Schumann; and when, finally, we consider the masterful delineations of emotional conditions and external events throughout Wagner's music-dramas — as exemplified, for instance, in Tannhäuser's description of his journey to Rome and the "Ride of the Valkyries" — we must certainly agree that the expressionists are not theorizing on air, and that it will not do lightly to pass over their arguments.

In view of such compositions, I think we cannot help admitting that music can and may represent extra-musical things. In the first place, it is able directly to imitate certain natural sounds, such as the songs of birds and the noises of animals. Examples of this are found in Haydn's Creation and Beethoven's Pastoral Symphony. In the second place, it may symbolically suggest and represent many physical occurrences, through similarity of motion. It can flow along smoothly, swell forth suddenly,

gently subside again, sweep by majestically, burst forth in crashes, trip lightly, rustle delicately, move hesitatingly, boldly, calmly, playfully. And through these modes of motion it is able to suggest, and in a symbolic way portray, many natural, as well as artificial occurrences and actions. It can represent the fury of the storm, the bubbling of the brook, the rustling of the wind, the rotation of the spinning wheel, the trotting of the horse, and innumerable other poetic manifestations of nature and life. Examples of such dynamic tone-painting abound throughout musical literature. The storm scene of Beethoven's Pastoral Symphony, the prelude of Wagner's *Walküre*, the "Waldweben" of his *Siegfried*, and all the numerous spinning and cradle songs, are familiar examples. Thirdly, since emotional states also have a sort of internal motion, which can be pictured by the musical flow, music is able to portray and give expression to them. We have agitated, calm, stormy, hurrying, hesitating, rushing, energetic, playful states of mind and soul; and these are expressible through the similar and corresponding progressions of music.

The important question now arises whether music *must* thus, like poetry and the fine arts, give expression to extra-musical facts, whether it is of its *essence* to portray and imitate, and whether portrayal and imitation are a criterion of the value of any particular composition? Here we may at once drop the first two kinds of portrayal mentioned above, those, namely, of external, material sounds and occurrences; for, although we meet with them frequently enough, they are, on the whole, of a sporadic and interspersed nature: they occur in such relative scarcity that nobody, so far as I am aware, has ever yet sought for the office and function of music in them. It is rather the portrayal and expression of emotions which has at all times been regarded as the peculiar business of music, and, in my endeavor to decide between the expressionists and the formalists, I shall regard only this aspect of the matter. I shall ask myself: Is music merely a formal play of tones, a sounding kaleidoscope, as it were, without further import or meaning? Or has it, rather, the peculiar office of representing and giving expression to the emotions?

My position in this matter is a compromise, based upon certain distinctions between the meanings of the word 'expression.' In one sense of the word, I believe the formalists are right, in the other, the expressionists; but, on the whole, I incline rather toward the position of the formalists, whose use of the word I consider a more precise one, and one more in harmony with its use in the other arts. If we mean by 'expression' that which corresponds to the definite embodiment of ideas in works of literature, or the definite representation of forms and scenes in sculpture and painting—if we take it as approximately synonymous with 'representation,' 'portrayal,' or 'imitation'—then I should say that the formalists were right, and that it was not the peculiar office of music to express or represent emotions. This is the sense in which we have been taking the word thus far, and I shall adhere to it for the time being, postponing a consideration of its other meanings until later. My contention will then be, that it is not of the essence of music to express emotions, that it need convey no meanings, and that its effectiveness, so far as apparent,¹ flows entirely from the mere tones by themselves and their combinations.²

In support of my view, I think it can be shown, in the first place, that there are innumerable compositions, many of them even masterpieces, in which we can detect no expression of feelings whatsoever, or in which such expression is not at all clearly evident. As Gurney says, "The great point, which is often strangely ignored . . . is that *expressiveness* of the literal and tangible sort is either *absent or only slightly present* in an immense amount of *impressive* music; that to suggest describable images, qualities, or feelings, known in connection with other experiences, however frequent a characteristic of music, makes up

¹ I am careful to say, 'so far as apparent,' because the charm of music, although seemingly residing in the bare musical forms, might nevertheless be due to the hidden, unapparent relations of these forms to extra-musical things. The forms might, for example, be representative of the world-will, as Schopenhauer has suggested, and might owe their charm to this fact.

² I do not, of course, claim originality for all of the succeeding arguments, which have already for the most part been brilliantly stated in the pages of Hanslick and Gurney. All that I claim is to have clothed them in somewhat different terms, and to have brought them forth in new shapes and combinations.

no inseparable or essential part of its function ; and that this is not a matter of opinion, or of theory as to what should be, but of definite, everyday fact.”¹

Take, for example, the *Andante* from Beethoven's tenth sonata. Surely an exquisite little piece, sparkling with beauties, in which almost every measure, like a separate gem, contains charms of its own. Yet could any one detect in it the expression of emotion ? Does the emotion lie in the first measures ? Or does it lie in the first part of the piece as a whole ; and, in that case, are the other parts mere continuations of the same emotion, or does every part express a different emotion ? Or, finally, is it exhaled by the composition in its entirety, rather than by any particular sections thereof ? For myself, I confess that I am unable to detect the expression of emotion in either the separate parts or the composition as a whole ; and yet I have frequently derived genuine æsthetic enjoyment from this composition. My enjoyment, however, was based entirely on the peculiarly musical aspects of the piece ; in hearing the same, I should, to use Gurney's words, be more likely to exclaim : ‘ How beautiful ! ’ or ‘ How indescribable, how utterly a musical experience ! ’ than ‘ How exceptionally peaceful ! ’ or anything of the sort. I enjoy the simple, delightful character of the main theme, the exquisitely appropriate changes from *staccato* to *legato* and from *piano* to *forte*, the interesting disguises of the theme in the variations, and the admirable grouping of these variations. I enjoy the music of it all, the pure music, its melody, harmony, and rhythm ; I seek for no extraneous meaning : the tones are complete and perfect all by themselves, and stand in no need of further commentary in order to thrill and satisfy me.

The same is true with many other compositions. Take Chopin's waltz in A flat major, for example, or the minuet from *Don Juan* ; take the fugues of the old contrapuntal masters, or the dance tunes of our own times : surely, it would seem somewhat arbitrary and unnatural to regard these as expressions of the emotions. Dance music may be gay in character, but we could hardly say, as a rule, that it was an *expression* of gayety : it is

¹ *The Power of Sound*, p. 314.

gay, but does not represent or express gayety. The main body of our enjoyment, in such music, certainly depends on purely musical elements, on the sweeping rhythms, catchy melodies, and sensuous beauty of the tones. But, as Hanslick says, in commenting on the wholesale exceptions to the expressionistic thesis: "If large departments of art, which can be defended both on historical and æsthetic grounds, have to be passed over for the sake of a theory, it may be concluded that such a theory is false."¹

These considerations alone, it seems to me, would suffice for the establishment of the conclusions which I seek; but they are supplemented by others of almost equal force. Not only do we possess highly effective compositions without any recognizable expression, but we also possess expressive compositions with but moderate or little effectiveness. I refer especially to many of our operatic recitatives, which are written with a view to the faithful interpretation and support of the words, but which are often painfully tedious. I refer, again, to much of the programme-music of our own day, the avowed purpose of which is to represent and express, but which often falls far short of the excellence of the less expressive classic compositions. All degrees of effectiveness or ineffectiveness, indeed, are found coupled with expression. While expression does not necessarily point to effectiveness, however, formal beauty—beauty of melody, harmony, counterpoint, or rhythm—always does; we can always say with respect to a beautiful composition: 'What exquisite melody!' 'What rich harmony!' 'What interesting rhythm!' 'What magnificent counterpoint!' or something of the sort—but not necessarily: 'What wonderful expression!'

And, as we may have all degrees of effectiveness accompanying expression, so, to approach the question from the other side once more, we may have all degrees of expression accompanying effectiveness (or ineffectiveness). Many beautiful compositions, we have seen, are characterized by no expression whatever; but even where there is expression, it is in no constant relation what-

¹ *The Beautiful in Music* (translated by Gustav Cohen, London and New York, 1891), p. 43.

ever to the effectiveness. It may range through all degrees of prominence — from its most incipient and vaguest presence to the very definite and pronounced delineation of programme-music — without offering us thereby the least indication of the value of the music. We have little or no expression in many of the fugues and instrumental works of the older masters, and considerable in our modern romanzas and recitatives — and yet the former may be on a par with the latter, or even outrank them in beauty. We have more expression in Beethoven's fifth and sixth symphonies than in his eighth, and yet one would hesitate off-hand to pronounce any one of these markedly superior to the others. Marx divides music into three classes : tone-play, language of feeling (or music of the soul), and ideal representation (or music of the mind and spirit); and he places Beethoven's giant sonata, Op. 53 — the grand *Waldstein* sonata — into the class of mere tone-play, while sonatas like numbers one and two find their places under the heading of language of feeling. Yet who would for a moment dream of setting these earlier compositions above the magnificent *Waldstein*?

In view of all these converging and mutually furthering lines of argument, it would seem as if our conclusion ought now to stand forth clearly. The whole literature of music, indeed, appears like an elaborate, systematic experiment, which demonstrates that musical beauty is not bound up primarily with the expression of emotions. This conclusion might perhaps have been arrived at even more quickly through methods of direct introspection. A careful examination of our state of mind, during the appreciation of a piece of music, would show, I think, that our enjoyment had its main roots, not in the recognition of any expression, but in the unique, indefinable, intrinsically musical qualities of the tones. The greater part of the musical beauty, from the point of view of expression, is left unaccounted for, and falls through the meshes of the interpretations. The expression becomes evident only upon the hearing of longer sections, or crops out merely at isolated moments, while the enjoyment is always present, and drops into the mind measure by measure, or even note by note. Even the most extreme expressionists, I believe, admit

that the interpretation cannot be hunted down to the individual measures and notes. Would not the conclusion seem to follow, then, that the musical beauty which adheres to the measures and notes, is not dependent on expression and interpretation?

But, pending the personal introspection which would be necessary for the establishment of this conclusion, the differences in the amount of expression which various people see in the same compositions, and the similarity of the enjoyment which may accompany all these differences, point to the same conclusion. We may have the most elaborate, minutely-detailed interpretations, on the one hand, and a total lack of all interpretation whatever, on the other, with many intermediate degrees between the two, and yet the enjoyment may in all cases be equally deep and genuine. Gustav Engel, for example, finds in the introduction to the second act of *Fidelio* the portrayal of the underserved, severe suffering of a noble man, who, for the sake of virtue and justice, has become the victim of a villain. Hanslick, on the other hand, would probably find very little representation or expression whatever in this passage; and yet Hanslick's enjoyment is presumably just as real as Engel's. It is, of course, allowable to read meanings into music, and with some people such a procedure will cause a marked heightening of pleasure. What I maintain is that musical enjoyment is, in its essence, not dependent on such interpretations, and that it may also be reaped by those who abstain from making them.

This, indeed, is the crucial point, that compositions may be thoroughly enjoyed, not only by those who see in them the definite expression of emotions or other extra-musical facts, but also by those who regard them as purely formal combinations of tones. We may have interpretations of all degrees of definiteness—from the minutely detailed ones, similar to Engel's, through ever less and less detailed ones, down to the lack of all interpretation whatever, in formalists like Hanslick—and yet, we may venture to say, the enjoyment may be equally deep and genuine in all cases. This enjoyment can be explained just as easily by referring it to the exquisite instrumentation, the rich, unusual harmonies, the wonderful melodies, etc., as by appealing

to the emotions which are supposed to be depicted. What I mean is, that we need think of nothing but these beauties of instrumentation, harmony, and melody, as the cause of our enjoyment, without making any reference whatever to external meanings. We are, accordingly, brought back once more to the formalistic conclusion, that the expression or portrayal of emotions is not an essential function of music, and that this art is primarily nothing but a beautiful play of tones.

I would repeat, however, that this conclusion is bound up with one particular meaning of the word 'expression,' and that there are other meanings, in accordance with which it may be proper to speak of music as an expression of the emotions. It might be well to bring all the meanings together in one statement, for their better comparison and distinction. The following sentence will subserve our purpose: "The thoughts which Emerson expresses in these sentences, and which express so beautifully the underlying soul-life of the man, express much that I have often vaguely felt, but have never been able to express." In this statement there are at least three distinct meanings of the word in question.

The first meaning refers to the definite, specific thoughts formulated by the sentences under consideration, to that which they alone denote, and which perhaps no other sentences ever written precisely convey. It refers to their contents *par excellence*, to the ideas which they embody and present, as on an intellectual plate or tray, and as they are opposed to thousands of other ideas which they might possibly have embodied. Thus, if one of the sentences reads: "Self-trust is the essence of heroism," this sentence would, in the first sense of the word, express simply this fact, that self-trust is the essence of heroism, not that self-trust is not the essence of heroism, or that heroism is fine, or that two times two make four. In this sense, literature expresses or represents life; and in this sense, as we have seen, music need express nothing at all, and Hanslick is justified in calling it a purely formal art.

The second meaning, contained in the clause: "which express so beautifully the underlying soul-life of the man," does not refer

to the directly formulated content of the sentences, to that which they were *intended* to formulate, but to a secondary manifestation or side-branch thereof, to something which they exhale, as it were, and which is additional to their main purpose. It is in this sense that a man's literary or artistic taste expresses the nature of his education ; or his walk, voice, carriage, handwriting, and the like, give indication of his temperament and character. This use of the word is entirely distinct from the first. We might substitute certain other sentences for those under consideration, thereby completely changing their expression according to the first sense, and yet keeping the other intact ; for the substituted sentences might be as good an embodiment of Emerson's soul-life as the original ones.

The third meaning—embodied in the words : “express much that I have often vaguely felt”—differs from both the other meanings. What is here expressed was already present in the mind, although vaguely and indistinctly, and the word ‘express’ refers rather to its matching and reflection than to the formulation and presentation of definite new thoughts ; it refers rather to the correspondence of the thoughts phrased with my thoughts, than to their own specific content. The same sentences of Emerson might, in this sense of the word, exactly express what one person feels or thinks, and the opposite of what another feels or thinks ; and yet they would be identically the same sentences, in both cases, and would all along be expressing the same thoughts and personal traits, in the first two senses of the word.

The case of a pianist performing before an audience will also serve to illustrate the various species of expression. In the first place, the composition he is rendering may be expressive and representative of objective facts and feelings. This would correspond to the direct, specific embodiment of thoughts in the sentences above. Then, again, being selected by the virtuoso in preference to other compositions, it may be expressive of his tastes and personality—which would correspond to the reflection, in the sentences, of Emerson's nature and soul-life. And, finally, it may be expressive of the feelings of the listeners, in the sense in which the sentences are expressive of the reader's thoughts.

If a distinct designation of these various species of expression were desired, we might style the first an expression of *direct embodiment, representation, denotation, or content*. The facts expressed are represented or denoted by the words or tones, and directly held forth as their content. Three elements or factors are present in this sort of expression, two of them objective, *i. e.*, the work itself and its expressed content, and one of them subjective, the perceiving mind.

The second kind of expression, typified in the indication of the author's or virtuoso's personality, might be styled an expression of *indirect embodiment or connotation*. In this case the things expressed are not directly embodied or held forth, but are merely reflected or hinted at in a secondary, indirect manner. As before mentioned, it is in this sense that a man's footstep, carriage, handwriting, gesturing, etc., are expressive of his personality. It is not of the purpose or essence of these things to give indications of personality, and yet they may cast them off as sidegleams or exhalations. Though not *denotative*, they are *connotative* of the personality behind them. In the case of this second sort of expression, likewise, three factors are present: the expressing medium, the thing expressed, and the perceiving mind.

The third sort of expression, finally—typified in the agreement with the reader's thoughts or the arousal of the listener's emotions—may be designated as an expression of *parallelism, contagion, or sympathetic arousal*. The words or tones run along, as it were, in parallel motion with the thoughts or feelings; they form a sort of reflection of them and sympathetically awaken and nourish them. Only two elements or factors are operative in this case, instead of three: one is objective, the expressing medium or work, and the other subjective, the perceiving individual. The expressed content lies in the subject himself, instead of in the object, and the expression consists in drawing this forth and harmonizing with it, rather than in the presentation of a novel, objective content.

Now music in its entirety, like the single composition of the virtuoso, may be expressive in various senses: it may be so by denotation, by connotation, and by contagion or sympathetic

arousal ; but not all the different varieties are equally important. The first kind, as above indicated at some length, is not essential in nature ; I regard it merely as an incidental and contingent factor ; I agree with Hanslick that the intrinsic beauty of music is in no wise bound up with it, and that, while certain compositions may, to be sure, make use of such expression, great numbers of the finest works show hardly a trace of it.

The second sort of expression — by indirect embodiment — is also present in music : since everything we do or construct is capable of embodying expression in this sense, music, of course, is equally significant. But here, likewise, the beauty and effectiveness is in no wise bound up with the expression. Just as a disagreeable style of shaking hands or laughing may form an excellent indication of personality, so a mediocre composition may afford us a good insight into the nature of its composer or performer. The amount of connotative expression and the artistic excellence, in short, stand in no constant relation whatever to each other.

In regard to the third sort of expression, on the contrary, the case is different. Here I am not disinclined to agree with the expressionists, that expression forms an integral part of the very essence and purpose of the art, and that in its absence music sinks to a mere empty jingle of sounds, or to a dry and quasi-mathematic, intellectual pastime. I do not positively uphold this view, but merely grant its plausibility. Just as a speaker's peroration or poet's verse may exactly voice and match one's sentiments and thoughts, fitting them so beautifully as almost to draw them forth with magnetic force, so music, when one fully enjoys it and is completely carried away by it, might be held to elicit and draw forth the feelings, swaying to and fro with them as in a delightful dance of the soul. Every inner tension, every shade of feeling, is matched and answered by a corresponding movement of the tones. Our feeling, for instance, may be swelling with a *crescendo* ; then, just as it is about to call out 'enough !' and ask for a *diminuendo*, lo ! the tones have answered its call and the *diminuendo* has set in. Every tone of the musical progression finds a corresponding resonator in the soul, every slight-

est tendency of the soul finds firm, supporting arms in the music, which steady it and lead it to its fullest realization. Doubtless it is this arousing, furthering, and supporting of the feelings, this reciprocity of motion, this fluent 'give and take' between the feelings and the musical progressions, this delightful interplay of stimulation and response, on which the expressionistic thesis is largely based. But it is not necessary definitively to decide on the legitimacy of its conclusions at the present moment. The important thing to remember is, that there are various kinds of musical expression, and that the art of tones may very well be bound to the observance of one of these kinds, and not to that of the others.

It would be in order now, to prove that the actual differences of opinion, in reference to this subject, have had their basis in the different interpretations of the word 'expression,' and that, while one of the contending parties has upheld and the other denied the necessity of expression, both have had different kinds of expression in mind. Let us begin with the champion of formalism, Eduard Hanslick, and examine his use of the critical word. "The subject of a poem, a painting, or statue," he says, "may be expressed in words and reduced to ideas. We say, for instance, this picture represents a flower-girl, this statue a gladiator, this poem one of Roland's exploits. . . . The whole gamut of human *feelings* has with almost complete unanimity been proclaimed to be *the subject of music*. . . . According to this theory, therefore, sound and its ingenious combinations are but the material and the medium of expression, by which the composer represents love, courage, piety, and delight. . . . The beautiful melody and the skilful harmony as such, do not charm us, but only what they imply: the whispering of love, or the clamour of ardent combatants."¹

It is quite clear that Hanslick is using the word in its first sense; and the same is true likewise of that other profound and logical upholder of the non-expressive nature of music, Edmund Gurney. In Chapter XIV of his important work, *The Power of Sound*, he says: "So far we have been considering music almost

¹ *Op. cit.*, pp. 32 ff.

entirely as means of *impression*. . . . We have now to distinguish this aspect of it from another, its aspect as a means of *expression*, of creating in us a consciousness of images, or of ideas, or of feelings, which are known to us in regions outside music, and which, therefore, music, so far as it summons them up within us, may be fairly said to *express*.”¹

Turning to the champions of musical expression, we first meet with the æsthetician, Hand. In his treatise, *Æsthetics of Musical Art*, he devotes considerable space to a consideration of the relations between music and the emotions. So far as I have read the book, I have met with no distinct and exact definition of the word ‘expression,’ but from numerous passages it is clearly evident that his conception of the same is entirely different from that of Hanslick and Gurney. “Representation and idea,” he says, “choose the words of language for their tokens, but where the feeling attains to expression without further mediation, musical sounds serve it. . . . [Music] gives only feelings and inner emotions — without signs that may be immediately associated with an idea, and not imitatively, whereby comparison may be made with an original. . . . We do not wish to perceive individual things, which, for the most part, fall to the lot of sensuous contemplation, nor does the real listener to music seek for a translation into ideas. . . . Truly, we cannot expect objective representations in music, but only inner conditions of life, and even these not in abstractions, but in immediate appearance, and for direct transmission into other souls. The excited and moved life of him who sings and produces music, propagates itself, exciting and moving, into the soul of the listener, and a more intimate conformity and blending is not possible. . . . The play of tones transplants us into the same state of feeling, and thus verifies the contents.”²

It is evident, I think, that Hand has the third species of expression in view. His remarks about the moved life of him who produces music propagating itself, exciting and moving, into the soul of the listener, and about the play of tones transplant-

¹ *Op. cit.*, p. 312. See also the quotation above, on p. 416.

² Quoted from various sections of the translation by Walter E. Lawson, London, 1880.

ing us into the same state of feeling, and thus verifying the contents, seem to leave no room for any other interpretation. But still more certain is it, that the expression and representation he would claim for music is not of the first kind, dwelt on by the formalists. His divergence from the position of the latter is also brought to view clearly in the light of two statements from the authors before considered, the first of which is from Gurney and the second from Hanslick: "However *impressive* a phenomenon may be, . . . we have no right to call it *expressive*, unless we can say what it expresses";¹ and "The query 'what' is the subject of the music, must necessarily be answerable in words, if music really has a '*subject*.'"² Compare with this Hand's statements that the real listener does not "seek for a translation into ideas," and that music gives feelings and emotions "without signs that may be immediately associated with an idea, and not imitatively, whereby comparison may be made with an original," and the conviction must settle upon the mind that the two parties are disputing about altogether different things.

But Hand is not alone in his interpretation of the subject. Ambros, in his treatise, *The Boundaries of Music and Poetry*, says: "Music conveys moods of finished expression; it, as it were, forces them upon the hearer. It conveys them in *finished* form, because it possesses no means for expressing the previous series of ideas which *speech* can clearly and definitely express. . . . Now, *the state of mind which the hearer receives from music he transfers back to it*; he says: 'It expresses this or that mood.' Thus music receives back its own gift, and thus we perceive how the best intellects . . . could claim for music, as a fact beyond doubt, so to speak, the 'expression of feelings.'"³

Again, it is the third meaning of the term 'expression' on which the expressionist conclusion is based. The differences of interpretation, accordingly, seem to oscillate between the first and third uses of the word; but the second is sometimes also employed, as witness the following quotation: "The musician formulates the direct expression of man's innermost feelings and

¹ *Op. cit.*, p. 125.

² *Op. cit.*, p. 162.

³ *The Boundaries of Music and Poetry* (translated by J. H. Cornell, New York, 1893), p. 53.

sensibilities. . . . The story of music has been that of a slow building up and extension of artistic means of formulating utterances which in their raw state are direct expressions of feeling and sensibility.”¹ The term ‘direct’ must not mislead us into the belief that the author is here referring to expression by denotation ; the connotative nature of the expression is confirmed a moment later, when the “ dog reiterating short barks of joy . . . at the sight of a beloved friend or master,” is instanced as a case of direct expression. To be sure, the author is not at present engaged in a consideration of the subject of formalism and expressionism : the quotation was introduced merely to show how indiscriminately all three interpretations are employed, and how, in consequence, misunderstandings can easily arise.

Is it a wonder, indeed, in view of the uncertain, shifting nature of the term ‘expression,’ that disagreements and controversies should result ? And is it not evident that the variety of interpretations is, in fact, to blame for the differences of opinion ? Ordinarily, of course, the use of the word ‘expression’ is attended by no difficulties, and there is no necessity of making its exact signification plain ; but the art of tones seems to be a sort of critical region, where the various meanings diverge, and where the most various results ensue, according to our emphasis on the one or the other interpretation.

The question may now be asked : Which one of the interpretations is the more proper ? To me it seems, as indicated above, that the preference should be given to the first, as agreeing most closely with the use of the word as applied to the other arts. We should hardly refer, when asked for the content of poetry or landscape-painting, to the mental and emotional states they arouse and express, but rather to the thoughts and scenes they set forth and portray. It is the absence of such a definite content in music that throws our mind over to the other sort of expression — by sympathetic arousal — and that leads us to regard music as an expression of the emotions. Poetry, likewise, might be considered expressive in this sense ; the feelings it arouses, it seems to me, sway along with the words in very much the same manner in which the emotions awakened by music cling to the

¹ Parry, *The Art of Music* (New York, 1893), p. 4.

tones. But since poetry also has its direct, denotative sort of expression, we pay attention mainly to this, letting the other drop out of sight. If, however, instead of playing on our emotions with tales of love, war, heroism, and the like, and thus conveying definite, attention-absorbing meanings, it were to do so by symbolic means, by verses without any specific meanings, but which, nevertheless, aroused the same emotions as the representative words, some of the attention now bound to the specific content of the words would be set free, the rise and fall of the feelings in accordance with the cadences of the symbolic verses would obtrude itself, and poetry might also, like music, come to be regarded as an art which had the feelings for its subject-matter, and whose function it was to express these feelings.

And yet it would have gained this function, not by an addition of content, but rather by a loss; by the loss, namely, of those definite ideas which at present it is its function to express. Music, it seems to me, corresponds somewhat to such a denuded poetry — a poetry divested of its definite meanings and producing its emotional effects by mere symbols. If we are to adhere to one point of view, and pull together with the other arts, we are bound to say that music expresses nothing and has no contents in the sense in which this can be affirmed of the other arts.¹

However, an author has the right to use his terms in any legitimate sense he pleases; and, if he chooses to employ the word 'expression' with another signification, we have no alternative but to follow him and judge of his statements from his own point of view. The important thing to establish is the fact that there *are* different interpretations and points of view, and that the differences of opinion are due to this circumstance. This, I dare to hope, has been accomplished in the preceding pages. The formalists, as we have seen, are right when they maintain that music need not be expressive in the sense of a definite portrayal or denotation; and the expressionists may be right when they insist that it shall awaken, nurture, and harmonize with the feelings, and thus express them by contagion or sympathétic arousal.

ALBERT GEHRING.

¹ This, of course, forms no contradiction to the statement made above, that music can and may, incidentally and secondarily, express external things and emotions.

REVIEWS OF BOOKS.

Grundzüge der physiologischen Psychologie. Von WILHELM WUNDT. Fünfter völlig umgearbeitete Auflage. Bd. I u. II. Leipzig, Engelmann, 1902. — pp. xv, 353; viii, 686.

The completion of the fifth edition of Wundt's chief work on psychology may be anticipated as the culminating point in the career of a great man of science. Although the second of the two volumes now before us does not even carry the discussion through the subject of sense ideas, and leaves the fourth, fifth, and sixth parts, on "Gemüthsbewegungen und Willenshandlungen," "Bewusstsein und Zusammenhang der seelischen Vorgänge," and "Ursprung und Principien der geistigen Entwicklung" for a third volume, yet the mass of new material already published is so considerable that only the most summary consideration of it is possible within the limits of a single review.

It will be seen from the headings just quoted that the work has been rearranged. In the fourth edition, "Gemüthsbewegungen" were treated under "Bewusstsein und Verlauf der Vorstellungen," and apart from the discussion of the will. The portions of the fifth edition that have been published also show some noteworthy changes in the order of treatment. Decidedly the most important is the reorganization of Part III, on the formation of sense-ideas. The fourth edition treated successively touch and movement ideas, auditory ideas, visual ideas, and elementary æsthetic feelings. The fifth edition uses instead of this division — which, as based on a relation of sense ideas to sense organs instead of on their internal character, may be termed physiological rather than psychological — the division of the *Outlines*, into intensive, spatial, and temporal ideas. Another considerable rearrangement, considerable in extent at least, is the introduction, in Part I of the chapter on Physiological Mechanics of Nerve Substance, before instead of after those on Development of Forms in the Central Organ, and Course of the Paths of Nervous Conduction. Further instances of change in the order of treatment, such as the different classification of geometrical illusions, involve the introduction of so much new material as to be practically reconstructions.

Besides rearrangement, the altered features of the fifth edition are, naturally, the omission of old matter and the insertion of new. As the greatly increased bulk of the work indicates, the omissions are

relatively inconsiderable, being mostly the dropping here and there of discussions on topics no longer of current interest, such as the relation of 'Seele' and 'Geist,' and a criticism of faculty psychology, which, occurring in the introductory chapter of the fourth edition, are now replaced by an outline of the plan of the book. Wherever possible, the form of expression has been condensed to make room for the new material that offered itself in such abundance. This latter came from two sources: on the one hand, the results of psychological research within the last ten years; and, on the other, the changes that have taken place in Wundt's own attitude on theoretical points, his re-thinking of certain problems. The second source has of course the greater interest. It does not, however, seem possible to draw a hard and fast line between the two classes of changes as one surveys them: sometimes, for example in the case of the more genetic treatment of sensation found in the present edition, it would be difficult to say whether the causes of the alteration were more objective or subjective. It will be best, perhaps, to follow the chapters through in order and note as they occur the modifications that have made this book, in the author's words, "almost a new one."

In Part I, on the nervous system, practically all the noteworthy changes have occurred as a result of recent investigations in nervous physiology, the development of the neuron theory, and the more detailed tracing of sensory and motor paths. There is indicated one modification of attitude on Wundt's part: a much more definite assertion of the inhibitory character of the apperception center's functions (*c. g.*, I, 326). The tendency towards a mechanical interpretation of the movements of protozoa, shown in all recent biological research on the subject, calls forth a more emphatic assertion of the Wundtian doctrine that consciousness accompanies the earliest and simplest animal movements — an assertion supported chiefly by the statements that the amoeba returns to a supply of food, and that many ciliate infusoria chase others with murderous intent (I, pp. 21-22). The sections on the visual and speech centers now contain (pp. 312ff.) a discussion, practically identical with that in the *Völkerpsychologie*, of the associations involved in the word as a conscious process.

Part II begins with a new and much needed chapter on "The Fundamental Forms of Psychic Elements." One naturally turns for comparison here, not to the fourth edition of the *Physiologische Psychologie*, but to the last edition of the *Outlines*, whose classification of conscious processes is repeated and more fully discussed. The epistemological basis of Wundt's division of mental elements is stated with the utmost

clearness on page 345. "We may," he says, "divide all the contents of consciousness into objective and subjective, understanding by these terms simply the fact that the former are referred to external objects given to the perceiving subject; the latter, on the other hand, directly to the state of the subject himself." To these two classes correspond ideas and affective processes; analysis of ideas yields sensations as mental elements, that of affective processes yields feelings. On the next page, Wundt rejects the useful distinction between perception and idea, because it "mixes the psychological fact with an epistemological reflection"; one might make a fair comment of the *tu quoque* order. Professor James's anti-analytic position is attacked in a note (page 357) on the ground that, as one must analyze in some sort to write psychology at all, refusing to search for elements is merely putting an arbitrary limit to one's analysis.

The most striking new feature in the chapter on "The Physical Conditions of Sensation," aside from the modifications occasioned by the results of research in taste, smell, and the dermal senses, is the genetic treatment above mentioned. The development of the sense organs through the lower forms of animal life is discussed with some detail, the relationship of the organ of hearing to the 'tonic' organ, and that of all the senses to touch being fully considered.

Wundt's interpretation of Weber's Law gets a new and clearer formulation in the treatment of sensation intensity. The motive for this alteration is found in the examination of Merkel's Law, which is explained as involving absolute instead of relative comparison of sensation differences, because (1) the differences are far above the limen, and (2) three sensations instead of two are compared in each experiment. Weber's Law is still based on the principle of relativity, but this principle is now declared to hold only for intensity comparison. In a note on page 544, the author answers Ebbinghaus's criticism of the psychological interpretation, to the effect that if it were true Weber's Law ought to hold for pitch differences, by saying that Ebbinghaus evidently fails to observe the fact that "we are not comparing vibration rates but tone qualities." This limitation of the principle of relativity to the comparison of sensation intensities is obviously a point of great importance in Wundtian doctrine.

Under "Tast und Gemeinempfindungen," in the chapter on "Quality of Sensation," there are included the results of research on pressure, temperature, and pain spots: the sensation of pain is now classified as a skin sensation instead of under organic sensation alone. There is a new and full discussion of the central components of the

consciousness of movement. To account for the apparent absence of specific end-organs for warmth and cold, these sensations are explained as due to inhibition or increase of the normal process in the nerves supplying the skin, occasioned by the contraction of blood vessels through cold and their dilation through heat. "According to this hypothesis, temperature points are to be regarded simply as those places on the skin where vasomotor fibres of a particular kind, constrictors in the case of cold points, dilators in that of warm points, are specially easy of access to external stimuli" (II, 15).

The new material in the sections on smell and taste comprises mainly the genetic discussion of these senses and their relation to touch, together with a consideration of recent experimental work, especially that of Zwaardemaker. Noteworthy is this statement on page 62 : "The experiments on taste mixture show that, aside from alkaline and metallic sensations, these four [sweet, salt, bitter, and sour], while they are functionally most important and most sharply defined by the local differences of the end organs, are certainly not the only ones. The sensation arising in the compensation of sweet and salt, in particular, is not identical with any of the others nor can it be regarded as a mere sensation of touch : it is a taste quality for which we have no definite name."

Lack of space forbids more than a mere enumeration of the additions to the section on sensations of sound. They include a fuller discussion of interval discrimination, upper and lower tone limina, temporal and change limina for tones ; a completely revised treatment of beats, laying emphasis on the various psychological stages produced by the physical phenomena of interference ; a much clearer explanation of combination tones ; sections on 'tone absorption,' ("We may speak of tone-absorption when a single tone out of two or more completely obliterates the others in sensation, and when the phenomenon cannot be referred to the overcoming of the tones through merely intensive differences,") fusion, and noise ; and a discussion of how to modify the Helmholtz physiological theory to accord with the subjective phenomena of beats and combination tones. In the paragraphs on fusion, Wundt takes, with characteristic tenacity, the part of Schulze against Stumpf.

The first subsections under "Visual Sensations," on "The Simple Colors," "Color Mixing," and "Intensity of Sensation," are comparatively little altered, but the treatment of adaptation is necessarily almost entirely new, and, of course, greatly modifies the discussion of the distribution of color and brightness sensibility on the retina. Basing the

statement on the experiments of his pupils Hellpach and Sherman, Wundt maintains that the distribution of color sensibility is not influenced by the condition of adaptation existing in the eye. The new treatment of after-images is marked chiefly by the introduction of paragraphs on Talbot's Law, by caution in the use of the term 'fatigue,' and by accounts of the quantitative work done on the course of the after-image and the time required for it to reach its maximum. The curious statement of the fourth edition, that the flight of colors occurs only after instantaneous stimulation, is repeated.

Most important in the revised discussion of contrast is the stress laid on the distinction between 'Flor-,' 'Contact-,' and 'Randcontrast.' On the basis of the results of Lehmann, Neiglick, and Kirschmann in brightness contrast, and of Köhler in color contrast, the conclusion is formulated that the two forms in the case of 'Florcontrast' follow quite different laws as regards the relation between the contrast effect and the brightness or saturation degree of this inducing field. The relation of brightness contrast to the brightness of the inducing field is a constant proportion, that is, Weber's Law holds. That of color-contrast to saturation in the inducing field is, on the other hand, an approximately absolute constant. Saturation grades being regarded as qualitative differences, we have, according to Wundt, another instance of the fact that Weber's Law applies only to intensity comparisons. In the fourth edition the law is supposed to hold for color contrast also. By the way, Fig. 207, on page 216, has been by an error reversed.

In the formulation of Wundt's color theory, the present reviewer does not note any very important change. The author makes use of the facts of adaptation, and of the difference between the behavior of brightness and color components in after images, as further evidence of the independence of chromatic and achromatic processes. And the physiological concomitant of black, which in the fourth edition was called 'a permanent excitation process in the retina,' is now explained to be an inhibitory process which accompanies every excitation process in the retinal elements, as in the nervous system throughout. For the relation of black and white, Wundt is now ready to adopt the Hering concepts of assimilation and dissimilation (II, p. 248). The theory of contrast is of necessity entirely new, since the principle of relativity can no longer apply to qualitative comparisons. In the fourth edition, one of the author's objections to a physiological contrast theory was that on this theory contrast ought to increase with the intensity of the inducing stimulation. In the fifth edition, he is

willing to admit a physiological theory for 'Randcontrast,' which does increase with the intensity of the inducing field. To explain 'Florcontrast' he has recourse in addition to the psychological principles of 'associative Angleichung und Contrast.' That is, the contrast effect produced physiologically at the edge is extended over the whole surface by 'associative Angleichung,' after the fashion of the filling out of the blind spot, while, "on the other hand, the inducing color or brightness operates first on the marginal contrast itself, and then on the diffuse contrast proceeding therefrom, in such a way as to increase the difference between the sensations." Neither the essential nature nor the necessity of this 'associative contrast' is clearly expounded.

The chapter on feeling is, as was to be expected, entirely new. Feelings are now elements, no longer 'the feeling tone of sensation.' The sections of the chapter are entitled "Methods of Feeling Analysis," "Fundamental Forms of Feeling," "Properties of Simple Feelings," "Combinations of Simple Feelings," "General Theory of Feeling." In the third section, we have a more definite statement of the relation of the six feeling directions to the properties of feeling in general than has been given before. It now appears that strain, relaxation, and the rest are components of the quality of the feeling, analogous to the three dimensional components of a movement (II, 306). But the components of a movement are present only in abstraction; is this also true of the components of a feeling quality, or are the excitation, pleasure, etc., actually separable in the conscious state by introspection? The latter is expressly denied (p. 307), and yet the examples of feeling analysis given, *e. g.*, in the passage on page 285, where the feeling resulting from entering a dark room is introspectively analyzed into unpleasantness and depression, are hard to understand except as concrete analyses. Surely, if the attempt to characterize an elementary conscious process requires a double analysis, first into properties and then into components, it would be better to give up calling it elementary, and to recognize that we are dealing with a mental complex. On page 344, Wundt distinguishes simple from complex feelings by saying that the components of the latter, simple feelings, may exist independently as 'real conscious contents,' while the components of a simple feeling result only from an abstract analysis. But we may have simple feelings with only a single component (p. 288), which comes perilously near the occurrence of a component as a real conscious content.

Chapter XII is on Intensive Auditory Ideas. The first two sections on "Auditory Ideas as Intensive Ideational Combinations," and "Forms

of Noise," are entirely new: the latter deals chiefly with vocal sounds as typical noise-forms. In the section on "Clang-Forms," the discussion of constant and variable 'Klangverwandtschaft' is the most important addition; direct and indirect tone-relationship are more fully treated than before. The principles of tone absorption and tone fusion are applied to the section on the theory of intensive auditory ideas. A noise is distinguished from a clang by the fact that tone absorption prevails in it over tone fusion; noises are "diffuse fusions of clang components and noise components proper, wherein the latter are themselves produced from tonal excitations through the process of tone absorption." A clang is a tonal fusion in which one dominant tone gives to the whole its fundamental character. Four conditions of consonance are enumerated: the number of primary difference tones — the fewer there are, the simpler the combination; the "regularity of the ratio of tone distances," *i. e.*, the fact that the fifth and fourth represent halves of the octave, the major and minor third halves of the fifth; direct and indirect clang relationship; and fusion degree.

There are no very important changes in the discussion of extensive touch ideas, unless it be the emphasis now laid throughout on the influence of visual associations on tactile localization. The revised treatment of geometric-optical illusions is the chief new feature of the chapter on extensive visual ideas. In the fourth edition, it will be remembered, these illusions were divided into two classes, illusions due to asymmetry of muscular action, and illusions affecting the manner of filling out the visual field. For this classification, obviously not based on a single principle, the author now substitutes one practically identical with that used in his *Studien* article, "Zur Theorie der räumlichen Gesichtswahrnehmungen" (XIV, 1). The divisions are now as follows: (1) Illusions of reversible perspective; (2) variable illusions of extent and direction with coöperating ideas of perspective; (3) constant illusions of extent and direction without coöperating perspective; (4) associative illusions. The section on the depth-perception differs from the corresponding passage in the fourth edition mainly in introducing a discussion on diffusion circles as a monocular factor. There is at the end of the chapter a completely revised and more systematic account of the Wundtian theory of visual space, which, however, remains the same in its essential features. It is still open to the *à priori* objection that the mental synthesis it assumes is impossible, but no *à priori* objection can preclude the admission that it takes thorough and skilful account of the facts.

We have reviewed in the briefest possible manner the modifications of old doctrine which this edition presents. Many minor points have remained unnoticed, and there has been practically no space for discussion and comment. Perhaps the foremost general impression produced by a comparison of new with old is that, while many changes have come about through various sources, scarcely any have arisen from the criticisms and attacks of others upon Wundtian theories. Wundt is influenced by new facts and by his own processes of reflection; very little by the reactions of other minds upon his doctrine.

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Life in Mind and Conduct: Studies of Organic in Human Nature.

By HENRY MAUDSLEY. London, Macmillan & Co.; New York, The Macmillan Company. 1902.—pp. xv, 444.

Readers of this somewhat unusual volume will certainly not find its pages dull. If stirred in no other way, one will certainly be incited by the implied challenges which meet one at every step. In fact, the wealth of topics touched upon, the richness of material available for the author's use, the outspoken manner of treatment, and the general atmosphere of confidence, born, apparently, of mature reflection, conspire to give a quite unusual flavor to the volume as a whole. The reader may not endorse the general point of view adopted, and he may be wholly out of sympathy with many or all of the particular conclusions reached. Still, he must applaud the author constantly for seeing well when he looks, and for cleverly stating his shrewd observations. The book is made up of a series of thirty-nine essays, and, as the title suggests, these deal with varying phases of life as exhibited in individuals and in social groups. Organic Structure and Function, Social Atonement, The Ideal, Lies, War and Peace, Religion, Habit, Truth, Mental Culture, Love, Grief, Heredity, Genius, Crime, Pain, Death—these are representative topics from the Table of Contents. The avowed object of this book is "to exhibit the continuity of organic nature through all human functions—in fact, to adduce evidence for the development of life," with no thought, however, "of writing a methodical treatise nor of setting forth any system of doctrine." Modestly disclaiming for his writing any further novelty than that coming from accentuation and concurrence of material, the author appears everywhere as the genial philosopher of ripe years, surveying and interpreting the world of happenings in the light of settled convictions, wielding the instruments of thought that biology, psychology, ethics, and social science place at his disposal, and com-

menting at every point on the trend and inner significance of it all. In these respects one is reminded of Lotze. Indeed, we seem to have here before us a later *Microcosmus* in English garb.

Two points are of capital importance for the correct understanding of these essays. Though not closely articulated, though not systematically contributing to any single line of argumentation, they yet express a unified point of view to be found in the notion of 'organism.' In fact, this is the pass-word to the book. It matters not whether this organism be physical or social, its nature — its becoming — has been, and will be, determined by the processes of physical evolution. The philosophy, of which the resulting treatment is an outcome, is nowhere clearly enunciated. But chance remarks allow us to conjecture with slight risk of error that the writer is an advocate of "materialism, understood in its best sense." This point of view is consistently maintained throughout.

The second point concerns the temper of the author's mind. This may, perhaps, be characterized as a mild and sometimes genial cynicism. Regarding man as in the very nature of things victimized by illusions, as prone ever to exhibit a "colossal egotism," as necessarily believing and adoring monstrous absurdities and displaying at every point folly and short-sightedness, the author seems always — to paraphrase his own words — to embody the smiling and kindly contemptuous indulgence shown by old age to the enthusiasms and follies of youth, with a smilingly tolerant outlook on man's foibles, follies, frauds, vices, aberrations, aspirations, ambitions, and achievements. This, the author would have us think, is the only possible outcome of "viewing things calmly and at large in reason's light." Such is the spirit that pervades the book.

To pass now to more particular matters, Maudsley's psychology, springing as it does from the unbridled rioting of biological conceptions, often leaves much to be desired. One is forced to suspect that his information in this field has not undergone revision since the time of his former writings. For instance, we are told that psychology hopes one day to be *mathematical* (p. 9). Again, we are informed that psychology has been "compelled at last, after long and stubborn resistance, to admit the existence of unconscious mental processes" (p. 238). And finally, we are blandly reminded that, if we look the facts "fairly and squarely in the face," the truth must "leap to light," that the hope of knowing the mind's true nature and function "by the purely subjective method of introspection" must be "given up as exhausted, if not as barren" (p. 209). All this accords with

Maudsley's philosophy of mind. One is not always quite sure that one knows accurately what this is. There is often a baffling elusiveness in the terms employed, and, as is not seldom the case with certain writers across the channel, the words 'mental' and 'cerebral' are often hopelessly interchanged. When we can pin him down, however, we find the author stating that "in the order of nature mind is not something detached, proceeding not from it, independent of its laws, . . . it is itself nature in process of becoming" (p. 205). And again, "it is surely time to purge a vision dimmed with traditional prejudice and . . . to begin to see that the human mind is, and is to be studied as, a part of nature subject to its laws of cause and effect"; the obvious conclusion of which is, "that the study of mind ought to be prosecuted patiently by the objective method of scientific inquiry used in all the other sciences" (p. 208). Again, in complete accord with this, we are told that mind has extension in time and space (p. 229), thought being "invisible extension" (p. 238). In spite of the author's wide reading and shrewdly careful thinking in certain directions, he appears to have left untouched, or at any rate to have been untouched by, the critical writings of recent years, the just conclusions of which seem to render it impossible to make such utter confusion between 'conscious processes' and 'cerebral processes,' be the latter never so subtle, delicate, and refined. Scant wonder, then, that with these guiding thoughts the author's observation is sometimes distorted and his vision dimmed!

For Maudsley, then, man is wholly an organism. But what is more, he is a *physical* organism. 'The individual is . . . a physical variable' (p. 155). Thus it is that his follies and his destiny are determined. Our very language shows the truth of this view. For Maudsley, such terms as 're-member,' 'in-struct,' 'in-form,' 're-collect,' are used to denote mental facts not because of inherent descriptive difficulties, but because man in his language has unwittingly recognized the true mechanical nature of these processes.

If man is a part of nature,—and by nature is meant, apparently, the sum total of the processes of becoming displayed in the material world,—he must perforce exhibit those characteristics of imperfection which manifest themselves in any developing and progressing organism. Hence his unconquerable illusions. And the blame rests not with him, but with an ironical 'nature' and a bad inheritance.

Man's illusions are necessary. Nature needs them for her progress. They have their root in that "mighty conceit" man has of himself, leading to the "tremendous postulate" that the world was divinely

created for him and his uses. Thus in his "self-adoring egoism" he cherishes "the fast belief of an all-wise Providence," and believes in and frames theories of "the glorious freedom of the will and the dazzling sublimity of the moral sense." The very "lust of life" demands the continuance of such illusions. Man *must*, in truth, have ideals. For "to feign and believe themselves to be what they are not" is "the proper order of things" for human beings who are in the stream of a progressive development. Yet the irony of nature permits man only to grasp at, never actually to grasp, his ideals. This is nature's "spur to progress." And when the common illusions of life cease to be realities for man, he may bid good-bye to happiness and begin to suspect that the life of the race is on the wane. Viewing the facts "fairly and frankly," it appears that man is not "really the nobly rational and finely spiritual being which he is ever prone to picture himself." For the concrete man is more irrational than the animals; is wicked for the pure pleasure of it; slaughters for the mere lust and sport of killing; brutalizes himself by drink; drugs himself into stupefaction; makes of himself a glutton; and gratifies immoderately the lusts of the flesh. As such, the individual man presents no very pleasing spectacle. In fact, the single life has small value. It may at any moment be sacrificed for nature's good, that is, for the good of the social organism. Subordinates slain in battle are readily replaced. And the life of the commander "who wins a great victory and saves an empire" is "worth more than the lives of the thousands slain."

With all this in mind, it is not difficult to see what view Maudsley must take of the *social* man of whom a certain *conduct* is demanded. With self-love as the basis of every being, and self-interest as the fundamental motive of conduct, and with the counter claims of society pressing upon him, man's moral problem becomes that of finding "the just mean between his personal rights and the duty-claims of the society to which he belongs—to reconcile individuality with solidarity, egoism with altruism." "To walk warily in the mean is true wisdom of conduct." Nature has made man neither angel nor brute, but something between the two. To incline overmuch towards either works therefore to his injury. Society, too, has its ideals. Indeed, conscience is only the social voice speaking through the individual. And seeing what society demands and approves, man is led into hypocrisies, lies, and affectations. These have their values. They express the recognition of an ideal, and by his very feigning to be what he is not, man is helped towards that which he would seem

to be. The ends of the social organism demand also that the weak and wretched — “the impracticables” — be eliminated from its midst, though no drastic measures for so doing are suggested. The best interests of ‘nature’ require, accordingly, a course of conduct far removed from that demanded by ideals of brotherly love and its attendant self-sacrifices. Even devil’s work is sometimes needed. “There are times and circumstances when what the world wants is not the good man who is meek, modest, and tenderly scrupulous, but the strong man who is coarse, bold, and fiercely unscrupulous.” He is the only one who in properly violent manner can expel the accumulated corruptions which from time to time threaten the social life.

To the calm and dispassionate view of a Maudsley, therefore, life’s happenings are right only when, in nature’s mechanical way, they contribute to nature’s betterment. For this reason, man’s hopes and aspirations and beliefs may be commended unhesitatingly — though with half a smile of pity for deluded mortals — because, though mere fatuous illusions after all, they are spurs to conduct which make mightily for nature’s advantage. All standards and values are set by the organism. When, therefore, the function of the individual life has been fulfilled in the service of the organism, the time for its end has come. Death is the close of the drama. The hopes and terrors of the beyond are but phases of man’s illusions. His hopes are but “the natural cry of individual egoism,” which may find soothing cheer in the reflection that his works, good or ill, will live eternally in their human effects. Belief in a personal immortality, baseless illusion as it is, is but an expression of the self-conservative instinct — “the instinct of organic life, while it is in being, to continue to be.”

If these reflections prove disheartening, have religion or philosophy their soothing consolations? Hardly consolations. For religion, which to Maudsley is “morality infused with elemental feeling and suffused with awe,” is directed towards such a cheerless unknowable — the unfathomable, mysterious immensity around one — that little help can come from it. In fact, the sole function of religion is to “impel the process of humanization on earth,” the cessation of such impulsion, the dying of the illusions in the cherishing of which man is inspired to live and strive, being entirely conceivable, and the thought being near at hand that when these die the race of mortals may pass away also. Philosophy, however, may step in and do much service. Not, indeed, a speculative philosophy, which joys in magniloquence because its “turgid verbiages afford the ease of ample discharge to turmoil of feeling,” but that sound practical wisdom which faces the

situation fairly and frankly, and, with the pugnacious confidence of an abounding vitality, resolves to play the game well and without grumbling, striving always to make of life a work of art, and remembering that not he who knows most and thinks most is happiest, but rather he that *lives* most. The prosaic conclusion of good sense is, we are told, "that as everybody has to play the part set for him by nature and circumstances in a drama of mixed tragedy and comedy, of which he neither knows the beginning nor can foresee the end, and has done with it and is himself done with when his part is played, he ought not to take himself and the business too seriously, but should make up his mind quietly to act it to the best of his ability with all the goodwill and good humor he can command. Bad humor or overmuch self-consciousness will only fret and hurt himself and spoil the play," as will also too much insistence upon austere duty and that unbalanced view which regards ideals as patterns to which actual conduct may conform.

To criticize the underlying philosophy of this book is not the purpose of this review. Such criticism would itself be largely the expression of another system of philosophic opinion. Nor can any review pretend to do adequate justice to the many-sided aspects of the author's reflections, to the vigor and incisiveness of his thought and statement, and to his unflinching utterance of the truth as he sees it. As a thoroughgoing and consistent application of the naturalistic point of view to the manifold facts of life, the volume is to be heartily welcomed and commended. Every one who loves to reflect upon life should dip into its pages. The cynically inclined will find there much to please him, the cut-and-dried idealist will be irritated at every turn, and only he who does no thinking at all will remain cold and untouched.

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Development and Evolution. By JAMES MARK BALDWIN. New York, The Macmillan Company, 1902.—pp. xvi, 395.

The theory of evolution enjoys the unique distinction of being at once the most important and the most ambiguous of modern scientific hypotheses. To doubt that slow ancestral evolution is in some way responsible for the various forms of organic life which we see about us, has long been to put oneself outside the pale of conventional scientific respectability. But when the interested inquirer seeks for some precise account of the manner in which organisms undergo modifications in their structure, and much more when he attempts to ascertain the

exact mode in which heredity operates, he finds himself confronted with a perfect jungle of divergent opinion. Recent biological writing on these subjects has served to clarify the issues at stake, but the household of organic science is still far from being at peace with itself.

The striking book before us affords an interesting and representative exposition of a tendency which has been regaining in scientific repute a position that for a generation past has often been denied it. Indeed, the extremer advocates of physico-chemical biology *et id omne genus* still view it with undisguised contempt. The tendency referred to involves the introduction of consciousness as a factor of fundamental moment in the explanation of genetic phenomena. So important is the rôle which Mr. Baldwin seems disposed to assign it, that it promises to furnish a means through which the most radical differences of Darwinian and Lamarckian may be converted into amicable harmony—provided, of course, that the Lamarckian is willing, for it must be confessed that he is harmonized largely by absorption, a process he may resent.

Moreover, Mr. Baldwin's book offers another significant exemplification of current biological conditions in its extensive drafts upon philosophy. To many a scientific man it must seem an evil day when the fair raiment of science is disfigured with the tawdry pretensions of metaphysics. For better or for worse, however, biology appears to be entering upon a period of fresh synthetic effort, and all thorough-going synthesis is doomed to a measure of invasion by the philosophy of its own day. We shall make the grounds of this fact clearer as it bears on the present case a little further on.

The cardinal tenet in Mr. Baldwin's evolutionary creed,—a creed which is largely shared, be it said, both in content and originality of formulation by Messrs. Lloyd Morgan and Osborn,—may be put thus: By a process of preservative individual accommodation involving consciousness, single organisms keep themselves alive in times of danger, and thus secure the accumulation in successive generations of the variations which they may chance to represent. In this way useful structures and functions, *e. g.*, instincts, gain time to mature, even though during the period of their development they may not have been useful. Through the destruction by natural selection of all harmful variations, the resulting effects would have at first sight all the appearance of a 'use-inheritance' origin of Lamarckian type, whereas, in point of fact, there may have been no real transmission of acquired characteristics at all. The important group of social and gregarious influences (imitation, tradition, etc.), by means of which

young creatures are guided by their elders, would also contribute to achieve the same outcome. The chief corollary of this principle is found in the theory of pleasure-pain factors acting upon the accommodatory movements of adaptation. Mr. Baldwin's formula runs somewhat as follows: Painful stimulations produce movements of retraction and restriction; pleasurable stimulations, on the other hand, occasion profuse expansive movements. Out of the matrix of over-produced movements brought about by pleasurable stimuli, the organism selects the particular co-ordinations relevant to the special situation to be met. These movements persist rather than others primarily because they are agreeable, and because all such reactions tend by virtue of the very constitution of the organism to reinstate themselves, so long as they are agreeable.

Stated in its most general form, 'organic' selection, as Mr. Baldwin calls his active principle, appears to offer an exceedingly sensible and plausible account of one stage in the operation of natural selection. It thus becomes a subordinate chapter in the whole statement of evolutionary process from the natural selection point of view. It contains a more precise description of the early stages in the acquirement of modifications (ontogenetic) and variations (phylogenetic, congenital) than had before been clearly articulated. For those who accept the genuineness of sexual selection, organic selection must constitute a similar but more general category, inasmuch as it involves consciousness in *all* of its directions of expression, whereas sexual selection involves only *one* of its modes of activity. Such a theory seems almost truistic once it is propounded, and yet it is undoubtedly of conspicuous value in unifying the discrepant forms of interpretation advanced by different biologists for certain groups of facts. To the Lamarckian who bases his faith either upon alleged instances of inheritance of acquired characteristics, or upon the asserted impossibility of explaining by the destructive action of natural selection the evolution of structures and functions which were useless up to the time of their complete development, the theory offers an alternative hypothesis showing how the semblance of transmission of acquired characters may arise from the cumulation of modifications in organisms whose adaptive reactions enabled them to live and beget offspring during the period in which these modifications (originally useless, perhaps) were becoming established. To the Darwinian, on the other hand, who has been wont to lay all the stress upon the controlling influence of natural selection in weeding out the unfit, such a theory invites a redistribution of emphasis, by exhibiting the primary

value of individual adaptations, through which many variations may have become permanent that otherwise would have been ruthlessly stamped out. When phrased in this way, it is hard to conceive that any serious criticism should be directed against the hypothesis, save by those who wish to couch the whole series of developmental and evolutionary processes in totally different terms, *e. g.*, physico-chemical reactions. To such persons natural selection is itself an abomination. There is, however, one phase of the theory to which further attention should be directed.

All is clear sailing so long as one contents oneself with the mere statement that organisms do in some manner accommodate themselves to the rigors of their peculiar environments, thus succeeding in surviving and secondarily succeeding in assisting the crystallization of useful variations. Such a statement is, like that of natural selection itself, simply a formulation of the general method by which certain results have been attained; not an analytical apportionment of causal responsibility to specific factors in the process. But when one introduces consciousness into one's explanatory system explicitly to account for the execution of accommodatory movements, and especially when one attempts to sketch the details of the operation in terms of pleasure-pain phenomena, the dangers of scientific and philosophic shipwreck are immensely enhanced. Needless to say, Mr. Baldwin is thoroughly alive to this danger. He faces it without flinching, and his position deserves notice. It may be remarked in passing, that the whole range of evolutionary processes in plant life falls outside the limits of such a formulation as that of our author, unless one adopts the precarious hypothesis that plants are conscious.

Mr. Baldwin is what may be styled a 'scientific parallelist' (if he will pardon this gratuitous distribution of titles) and a 'philosophic monist' of the 'double aspect theory' variety. By which is meant that he accords to both the psychical and the physiological series of events in an organism the possibility—and for certain scientific purposes the necessity—of separate treatment. He would evidently countenance the validity of the mechanical categories in the physical series, so far as one might be consulting the interests of exact science. In the psychical series, however, another type of category holds sway. When he comes to such a question as that raised by the evolutionary hypothesis, *i. e.*, How has the psychophysical organism come to be what it is? he passes on to his monistic position, in which he maintains that neither the psychical nor the physical phase of our organic entity can be neglected to the cost of the other, and that the categories

appropriate to the one cannot be set up as absolute to the prejudice of those appropriate to the other. As a philosophic point of view, this position has, of course, an honorable ancestry. But there have always been carping critics who have insisted that the standpoint simply represented an attempt in philosophic speculation to run with the hare and course with the hounds. The question here, therefore, is as to the relevancy of this criticism, which clearly has an important bearing on Mr. Baldwin's point of view. If the theory of organic selection requires even occasionally the assistance of consciousness to make it work, one is at once confronted with the task of showing how consciousness succeeds in producing causal changes in the physical world of muscles; for if it does not produce such changes, it is evidently futile to cite it at all in connection with explanations supposedly based upon physical causation. That Mr. Baldwin does not mean to blink the issue is shown by the following words: "The fact of accommodation requires on the part of the individual organism something equivalent to what we call consciousness in ourselves" (p. 121).

Now I do not understand that, in his setting forth of the case, Mr. Baldwin means to go further than the utterance of a hope that somehow or other a point of view may be worked out in accordance with which it shall be found tenable to countenance in a vital way the immediate implications of the deliverances of consciousness, concerning the reality of the control which our minds exercise over our movements, and at the same time to adhere without shuffling to the conclusions of physical science in its treatment of causal and mechanical relations, as these bear upon the operations of the neuro-muscular processes. At all events, he says in one place: "And it is the problem of the metaphysics of experience to find the broader category, the final principle of experience as a whole, both objective and subjective. This I do not care to discuss," etc., etc. (pp. 130, 131).

Apparently, then, the recognition that consciousness plays an important part in organic evolution must for the present remain a relatively unilluminating postulate. For it can only be efficient for some large view in which are harmoniously included the rights of both the mechanical and the non-mechanical categories. Until biologists are ready to write the history of evolution in the terms of this larger view (*e. g.*, the "æsthonomic idealism" of a recent article by Mr. Baldwin) instead of in those of the natural science and causation view, all references to efficient factors of the conscious kind must inevitably involve contradiction. One cannot, of course, impute to Mr. Baldwin respon-

sibility for this situation, but it certainly constitutes a serious limitation of the significance for contemporary biology of his formulation of organic selection. The rank and file of biologists insist on attempting to find their real explanations in the physiological series of events where *physical* causation presumptively holds sole sway. This may indicate a narrow and unphilosophic provincialism of mind on their part, but it is at present the uncontrovertible fact, a fact rendered more conspicuous by an occasional illustrious exception. For example, one learned American biologist has recently said that "consciousness stands in immediate causal relation with physiological processes."

Psychologists have for a long time consciously faced this difficulty, but it does not appear to have taken an important place among the puzzles of biological theory until very recently. It is not to the reviewer's mind at all obvious that the difficulty need be raised, so far as concerns the value of organic selection. Let it be granted that in some way (frankly we do not know just how, Mr. Baldwin nor the rest of us) organisms do make accommodatory movements, which serve to tide them over times of environmental menace, until useful modifications have become firmly established. Let it be also admitted that consciousness is in some manner concerned in these operations. The effort to determine its exact place may well be postponed until "æstthonomic idealism," or some other equally mellifluous 'ism,' is generally accepted as cosmic theory. In the interim we shall be just as far ahead for all essential purposes of scientific theory, and we shall have been spared much needless wrangling. Moreover, even on Mr. Baldwin's own showing, "æstthonomic idealism" does not for a moment exonerate us from the necessity of finding the physiological counterparts of the conscious processes concerned in the selection of adaptive movements.

When one comes to Mr. Baldwin's account of the mode in which pleasure and pain influence the selection of movements, one opens up a more purely psychological question than those previously adverted to, and one which has already been treated in a similar manner in the author's preceding works. The formula baldly stated is this: Pain, depression, cessation of movements; pleasure, expansion, profusion of movements; selection and continuation of useful reactions. To my mind there are probably essential fallacies in this position, despite the wide endorsement among psychologists of several of the premises upon which it rests. In the first place, there is an erroneous estimate of the motor values attaching respectively to pleasure and pain psychoses. Pain is by no means to be described merely in terms of depression and constriction. A view which does this cannot rest upon ordinary

introspection, but must look for its support to the alleged effect of pain upon the circulatory and respiratory movements, and upon the tonus of the voluntary muscles under certain experimental conditions. These conditions are by no means immediately comparable with normal circumstances. One of the first and most persistent effects of pain is a violent motor overflow, directed, it is true, to escape from the stimulus, but resulting none the less on that account in the production of movements which may readily furnish a basis for subsequent useful coördinations of protection and flight. Surely the singed cat that dreads the fire has acquired a useful coördination from excess movements that were not called out by any thrills of pleasure. Moreover, the unpleasantness connected with effortful activity seems to be given scant justice in such a statement as that which Mr. Baldwin propounds. Indeed, the theory is classic, even if not popular, which looks to pain as the prime mover in human affairs. On the other hand, pleasure is by no means the invariable antecedent of overproduced movements. Many pleasures are distinctly narcotizing in their immediate effects. In Mr. Baldwin's statements about pleasure and pain, there appears to be a confusion between the *ultimate* effects of these psychical elements upon motor power, and their *immediate* effects upon the profusion of movements which they occasion. Though it should be admitted that all pain is at once followed by depressed vitality, and all pleasure by increased vitality, it would not necessarily follow, and, indeed, it is not true, that all pain produces immediate decrease of movement and all pleasure increase. The contrary is surely much the more frequent and more immediate result, and it is the immediate consequences which are of crucial importance in leading to the establishment of useful reactions. It will be seen that I call in question simply the *modus operandi* of pleasure and pain in Mr. Baldwin's description. The importance of the affective factors I do not doubt, but his analysis of their operation seems to me precisely to invert certain relations.

A final point which requires notice, and to which the last chapter of Mr. Baldwin's book is devoted, is the development of a theory of genetic modes, a heading under which the author indulges his readers in a dash through wide fields of metaphysics. The problem treated is an old one; but Mr. Baldwin, as is his wont, has touched it in an extremely fresh and suggestive manner, and it is sincerely to be hoped that he will at an early date elaborate it more fully. As it stands now, the doctrine is somewhat puzzling both to expounder and critic. One hesitates to put it briefly lest one distort it. Nevertheless, acknow-

ledging this risk, a few sentences must be given to it. Negatively, it is a vigorous protest against the unwarranted advocacy of the purely mechanical and chemical categories as complete and adequate media for the explanation and appreciation of vital phenomena. It is also a protest, eminently sane in its contentions, against the loose and inaccurate extensions of analogy from one stage to another of life processes, save when an examination of each series concerned may have shown the analogy just. Positively, the theory assigns to "agenetic science" the securing of exact quantitative formulæ descriptive of phenomena in convertible propositions. Thus, $A = B$, and $B = A$. In all truly genetic science, on the other hand, descriptive formulæ are never reversible. The product of any genetic series at any stage of its development always contains something unique which was not previously in the series. The author says: "Genetically $A = B$, but it does not follow that $B = A$ " (p. 303). Again, "that series of events only is truly genetic which can not be constructed before it has happened, and which cannot be exhausted by reading backwards after it has happened" (p. 311). "In the life processes there seems to be a real genetic series, an irreversible series. Each stage exhibits a new form of organization" (p. 330). From Mr. Baldwin's point of view, history as well as biology is a genetic science. One cannot employ exact science for prediction (even theoretically), but after historical events have occurred they should, according to our author, be capable of formulation in the terms of exact science.

So far as Mr. Baldwin is attempting to curb the overweening pride of the prophets of a physico-chemical philosophy of life, he will find sympathizers in plenty. Whether the method which he proposes can finally be accepted, it will hardly be possible to say until the doctrine is more fully developed. Take, for example, his expressions about reversibility. If the irreversibility of vital phenomena refers to the mere conceivability of a given order, then the contention is obviously false. If it refers to causal relations of any kind, then it is true of all series, inorganic as well as organic, and the distinction becomes useless. Mr. Baldwin will have to make his peace with Kant, Royce, and others for the liberties he takes—as I understand him—with irreversibility. Moreover, it is not clear in what sense a genetic series produces results which are *unique* in any way which is not equally true of inorganic processes. Surely the distinction here is not so obviously one of uniqueness in the product, as it is one resting upon the degree of our ability to control the producing factors. If we once know what the series of fission processes are by which a cell divides, we are just as

sure how the divisions will occur under given conditions, as we are that $H_2 + O$ will give water. We have to find out both facts experientially to start with, and both are novel then and never so again. However all this may be, Mr. Baldwin's pronunciamiento will, in its negative aspects at least, undoubtedly have a salutary influence upon the discussions at present going forward.

It has now been sufficiently illustrated what was meant by saying at the outset that a synthetic era in biology must necessarily involve a measure of philosophy. Biologists find, in bringing together all the lines of evidence bearing upon evolution, the great synthetic hypothesis, that they must define the scope of the principles with which they work, *e. g.*, causation, mechanism, teleology, etc. The problems of heredity, variation, selection, and the like, inevitably involve these categories. Moreover, consciousness must at least be recognized, and so the psychologist is called in and given respectful attention. Mr. Baldwin's book is an admirable example of this convergence of scientific and philosophic interests, and the biologist must acknowledge his obligation for the forceful way in which these matters outside his own sphere have been laid before him.

Of the nineteen chapters in the present volume, eleven are reprints, with more or less of change, from articles previously published. In addition to the seven new chapters, in which the most important material deals with psychology and its relations to biology, including the chapter on genetic modes, Mr. Baldwin submits in appendices a list of admirable discussions upon organic selection and its near relatives by Osborn, Lloyd Morgan, Poulton, Headley, Conn, and himself.

Although the book inevitably suffers somewhat from its mode of construction, it is nevertheless, in the reviewer's opinion, much the most lucid and vigorous of the series to which it belongs. Despite a certain measure of repetition, there are almost none of the annoying cross references to the author's other works of which reviewers of his previous books have so often complained. One may think the argument good, bad, or indifferent; but at all events it is straightforward and ready to rest upon its own merits. The shortcoming which the lay reader most often feels, is the lack of richer illustrative material. In its place one finds a strong disposition to "logical disquisition," as Mr. Baldwin calls it, when criticising Romanes for a similar sin. Such a defect is, perhaps, unavoidable when a scientist steps outside his own specialty, and it should be said in fairness that Mr. Baldwin makes no pretense of biological proficiency. Taken together, *Mental Development*, *Social and Ethical Interpretations*, and *Development*

and *Evolution* constitute a masterly exposition of genetic processes which will long remain a starting point for future explorers.

JAMES ROWLAND ANGELL.

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The Life, Unpublished Letters, and Philosophical Regimen of Anthony, Earl of Shaftesbury (Author of the 'Characteristics'). Edited by BENJAMIN RAND. London, Swan Sonnenschein & Co.; New York, The Macmillan Co., 1900.—pp. xxxi, 535.

In his 'Prefatory Introduction,' the editor gives due credit for the idea of the present volume. He refers to the remark made by Professor Fowler, at the beginning of his well-known book on Shaftesbury and Hutcheson ('English Philosophers' Series), that the Shaftesbury Papers, now deposited in the Record Office at London, would well repay a more careful investigation than he was able to give them in the preparation of his own book, which was written for a popular series. As a result, we have a thick, well-printed volume, consisting of a sketch of the philosopher's life by his son, the Fourth Earl of Shaftesbury, of the unpublished letters, and of a philosophical work, hitherto unpublished, to which the editor has given the not wholly fortunate name *Philosophical Regimen*.

Of the material thus brought together, the life is perhaps the least unfamiliar, since its contents were mainly printed by Thomas Birch in the *General Dictionary* (1734-41) of Bayle, without due acknowledgment of their source, though apparently by permission. "But," as the editor characteristically remarks, "this is the first time for the Life to be published under the name of its real author, and with the exception of a necessary change in the order of paragraphs to conform with known events, almost precisely as it exists in the original manuscript. . . . Its publication here affords in a compact and narrative form the various events in his career necessary to be known by the reader in order to obtain a clear and ready understanding of the contents of the letters which immediately follow in the work" (pp. v, vi). It is only fair to remark that the editor's task seems to have been performed more efficiently, on the whole, than this and other bungling statements would lead one to expect, though certain cases of editorial carelessness are not difficult to detect. For example, the first and second paragraphs of the Life, as here printed, would be rather confusing to a reader who had not been prepared by the editor himself, in such statements as the above, to do his share of the editorial work. The first paragraph begins: "The following sketch of my

father's life was once intended to have been prefixed to the new edition of the *Characteristics*, though upon considering further on it that thought was laid aside." The second paragraph begins: "I hope I need not make any apology for prefixing the following relation of my father's life to this edition of the *Characteristics*." There is no note explaining the discrepancy, but it would hardly take an exponent of the 'higher criticism' to supply one.

As already indicated, one division of the book (the third) consists of the more important unpublished letters of Shaftesbury. The editor points out that these begin in 1689, when the philosopher was eighteen years of age, and continue for the most part "with desirable regularity" until the time of his death in 1713. As biographical material, therefore, they are of undoubted value, though the personality of the writer was hardly such as to make them greatly interesting as mere letters, and though they can hardly be said to reveal any new phase of the philosopher's character. At the same time, if it were necessary to prove that Shaftesbury's praise of virtue in his published works was more than literary or academic, passages like the following to the head steward of his estate at St. Giles would be conclusive. "If my estate cannot, besides my house and rank, yield me five or six hundred pounds a year to do good with (as that rank requires), my house and rank may both go together . . . for I shall never think of supporting them, since I have not wherewithal to do it and that which is more necessary" (pp. 316-317). In truth, while the letters are by no means wholly free from the artificial style which detracts somewhat from the effectiveness of Shaftesbury's published works, they are nevertheless in the deeper sense genuine throughout, and form an inspiring record of the noble life of one who, in spite of physical infirmity, did much to show what a 'working aristocracy' might really achieve.

The second division of the book, about equal in length to that devoted to the letters, consists of the unpublished work, called by the editor *Philosophical Regimen*, which can hardly be regarded as a fortunate translation of the author's title, *Ἀσκήματα*. Dr. Rand says: "The manuscript material of this portion is to be found in two notebooks among the Shaftesbury Papers of the London Record Office. The earliest writing in these books is dated Holland, 1698, and the latest, Naples, 1712. Their contents thus cover almost the entire period of the author's literary activity, but center chiefly, however, about his two 'retreats' into Holland, the one in 1698 and the other in 1703-4." It is natural that the editor of a hitherto unpublished

work by so important a moralist as Shaftesbury should claim a good deal for its importance as a permanent contribution to Ethics. Dr. Rand says: "Although the philosophy of Shaftesbury is . . . founded on stoicism, this *Philosophical Regimen* is a new and brilliant presentation of that moral system. The discourses of Epictetus were uttered, it is believed, extempore. They have popular form, but often lack in continuity of expression. The thoughts of Marcus Aurelius, on the other hand, were written down merely for personal use. They have the evidence of private honesty, but are stated in short paragraphs which are often obscure. The merits rather than the defects of these two works are combined in the *Philosophical Regimen* of Shaftesbury. . . . The Greek slave, the Roman emperor, and the English nobleman must abide the three great exponents of stoical philosophy."

To the present writer it seems that this statement involves a serious misapprehension, both as to the nature and importance of this work of Shaftesbury, and as to the true position of Shaftesbury himself in the development of modern ethics. There is no question, of course, that Shaftesbury was indebted for many of his ideas to the Greek moralists, but he was far too catholic in his general attitude toward the problems of ethics to learn from one school only. In the *Philosophical Regimen* (with its thirty-four brief chapters, on such subjects as "Natural Affection," "Good and Ill," "Reputation," "Character," etc.), he was undoubtedly attempting to formulate principles for the conduct of life after the stoical method, even to the extent of closely imitating Epictetus and Marcus Aurelius. But though the English nobleman may have aspired to become a reincarnation of the Greek sage, one does not have to read far in order to find that the present work is an imitation and not a creation. It is essentially exotic, and not an important continuation and development of stoicism. It is principally interesting because Shaftesbury wrote it, and not because it is a real contribution to ethics. One cannot at all agree with Dr. Rand, when he says that it "embodies a philosophy which must compel a renewed and critical study from the stoical standpoint of [the] *Characteristics*." These reflections upon the 'wisdom of life' throw very little light upon Shaftesbury's own system. Far from being a Greek philosopher born out of his time, he was perhaps the most modern moralist of his generation. He was the first English philosopher to develop clearly the view that human nature is a system, and that virtue consists in the harmony of the affections and in the development and realization of man's social and ideal self. Butler,

of course, later developed this method much further, whatever may have been his direct obligations to Shaftesbury, and from Butler we shall doubtless continue to learn, though so much of what we consider most modern in ethical speculation may be traced back to the greatest of English moralists.

But however we may differ from the editor in our estimate of the *Philosophical Regimen* and in our view of the position of Shaftesbury in the history of English Ethics, all students of philosophy must be grateful to Dr. Rand for the considerable labor involved in editing so much new material from the Shaftesbury Papers, and to the publishers for bringing out the volume in such attractive form.

ERNEST ALBEE.

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.]

LOGIC AND METAPHYSICS.

Introduction à la métaphysique. H. BERGSON. *Rev. de Mét.*, XI, 1, pp. 1-36.

Metaphysical definitions show that there are two profoundly different ways of knowing a thing. One depends upon symbols and is relative, the other is independent of symbols and may become absolute. Intuition is the kind of intellectual sympathy by which we are carried into the interior of an object so that we coincide with its unique and inexpressible character. Analysis, on the contrary, refers the object to elements which are already known, that is, which the object has in common with other objects. Analysis multiplies without ceasing the points of view, in order to complete a representation which nevertheless remains incomplete; but intuition is a simple act. The positive sciences aim at analysis, metaphysics professes to go beyond symbols. We know by intuition only the self in its flow through time. Besides perceptions, memories, and tendencies, we have a self which is at once a variety of qualities, a continuity of progress, and a unity of direction, and which cannot be represented. The intuition may be suggested by properly selected images, but it cannot be expressed in conceptual representations. Unity and multiplicity give an external view; but, whether separated or united, they cannot penetrate to the duration of the self. Science, by analyzing, substitutes for the self psychological facts which are elements but not parts. We need not hope to construct that self by operations with its symbolical elements. This has been the error of both false empiricism and rationalism. The first attempts to find the self in the interstices of psychological states; the second, as the place of those states. In the former case, the self approximates toward zero; in the latter case, toward infinity. A true empiricism will seek for the real nature of the unity, multiplicity, and reality of the self. While practical thought tries to know, not for the sake of knowing, but to satisfy an interest, *i. e.*, goes from concepts to things, a real metaphysic inverts the process and passes from things to concepts. To determine where intuition ends

and analysis begins, we must look to the self, to the flowing of that which endures. Psychological elements are static, the parts of the self are variable. Analysis deals with the unchanging, intuition refers to the moving. In the attempt to conceive spatial movement in terms of fixed positions, we find an example of the limit of analysis. But to think that philosophy is confined to the contemplation of the self is to misunderstand the nature of the self. While the logical ideas of unity and multiplicity reduce concrete reality to an abstraction, the intuition of our own duration places us in touch with a continuity of durations. There is an external reality given directly to our minds, and that reality is mobility or tendency. Modern science began when Galileo resolved to study movement in itself, instead of searching the principle involved in the concepts high and low. Modern philosophy also has had the feeling of the moving continuity of reality ; but forgetting sometimes, *e. g.*, in Kant, that an essential characteristic of metaphysics is freedom from symbols, it has driven metaphysics and science to the extreme limit of symbolism. The Kantian criticism does not apply to philosophical doctrines in so far as they are intuitional. Intuition is nothing mysterious ; every one exercises it to a certain extent. Metaphysical intuition, however, is only possible after a thorough acquaintance with philosophical concepts, and, to take the particular case in hand, an adequate intuition of the self must be consecutive to a great number of psychological analyses.

N. E. TRUMAN.

A Compendious Classification of the Sciences. T. WHITTAKER. Mind, 45, pp. 21-35.

In order to complete systematically Comte's classification of the sciences — arranged in the order : Mathematics, astronomy, physics, chemistry, biology, sociology, morality — several corrections are first necessary. Astronomy is too concrete to belong to the fundamental series ; animal psychology, instead of being a subdivision of biology, deserves a separate place ; and human psychology, substituted for morality, better expresses Comte's meaning. Again, formal and material logic must be inserted before mathematics, and metaphysics after the higher psychology. This amended list is best represented diagrammatically in the form of a circle, rather than a straight line. For metaphysics — speculatively, if not didactically — precedes logic ; and both these extremes are subjective. The determinations of this series are consequent one upon another. Epistemology furnishes the confirmation of the laws of thought, whose availability is absolutely dependent upon the existence of an order of which they by themselves contain no assertion. Material logic provides the (essentially synthetic) principles peculiar to mathematics. Upon intuitive construction, but never upon mere analysis of concepts, recognition of the truth of a mathematical proposition results from a single act of comparison. With the fact of nature's uniformity once proclaimed in the laws of conservation and causation, physical science becomes possible. To-day rationalism

and experientialism almost approach unanimity in their mutual concessions regarding the subjective grounds of this uniformity. According to the incontestable portion of Kant's mathematical doctrine, mechanics must be separated from mathematics and made the foundation of physics. For the idea of a moving mass, fundamental in rational mechanics, is non-essential in connection with pure mathematical assumptions, which can be treated as merely spatial and numerical determinations. Since the actual qualitative differences between phenomena cannot be annulled by showing that they are accompanied by modified arrangements of simple particles, physics can never supplant chemistry. Both are involved yet transcended in biology, whose problem deals with the 'immanent end' or consensus of functions manifested by living organisms. Animal psychology, introducing the method of introspection, treats of mental synthesis in general previous to the formation of the concept. Combining the results of the two preceding sciences, sociology advances to a study of the relation between organisms that live in community and become capable of intellectual converse. Finally, human psychology, through its investigations of emotion, will, and thought, leads directly to ethics, practical philosophy, and metaphysics. Comte's classification is exceedingly valuable in that it shows clearly how the sciences, in their ideal order, form a single organism of knowledge to which each is subservient.

ANNIE D. MONTGOMERY.

The Absolute as Unknowable. A. K. ROGERS. Mind, 45, pp. 35-47.

This paper considers Mr. Bradley's substitution of a purely hypothetical synthesis for the neo-Hegelian identification of reality with thought or knowledge. Not only, it is objected, is life more than thought, but thought does not in itself supply an intelligible unity. It indicates but never reaches such a unity, since it involves a separation of the *what*, or idea, from the *that*, or existence. Accordingly, (1) thought is not absolute because essentially relational, and (2) the true absolute is, for us, unknowable. To this latter statement, and also to the subsequent postulate of a single inclusive experience as the ultimate unity, Mr. Rogers takes exception. The facts of experience, as *we* feel them, must either be denied, or taken as only *known by*, not existing in, the final experience. To prove the possibility of knowing reality, and at the same time to offer an adequate explanation of the nature of the absolute, it is only necessary to show that in knowledge, as such, is implied the separate factual existence of the thing known, distinct from the experience of knowing. An object is not revealed to us by the actual presence of a part of it in our momentary feeling. This feeling is, indeed, the instrument of knowledge, but has no part in the meaning of the judgment passed. Anything new which is ascertained about a familiar thing appears, in the *process of discovery*, as a unique relation which must be added to the reality previously known; but, as a matter of fact, we realize that the actual and completed thing existed

non-discursively prior to any judgment whatever. That is, sensations, perceptions, and feelings are duplicates, not integral parts, of experienced, extraneous objects. Now the true meaning which reality has for us is its relation to our own activities. Recognition of the end of action, and this alone, unites the whole act, and so whatever object enters into it, and thus saves the object from being regarded as a mere relational series. The thesis maintained is, accordingly, that in any conscious act of a non-discursive kind, our experience, while falling short of, nevertheless typifies, absolute experience. In this supposition of a cosmic unity of purpose, is found an explanatory monistic principle. My act is not lost or transformed in an eternal, all-engulfing consciousness, but is vitally connected with this consciousness by virtue of being known as a part of the universal purpose, albeit as itself and nothing else.

ANNIE D. MONTGOMERY.

The Problem of Natural Religion. JOSIAH ROYCE. International Quarterly, VII, 1, pp. 85-107.

The problem of natural religion is that of the possibility of attaining religious truth by appeal to the light of nature, unaided by revelation. The problem arises out of the apparent opposition between ideals and facts. Facts are objective, concrete somethings which, of their own nature, determine whether a given statement about them is or is not true. Ideals are subjective, and bear no determinate relation to the world of facts. An ideal is an idea that, from our point of view as believers in this ideal, *ought to be* a fact. Our religious consciousness looks for a realization of our ideals. Is there, then, a Being who is able and willing to give ideals determinate expression in the realm of facts, and whom we have a right to regard as himself a fact? The question is to be answered by examining the reasonableness of the physical world, *i. e.*, facts. Are these facts the embodiment of ideals, and do they present a sufficient agreement with ideal purpose to prove that some Being exists whose will they express? Modern scientific tendencies seem to oppose an ideal interpretation of nature. In earlier centuries, the orderliness of nature was regarded as a positive manifestation of divine purposes and designs. Kant, however, pointed out the invalidity of the claims of natural theology. Following Kant, came an active idealistic movement, which, in turn, as science advanced, gave way to more critical tendencies. The knowable was now the fact world as manifested in human experience; our insight was concerned solely with phenomena, never with ultimate truths. But is it true that our empirical acquaintance with the physical world is still too narrow and fragmentary to give us power to prove anything regarding the presence of ideals in or behind the world of facts? The search for law, the scientific construction of coherent systems out of the seeming chaos of raw experience, seem but to illustrate how, after all, the ideal may lie beneath the fact world. As Kant said, our human experience contains no ultimate facts. No man hath seen God; no man hath seen a single real, perfectly determinate fact.

Our very conception of a world of determinate facts is one of ideals. The fact, for our finite experience, is the ideal. Yet it does not follow that the facts of the universe lie beyond all experience, both human and non-human. The search for facts is a search for more definite experience. The search for the ideal is a search for a complete expression of some conscious process. The state of consciousness wherein all questions are determinately answered remains for us an ideal object of search. To say that the ideal is actually realized, and that such realization constitutes the very nature of the true universe, is to assert that there is, then, a consciousness for which all questions are answered. Now such a consciousness is a mind to which all reality, natural and spiritual, is present in a perfectly determinate and individual form. For any inquiring consciousness, facts remain ideal objects, sought but not yet fully found, limited in experience, and approached as one's experience becomes more determinate. To assert that such ideals are expressed in the real world, is to assert that the real world is present to a determinate and real experience. Such an experience has at least the character of divine omniscience, and has reality as its own present object. Moreover, in order to possess value as a determinate fact, an experience must embody an intention, must fulfil the purposes of a will. Mere presence in experience does not make the content determinate. Will is necessary to determine and give individuality to facts. The absolute will confirms or defeats finite ideals. The facts of the Absolute exist by virtue of its own absolute Will.

C. A. HEBB.

The Present Attitude of Reflective Thought towards Religion. HENRY JONES. The Hibbert Journal, I, 2, pp. 228-252.

Taking 'reason' in its ordinary sense, as equivalent to 'the intelligence,' we may say no age has employed reason more, nor trusted it less, than our own. We find the conflict between theory and practice hottest around the principles of our moral and religious life. Hence an intellectual skepticism has arisen through a failure to justify the faith that serves as a foundation for our practice. Now, to-day, it is said, we tend to overrate the rôle played by reason in human affairs. Reason is rather destructive than constructive. Even truth is esteemed too highly; it is merely a means and not an end. However, over against this condemnation of the philosopher, the popular instinct persists in placing the solid worth of our growing knowledge, especially in science. In this respect, we may say the present day is not skeptical. It is rather in the province of religion that the intellectual diffidence of to-day arises. Even here, however, we find a despair of a theory of morals and religion, rather than a skepticism. If men have tired of the official theology of the past, we still find them listening with reverence to the spiritual message of the poet. The very fact that poets dwell on these themes, and find God immanent in His world, proves that our times are not skeptical in spirit. Looking, too, at the works of the

present age, we find practical religion everywhere. The distrust rather lies with dry theology and speculative formulæ. What, now, are the consequences of this skepticism of intellect? One cannot compromise, and believe that religion is rational even though unintelligible. Hence we find both extremes; those who hold to religion, and those to whom the first concern is intellectual. Most men, however, halt short of these extremes. In looking over the general disposition of to-day, it will be seen that the present attitude of thought towards religion is essentially transitory. Neither side will allow compromise; each tendency is too fundamental and deep-rooted in the life of to-day. There was, however, introduced in the last century a new method of contemplating the facts in the natural world, and this has brought about a restatement of the whole problem of man's spiritual nature. Science has become cosmocentric, and, in this way, man has been despoiled of his uniqueness. The fact that man is what he is only in virtue of his ontological relation to the world, cannot now be questioned. Man is vitally united to his fellowmen in a rational society, and deep-rooted in the outward world of facts. The old conception of isolation was the basis of much of the religious conviction of the past. It is in this respect, therefore, that the problem of the ethical and religious life has become crucial in our day. Now all this would seem to point to the decay of religion and the undisputed rule of naturalism; but such a conclusion is intellectually false. If man's religious and moral interests have deepened *pari passu* with his intellectual growth, there is at least a possibility that it is not religion and reason themselves which are in conflict, but rather the theories of them, offered by the speculative thinker. Experience is not rent in twain. What we need is a better view of religion and a more sympathetic attitude of reason.

R. B. WAUGH.

HISTORY OF PHILOSOPHY.

The Place and Worth of Oriental Philosophy. JAMES LINDSAY. A. f. G. Ph., IX, 3, pp. 393-398.

The writer of this article is chiefly concerned with entering a protest against the general neglect of oriental speculation, from which he believes the occidental world has much to learn. In support of his contention, he instances certain ethical and philosophico-religious ideas of the Hindus, Egyptians, Persians, and Chinese, and while he does not assume any historical dependence of European speculation on the Orient, he insists that philosophy has a "more universal note to strike than the European one," that "woven of one warp and woof throughout as is the universe of thought, not without Asiatic philosophy can it be made perfect."

W. A. H.

Die Schilderung der Unterwelt in Platons Phaidon. OTTO BAENSCH. A. f. G. Ph., IX, 2, pp. 189-203.

In this article an attempt is made to give a detailed explanation of the closing myth in Plato's *Phædo*. The topography of Tartarus is exhibited

in diagrams and maps which interpret with the greatest possible distinctness Plato's conception of the nether world, and of the destiny of departed souls. In the light of this topography, the writer subjects the Greek text to criticism and revises Aristotle's *Meteorology*, II, 2 (in order to harmonize it with the Platonic account of the *Phædo*) by striking out *οἶον εἰ ρεῖν ἤρξαντο κάτωθεν, ἀνωθεν εἰσβάλλειν*, which Baensch regards as an early gloss.

W. A. H.

The Ethical Philosophy of Marcus Aurelius. JAMES LINDSAY. A. f. G. Ph., IX, 2, pp. 252-258.

No attempt is made in this article to put into systematic form the disconnected paragraphs of the "Meditations," but a clear enumeration of the chief ethical ideas is given—ideas which, as Lindsay says, "made the Emperor the important connecting link between pagan and Christian thought."

W. A. H.

Die Entstehung der Philosophie Descartes nach seiner Korrespondenz. W. PFEFFER. A. f. G. Ph., IX, 1, pp. 1-26.

Pfeffer points out that the most important information regarding the development of the Cartesian philosophy is found in the *Discours* and the *Letters*. The main series of the latter begin with the year 1629. In the spring of 1629 Descartes retired to Holland, carrying out a resolution he had formed towards the end of 1628 to leave Paris and find solitude for the working out of his "new philosophy." On April 16, 1629, he was registered at the little University of Franeker in North Holland. At this time his correspondence shows that he was engaged on the metaphysics, for on April 15, 1630, he wrote Mersenne: "Les 9 premiers mois que j'ai été en ce pays je n'ai travaillé à autre chose (*sc. qu'à la métaphysique*)."
Further, on November 25, 1630, he wrote Mersenne: "I do not say that I shall not some day complete a *petit traité de métaphysique* [published under the title: *Meditationes*] which I began when I was in Franeker."
Further, about the end of July he became interested through Renier in the observations of the Jesuit Scheiner on the Parhelia, which drew him away from his metaphysical studies, and in October and November of 1629 he was in active correspondence with the optician Ferrier, of Paris, on the questions of dioptrics and mechanics. By the end of 1629 he had already formed the plan of his work on physics, which he hoped to complete in three years, as he announced in April of 1630, and by November, 1630, he had chosen the title *Le monde*. In January, 1632, he sent the first part of his Dioptrics to Golius, Professor of mathematics at Leyden. News of the condemnation of Galilei (July 22, 1633) reached Descartes in November, 1633, at a time when he was in a mood of indecision about his work *Le monde*, and about the end of the year he determined not to publish it. His motto became: "Bene vixit, bene qui latuit." In the summer of 1635, he announced to Mersenne that he had separated the Dioptrics from

his treatise *Le monde* and was disposed to publish the former. In November, 1635, he had decided to add to the *Dioptrics* another chapter of the *Le monde*, the *Météores*, and to write a preface. The preface developed into the *Discours de la méthode*, and was completed by March, 1636. To the *Dioptrics* and *Météores* was added the *Géométrie*. These three treatises, which followed the *Discours de la méthode*, were later entitled "Essais de cette méthode." The four were published anonymously in 1637 at Leyden. In 1638 the publication of *Le monde* was definitely abandoned, and Descartes turned his attention to medicine. The article discusses the correspondence to 1638, and in a postscript is added an inquiry into the amount of time spent on metaphysical problems in 1629, in which Pfeffer attempts to show that the figure 9 in the letter of April 15, 1630, should be amended to read 4. This would make the work on the metaphysics extend to the end of July, 1629, and would reconcile the letters of October 8, 1629, November 13, 1629, and April 15, 1630.

W. A. H.

Ueber Aufgabe und Methode in den Beweisen der Analogien der Erfahrung in Kant's Kr. d. r. V. ERNST VON ASTER. A. f. G. Ph., IX, 2, pp. 218-251 ; IX, 3, pp. 334-366.

In these two articles on problem and method in the proofs of the analogies of experience in the *Kr. d. r. V.*, von Aster states the general problem of epistemology in the Kantian philosophy and then examines its solution under the following rubrics : (1) Synthetic judgments *a priori* as an epistemological question ; (2) Kant's solution of the question in reference to mathematical propositions ; (3) the logical necessity of the fundamental propositions of the pure understanding in the *Kr. d. r. V.* ; (4) conditions of the knowledge of reality ; (5) the Transcendental *Æsthetic* as basis of the proof of the analogies [forms of pure perception] ; (6) knowledge of reality and experience ; (7) the notion of object [supplementary defence of the foregoing in reference to the thing-in-itself] ; (8) deduction of the notion of the pure understanding and proofs of the analogies ; (9) proofs of the separate analogies of experience. The purpose of the articles is to show how the proofs of the analogies depend on the Transcendental *Æsthetic* and *Analytic*. From the major premise : "The objects of experience are in space and time," the following conclusions are drawn : (1) A persistent substance underlies the objects of experience ; (2) the objects, in so far as they occupy a point in time or are events in time, are subject to the law of causality ; in so far as they are simultaneous, they are subject to the law of reciprocal action.

W. A. H.

PSYCHOLOGY.

Fortsetzung der 'psychologischen Streitpunkte.' IV. *Zur Frage der geometrisch-optischen Täuschungen.* V. *Zur Psychologie der 'Annahmen.'* THEODOR LIPPS. *Z. f. Ps. u. Phys. d. Sinn.*, XXXI, 1, pp. 47-79.

In the 19th volume of the *Z. f. Ps. u. Phys. d. Sinn.*, Witasek showed, supposedly, that every theory which bases its explanation of geometrical-optical illusions on illusions of judgment was false. Lipps's theory is of this sort. Witasek's argument rested partly on epistemological considerations, and partly on experimental evidence. Benussi, in the 29th volume of the same journal, has furnished additional experimental evidence for the refutation of L.'s theory. In the present paper, L. replies to both the epistemological and experimental objections. Some geometrical illusions are illusions of form, some of direction. What, then, are direction and form? But first, What is a line? W. answers that a line is *seen*. L. says that it is not seen; all that is seen is one's visual field; the line is contained in it implicitly; it becomes explicit by an act of apperception. Nor is straightness seen; it is a mark of the apperceived line, and it depends on the judgment of the relation of the line to right and left. Since W. and B. considered only illusions of direction, the question now becomes, What is direction? or, more particularly, What are verticality, horizontality, and obliquity? W. says that verticality comes from the impressions occupying a certain position on the retina. L. answers this, saying that he may move his head until the impressions of a vertical line fall on the same place on the retina as those of an oblique line, although the line still appears vertical. L.'s answer to the whole question of direction is that, as straightness depends on relations to a right and a left, so verticality, horizontality, and obliquity depend on an absolute right and left, an above and below, with reference to one's body. The straightness and direction of a line, therefore, cannot be given in perception; but judgments of relation are necessary. L. now puts his own construction on three experiments which W. and B. directed against his theory. If a horizontal line is crossed by an oblique line at an angle of 45° , it stands in equilibrium between horizontality and verticality. The question for the geometrical illusions is: Does the oblique line appear to tend toward the vertical or horizontal position? It apparently tends toward the vertical, because its obliquity consists in crossing the horizontal. For L. the crossing of the lines is the crucial point in the explanation of the Zöllner illusions. (1) Let a vertical line be crossed by one that is slightly oblique, but the obliquity of which is not sufficient to throw doubt on the verticality of the principal line. If this line be placed on a mirror, its image appears crossed in the opposite direction by the oblique line, and the two lines, real and image, appear crooked. L. explains this illusion on the ground that the reversal of direction of the

oblique line in the image emphasizes the obliquity of the crossing lines, hence the apparent deviation from the vertical. (2) In the second experiment, the principal line and the oblique are brought together by means of the stereoscope. The fusion of the two fields is not complete and the illusion does not appear. L. explains the failure of the illusion as due to the indistinctness of the crossing of the lines. (3) The third experiment is that brightness differences between the background and the lines enhances the illusion. L. interprets this experiment to mean that any condition which renders the crossing of the lines conspicuous, consequently enhances the illusion.

H. C. STEVENS.

A Study of the Relations between Mental Activity and the Circulation of the Blood. FREDERICK G. BONSER. Psych. Rev., X, 2, pp. 120-139.

The purpose of this paper is stated by the author as threefold. (1) To determine the changes in circulation during pleasant and unpleasant affective states under conditions of mental activity and fatigue. (2) To determine the correlation of the processes of intellection with changes in circulation. (3) To determine the relation of Traube-Hering waves to fluctuations of attention. The stimuli for the affective and intellectual states were odors, and mathematical problems and memorization, respectively. Changes in circulation were recorded by an air plethysmograph and by a sphygmograph. In the case of affective reactions, the author found that all stimuli, whether pleasant or unpleasant, gave constriction either immediately or after a slight dilation of the blood vessels. The results, in the case of intellectual reactions, were vaso-dilation invariably preceding vaso-constriction, and acceleration of heart-beat during the period of vaso-dilation. Prolonged intellectual activity lessened the amplitude of the pulse and increased blood pressure. The Traube-Hering waves correspond in length to the visual and auditory attention waves. The crest of the attention wave, however, corresponds with the trough of the vaso-motor wave.

H. C. STEVENS.

Direct Control of the Retinal Field : Report on Three Cases. GEORGE TRUMBULL LADD. Psych. Rev., X, 2, pp. 139-150.

The writer states his problem in the following sentence : " Can the sensations customarily called 'retinal,' which arise with the eyes closed and motionless, be made to respond to volition with respect to the form and color which they assume ?" Experiments were made by sixteen students. Of these, four reported no success, nine were partially successful, and three were wholly successful. Of the three latter, two were able to vary both form and color at will ; the other observer was able to control the color of the image, but did not report on the form. The most common form was the circle ; but this might be changed to an ellipse, triangle, or cross. On the basis of these observations, L. concludes : (1) That the control of the form and color of visual images which appear in the closed eye grows by

practice. (2) That the phenomenon cannot be completely explained by selective attention. (3) That the strain of the eye muscles cannot account for the appearances. (4) That the colors and shapes of visual images are more centrally determined than has hitherto been supposed. (5) That these facts furnish evidence for the active, directive, and discriminating side of consciousness.

H. C. STEVENS.

Sur la mémoire affective. F. PAULHAN. Rev. Ph., XXVII, 12, pp. 545-569; XXVIII, 1, pp. 42-70.

It is possible to include in affective memory all the modifications which have been left in the mind by affective phenomena. But the present investigation is not to consider effects so completely systematized that they produce no emotion, nor is it to consider effects which have been so little systematized that they are lost. Purely intellectual memory of emotional states is also to be left out of the present discussion. This article deals with memory which recalls affective facts with their affective character. The statements of Rousseau, Restif de la Bretonne, and Taine prove the reality of affective memory. Some deny that the emotion which accompanies the idea of a previous affective state is a real revival. The partisans of affective memory say that affections are revived in the same sense that ideas are revived. Mauxion distinguishes false from true affective memory. In the latter, the revival of the emotion is not preceded by the revival of images which explain it. We cannot make this distinction absolute. Memory should not be contrasted with reconstruction but with organization. When well systematized by the mind, affective or intellectual phenomena appear to us as the result of spontaneous activity of the self. The greater part of our opinion and knowledge is not considered as memory, but is completely united with our mental life. Thus the feeling of affection, when thinking of a friend, seems to be the natural reaction of the mind, and is not regarded as the return of an earlier emotion. True affective memories are feelings which are no longer systematized with an actual self. When an opinion or a feeling separates from our mental organization, and associates itself again with the elements it discarded when it entered that organization, we have, in the one case, intellectual, and in the other case, affective memory. We need not demand in proof of affective memory a case where intellectual phenomena do not accompany or precede affective phenomena. Each class of phenomena influences the other, and both classes are signs which reveal a more profound reality to consciousness. All memory involves both intellectual and affective elements, but there are many instances in which the latter are dominant. The ideal of memory is an exact reproduction of past reality, but fortunately it is not attained. Affective memory varies both in intensity and in purity, and these attributes mutually influence each other. One observer finds that the memory of agreeable emotions grows gradually feebler but rarely entirely fades away, while the memory of disagreeable emotions grows stronger, reaches a maximum, then finally

disappears. The lack of purity in emotion depends upon the complexity of circumstances. Memory tends to inhibit the discordant elements. Systematic association and inhibition are the principles which explain the increased intensity of feeling and the decreased intensity of the memory image. Affective memory may or may not provoke a hostile reaction. It is often transformed by actual dispositions. Involuntary occurrence is no proof of its fidelity to the past reality; disparity with the present emotional life is an indication of accuracy. Progressive transformation into the mental organization constitutes the chief utility of memory. But the unorganized affective memory has a practical use. By its cultivation we subordinate to our will portions of the mental life that are too independent, since the individual character of the emotion is destroyed by a reflective recall. Association by contiguity is a valuable means of securing a desired emotion. Affective memory has its dangers; it may stimulate too much the independence of the psychical elements. Turning to sociology, we find analogies of affective memory, *e. g.*, renaissances and anniversaries. Affective memory also plays a part in history and in art.

G. W. T. WHITNEY.

The Affective Quality of Auditory Rhythm in its Relation to Objective Forms. R. MACDOUGALL. Psych. Rev., X, 1, pp. 15-36.

The objective factors upon which the character and intensity of the pleasure in a rhythmical sequence depend, may be summed up under the following heads. (1) 'The objective rate and intensity of succession among the elements of the rhythmical sequence.' The character of the pleasureable impression varies with every change of rate of succession; but it cannot be said that the agreeable impression increases or decreases as the speed rises or falls, though certain elementary factors of it do so. Slow and simple rhythms may be preferred to the more rapid and complex. The influence of absolute rate can be interpreted only in connection with other simultaneous variants. (2) 'The absolute intensity of these constituent elements (whether auditory or reactionary).' Intensive variations are less significantly related to the æsthetic impression produced by the rhythm than are changes in absolute rate. In extreme ranges of intensity, the effect is most marked. (3) 'The relation of the absolute rate to the prevailing emotional mood of the moment.' The *tempo* must be congruous with the normal rate and intensity of the motor discharge of the subject at the time, in order to be pleasing. It is the naked quality of the rhythm which is momentarily pleasing or displeasing, not that of the associations brought to mind. The capacity of the rhythm to please depends on the relation of the attention needed to apprehend it, to our stock of vigor at the moment. (4) 'The number of elements of which the rhythmical unit is composed.' Increase in the number of such elements makes the sequence gay, light, etc.; decrease in the number renders it solemn or noble, but the simplicity or complexity of the rhythmical structure must be coördinated with this

number. The position and intensive relations of accentuation are also important. Dipodic structures are sprightlier than simple sequences, short and common meters than long meter. (5) 'The structural complexity of the rhythmic unit as dependent upon the differentiation of its components.' The satisfaction afforded by the rhythmical sequence depends upon a process of individualization that penetrates every part of its structure and gives to each element a functional uniqueness. This differentiation marks the temporal, as well as the intensive, aspects of the series. It cannot be observed by introspection, but its presence imparts character to the rhythm. (6) 'The proportion of the various temporal and intensive values within the rhythmical unit.' These differentiations are not made at random, but must be in definite proportion to produce pleasure. Three factors are involved in this proportion: intensity, duration, and position, with their interrelations. The author has proved by experiment that æsthetically agreeable rhythmical forms are characterized by non-uniformity in the values of their constituent intervals. Those types are preferred in which the interval following the accented element exceeds that which follows the unaccented. The appreciation of forms in which this relation is reversed shows more irregularity. (7) 'The form of succession which the elements of the unit group presents.' This form is of fundamental importance. We cannot read a series in reverse order and get the same æsthetic effect as in the correct reading. The author describes this fact as due to the melodic relations of a series of strain experiences. Each note is dependent upon the preceding and succeeding tones for its æsthetic quality. Further, the two series of values, intensive and temporal, influence each other at every point. (8 and 9) 'The temporal and intensive differentiation of successive groups and their combination into higher rhythmical unities.' The unbroken series of a typical figure is monotonous, and there is a strong tendency to vary such a succession by the creation of larger figures. This is shown by the author's experiments. Two secondary factors of æsthetic pleasure enter as inseparable elements into every concrete experience of rhythm, viz., musical quality and capacity for arousing secondary associations. Delight is increased by the richness and purity of tones, by their functional connection with other tones in a melody, and by the combination of tones in harmonies. The forms of secondary association are emotional and intellectual. The emotions aroused are not sensuous, but are evoked through the ideas awakened by the melody. The intellectual side is seen in poetry. The formal perfection of the rhythm is constantly broken by the demands of the laws of logical arrangement.

R. B. WAUGH.

NOTICES OF NEW BOOKS.

An Essay on Laughter: Its Forms, Its Causes, Its Development, and Its Value. By JAMES SULLY. London, Longmans, Green & Co., 1902. — pp. xvi, 441.

Many of the topics considered in this substantial volume have found treatment elsewhere. The bodily characteristics of laughter have been repeatedly enumerated in the discussions of physiological processes and emotional expression. The varieties of the laughable call for analysis in every theory of the ludicrous. The development of laughter in the child has been traced and retraced in books on mental growth. The essence of humor, wit, and satire has been debated by a host of writers on æsthetics and literature. But though many acute observations have been made concerning its origin and connections, the discussion of laughter in such cases has been incidental to a larger group of relations, and it has received necessarily fragmentary treatment. Here, for the first time, as the author points out, an attempt has been made to illuminate the whole field by treating the phenomenon of laughter as an independent object of inquiry, in which its relations to the whole complex of human activities and feelings shall be explored and brought together in a single view. Only as a result of such a presentation can an intelligent comprehension of the nature of laughter and its function in human evolution arise.

The plan of the work is well conceived. Its topic is logically developed in a series of chapters among which one does not recall the omission of any important aspect of laughter. Though the divisions of the book are numbered consecutively, its contents may be conceived under two general heads: an enquiry into the nature of laughter, and an estimation of its value.

The first part comprises three broad topics: first, the physical conditions and associates of laughter; second, the nature of its objects, with a criticism of theories concerning its mental antecedents; and third, the evolution of laughter in the individual and the race, supplemented by a discussion of the appearance of its rudiments in subhuman species. After pointing out the continuity of the processes of smiling and laughter, and their relation to general conditions of feeling, the author distinguishes the latter into two classes roughly describable as quasi-reflex and joyous. The former arises under conditions of embarrassment, fear, pain, and other forms of mental tension, and may be extended to include the characteristic reaction to tickling; the latter is either the free expression of a happy mood or the response to a specific excitation. These widely differentiated experiences are ingeniously united under the concept of a sudden release from restraint occasioning, at least temporarily, a joyous relation.

As to theories of the laughable, the standpoints of both Hobbes and

Kant are subjected to destructive criticism. The occasions of laughter cannot be reduced either to a perception of degradation in the object, or to the nullification of expectation and the apprehension of incongruity in the relations presented. The union of these principles, as in the 'descending incongruity' of Spencer, is equally inadequate as a formula for all varieties of the laughable. The most promising way of bringing together the manifold qualities embraced by the ludicrous, our author holds, is to regard them as all presenting some harmless departure from accepted standards. Laughter arises from the pleasurable shock which comes with the sudden upsetting of our ideals in ways which do not arouse disgust or pain.

The method of exposition observed by Mr. Sully, in interpolating his discussion of the theoretical aspects of laughter in the midst of an historical treatment of the subject, is justified when, in the following chapters, he returns to the question of development, since, with a systematic tracing of the evolution of laughter in the child and the race, it is now possible to combine an interpretation of its successive phases in the light of the principles already laid down.

The value of laughter is two-fold, individual and social. For the individual, apart from the complex vital reaction whereby it heightens the efficiency of a variety of physiological processes and furthers the physical well-being of its possessor, the peculiar value of laughter consists in the fact that it is an indefeasible æsthetic good, whose simple existence is its sufficient justification. When it appears in its spontaneity, it is the perfect bloom of a happy mind, the purest expression of which is found in the frank, infectious laughter of children. A more specialized aspect of value is presented in the social and moralistic function of laughter, which involves a large preceding development in the range and variety of the objects of laughter and parallels the whole complex process of human social evolution.

Among the contributions which Mr. Sully's book makes to our understanding of the place of laughter, the most important, in the reviewer's opinion, is contained in the discussion of laughter in social evolution. In the course of this chapter, the author points out the manifold ways in which this function has served the cause of progress. Choral laughter unifies those who participate in it, to laugh together is to promote good-fellowship. It also tends to consolidation by throwing into relief those common interests, traditions, and ideals of the family or tribe which differ from the customs and aims of other groups, as when the laugh is turned against a foreigner.

Laughter corrects errant tendencies within the group by bringing extravagances into derision. It moulds the character of the individual by dissuading him from minor unsocial habits, and, in things of greater importance, by quickening reflection and strengthening the will. In all these social relations, laughter is a mild yet searching test of the genuineness and value of a multitude of individual variations and social innovations. This

function is especially conspicuous in reference to claims of superiority by classes or individuals, since the searching out of all weaknesses and subjecting of them to the irony of laughter by other and inferior groups purges the object of unworthy and offensive traits, and assists in maintaining a high standard of excellence.

Not only in class distinctions and individual dignity is ridicule a potent factor in preserving worthy ideals of character and life, but in the empire of ideas as well it plays its part. New intellectual conceptions and novel social practice are tried in the crucible of laughter, and society is thereby preserved from the rash adoption of untested customs. The new mode must have sufficient vitality to survive ridicule, if it is to be finally adopted as part of the people's possessions. Among the lesser functions of laughter is that of a social mollifier. It relieves restraint and sets men at their ease ; it takes the edge off personal and professional antagonisms ; it socializes and enlivens the discussion of serious problems.

As the differences between individuals and groups become more complex and subtle, laughter, while retaining its fundamental social functions, undergoes a parallel development in modulation and refinement. This progressive modification which is observed in the history of peoples leads to the consideration of the ultimate function of laughter in human society, and, in closing, the author, in a spirit admirably tempered by caution, ventures upon an indication of its probable place in future social evolution. The decline of choral laughter is part of a larger change involving the disappearance of a full abandonment to the mood of play ; but, with this quieting of rude and boisterous mirth, the lash of satire has been eased and men have been drawn together through the growth of a tolerant humor which has enriched their appreciation of life with many new tones of quiet laughter.

Much in the book that is of interest or importance, for example, the analysis of comedy and humor, must necessarily be overlooked in this short note. The work is eminently readable, and is marked by a sustained reasonableness of view. The range of the author's reading is indicated by the two hundred and odd names which appear in the index appended to the book. Mr. Sully has a happy faculty for quotable characterizations which linger pleasantly in the memory, from which I take the following phrases : "The joy of living leaps to a higher plane and bursts into a peal of mirth" ; "Laughter is the manna on which good fellowship loves to feed" ; [Humor is] "laughter sobered by a word of wisdom" ; "A sympathy of a step too quick for the sense of fun to keep abreast in friendly comradeship will . . . make an end of laughter" ; "It is this playful shimmer of a light thrown by an entertaining idea on the surface of a misfortune which rids it of the worst of its gloom" ; "Pure and honest laughter, like mercy, blesses him that gives, and him that takes."

ROBERT MACDOUGALL.

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Fragments in Philosophy and Science: being Collected Essays and Addresses. By JAMES MARK BALDWIN. New York, Charles Scribner's Sons, 1902. — pp. xii, 389.

Few readers of Professor Baldwin's formal volumes, even of those who aim to keep up with current periodical literature in psychology and philosophy, realize the great number of minor articles which he has published in the last decade and a half. The present volume, which consists of a selection only of these fugitive articles, cannot fail to impress one with the extent, variety, and richness of the writer's philosophical work. The twenty-five papers which are here brought together have all with one exception been printed before. Scattered through ten journals and over a period of fifteen years, however, they were largely inaccessible. The future historian a generation or two hence, who writes of the philosophy of the present age, will find in this volume no small aid in tracing the development of Professor Baldwin's philosophic thought.

Several of the essays present in embryonic form ideas that play a prominent part in his most important works. This is notably the case with the article on "Imitation: a Chapter in the Natural History of Consciousness" (pp. 168-209). This article was first published in 1894 in *Mind*, and is the seed thought of the author's *Mental Development*, and, to some extent also, of his *Social and Ethical Interpretations*. Other articles serve as interpreters of some characteristic theory of the author's larger works, either by answering criticisms or by criticising opposing views of others. In this way the articles on "The Perception of Reality" (p. 232), and on "Feeling, Belief, and Judgment" (p. 239), aid in the exposition of the doctrine of reality, feeling, and belief in the *Handbook of Psychology*. Indeed, it is the fact of the relation which these papers bear to the topics of his larger works which, the author tells us in the preface, has served as a principle of selection and also as a prominent reason for the publication of the collection.

Besides this interpretative function, the work has another, an introductory function. "The group of philosophical essays are introductory to a developed view of the world" (p. vii). This statement of the writer himself justifies us in looking for a certain unity of thought in the collection, and for intimations, at least, of the general philosophy by which, it is to be hoped, Professor Baldwin in the fullness of time will crown his labors in special fields.

The first paper is an explicit statement of the author's general attitude towards philosophy. Before all else philosophy is pronounced a vital discipline. Its problems are the problems of human life. The world-problem — what, whence, why, and whither the world — the problem of knowledge, its validity and its extent — all these problems of the philosopher are questions that inevitably emerge in actual life. The answers too are vital. They are not mere speculative fancies. For weal or for woe they deter-

mine concrete courses of conduct, *e. g.*, one's attitude toward society and its institutions. But not only has philosophy to do with vital problems, not only are its answers determinants of real life, but the legitimate test of the truth or falsity of its teaching is its effect on life. There is no extended discussion of this view, either in this essay or in any of the others in the present volume. The following passage, however, indicates the chief ground on which the author would base the defense of this practical test of truth. "Why should not all facts of mind be as valid as any facts of nature? . . . Biological evolution is based upon a principle whereby needs arise where satisfactions are, and where satisfactions are not found, there no need is; the economist develops the social organism on the same principle, that supply does not precede but always accompanies demand. Yet what treatment does the man receive at the hands of contemporary science who claims that an ethical demand is sufficient proof of its own normal satisfaction, and that mental intimations of immortality afford presumptive evidence of a future life? Yet the man of science knows that such inner experiences are facts," etc. (p. 11).

Seekers after a spiritual view of the world have been prone to argue from the moral and religious needs of man to a realm of spirit, a spiritual world which is the counterpart of the spiritual man. The tendency of such minds has been either consciously or unconsciously to condemn the natural world in their seeking of the spiritual. The significant thing, it seems to me, in the present-day revival of this argument, is that it is made by men who have been trained in the natural sciences, and are as keenly alive to the reality of the natural world and the validity of the sciences which deal with it, as they are to the importance and value of the spiritual world. Such preëminently is the case with Professor Baldwin.

This brings us to a second prominent feature of his world view — the sovereignty of science in the natural realm. Nature here includes, of course, mind as well as matter. Psychology, therefore, is to be pursued with as unswerving loyalty to scientific principles as is physics. "Comparative and experimental psychology are the direct outgrowths of the modern scientific spirit, and it is to the merit of contemporary philosophy that the new work is receiving its hearty endorsement. . . . I speak here with the conviction arrived at through earnest study in the laboratory and with the physicist, and with the caution which is born of a realization of unsettled problems, and I say that neurological and psychophysical research has done no hurt to an idealistic philosophy" (p. 17). It is one thing to accept science grudgingly as far as its results up to date are quite indubitable, and to look for evidence of the spiritual world in the gaps which science still leaves in the natural; it is quite another thing to recognize that all nature belongs to science, whether she has as yet made good her claim or not, and that the spiritual is to be found, not by denying any of the facts of nature to science, but by the interpretation and evaluation of the world of science in the light of man's highest ideals and aspirations. From the

latter point of view, there can be no conflict between science and philosophy. The complete naturalism of the one in no wise militates against the idealism of the other. Professor Baldwin not only urges this view explicitly, but what is more to the point, he lives up to it. In his various psychological studies there is no abandonment of scientific methods or conclusions because of any fear that they may conflict with his final idealistic interpretation of things.

An ultimate idealism may be noted as the third great feature of his world-view. This is not so much explicitly stated in his first essay as taken for granted. In fact, in no one of the papers do we find any extended exposition of his idealism, and yet it is present throughout as an essential part of his fundamental point of view. A few statements here and there, however, may be taken as indications of the kind of idealism toward which he is aiming.

The fourth essay, a brief criticism of "Professor Watson on Reality and Time," gives us the most information on this point. There the conviction is expressed "that it is only part of the realities which we get that are thought-constructions; many of them are *felt* realities. For example, does not ethical appreciation always run ahead of cognitive description? The æsthetic and other 'worths' of our system of realities are as such not objects of thought" (p. 68). In the next essay, "The Cosmic and The Moral," the real and ethical are found to constitute one and the same series, looked at in the one case retrospectively and in the other prospectively. In opposition to the view that there is no chance of reconciling the metaphysical real with any ethical interpretation of the same reality, he says: "Rather must reality, when viewed metaphysically, be both rigidly true and *also* divinely fair — so far as metaphysics may allow us to hold to either category as more than a device of human thinking." To this passage is appended the note: "This point embodies one of the essential approaches to the philosophy toward which the writer is now [1902] finding his personal views tending, and which sees in the *æsthetic* category, rather than in either that of truth or that of ethical worth, the real and final reconciliation" (p. 76). In the preface also we find another expression of this same faith in the supremacy of the æsthetic category. It is to be regretted that the book does not contain anywhere at least a tentative outline of the path by which the author hopes to reach that æsthetical idealism which is to be the reconciliation of the intellectual and the ethical. This is the only point, however, in which the book fails to realize the expectations awakened by the preface.

Besides the above indications of Professor Baldwin's general world-view, the book contains some suggestions as to his philosophy of morals and his philosophy of religion. The essay on "Imitation" may be regarded as a psychological prolegomenon to the former, and the one on "The Psychology of Religion" to the latter. The genesis of the religious consciousness is explained after the same manner as that of the ethical. The development

of the personal self carries with it the progressive construction of the 'other' person. The God-person is the ideal 'other' — the necessary correlate of the ideal self. Thus religion is "a function of the personal development which is also social; and an adequate theory of the rise of personal self-consciousness accounts *ipso facto* also for the religious life. The impulse to read self into others, *i. e.*, to recognize personality as more than individual, with its final development in the recognition of ideal personality — this is what, in my opinion, a genetic account of religion requires" (p. 328).

In the brief paper on "Theism and Immortality," we find an indication of the correlation between the author's metaphysics and his philosophy of religion. All realities, he holds, are forms of organized experience, necessary satisfactions of our nature's demands. "And that we need them and get them, that is their proof. That the external world is real means simply that it is an inevitable way that the mind has of organizing what it finds in that certain sphere of its experience which we call sense-perception. Truth is the sort of reality which we reach by an equally inexorable demand of our nature that we recognize what is logical. *And our ethical and religious life in organizing its experience reaches the reality which we call God.* God is the reality which our moral and spiritual nature needs and finds" (pp. 341-2).

Such, in outline, is the world-view to which this collection of essays is introductory. It was perhaps presumptuous to attempt to draw up such an outline. My only defense is, the preface tempted me! The volume is not even an architect's elevations, to say nothing of the finished structure. It is properly a gathering of the well-hewn psychological foundation-stones for a philosophical edifice. Clearly criticism of the architect is not yet in order. One question, however, persistently arises in the mind of the reader: Will the author in his finished structure avoid the idealist's fallacy? Will he avoid the assumption that the psychological genesis of our idea of reality is the account of reality itself? Reality may be only a construction of experience; my contention is simply that something more than the psychology of the idea is necessary to prove this. There are indications here that this pitfall lies in our author's pathway. Will he escape it?

F. C. FRENCH.

COLGATE UNIVERSITY.

Bibliothèque du Congrès International de Philosophie. IV. Histoire de la Philosophie. Paris, Librairie Armand Colin, 1902.—pp. 530.

It is clearly impossible, in the available space, to discuss in detail the eighteen essays that constitute the contents of this notable volume. I believe I shall best consult the interests of the readers of the REVIEW by adding a few remarks on selected chapters, after reproducing the titles of the studies therein contained: I. "Aim and Method in the History of Philosophy," by E. Boutroux. II. "Discourse on the Proper Method of

Studying the History of Philosophy and of Ascertaining the Truth in the Systems," by Paul Deussen. III. "On the Progress Disclosed in the History of Philosophy," by J. J. Gourd. IV. "The Conception of a Mathematical Physics among the Greek Philosophers from Pythagoras to Plato," by René Berthelot. V. "'Becoming' in the Philosophy of Plato," by Victor Brochard and Lionel Dauriac. VI. "On the Historical Evolution of the System of Plato," by Louis Couturat. VII. "On Plato's *Parmenides* in Relation to Aristotle's Criticism of the Theory of Ideas," by David G. Ritchie. VIII. "On the Concept 'Ενέργεια 'Ακίνησις,'" by F. C. S. Schiller. IX. "On the Principles of the Philosophy of Nature in Aristotle," by Paul Tannery. X. "Inductive Logic in the Epicurean School," by Georges Lyon. XI. "The Value of the Scholastics," by François Picavet. XII. "Physiological and Psychological Memory in the Philosophy of Descartes," by P. Landormy. XIII. "The Moral Principle in the System of Pierre Bayle," by J. Devolvé. XIV. "David Hume and the Critical Philosophy," by Henri Delacroix. XV. "On the Meaning of 'Experience' in the Philosophy of Kant," by Victor Delbos. XVI. "Swedish Philosophy in the First Half of the Nineteenth Century," by Reinhold Geijer. XVII. "The Conception and Method of the Philosophy of Science in the System of Auguste Comte," by Gustave Belot. XVIII. "The Philosophy of Nietzsche," by H. Vaihinger. It will be observed that the contributions are arranged chronologically, with the natural exception of those which relate to the scope and method of the discipline.

M. Boutroux quotes with approval the saying of Herder, "Einen Schriftsteller aus sich selbst zu erklären ist die honestas jedem honesto schuldig," and demands that the historian do not accept the direct influence which a thinker exerts upon subsequent philosophy as the sole standard of his significance. Professor Deussen distinguishes three factors in the thought of every great philosopher: the *individual*, *i. e.*, that which springs from the individuality of the man; the *traditional*, *i. e.*, that which gives direction to the thought, not only of the individual, but of the time; the *original*, *i. e.*, that element in a system which is unique and of lasting significance. Unfortunately Deussen does not disclose the relation of the original factor to the individual, and even less does he discover a sure criterion for the ascertainment of the original. It may be confidently affirmed that the specimens he gives of his method in the sketches of the original thought of Plato, Jesus, and Kant will satisfy few but their author. M. Gourd's interesting survey of the history of thought is too long to admit of brief characterization.

Mathematical physics, as conceived by M. Berthelot, is a much vaguer term than one might expect. It means virtually only the disposition of the philosopher to substitute the category of quantity for that of quality in the explanation of phenomena. In tracing this tendency in the successive systems, some light is indeed shed upon the problems that confronted the early Greek philosophers, but these problems are themselves so ab-

strictly formulated as well-nigh to lose their identity. One of M. Berthelot's most interesting suggestions is that which sets atoms into relation with the Pythagorean numbers. While it is wholly probable that there was historically a very intimate relation between the two conceptions, it is nearly certain that M. Berthelot misconceives the nature of those numbers. When Professor Diel's *Fragments of the Pre-Socratics* becomes available, the present excuse for such misconceptions will no longer exist.

Plato receives the well deserved homage of three studies. Of these, the essay on 'Becoming' is doubtless the most important. We are told in a footnote that it is a preprint from a history of Greek Philosophy which its authors have in preparation. We may well await the publication of the completed work with some impatience. Certain problems, *e. g.*, the identification of the four 'causes' of the *Philebus*, seem to be as far as ever from an accepted solution (*cf.* p. 121 with p. 159). M. Couturat essays to summarize and restate the results of the statistical studies of the Platonic dialogues, notably those of Campbell, Lutoslawski, and Natorp, in so far as they may shed light on the development of Plato's thought. His conclusions coincide generally with those of Lutoslawski. Professor Ritchie's essay on the *Parmenides*, which can scarcely be said appreciably to advance the solution of the problem, is a welcome evidence that this great masterpiece is receiving the renewed attention it so well deserves. Couturat and Ritchie agree with Lutoslawski that the *Parmenides* marks the turning-point in Plato's dialectic, corresponding to his efforts at mediation in the sphere of morals and politics, begun in the *Republic*, and completed in the *Philebus* and the *Laws*. The language in which this conclusion is stated by Couturat is strikingly like that in my essay entitled, "The Necessary and the Contingent in the Aristotelian System," 1896.

Mr. Schiller, in his contribution, resumes a subject already broached in the *Riddles of the Sphinx*. He interprets and justifies the Aristotelian doctrine of the ἐνέργεια ἀκινήσας, — the doctrine that the being of God, as of the supremely actual, does not undergo change. As a specimen of exposition and argument, the essay is perhaps the best in the volume. M. Tannery, in his study of Aristotle's scientific principles, makes the following profound observation, which, if properly appreciated, would necessitate the rewriting of almost all the books on the history of thought: "Generally the so-called principles are not the determining cause of the system; on the contrary, it is the system, already conceived in its general outlines, that — consciously or unconsciously — calls forth the principles; they are only a means to that end."

M. Lyon offers a careful study of the inductive logic of Epicurus, based upon the fragments of Philodemus's *περὶ σημείων καὶ σημειώσεων*. It is a welcome evidence, among others, that the narrow dogmatism has ceased to prevail, which regarded all post-Aristotelian logic as degenerate and valueless. M. Picavet presents both the claims made for the Scholastics and the criticisms urged against them, and strikes a just balance. In all prob-

ability there exists nobody better qualified than he to form and render an impartial judgment on the subject. I know of nothing to be compared with his essay in its own field.

Among the contributions relating to modern philosophers, Professor Vaihinger's exposition of the philosophy of Nietzsche easily ranks first. He enumerates seven tendencies apparent in the thought of Nietzsche, which he regards as most important. These he characterizes pointedly by the following terms, which are readily understood: *anti-moraliste, anti-socialiste, anti-démocratique, anti-féministe, anti-intellectualiste, anti-pessimiste, anti-religieuse*. These tendencies he essays to correlate by tracing the evolution of Nietzsche's thought. Vaihinger distinguishes three periods; first, that in which Nietzsche echoed Schopenhauer, accepting his doctrine of the will and his theory of art; second, that in which Nietzsche was strongly positivistic and intellectualistic; third, that in which Nietzsche returned to Schopenhauer's doctrine of the will, but abandoned his pessimism for an optimism based upon the acceptance of Darwinism. Vaihinger's position may best be stated in the words in which he has chosen to express his thesis: "The teaching of Nietzsche is that of Schopenhauer converted into a positive theory, and this transformation was accomplished under the influence of Darwinism."

In conclusion, it is right that we should say that the volume is a worthy memorial of a noteworthy congress.

W. A. HEIDEL.

IOWA COLLEGE.

Constitution de l'éthique: quatrième essai sur la morale considérée comme sociologie élémentaire. Par E. DE ROBERTY. Paris, Félix Alcan, 1900. — pp. 223.

M. de Roberty gives us in this book a somewhat extended, if not labored, explanation of his views regarding the relation of ethics to the other spheres of intellectual pursuit likely to be considered in connection with it, viz., psychology, science in general, and philosophy. He complains of his intellectual relatives, the positivists, that they have been too narrow in their recognition of the products of intelligence to be considered. They acknowledge only one series of facts, the *scientifique*, while M. de Roberty insists that we must recognize the important material found in philosophy, art, and industrial life as well as that afforded by science. They all four belong together, as contributing material of sociological or ethical value. They make what he calls the psycho-social series, and they stand in the following order of priority and interdependence: Science; philosophy (since the character of philosophic ideas is determined by the prevailing scientific ideas); art, which depends likewise on the preceding two; and industry, which depends on all three. These four constitute and determine all the facts of human society, and they thus give the fourfold content for ethics, which is identified with sociology. And this whole body of material is distinguished from the phenomena of biology and chemistry in that the

type of causality here operative is final, and not mechanical. 'Finality' is the distinctive work of superorganic phenomena, with which sociology deals.

Sociology is not to be confused with psychology, either individual or collective. M. de Roberty criticises the views of Hegel, Herbart, and Steinthal, because they made the mistake of deriving sociology from collective psychology, although this, he says, is better than deriving it from individual psychology. The fact is, individual psychology depends upon sociology. Individual mentality is but the outcome of the reciprocal action of living organisms already endowed socially. Sociality antecedes and produces both social groups and the individual qualified socially with rights. His theory of the *psychisme collectif* is just that sociality is a transformation of vital factors, by which a discrete aggregate becomes a new thing called a 'social group' characterized by 'continuity' in place of discreteness. It is the social whole which creates the individual mentally, and not *vice versa*.

Psychology is a concrete science which investigates the phenomena of mind. Sociology studies the laws or conditions of social existence; biology studies the laws or conditions of organic life. Psychology bases itself upon these two abstract inductive sciences, and gives us a concrete knowledge or ideology. To confound the concrete knowledge of psychology with either biology or sociology, which are both abstract, would be to repeat either the mistake of Comte and the positivist school, when they subordinated psychology as a chapter of cerebral physiology, or the mistake of Herbert Spencer and the evolutionist school, who made ethics a chapter of ideology (that which deals with moral ideas). Ethics, or sociology, is an abstract science of the whole field of superorganic facts.

The last chapters deal with the relation of sociology (ethics), religion, and philosophy, thus completing the program of showing the relation of philosophy to all the disciplines of the psycho-social series. The treatment here shows plainly the author's positivistic lineage, and is perhaps less suggestive than the previous parts of his book. W. B. LANE.

RANDOLPH MACON WOMAN'S COLLEGE.

Le idee fondamentali di Fed. Nietzsche. Per F. ORESTANO. Palermo, A. Reber, 1903.—pp. viii, 359.

Dr. Orestano's book, aside from its intrinsic merit, is interesting as a further evidence of academic vigor in the new Italy. We have here signs of scholarly acquaintance, not merely with a particular subject far removed, one might suppose, from the ordinary circle of Italian thought, but with a background of extensive literatures other than Italian and other than Romance. In the present work one may trace the influence of German method and of familiarity with Germanic criticism. The author has himself studied to advantage in Germany; and he seems to have followed, among others, the inspiring Danish critic Brandes in a considerable range

of reading. From the north he has assimilated much and well. Method and scope such as we often attribute to the Germans he adds to a pliant sympathy for his subject and a limpidity of language distinctively Italian.

Dr. Orestano's method is genetic, interpretative, and critical. The author aims to follow Nietzsche's fundamental ideas from their origin throughout their 'progressive development.' He desires to interpret them 'to the Italian public.' He wishes to separate for preservation what is more permanent and beneficial in Nietzsche from what is harmful or accidental. The plan of his book is excellent. After an introductory chapter of general exposition, with a sketch of Nietzsche's life and with useful notices of more weighty Nietzsche literature, he devotes the four succeeding parts of his treatment to four successive periods of Nietzsche's activity. He closes with a chapter of criticism.

In his introduction, Dr. Orestano seeks first to establish for Nietzsche a sort of double philosophical ancestry. The germ of Nietzsche's doctrine of the ultimate indifference of good and evil he discovers in Kierkegaard and certain Scandinavian followers. For example, he finds it well expressed in Ibsen's *Pretenders*, in a famous speech of Bishop Nicholas (Act I, Scene 2); a character and a speech, let us hasten to say, for whose sentiments Ibsen could scarcely be supposed to have a personal, or more than a creative artist's sympathy. Dr. Orestano hardly makes clear any direct influence of Scandinavian thought upon Nietzsche. Nietzsche's contention, on the other hand, for a free and harmonious development of the individual to his highest potentiality the author traces to the influence of Goethe and his cult.

In the development of Nietzsche's thought, Dr. Orestano marks out four periods. The first, 1869-76, extending from the inaugural dissertation at Basel, *Homer and Classical Philology*, to *Ill-timed Reflections*, shows the precocious young professor busied with two main problems, Hellenism and the question of German national culture. Space permits here the barest notice of this and the succeeding three chapters; we must refer the reader to the excellent paragraphs of summing up, in which Dr. Orestano, as he passes from point to point, crystallizes the essence of his various chapters and subdivisions.

The second period, 1876-79, comprises *Humanity too Human*, *Various Opinions and Proverbs*, and *The Wanderer and his Shade*; it displays Nietzsche seeking independence of thought, after his rupture with Wagner and Schopenhauer.

The third period, 1880-85, includes Nietzsche's publications from *Aurora* to *Thus Spake Zarathustra*. In it Nietzsche gives expression to his most characteristic ideas: men must become again part and parcel of nature; elevation of the human type can be founded only upon deeper-laid instincts; good and evil *per se* have no existence; the individual is paramount; the identical ever returns.

The fourth period comprises all the later works. In these Nietzsche

essays a systematic and final expression of his whole teaching. They are, consequently, ethical and apologetic; they include *Beyond the Realm of Good and Bad*, *The Will for Might* an *Attempt to Revalue all Values*, *The Wagner Affair*, *Twilight of the Idols*, and posthumous fragments.

In his fifth chapter, Dr. Orestano, after an appreciative notice, though not uncritical, of the conclusions in Vaihinger's *Nietzsche*, sums up as follows: "The theoretical basis of Nietzsche's teaching is in general slight, not seldom defective, extremely one-sided. Nietzsche's belief in the sovereignty of individual power excludes for him all other points of view. True and false, lawful and illegal, beautiful and repulsive have lost in his philosophy all generic distinction; power alone has right to create values, whether cognitive, moral, or æsthetic. No logical necessity lends Nietzsche such a privilege of intuition. With equal justice another philosopher might say that, not power, but, for example, love was the foundation of all human values" (p. 254). In this suggestion lies the key-note of Dr. Orestano's criticism.

Of permanent worth Dr. Orestano considers the following tenets of Nietzsche: (1) Life in its essence cannot be wrong; every ethics or religion that abjures life is false; (2) society is to be saved by its superior individuals. One might remark that these are no new teachings; Nietzsche has, however, revived them in the glow of his unusual and burning genius (p. 355). Dr. Orestano's treatment may be characterized as at once sympathetic, just, and thorough, qualities that must commend it to every student of Nietzsche.

L. COOPER.

CORNELL UNIVERSITY.

Psychologie als Grundwissenschaft der Pädagogik: Ein Lehr- und Handbuch unter Mitwirkung von Seminardirektor Dr. K. HEILMANN, herausgegeben von Direktor Dr. M. JAHN. Dritte Auflage. Leipzig. Verlag der Dürr'schen Buchhandlung, 1901.—pp. x, 464.

Perhaps it is in the nature of things that attempts to apply psychology to the needs of the teacher should so generally be disappointing. The present volume has merits as a general introduction to psychology. It is simply and clearly, albeit somewhat monotonously written, and shows a sufficient acquaintance with the recent tendencies in psychology. It might easily have been shortened, however, by omitting references to various matters of controversy which are treated so briefly as hardly to be intelligible to the untrained student. As it is, the carrying away of a unified impression from the book is not altogether easy. From the pedagogical side, the chief criticism of the book is that its point of view does not seem really to be very enlightening. There is an attempt to work out a scheme of psychological development, in which the main feature is the separation between the lower stages, which follow the laws of psychical mechanism, and the higher apperceptive functions. The writer justifies this primarily on the ground of its practical values, but he fails to make apparent that it does

supply any really illuminating principle available for our practical guidance. His own applications are comparatively few, and are for the most part of the distressingly obvious sort. A somewhat extensive use is made of the results of child study.

A. K. ROGERS.

BUTLER COLLEGE.

An Introductory Text-Book of Logic. By SYDNEY HERBERT MELLONE.

William Blackwood and Sons, Edinburgh and London, 1902.—xiv, 362.

The Principles of Logic. By HERBERT AUSTIN AIKINS. Henry Holt & Co., New York, 1902.—x, 489.

To one who is undertaking to write a text-book in logic, there appears always the proverbial difficulty of putting the new cloth into the old garment. For he finds himself confronted by the following dilemma. If he seeks to give an adequate representation of the traditional logic, there is the danger that he may leave the impression that logic as a critique of the reasoning process is artificial, indirect, and needlessly involved, and that a few simple common sense principles, easily formulated and as easily applied, might enable one to reason equally well and at the same time provide against all possible fallacy. If, on the other hand, the traditional treatment of logic is omitted altogether, or inadequately or indifferently presented, then some of the most fundamental principles of thought are neglected, and although they may be presented in another form, nevertheless a serious loss has been sustained in depriving the student of an acquaintance with the sources of logic which are to be found in the early Greek philosophy. For it is at these sources that he discovers a clearness in statement, a precision in definition, a subtle appreciation of fine distinctions and of remote relations which remain forever undisclosed to a surface inspection; above all, he there acquires a vocabulary which will prove invaluable to him in the larger field of general philosophy. Contact with the Greek mind in the process of analyzing itself is a bracing discipline, giving both power and facility to the reason.

The authors of the two books now before us have appreciated the difficulties of their task, and have consistently endeavored to impart life to the traditional treatment of logic. They seem determined that these dry bones shall live, and each in his own way has in a considerable measure succeeded. Professor Aikins is the more radical of the two in his general method. He discards the traditional treatment of the syllogism, and substitutes a machinery of criticism peculiarly his own, whose practical working is mediated by quite an elaborate system of symbols. The traditional rules of the undistributed middle, and that of the illicit process of the major or minor terms, are referred to only incidentally and that in a footnote. Professor Aikins presents different canons of criticism which vary for the four figures. This brings to the fore the discussion of the differences which underly the four figures. Also, in treating the fourth figure, he is compelled to use the traditional process of reduction. It would be better

to condense the subjects of figures and of reduction rather than to dwell upon them at length as Professor Aikins does. It is the one part of the traditional treatment above all others which may be curtailed without disadvantage. Moreover, it is a question whether the traditional rules may not be preserved and yet rendered quite as objective as the various canons which are here substituted for them. It would seem, too, that an elaborate symbolism tends to make the process of criticism somewhat mechanical and certainly indirect. The invalidity of reasoning should be immediately apparent to the student, and it should be possible also to refer it directly to some simply formulated principle of thought, without the aid of any process which is conducted by means of symbols. Professor Aikins, however, has been most successful in his endeavor to give concrete living expression to abstract and formal statements, and also in enriching the text by illustrations possessing present interest and appositeness.

Dr. Mellone in his exposition has kept more closely to Aristotle. By so doing he has preserved the philosophical spirit of Aristotle, and has thus avoided the more scholastic features of the traditional logic. At the sources there is life and vigor, which in the subsequent development of logical theory became feeble and deadened, if not wholly dead. The author insists that Aristotle dealt with the fundamental logical principles and distinctions in a manner which fully appreciated the wealth of concrete significance attaching to them. It is by a return to the Aristotelian point of view that he hopes to present the traditional logic in such a way that the student will not feel that it is unworthy of his attention. In the course of his treatment, he has endeavored to present some of the simpler and more interesting questions which have emerged among the modern logicians in the discussions of Sigwart, Bradley, and Bosanquet. This adds much to the general interest of the subject. The concluding chapter of the book takes up some of these questions more in detail, which serves as an excellent introduction to the modern logic. It would have been better, it seems to me, had the author placed Chapter IV, "On the Import of Propositions and Judgments," after his exposition of the traditional logic. In its present position, it separates the two subjects of mediate and immediate inference. The questions which it raises concern the general theory of logic, and might properly be discussed in connection with his last chapter. Also the position of Chapter VI, "On the Predicables, Definition, and Classification," might advantageously be changed. As it is, it comes between the discussion of the categorical syllogism and that of the hypothetical. It breaks up the continuity of the presentation of the subject matter, and would be more effective were another position assigned to it. The treatment of opposition and immediate inference might be condensed with advantage. A strange mistake in definition, evidently a typographical error, appears in the text where the author defines the major term of the syllogism as the subject, and the minor term as the predicate of the conclusion (p. 122).

Dr. Mellone's discussion as to the nature of the Aristotelian Enthymeme, and the Aristotelian Paradeigma is interesting and valuable. His illustrations and examples are also of the kind which possess life and concrete significance.

JOHN GRIER HIBBEN.

PRINCETON UNIVERSITY.

Shakespeare's Portrayal of the Moral Life. BY FRANK CHAPMAN SHARP.
New York, Chas. Scribner's Sons, 1902—pp. xiii, 224.

The very modesty of Professor Sharp's claims for this book makes it difficult to discover its aim. From its title, it might conceivably be a work in literary criticism, psychology, or ethics; but it is prevented from being any one of these by the author's verbal disavowal and actual use of all three methods. "Not merely how he criticised but also how he generalized are subjects that alike fall outside the inquiry that is here proposed" (Preface, p. xi); so this is not a study of Shakespeare's art. "How far these offspring of a poet's imagination resemble the men and women with whom scientific ethics attempts to deal, I have in the main refrained from considering" (p. xi). The topic of moral pathology constitutes an admitted exception to this plan, and is, accordingly, quite out of keeping with the rest of the book, though it is distinctly the most interesting part. So psychology is sporadic. As for ethics, Professor Sharp announces at the outset that the book bears only upon the descriptive or psychological and anthropological branch of that study. Thus the result is restricted to a description of the moral consciousness of Shakespearian characters. Furthermore, it appears in the course of the book that (*e. g.*, with reference to egoism and altruism) "we find mirrored in Shakespeare's world the chaos of opinion on this subject which prevails in the society by which we are surrounded" (p. 13). This statement is doubtless sound, but the author nowhere states the general principle of interpretation which sums up this and the similar generalizations that abound in late chapters. Shakespeare exhibits the morality of society, or custom, as sanctioned by common opinion. To demonstrate this in detail without formulating it, is simply tedious, and almost ludicrous when it leads to such conclusions as this: "It will now be clear that altruism is represented by Shakespeare as one of the most important factors in the moral life" (p. 7).

One further difficulty remains. Though Professor Sharp does not claim that such a study as this can solve the problem of reducing "the moral judgments of mankind to a consistent and reasonable system" (Preface, p. x), he arrays Shakespeare and Kant against one another as antagonist and protagonist of "Transcendentalism." Moral pathology is held to be the death-blow to the Kantian ethics. If any ethical system was ever constructed upon critical and logical rather than psychological grounds, it would seem to be that of Transcendentalism, and it is difficult to see what the discovery of "incurrigibles" has to do with "that which would approve itself to a mind cognizant of, and sensitive to, all the facts of human experience" (p. x).

What usefulness the book has lies in its array of cases that might be subject matter for further study from a psychological or ethical point of view, or with a view to the understanding of Shakespeare's art of portrayal. But the present treatment is too incomplete to be a compendium, even were it not always possible, and vastly more illuminating, to go to the plays themselves. Professor Sharp writes well and has produced a readable book, which, if not profound, serves to mark again the fact that with Shakespeare interpretations are out of the question, unless you are prepared to interpret the universal experience of men.

RALPH BARTON PERRY.

HARVARD UNIVERSITY.

The State, Specially the American State, Psychologically Treated. By DENTON J. SNIDER. St. Louis, Sigma Publishing Co., 1902.—pp. 561.

The reader of Dr. Snider's earlier work, *Social Institutions*, or of the review of it in the January number of THE PHILOSOPHICAL REVIEW, will remember that in his system Family, Society (*i. e.*, the industrial order), and the State constitute the three secular institutions. In that book, the exposition of the State was passed over with the promise that the subject should be treated at length in a separate work. The volume before us is the fulfillment of that promise. It should be regarded as a constituent part of the former work, though in separate covers. Accordingly, what was said of that book in a general way as to method, style, and point of view applies also to the present volume. The Hegelianism is still present and even more conspicuously Americanized. As Hegel founded his theory of the State on the Prussian model, though to a considerable extent unconsciously, so Dr. Snider constructs his quite consciously on the American model. The work consists of three parts—first, a general preliminary statement of the theory of the state (pp. 5–57); second, a dialectical interpretation of the American constitution (pp. 58–381); and third, an exposition of the nature of the state in three aspects: (1) the positive state, (2) the negative state, and (3) the evolution of the state (pp. 382–496). In an appendix (pp. 497–561) is republished an essay on "The American State," written some thirty years ago and containing the germs of the present book.

A social institution and especially a state, in Dr. Snider's view, is an organism. But this institutional organism differs from those of a lower type in that the members of it are free, self-conscious selves, who call forth an organic world whose object is to secure them all associated together in self-conscious freedom. "Every will, when it acts, implies the state. . . . The unity of diverse wills, being made objective and existent in the world by its own inner native character (such will is not will unless it objectifies itself), becomes therefore a will which is object and acts in the world—becomes *instituted*, or an institution. Here lies the primal psychological nature of all institutions, which we have so often called will actual-

ized. But the state, which is our present theme, is that form of will actualized whose end is to secure will through the law" (p. 46.)

What, then, is this self-objectifying will? It is not, according to our author, the mere will of all acting in common. Neither is it, in his view, the will of a general personality which, as a higher individual, is set over the individual members of the state. The state is not a person, he says. But how can there be a will which is no person's will? Dr. Snider puts this question himself and answers it by saying that the individual will is subjective, but the institution is will as objective. Such a will separate from the person would seem to be better called force or energy merely. But this conclusion is met by the assertion that it would imply that the state is determined by something outside of itself. "No power or force can have itself as end or content except the will." But how can a 'will,' which is not the will of a conscious self, have itself or anything else as end? It is only in that indissoluble unity with knowing and feeling constituting a genuine self that we can even conceive of will acting for an end. Will, apart from a conscious self, is a pure abstraction. It does not conduce to clarity of thought to call something by a name which, it is necessary to explain, does not mean what it does mean. It would be better to say at once that we are dealing with something unique and indefinable. A predicate emasculated of its essential content is a delusion and a snare. To say that the state has a psychical nature but no *psyche*, is a roundabout way of saying that it is a unique entity that cannot be described in psychological terms. Such a characterization, however, even if it does not tell what it pretends to, has the merit of carrying our thought of the state beyond the notion of a mechanical aggregate or of a biological organism.

"The best explanation of the meaning and end of the state in general may be found in the last particular manifestation of it in the movement of history." With this thought the author introduces the discussion of the American constitution and connects it with his general theory. Of course the constitution is found to be a true trifoliate flower of the dialectical tree. We cannot follow out here all the intricacies of the tripartite analysis many times repeated. As an illustration of the methods and results, we may quote the author's own summary of the three main divisions. These are as follows: "I. The conception of the constitutional state as the Union of States, whose ultimate end is to secure 'the blessings of liberty to ourselves and our posterity,' or to will the free-will of all more adequately by this new state.—The preamble. II. The law-producing process of the constitutional union, setting forth and ordaining the triune movement of the governmental powers—legislative, executive, and judicial—which produces law in its completeness. Here lies the principle of the Federal Union as such, federating and unifying the already existent states into one self-governing whole.—The first three articles. III. The state-producing (or reproducing) process of the constitutional union; the third act of the total movement in which the union returns upon itself and keeps repro-

ducing itself in a never-ending cycle. . . . — The last four articles. In brief, we may say, that in the constitution the union-producing state passes over into the state-producing union through the organization of the three governmental processes which enact, execute, and adjudicate the law" (p. 63). The state-producing function of our system, the author regards as its unique and preëminent excellence. In this he finds the supreme expression of the political instinct in man. Aristotle enunciated the truth that man is a political animal. For him and his age political meant city-producing; in mediæval and modern Europe, it came to mean state- or nation-producing; but in America it means that man produces the state which is itself state-producing. The analysis is sometimes over-refined, sometimes arbitrary. The attentive reader, however, will find much that is valuable and suggestive in this interpretation of the constitution.

In the third grand division of the book, the author develops his general theory of the state. The most original feature of this exposition is his "institutional" classification of the historical forms of the state. Corresponding to the three secular institutions — family, society, state — we find: "I. The parental state, in which the parent is the ruler given by nature; this form of state when civilized belongs specially to the Orient, and is expanded into the empire-state of Asia. II. The social state, in which the single-state appears as an independent member of a society of states, which society is continually seeking to become a political unity. Such is, in general, the European state, always showing a struggle between some form of the single-state and some form of the empire-state. III. The state-producing state, or the federal union, in which the European conflict between the single state and the empire state (or central authority) is reconciled and transformed into a process of unity whereby the single state produces the empire-state and the latter (the federal union) produces the single state. This is distinctively the Occidental State, as different from the Oriental and the European" (p. 412).

The work as a whole is a strong exposition of the positive conception of the state. It is an effective protest against the widespread fallacy that government is a necessary evil. However one may estimate the work philosophically, it would do a great public service if the book should inspire some writer to set forth its fundamental teachings, stripped of dialectical and psychological verbiage, and in a form to reach the popular mind. In the midst of the many disintegrating influences of the present day, it would make powerfully for social stability and progress, if such truths as the following could be generally understood and assimilated. "The state with its law is not a transitory phenomenon in human progress; it does not vanish with man's greater perfection, but is to become more perfect with him. . . . The man who denies government denies his self as a reality, making himself a mere inner shadow, or subjective phantasm which exists for him alone. Without government mankind would be a Hades of wan-

dering ghosts, embodied, it is true, but otherwise having no actual objective existence" (pp. 383, 405).

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The following books also have been received :

The Development of Modern Philosophy, with other Lectures and Essays. By ROBERT ADAMSON. 2 Vols. Edinburgh and London, Wm. Blackwood & Sons, 1903.—pp. xlviii, 358 ; xv, 330.

Contemporary Psychology. By GUIDO VILLA. Translated from the Italian by HAROLD MANACORDA. London, Swan Sonnenschein & Co., 1903.—pp. xv, 396. \$2.75.

The Pathway to Reality. By RICHARD B. HALDANE. New York, E. P. Dutton & Co., 1903.—pp. xix, 316. \$3.00.

Outlines of Psychology: An Elementary Treatise with some Practical Applications. By JOSIAH ROYCE. New York, The Macmillan Co., 1903.—pp. xxvii, 392. \$1.00.

Spinoza's Political and Ethical Philosophy. By ROBERT A. DUFF. Glasgow, James Maclehose & Sons, 1903.—pp. xii, 516.

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Experimental Psychology and its Bearing upon Culture. By GEORGE M. STRATTON. New York, The Macmillan Co., 1903.—pp. vii, 331. \$2.00.

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A General History of Commerce. By WM. C. WEBSTER. Boston and London, Ginn & Co., 1903.—pp. ix, 526.

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- J. BREUER. *Die sociaethische Bedeutung der Musse.* Von C. F. v. EHRENFELS. *Zur Erkenntnistheorie der ästhetischen Kritik.* Von R. EISLER. Leipzig, J. A. Barth, 1902.—pp. 77. M. 2.
- Von der Natur der Dinge an sich.* Von W. K. CLIFFORD. Aus dem Englischen übersetzt und herausgegeben von HANS KLEINPETER. Leipzig, J. A. Barth, 1903.—pp. 48. M. 1.20.
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- Friedr. Ed. Benekes Stellung zur Kantschen Moralphilosophie.* Von ADOLF LÖWENBERG. Berlin, Mayer & Müller, 1902.—pp. 104.
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- Das Wesen des Mitleids.* Von WILHELM STERN. Berlin, F. Dümmler, 1903.—pp. 50.
- Der kategorische Imperativ.* Von PAUL DEUSSEN. Kiel und Leipzig, Lipsius und Tischer, 1903.—pp. 29.
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- Aristote.* Par CLODIUS PIAT. Paris, Félix Alcan, 1903.— pp. viii, 396.
- Le mensonge : Étude de psycho-sociologie pathologique et normale.* Par G.-L. DUPRAT. Paris, Félix Alcan, 1903.— pp. 190.
- Les limites du connaissable : La vie et les phénomènes naturels.* Par FÉLIX LE DANTEC. Paris, Félix Alcan, 1903.— pp. 237.
- Essai de classification naturelle des caractères.* Par CH. RIBÉRY. Paris, Félix Alcan, 1902.— pp. xxiv, 199.
- Nietzsche et l'immoralisme.* Par ALFRED FOUILLÉE. Paris, Félix Alcan, 1902.— pp. xi, 294.
- La morale de la raison théorique.* Par ANDRÉ CRESSON. Paris, Félix Alcan, 1903.— pp. 301.
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- Essai sur l'hyperespace, le temps, la matière et l'énergie.* Par MAURICE BOUCHER. Paris, Félix Alcan, 1903.— pp. 204.
- L'image mentale.* Par JEAN PHILIPPE. Paris, Félix Alcan, 1903.— pp. 150.
- Le sentiment religieux en France.* Par LUCIEN ARRÉAT. Paris, Félix Alcan, 1903.— pp. vi, 156.
- Saggi per la storia della morale utilitaria.* 1. *La morale di T. Hobbes.* Per RODOLFO MONDOLFO. Verona and Padova, Fratelli Drucker, 1903.— pp. 275.
- L'elemento psichico : Studi sul metodo delle indagini psicologiche.* Per VITTORE ALEMANNI. Torino, Unione Tipografico-editrice, 1903.— pp. vii, 330.
- Se il piacere sia movente e l'emozione irriducibile.* Nota di E. REGÀLIA. Estratto dall'Archivio per l'Anthropologia e l'Etnologia, 1902.— pp. 46.
- I dati della esperienza psichica.* Per FRANCESCO DE SARLO. Firenze, Galletti e Cocci, 1903.— pp. 425.

NOTES.

Professor A. Ross Hill, of the University of Nebraska, has accepted a call to organize and direct a Teacher's College at the University of Missouri. Professor Hill's chair at Nebraska has been filled by the appointment of Dr. F. C. French, formerly of Vassar College.

We regret to announce the death of Edward E. Shieb, Professor of Philosophy in Tulane University.

Professor Münsterberg announces that \$150,000 has been secured for the new Emerson Hall of Philosophy at Harvard University.

Dr. Moritz Lazarus, Honorary Professor of Philosophy at the University of Berlin, died on the 13th of April, in the 79th year of his age.

Dr. J. Uebinger, Professor of Philosophy at the Lyceum Hosianum, in Braunsberg, has been called to the University of Freiburg i. B. as Professor Ordinarius.

Professor Geo. A. Fullerton, of the University of Pennsylvania, will spend the next fifteen months in Europe.

At the University of Pennsylvania, Assistant Professors Newbold and Witmer have been promoted to full professorships, and Dr. E. A. Singer has been appointed to an assistant professorship.

Dr. G. W. T. Whitney, Fellow in Philosophy, Cornell University, has been appointed Reader in Philosophy at Bryn Mawr College.

Dr. R. S. Woodworth has been appointed Instructor in Psychology, and Dr. W. P. Montague, Lecturer in Philosophy, at Columbia University.

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

THE PSYCHOLOGICAL REVIEW, X, 3: *J. Mark Baldwin*, Mind and Body from the Genetic Point of View; Studies from the Psychological Laboratory of the University of Chicago: (I) *C. R. Squire*, Fatigue: Suggestions for a new Method of Investigation; (II) *Kate Gordon*, Meaning in Memory and in Attention; (III) *M. L. Ashley*, An Investigation of the Process of Judgment as Involved in Estimating Distances; Discussion and Reports; Psychological Literature; New Books; Notes.

MIND, No. 46: *F. H. Bradley*, The Definition of Will; *B. Russell*, Recent Work on the Philosophy of Leibniz; *B. Bosanquet*, Hedonism among Idealists; Discussions; Critical Notices; New Books; Philosophical Periodicals; Note: MIND Association.

THE HIBBERT JOURNAL, I, 3: *G. L. Dickinson*, Optimism and Immortality; *A. Seth Pringle-Pattison*, Martineau's Philosophy; *T. W. Rhys Davids*, Buddhism as a Living Force; *Josiah Oldfield*, The Failure of Christian Missions in India; *J. P. Mahaffy*, The Drifting of Doctrine; *B. W. Bacon*, Recent Aspects of the Johannine Problem: I. The External

Evidence; *P. W. Schmiedel*, Did Paul Write Romans? *G. B. Stevens*, Auguste Sabatier and the Paris School of Theology; Discussions; Reviews.

KANTSTUDIEN, VIII, 1: *F. Staudinger*, Cohens Logik der reinen Erkenntnis und die Logik der Wahrnehmung; *Frank Thilly*, Kant and Teleological Ethics; *Fr. Heman*, Kants Platonismus und Theismus; *E. Sanger*, Die neue Kantausgabe: Kants Briefwechsel; *Fr. Paulsen*, Kant und die Metaphysik; Recensionen; Selbstanzeigen.

ZEITSCHRIFT FÜR PSYCHOLOGIE UND PHYSIOLOGIE DER SINNESORGANE XXXI, 4: *Max Meyer*, Zur Theorie der Geräuschempfindungen; *Chr. Ladd-Franklin* und *A. Guttmann*, Ueber das Sehen durch Schleier, *A. Iwanoff*, Ein Beitrag zur Lehre über die Knochenleitung; Literaturbericht.

VIERTELJAHRSSCHRIFT FÜR WISSENSCHAFTLICHE PHILOSOPHIE UND SOZIOLOGIE, XXVII, 1 (Neue Folge, II, 1): *Julius Schultz*, Über die Fundamente der formalen Logik; *Robert Müller*, Über die zeitlichen Eigenschaften der Sinneswahrnehmung; *Paul Barth*, Die Geschichte der Erziehung in soziologischer Beleuchtung, I; Besprechungen; Philosophische Zeitschriften; Bibliographie.

Revue Philosophique, XXVIII, 4: *C. Bos*, Contribution a l'étude des sentiments intellectuels; *L. Winiarski*, Le principe du moindre effort comme base de la science sociale; *F. Le Dantec*, Instinct et servitude; Observations et documents: *P. Rousseau*, La mémoire des rêves dans le rêve; Analyses et comptes rendus; *Revue des périodiques étrangers*.

XXVIII, 5: *E. Durkheim* et *E. Fauconnet*, Sociologie et sciences sociales; *Duprat*, La négation: Étude de psychologie pathologique; *B. Ch. Mourre*, La volonté dans le rêve; *Revue critique*: *Th. Ribot*, L'association des idées d'après un livre récent; Analyses et comptes rendus.

REVUE DE MÉTAPHYSIQUE ET DE MORALE, XI, 3; *H. Poincaré*, L'espace et ses trois dimensions; *G. Lyon*, L'enseignement d'État et la pensée religieuse; *Criton*, Sixième dialogue philosophique entre Eudoxe et Ariste; Études critiques; Questions pratiques; Livres nouveaux; Revues et périodiques.

RIVISTA FILOSOFICA, VI, 2: *G. Villa*, Dei caratteri e delle tendenze della filosofia contemporanea; *F. Bonatelli*, Alcuni schiarimenti intorno alla natura del conoscere, del volere, della coscienza e della percezione; *R. Mondolfo*, L'educazione secondo il Romagnosi; Rassegna bibliografica; Notizie e pubblicazioni; Necrologio: *G. Bovio*; Sommari delle riviste straniere; Libri ricevuti.

THE PHILOSOPHICAL REVIEW.

THE IDEA OF SPACE.¹

IN the present discussion of this subject three main questions will be considered. The universality of the space form and the function which it fulfills in consciousness will be first taken up; though these are distinct problems, they cannot be entirely separated in treatment. We shall then proceed to ask whether space is objective.

Is space an universal form of conscious experience? It is very important to notice that it is an universal form of adult experience. The correctness of this view is not, indeed, admitted by all psychologists; many who agree that space is the form of sight and touch maintain that the other senses are non-spatial. Yet surely the testimony of consciousness leaves no room for doubting that, at least in adult experience, all sense data are present in extensive form.

Let sound be considered as a crucial instance. "No one," says Mr. Spencer confidently, "will allege that sound has any space attributes." Such a view has some justification in the fact that the sense of hearing seems to differ widely from the 'geometrical' senses of sight and touch. Yet, on the other hand, we find that sounds are located in definite parts of space. Further, they are not located in mere points; they have volume. It is said that their apparent voluminosity is due to their being associated with visual or tactual experiences; but this explanation implies the significant admission that in our mature experience

¹ Read in somewhat changed form at the joint meeting of the Western Philosophical Association and the Western branch of the American Psychological Association in Iowa City, Ia., in April, 1903.

sounds are extensive. As to their non-geometrical nature, it must be remembered that the ear is practically incapable of movement ; were the ear as mobile as the eye, it is probable that sounds would assume more of that character which makes visual space so eminently geometrical.

Similar arguments apply in the case of the other senses.

It is not enough, however, to recognize the spatiality of the experiences which are sensuous. All experience is alike in this respect. There is no concept of the intellect which has not extensity ; it is vain for the transcendentalist to look for one that has it not. If it is not at once apparent in the concept, the reason probably is that another form of it than that really given is looked for. When a concept is used, the mental content may consist of the word that stands for it, or of some obscure feeling : in such cases the extensity of the word or feeling is alone to be considered ; for it may be present while the extensity of the objects to which the word applies may not be thought of.

A misconception must be guarded against. When it is said that space is the universal form of the human experience known to us, it is not meant that it is the same in all the varieties of that experience. Kant spoke of space as a form into which all sense data are received. But there is not one universal space ; there are many spaces, having distinct qualities and being perceived by distinct faculties.

The difference between the space of vision and that of touch received the special attention of Berkeley. He says : " There is no resemblance between the ideas of sight and things tangible " ; again, " visible figure and extension have been demonstrated to be of a nature entirely different and heterogeneous from tangible figure and extension. " Any one who compares the visual sensations which he receives from an object with those which it gives him through the sense of touch, must approve the doctrine of Berkeley.

What, it may be asked, is to be made of the similarity of the two senses in respect to the forms they present ? Is not a tangible square one with a visual square ? Do not the same mathematical principles apply to both ?

The concept 'similarity' is convenient ; yet if it refer, as some metaphysicians claim it does, to an element identical in the things it relates, it cannot be used in the present case. Reflection shows that in the spaces of sight and touch there is not to be found an element or part identical in both, or even completely alike in both. To quote Berkeley once more, there is not "any such thing as one idea, or kind of idea, common to both senses."

Nor can it be said that mathematical principles represent a universal space that takes concrete form in the diverse spaces. The principles are universals ; but their universality is that of symbols gotten by reflection. They are not an identical element in the various spaces ; they are not incarnated in them ; they may not be the counterpart of anything in any one of them. They exist only in the mind of the geometrician. The numbers of arithmetic are applied to objects of every kind, but no one is now Pythagorean enough to regard them as anything more than mental abstractions. If the psychologist should give a definition of sensation, he would not suppose that the idea in his mind as he gives the definition is an identical element in all the forms of sensation ; all that he has reached is a formula convenient for his abstract observations. Likewise, the laws of geometry are convenient formulas ; they are not found in the visual experience or in the tactile experience, but in the intellect reflecting on these experiences.¹

It need not be shown in detail that what has been found to hold in regard to touch and vision, holds in the case of the other senses. While each one is spatial, each one is unique, and its uniqueness is manifested even in its spatial character. The distinctions in experience are still finer. Sense is simply a name to cover a multitude of similar experiences ; and even as between the senses, so between the parts of the area of each, the principle of diversity demands recognition. And, moreover, we must recognize the diversity that obtains between individual human beings.

When, therefore, we speak of space as the form of our experience, we must not forget that it is a general term that covers the varieties of living experience.

¹ On the relation of geometry to visual and tactile space, cf. Dunan, *Théorie psychologique de l'espace*, Chap. vi.

We must now ask whether, if space is the universal form of the experience known to us, it was the form of human experience from the beginning, or was acquired at a certain stage in the evolution of the individual. Again, if it is the universal form of human experience, is it the universal form of all consciousness?

It is probable that these questions can be best answered by determining the function of space in conscious experience. Empiricists and nativists have debated whether the spatial form is derived from non-spatial elements; but even their controversy seems to find its chief significance when it is regarded not so much as an attempt to solve the problem historically, as an attempt to make out the function of space. If we can find what this function is in human experience, we shall probably be in the best position for deciding whether it is constant in all consciousness. We turn therefore to this problem, which is important for many other reasons than its relation to the questions just raised.

It is a problem which has not received direct discussion to an adequate extent. Yet it has aroused some attention. Hegel says that space is the abstract universality of nature's out-of-each-otherness¹; and so far his account of it has its value. His treatment of the subject is less satisfactory when he proceeds to point out that the tridimensional character of space rests on the *Begriff* with its three moments. For he cannot find in the three dimensions any marks which would render it possible to show the correspondence with the moments of the concept; and has to content himself with saying that the dimensions show no difference, but merely *unterschieden sein sollen*. Fichte² is nearly in accord with Hegel in the view that space is out-of-each-otherness. He traces it to the necessity of distinguishing one intuition from another. Yet he is careful to state that this distinguishing has to do with things, not with qualities, such as red and sweet, or degrees of pleasure and pain. Ulrici also holds to the view that space means discrimination. In and with the distinction of sensations, he says, is "that moment in them implicitly posited which on its coming

¹ *Encyklopädie*, §§ 254, 255. Cf. Trendelenburg, *Logische Untersuchungen*, Vol. I, pp. 229, 230.

² *Werke*, Vol. I, pp. 395, ff.

to consciousness, to representation, we term space or spatiality. For space is in truth the universal beside-each-otherness of objects, real and ideal, as their universal form of existence; this beside-each-otherness is immediately given therein that they are distinguished from each other."¹

Clear light is thrown on the problem when we consider the significance of the controversy, already referred to, between the nativists and empiricists. Not so much perhaps is to be learned from the psychological nativists, however correct their contention may be; they assert that our original experiences have extensity without inquiring what this extensity means. In respect to this question, the arguments of the empiricists are more instructive. It seems clear that the main purpose of their school, from Condillac to Spencer, has been to show that the spatial form arises with the coexistence of distinct ideas.² This is the meaning of their effort to make clear that a succession of ideas can be converted into a coexistence of ideas. It is a necessary characteristic of the succession that the states in it are separate and distinct; when these states, while preserving their distinctness, can be represented as coexisting, they form a spatial series. This coexistence of distinct conscious states, the empiricist seems to say, is space.

There are difficulties in the way of this view, that discrimination is the spatial function, which must not be forgotten. It seems possible for the spaces of touch and sight to coincide; the spaces of the other senses also seem capable of a similar union. Ulrici says that we separate the color of any object from its hardness in a spatial way; the color is the surface which rests on the body constituted by the hardness. But this statement seems scarcely true to the facts of our consciousness; the hardness seems to begin with the color. Moreover, this union seems to be possible not only in the case of the sensations of disparate senses, but in the case of diverse experiences of one sense. Looking at a white sheet of paper, one can, while seeming to retain that

¹ *Leib u. Seele*, Vol. I, p. 238.

² This purpose is sometimes lost sight of; thus Bain lays emphasis on the muscular sense as yielding the idea of *room*. Yet in some parts of his discussion, Bain is in accord with the empiricist tradition.

sensation of whiteness, imagine on this same surface the color of, say, a rose. Are we not, then, able to distinguish two conscious states without separating them spatially? In the presence of this objection, we must remember that the qualities which coincide do not retain their original character, but by their blending form a new quality in a new space. The case is not one of association of ideas; there is a chemical synthesis in which the original qualities are lost. To return to the illustration of the color and hardness, it is not a color that is seen, it is a hard color; it is no longer a hardness that is felt, it is a colored hardness. The two qualities are, at most, different aspects of each sentient unit; these units are distinguished from each other and hence they are separated spatially. Further, while we may speak of different aspects, we find that just in proportion as we distinguish them, do we separate them spatially.

It may be asked, does the musical scale form a spatial series? Or do hunger, sleepiness, and the sound of the wind form such a series? Yes, in so far as the data are distinguished from each other. But they may be fused into a complex conscious state, and then there is the more or less vague extensity of this new quality.

Discrimination, then, is the function of space, or space is the discriminating function of thought. It is the holding of one from its other. Space is simply this thought and nothing else. Or, since the term discrimination may be taken to indicate a highly developed mental condition, it may be better to say that the primal extensity means simply a diversity of conscious states, a multiplicity which is not yet numbered, an out-of-each-otherness which is not yet, so to speak, conscious of itself.

It is to be distinctly noted that not only is spatiality a principle of sense, it is a principle of all thought. Space is the discriminating thought; it is analysis. The judgment is, in the genial German language, the *Urtheil*. Even the Greek *Logos* comes from the word meaning to lay out in order. What is of more importance, it is the aim of science, as the positivist tells us, to state all phenomena in terms of coexistence and succession, or space and time; and time, let it be added, resolves itself into a

spatial representation. And if our judgments present not merely the relations of phenomena, but the metaphysical interpretations of them, the spatial form is still present. There may seem to be more in judgments than a mere subject and mere predicate in juxtaposition; with subject and predicate there may blend muscular feelings, feelings of repulsion, or other feelings; so-called 'universals' also may fuse with them. Yet an examination of the judgment always discloses its elements in spatial relations. Lange¹ has shown that all that is apodictic in formal logic, is such because it is based on the intuition of space.

Not that space is, as Lange claimed, the supreme synthesis. It is analysis even more than synthesis. Or, rather, it means the diversity of the absolute experience, a diversity which does not conflict with the continuity of that experience; it means a multiplicity in which, nevertheless, no one is sundered from its other.

Logic and mathematics both deal with this form of intuition. Mathematics deals with it in its abstractness. Logic seeks to indicate the methods for presenting the qualitative manifold in an ideal or conceived system of relations of coexistence and succession.

Space can now be seen to be a vital activity of thought. It is not a rigid form, it is a living function. Hence it is that the spaces are not all alike, but show different modes of this function. Moreover, spatial discrimination is of varying degree; *there is an evolution of space*. This is manifest not only in the characters of the different senses; it is also found in the increasing refinement which is exhibited in such a sense as vision, and in the abstract ideas of the intellect.

Now that we have determined the function of space, we have to indicate the bearing of our conclusion on the closely associated problem of the universality of space. Must we not say that since space means diversity of conscious states, and since diversity is a principle so all-pervasive, spatiality is characteristic of all conscious experience? And if it should be maintained² that diversity means a compound state, and that there might be,

¹ *Logische Studien*.

² Hume, *e. g.*, says that our idea of space is compounded of parts which have in themselves no extension (*Treatise*, Bk. I, Pt. II, Sec. 3).

if not in human experience yet in some possible experience, a state of consciousness so simple and uniform that it would be without extent, it must be pointed out that probably it would have this appearance only when taken in isolation from its environment. For at least of human experience it is true that in its spatiality, as in other respects, it is fully intelligible only as part of a larger context; and the hypothetical state referred to, if it is at all possible, is probably to be understood as a constituent of the absolute experience, in which it would possess the spatial character.

Let the metaphysical question regarding the objectivity of space be now considered. It is the view of unreflecting common sense that the individual has an intuition of an objective space that exists apart from his perception as an independent reality. A similar conception is entertained by natural science. Opposed to this view, is the revolutionary theory of Kant that space, while a necessary form of the faculty of sense, has no counterpart in the realm of things-in-themselves. In one form or another this doctrine has many adherents. Even if it be maintained, as it is, for instance, by Lotze, that the spatial order in which we represent things is a counterpart of an objective order, it may still be held that the objective logical order is not spatial; space is only our subjective way of apprehending it.

This doctrine of the subjectivity of space is in one sense true. My space is mine and it is not my neighbor's. It is very difficult to learn this lesson, but it is indispensable that it be learned if there is to be any right understanding of the metaphysical problem before us. A man seems to look into space and see his neighbors about him, and the trees, the sun, the waters, and the immensity that holds all and is beyond all. But it is not so; in this space which he sees his neighbor does not dwell, nor are sun and tree and river to be found in it. The space is the space of his sensations. The sensations may be proved to be in some sense ultimately due to other things, but they are not these things. It is his conscious experience that constitutes this immensity and fills it; in what seems so vast and all-comprehensive he has not escaped from himself.

May not space, however, be, as certain idealists claim, one and the same in the many individual minds, gaining through this identity its apparent reality and objectivity? This view ignores, at the outset, the fact of the multiplicity of the subjects that think space. A's space is not B's or C's, and the utmost that can be asserted is not that the thoughts of these three are one, but that they are exactly alike.

But there are reasons for regarding space as subjective, in the sense that it is unique in each individual. It may be that in amount the space of one percipient is unlike the space of any other. It is known that in the visual perception of the individual the distance stretches out when regarded with inverted head, and that the area of an object shrinks or expands, according as it is looked at with one eye or with two. And in two individuals there may be a similar disparity of spaces; to an intelligence which could embrace both, the one space might correspond with the other only as the scene looked at with the naked eye corresponds with the same scene looked at through an inverted telescope.

Again, we have already seen that there are variations in the intrinsic character of the individual space; the space of one sense is not that of another. Since the world is a world of intelligences with diverse experiences, it may be inferred that a similar diversity exists between the spatial forms of one individual and those of another. For space is too vitally connected with the qualities which are admitted to vary from individual to individual to be one and the same for all. If one man is deaf and thinks in visual images, while his neighbor is blind and thinks in images of sound, what correspondence is there between their spatial ideas? This is a gross illustration of the differences that obtain. The theory that space is common to all minds must be regarded as on a par with the view that colors and sounds are the same for all.

The space relations that are perceived show the same diversity. There is a diversity between the two eyes of one individual. In the confusion of double images, which of the two is to be singled out as representing the one space? What of the other

space which is left? Likewise the double images and other illusory perceptions vary from individual to individual with the variations in their visual apparatus. The perceptive forms of space are, in the finest analysis, peculiar to the individual.

There is a further reason for maintaining that space is subjective, though the argument is likely to appeal only to those who have been emancipated from subjective idealism. The space of the human mind cannot be the space of the objects which are supposed to be represented in it. A man looks upon tree and river, and the space in which he thinks them to exist is visual. Tree and river may, in their objective natures, be forms of conscious experience, but if they are, can we suppose them to be gifted with the visual faculty and so to be conscious in forms of visual space? Unless we can attribute this faculty to them, the space of the observer is alien to their constitution. If it be maintained that they are not conscious existences, the visual space of the spectator must be still more entirely foreign to their nature.

It may seem that the space of the mathematician is constant. But it can readily be seen that mathematicians do not agree in their mental imagery. It is the laws of coexistence that have the constancy of the abstract formula. The mathematician deals with these in their abstractness and represents them by symbols.

In short, space is not a mere form identical in all minds or even alike in them. It is a living function, and shows the manifold variety and individuality of living things. *There is no space which is not subjective.*¹

But from another point of view space is objective. It is given in subjective experience, and we must remember that in the universe, so far as it is knowable, there is nothing but subjective experiences. And since the universe is made up of these, it follows that they are all objective. Subjective experiences are

¹ Even Mr. R. B. Haldane, writing of "Professor Münsterburg as Critic of Categories" (*Mind*, April, 1900), objects to the view that there is a possible object for every subject. "My visual impression of a locked gate is just as much within my own consciousness as is my impression of annoyance at the prospective trouble of having to climb over it." "No experience of mine, whether external or internal, can really be shared by any other."

facts, and so are objective. The spatial form which belongs to them is, therefore, objective. The souls or the conscious states which constitute the universe, are a multiplicity of extended objects.

Objections may be urged against such a conception. It may be said that it is as absurd to maintain that the soul is extended on the ground that it thinks extension, as it would be to maintain that the soul is red on the ground that it perceives redness; the soul is to be distinguished from the objects of its cognition, and the thought of redness is not a red thought. But though the objection seems plausible, it will be found to be true that the objects of cognition, so far as given in cognition, are not to be distinguished from the soul. The proposition 'the soul is red,' seems absurd only when a pigment is thought of as something separate from consciousness, and the soul is likewise regarded as a surface abstracted from thought. As a matter of fact, the redness is not in objects; it is a state of consciousness. The qualities of things are given to us in terms of our conscious life. The mind which sees red is in that act red. And, in the same way, extension is an idea or a conscious experience, and therefore the thought of extension is an extended thought. To quote Mr. F. H. Bradley, "The idea of the extended has extension, the idea of the heavy has weight, the idea of the odorous has smell."¹

It may still be claimed that, though space is a form of thought, it is thought that has produced it, and thought cannot be subjected to its own categories. But if thought is regarded as presented in any conscious experience, it must be recalled that there is no part of that experience, not even a concept, however abstract, which has not the spatial form. If, on the other hand, thought is regarded as something other than conscious experiences and never apprehended in them, it is an agnostic doctrine of the soul that is being resorted to; and whatever might be decided regarding such agnosticism, even the acceptance of it would not invalidate the conclusion that the soul, so far as it is constituted by conscious experience, is extended.

It may still seem that there must be a spaceless thought to

¹ *Mind*, N. S. iv, 1895, p. 21.

synthesize the discrete manifold of space. But it must be pointed out that space is not a mosaic of little spaces; it is a continuous whole. The conception of it as a manifold of separate parts is an abstraction due to reflection, which cannot be presented in its purity even to reflection. Transcendentalism makes the mistake of taking one aspect of sense experience, its unity, apart from its other aspects; and then, because this unity seems to be wanting in these other aspects, its original presence is attributed to a separate, *a priori*, synthetic factor.

But, it may be asked, if conscious states are extended, what is their size? What is the cubic contents of an emotion of anger? How many inches in an æsthetic appreciation? It certainly seems at first sight repugnant to apply spatial terms to some of these forms of being. Yet if we remember that all our perceptions are subjective conscious states, the same repugnancy should be justified in the case of all of them, even of what is seen or touched. The visual image of the table is a subjective conscious state, and to speak of its inches is to measure what constitutes part of the soul by comparing it with another conscious experience, that of the foot-rule. It is to be noticed, moreover, that we have learned to measure what is tactile and what is visual largely because, first, we have learned by the help of 'local signs' to give definite position to the sensations of these two classes; and, secondly, we can by the use of our hands put one surface upon, or alongside, another. These special methods are not, so far as men have discovered, applicable to the emotions.

An important conclusion follows in regard to the Absolute Being; the absolute must have the attribute of extension. We must hold this even if we regard the Absolute as somehow transcending finite consciousnesses and contemplating them. In so far as this contemplation is directed to spatial experience, it must be taken to share in that spatiality. If we are constrained to regard the Absolute Being as existing in the universe of finite states of consciousness, and as identical with them, it is, if possible, still more obvious that it is extended. The omnipresence of God is more than a figure of speech; in Him we have our being, and the extensity of our conscious states means also the extensity of His

life. It may be thought possible to evade this conclusion by the supposition that the Absolute is the law of laws, or the highest category, or the ultimate synthesis. But such a theory overlooks the facts with which we are acquainted, and passes into a hypothetical realm; it ignores our consciousness of extensity in its account of another form of existence; it makes the Absolute a reality alongside other forms of reality. But the Absolute must in some way *be* all the forms of reality, not that which merely *explains* our states of consciousness, but that which *is* these states; and, therefore, in so far as they constitute its being, it is extended.

The inference from the perception of extensity to the extensity of the human mind and of the Absolute Being, is one that seems simple and inevitable, yet philosophers have been unwilling to draw it; it has been one of their cherished beliefs that spirit is not in space and should not have any spatial attribute applied to it. Perhaps this belief, like not a few other cardinal errors in philosophical systems, can be traced to Plato. He inherited from earlier thinkers the distinction of being and not-being, atoms and the void. For him the world of objects, so far as it was material, was the world of non-being or the void or empty space. In contrast with this unreality was the realm of ideas; it was natural to conclude that the ideas were non-spatial. Aristotle taught that the world is limited in space, and that God, the absolute "form" is not in space. At the beginning of the modern era, Descartes gave vivid expression to the modern sense of the contrast between spirit and matter, declaring that these are two substances distinct in nature, and that, while thought is the attribute of spirit, the attribute of matter is extension. It was thus indicated that the attribute of extension, which applies to matter, has no reference to thought. Even Spinoza, while maintaining the proposition that God is an "extended thing," tries to show that it is only the space of the imagination which is divisible. It has been the common view of later thinkers that spirit is non-extended; to affirm the opposite is thought to be proper only for those who are incapable of philosophy, or who uphold an "unspeculative materialism."

Yet there have not been wanting those who have maintained that space is an attribute of spirit. The doctrine was held by many of the Greek fathers. It was held likewise by Henry More and Jonathan Edwards.¹ To come to more recent views, the testimony of Mr. Bradley has already been cited in regard to the human mind; yet it should be added that Mr. Bradley qualifies his view by saying² that, while "here and there" the soul "has features which are extended," it is quite impossible to "predicate extension of the soul, when the soul is taken together and as one." Among writers in recent times no one has maintained the extensity of spirit with greater boldness than Ulrici. He holds that a consciousness of extension is an extension of consciousness, and regards the opposite view as a *contradictio in adjecto*.³ Nor does he hesitate to speak of space as an attribute of God, though, indeed, he reminds us that God cannot be thought of as existing *in* space in the sense in which one finite object is surrounded and conditioned by other objects.⁴

It should be noted that to a large extent these conclusions hold, whatever account is given of the origin of the space idea. Reference has already been made to the empirical view that space is not an original element of consciousness, but is derived from non-spatial elements. But whatever the origin of the space idea, it is not to be denied that it is now a fact of consciousness; and the principles are valid in regard to it, that a consciousness of extension is an extension of consciousness, and that the Absolute Being, in so far as the consciousness of extension is comprehended in it, is extended. No account of the genesis of the space idea explains it away. Should it be proved by more careful investigation that there are in human and other minds elements which are non-extended, it would still have to be recognized that these minds and the absolute mind have "features," to use Mr. Bradley's expression, which are extended.

The conclusions reached in regard to the objectivity of space

¹ "The Early Idealism of Jonathan Edwards," by H. N. Gardiner, Vol. IX of this REVIEW, p. 580 and note.

² *Mind*, N. S. iv. 1895, p. 231.

³ *Leib u. Seele*, Vol. I, p. 236.

⁴ *Gott u. die Natur*, p. 664.

may be summarized. There are spatial states of consciousness ; space is a conscious experience, and can be nothing else. On the other hand, the universe, so far as it is knowable, is made up of conscious states, which are probably, like ours, spatial. The universe of objects has therefore spatiality. In this sense, space is objective ; only in this sense can it be objective.

If this view is correct, the line is indicated along which to look for answers to other philosophical questions regarding space. Let these be briefly considered. How are the various finite perceptions related to each other ? May we not answer that they are related as the parts of any individual perception are related ? Does not the absolute consciousness contain them all, as the individual consciousness contains its members ? Yet with a difference. In the space of the adult individual, there is the distinction of right and left, up and down, here and there ; these are the marks of his finite purposes. In the Absolute such distinctions are not present save as particular elements in an individual mind. Of the absolute relation we may suppose the mind of the child to give more nearly a type.

Is space infinite ? It can be seen that, if we think merely of abstract space, we may extend it as far as we choose. It is only our own mental creation and we may keep up the work of creating till we are exhausted. It is to this space that Hegel's expression "spurious infinite" applies. The theory of Kant also has reference to this subjective activity. He says that spatial forms cannot be said to exist until they emerge in the experience which is the maker of them ; we cannot therefore speak of space as being finite or infinite ; we can only go on extending it indefinitely. And Kant is right, if attention is restricted to the subjective experience of the individual. But the case is entirely altered, when we consider that the question refers to the extension of the absolute consciousness in which all finite consciousnesses subsist. The world is a world of things-in-themselves, and these things-in-themselves are conscious experiences. They do not depend for their existence on their emerging in some spectator's experience ; and the question arises, Is there an infinite number of them ? When a world of finite things so constituted is con-

sidered, the failure of Kant's treatment of the problem and the futility of Hegel's sarcasms are equally apparent. The solution of the problem may be impossible. We may well believe that there is an infinite number of intelligences in the universe, and that there is thus an infinite extension of conscious states. But to prove this we must appeal to experience, and, in the nature of the case, a finite experience does not contain the means of proof. However, to say this is not to fall back on the Kantian position, for Kant said that experience makes the extensity which exists ; what is said here is that experience in dealing with the not-self has to do with that which is given in the extensity of other conscious states.

It must be added that we have no positive conception of infinity. We have merely a symbolic idea to indicate the fact that whatever limit is set, we pass beyond it. The infinity of universals, which some idealists have so confidently contrasted as genuine with the false infinity of extension, is simply the infinity of indefinitely wide applicability. In itself the universal is a particular finite experience ; and the claim that it is infinite is due to the fact that there is smuggled in alongside of it the idea of the number of cases to which it may be referred. The recent attempt of Professor Royce¹ to illustrate infinity by recurrent operations of thought does not show that we have any genuine idea of the infinite ; there is simply a purpose so formulated that, however many steps we take, we are no nearer its full realization ; and seeing the nature of the process we designate it by the symbol of infinity, a symbol which is, however, still a finite idea.²

Is space infinitely divisible ? Space is a conscious state, and can be divided, as Hume showed, just so far as the conditions of consciousness permit. How small the extension of a conscious state may be, is a matter to be determined by observation.

As to the infinite divisibility of which mathematics treats, it is to be remembered that, in dealing with abstract number, we can

¹ *The World and the Individual*, Vol. I, Supplementary Essay.

² It may be pertinent to the inquiry to point out here that the abstractions of arithmetic and geometry show no tendency to infinite processes except under the living purpose and manipulation of the mathematician.

carry division as far as we choose. We may use a billion or we may use infinity as the denominator of a fraction whose numerator is one. But in such cases we are dealing merely with symbols. Geometry and physics make use of the conception of the infinitely small, but only in ideal constructions. We cannot draw an inference therefrom to the actual world. In our experience, it is clear that the perceptive spatial content cannot be divided into an infinite number of infinitely small parts. If we may judge from analogy, we ought to have a similar conception of those conscious states which must be regarded as constituting the physical world, if this world exists 'in' such a form of thought as space.

Has space more than three dimensions? Let it be remembered that space is not a vast somewhat into which men are looking, and in which they may some day find an additional dimension. Space is a form of perception; and thus the first question is whether in any human perception there are given more than the three dimensions of volume. There is no record of any human perception which has more than three dimensions. It is true, that, with acuter observation, the character of our perceptions changes; and it may be that the space of human perception will one day change to one of four dimensions. The supposition is probably absurd; yet there may not be ground for asserting that it is absolutely illegitimate. Are there intelligences other than human, whose form of perception is a space of more than three dimensions? There may be such; and it may be further supposed that, should they affect a human being, it would be necessary for him to explain the phenomena of his experience by reference to a space of more dimensions than his own. He could not, indeed, represent to himself such a space, but he might be obliged to recognize that it was not the space of his perception, though he could speak of it only in symbolic terms. That there are such forms of space, no one has shown. It is probable that the conception of n dimensions has merely a symbolic value, bearing to the real world a relation similar to that borne by the conception of negative quantities.¹

¹ Cf. Schubert, "The Fourth Dimension," in *Mathematical Essays and Recreations*.

How is the space of our perceptions related in its dimensions to the space of the objects perceived? If such a problem be ever solved, it will be by a comparison of the perception which a man has through, say, sight, with the image of the part of the brain associated with that perception. He is able to see vast areas; when he turns to look on this perception from the external view point of physiology, he finds a small piece of nervous substance. It may be that our senses dwarf things. Hume says¹ that the "defect of our senses is that they represent as minute and uncompounded what is really great and composed of a vast number of parts. . . . The difficulty lies in enlarging our conceptions so much as to form a just notion of a mite, or even of an insect a thousand times less than a mite." Hume's acute remarks are full of suggestiveness as to the nature of the forms of being which seem to us so minute. Yet though the senses may diminish the appearance of things, this defect is, perhaps, in a practical way, of advantage to us, by enabling us to sustain relations to a wider environment.

In conclusion, bringing together what we have learned regarding spatial function and spatial objectivity, we may indicate a further significance that space has in the cosmic process. Space, we have seen, means discrimination or diversity of experience, and its evolution means that the elements in experience gain in definite individuality. When we take a comprehensive view of the development of life or of the absolute experience, we may similarly expect to find an increasing distinctness and differentiation in the relations of the individual experiences which it contains. "Moral progress is, in sum and substance, *the gradual discovery of the individual.*"² Mr. Spencer finds the process of evolution to mean an increasing differentiation and heterogeneity. That is, when in the absolute experience two finite forms of experience are thought as distinct or heterogeneous, they are *ipso facto* thought as out of each other; and in the evolution of experience the out-of-each-otherness becomes more distinctly consciousness of itself.

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¹ *Treatise*, Bk. I, Pt. II, Sec. 1.

² James Seth, *Ethical Principles*, sixth ed., p. 325.

PRAGMATISM AS A PHILOSOPHIC METHOD.

THE recent redefinition of pragmatism by Professor James and C. S. Peirce in Baldwin's *Dictionary of Philosophy and Psychology*, and its application afresh in the *Varieties of Religious Experience*, raises again the question as to the extent to which it can really be regarded as a distinctive philosophic method. We propose to note briefly how pragmatism is defined by its two chief exponents, attempting to get as clearly as possible its face value and its implications. We shall then be in a position to decide whether, taking it as it stands, it admits of thoroughgoing application ; and, if not, in what respect it demands modification, or in what respect its possible ambiguities can be cleared up by a more careful psychological interpretation of its presuppositions.

The pragmatic standpoint is without doubt an attractive one. It seems to offer a criterion of truth that is both easy of application and certain in its results. It appeals to the practical mind, impatient with the subtleties of metaphysics, as the only real basis for philosophy. Under the heading "Pragmatism" in the *Dictionary of Philosophy and Psychology*, C. S. Peirce says : "Consider what effects, that might conceivably have practical bearings, we conceive the object of our conception to have. Then, our conception of these effects is the whole of our conception of the object." Professor James maintains that pragmatism is "the doctrine that the whole 'meaning' of a conception expresses itself in practical consequences," either conduct to be recommended or experiences to be expected, if the conception is true; which would be different if it were untrue.

James also says : "In methodology it is certain that to trace and compare their respective consequences is an admirable way of establishing the differing meanings of different conceptions." Peirce maintains that as James works out and applies the doctrine in *The Will to Believe and Other Essays*, it seems to assume that the end of man is action, a thesis that Peirce himself does not

find as credible at sixty as at thirty. He refers to pragmatism as a "practical maxim"; and it seems that he really intends it as such, rather than as a thoroughgoing philosophic method.

As to the *kind* of effects that the pragmatist has in view when he insists on the test of practical consequences, Peirce says: "The only ultimate good which the practical facts to which it [the pragmatic procedure] directs attention can subserve is to further the development of concrete reasonableness; so that the meaning of the concept does not lie in any individual reactions at all, but in the manner in which those reactions contribute to that development." "The ultimate good lies in the evolutionary process in some way."

In the *Varieties of Religious Experience*, Lecture XVIII, James discusses the principle in some detail with reference to its use in the philosophy of religion. This book as a whole furnishes an excellent example of the application of the method, and in it we should look to find many doubtful points cleared up, not because the method itself is here any more explicitly stated than elsewhere, but because in the wealth of concrete detail which it presents, we may judge its meaning better than through the more abstract statement. We must here confine ourselves to the generalizations that the book offers us. The following is condensed from pages 442 ff. Continental philosophy has too often overlooked the fact of the organic connection of thinking and conduct. British philosophy has, on the other hand, been guided by the principle that every difference must *make* a difference, and that the best method of discussing points of theory is to begin by ascertaining what practical differences would result if one alternative or the other were true. What is the cash value of a particular truth in terms of particular experience? This is illustrated in the attitudes of Locke, Berkeley, and Hume. The problems of philosophy presented themselves in some such form as this: What is the cash value of personal identity, of matter, of cause, etc.? Peirce's position is summarized thus: "Thought in movement has for its only conceivable motive the attainment of belief, or thought at rest. Only when our thought about an object has found its rest in belief can our action on the subject

firmly and safely begin. Beliefs, in short, are rules for action ; and the whole function of thought is but one step in the production of active habits. If there were any part of thought that made no difference in the thought's practical consequences, then that part would be no element of the thought's significance."

Professor James next applies the principle to the question of which attributes of God are really any more than merely verbal ones, with the result that such attributes as aseity, necessariness, simplicity, etc., are condemned as meaningless, because there is no assignable way in which we can modify our action in order to adapt ourselves the better to these characteristics. Likewise God's simplicity does not tend to produce in us any specific acts. On the other hand, the moral attributes, such as holiness, omniscience, justice, etc., clearly determine in us fear and hope and expectation, and are the foundation in us of a particular sort of life. These pragmatically justifiable characteristics, especially that of punitive justice, are incapable of logical proof. No scholastic argument regarding them has ever been satisfactory to other than a few philosophers, and no one has ever changed his life as a result of such arguments.

In *The Will to Believe and Other Essays*, still further implications of pragmatism are worked out. As we have already seen, the most characteristic doctrine of the method before us is that the meaning of an idea, or concept, comes out only as it modifies activity or conduct. The question arises as to the relation of this principle to the doctrine that the desire for a certain kind of truth brings about that special truth's existence. It seems to be a psychological fact that the holding in mind of certain kinds of beliefs tends to produce results of such a nature that the belief may be said to have become valid, or to have objectified itself. On the surface, this seems to conflict with the pragmatic principle. Pragmatism says : If a concept or notion refers to a real difference in things, it must be possible to point out that it has some effect in concrete life. Psychology, on the other hand, says : Let a concept of *any* kind be present in consciousness and it will result in some modification of action. This theory of the relation of consciousness to movement, James

generalizes into an account of the way in which the world of fact is built up. Faith in a fact helps create the fact. Contesting beliefs are really half formed facts struggling for existence. At least, such seems to be the doctrine of *The Will to Believe*. The success of these struggling beliefs is, of course, dependent on the sort of practical effects that they are able to bring forth. But every belief, by hypothesis, tends to realize itself. There seems to be nothing inherent in the idea itself that determines whether its effects will be of one kind or another. We can only say of it that, if it remains a vital mental content, it will have some sort of overt consequences. All such contents apparently stand on the same level in so far as they are merely beliefs, or opinions.

It would seem from this that the real world might be considered a resultant of the various beliefs that men have held, and yet not merely a resultant, inasmuch as some agency over and above the contending mental attitudes had to determine which effects were most fit. In other words, just as Nature is conceived as a selective agency reacting upon the infinite variations of animal and vegetable life, so there is an objectified system of beliefs, the result of previous selection and survival, and in this every new idea must be able to vindicate its worth if it is to endure. In fine, James seems to hold that our world of fact is in some measure conditioned by previous beliefs, and the order that has once got established reacts back on the ideas that have not as yet emerged into full fact. The test of the reality of an idea is its power to influence conduct, and the way in which any sort of conduct comes into existence is through the instrumentality of the idea or belief that it should be so. The ambiguity here might also be stated thus: Our conscious attitudes are naturally organized with reference to action; hence they are meaningless unless they in some way produce or modify activity. But the very presence of an idea in the human consciousness is *ipso facto* evidence that there will be some difference in the way of overt consequences, so that it would seem that all mental activity has some meaning, if meaning is to be determined by external effects. But this inherent tendency of ideas to get objective expression is never fully realized in practice, because the

previously objectified system of ideas reacts on the vanguard of new beliefs as it emerges into being. It is thus not the essential worth of the idea, but its ability to produce change in the objective order, that establishes its truth ; and this capacity to produce change seems to be conditioned entirely by what is already objectively real.

It is impossible, without giving pragmatism a broader statement than either James or Peirce have bestowed upon it, to see the exact relation of these two lines of thought—the one that every concept to be true must make a difference in conduct, and the other that every concept or belief, if it is a part of one's mental equipment, *does* make a difference. The connecting link between them, as James has left the matter, seems to be that, while every mental content is potentially connected with overt activity, it does not necessarily possess validity unless it can in some measure fit into the existing organization of objectified beliefs. Every concept does *tend* to make a difference ; but all do not succeed in doing so, simply because the real world happens to be what it is. It is no doubt true that the original statement of pragmatism has been modified in this fashion to render it more available as a philosophic method.

It is accordingly clear that it is not mere working, but working of a certain kind, that is required to establish the validity of any theory or concept. James emphasizes this necessity in various ways. For instance, a true philosophy must be more than a logical one. It must also be able to awaken active impulses or satisfy æsthetic demands.¹ There are, however, various *kinds* of active impulses, and therefore we have to look still further for a standard ; that is, a thing is not rational *merely* because it makes a difference in conduct. James finds this further criterion in the familiarity of the action that is aroused by the thought ; that which suggests customary movements in which we can easily pass from one thing to another, we regard as rational. The suggested activity must further be congruous with our spontaneous powers, must not baffle or contradict our active propensities.

¹ *The Will to Believe*, p. 76.

It is somewhat difficult to determine whether the pragmatist would hold that some ideas are essentially irrational, or whether some are merely remotely connected with practical needs, though ultimately arising out of them. In the essay entitled "The Sentiment of Rationality," p. 85, James says: "Later mental development . . . gives birth to a vast amount of theoretic activity over and above that which is immediately ministerial to practice, yet the earlier claim is only postponed, not effaced, and the active nature asserts its rights to the end." According to this, much vague theoretical matter can be justified on even pragmatic grounds. We may ask the pragmatist, however, if there is, over and above these ideas, another class of speculations that have absolutely no claim upon rationality because they have not even remote bearings on conduct. If such a class exists, it would at any rate be difficult to distinguish it from the class which has remote practical bearings. It is possible that pragmatism in its original form would condemn all systems of thought that have no immediate practical consequences, even though these systems had their origin in concrete problems.

However this may be, we probably get here James's concept of a rational philosophy as over against a merely logical one. We have in the assumption that thought may be logical and yet not reasonable, a radical difference from dialectical philosophy. The point of interest now, however, is as to what sort of conduct it is that we have in mind when we say a thing is practical, or that it 'works.' We may assume that James would characterize it in a manner similar to his description of thought that is rational as over against the merely logical. That is, it is conduct that is familiar, customary, or congruous with the other elements of our world. The rest of the world of activity, by the very fact of its existence, is valid. Hence congruity of the new with the old is the test of the rationality of the new. But it must not only be congruent with the existing world of conduct, it must also be in accord with the spontaneous tendency of the individual to activity. The rationality of an act, then, depends on its harmony with the individual and with the world, in the same way that a thought comes to be true, first, by the faith of some individual, and secondly, by its own practical efficiency.

In summary, we may say of pragmatism that it is, as first proposed by Peirce, primarily a *practical maxim*, to the effect that the consequences in action or conduct of any concept or idea are really all there can be to the *meaning* of the concept. It is not, however, mere consequences that concern the pragmatist. There is a 'concrete reasonableness' over and above all concepts, an objective system of which they are to become a part if they refer to real differences in the ultimate constitution of things. The emphasis of both James and Peirce is essentially on the practical. The theoretical is constantly to submit to the test of the concrete. There can be no doubt but that it is this that makes pragmatism an attractive doctrine. The man who is impatient with metaphysics feels that here at last he can escape the vagaries of theoretical speculation by referring everything to concrete experience. By adhering rigidly to the test of overt consequences, James holds that the pragmatic method is not concerned with any questions of origin. That is, the practical bearings of a fact are what they are, and it is getting at them in a very roundabout fashion, he seems to think, to investigate them through the genesis of the fact itself. At least this is the position taken in the *Varieties of Religious Experience*. The origin may throw light on present workings, or it may not; in any case, it is necessary to recur to the present to substantiate the assumptions based upon the nature of the origin. He thus explicitly excludes from his evaluation of a religious experience any implication that may be suggested by the nature of its origin. The practical workings of any religious attitude, such as the state of trance, mysticism, Christian Science, etc., are all to be judged pragmatically by their current effects upon conduct, and without any reference to possible pathological or neurotic causes behind them. Perhaps this does not add anything to our previous exposition, aside from emphasizing the fact that with pragmatism the standard is *always* the concrete present, in which the opprobrium of the past must show itself, if it is worth being considered at all. It does not, of course, deny that there may be such stigmata; but, if they do exist, they must show themselves in present effects. Condemnation merely because of past record is invalid if the present is satisfactory.

We shall attempt to show presently that it is these very considerations of genesis that pragmatism needs to take into account to render itself truly useful. An inquiry into the origin of a fact is by no means an attempt to prejudice its present value. It is rather undertaken in order that we may understand the present value more adequately. If genetic inquiries mean anything, they mean that through them we can the more accurately locate the "exact and objective conditions under which a given fact appears."¹ It is the weak point of pragmatism that it does not recognize that no effects can be evaluated out of relation to the conditions with reference to which they have occurred.

We may turn now, after this descriptive statement, and take a critical view of the subject. The fundamental ambiguity in pragmatism seems to be due to the manner in which it conceives thought as in some way external to both the world of action and the world of things. This objection at first seems paradoxical. It is true that thought may modify action, but it is not through any functional relation that it bears to it, but simply because it happens to represent some ontological difference. This externality of thought to activity is in a measure overcome by the doctrine that *all* thought *tends* to pass over into overt reality. But this does not really solve the difficulty; for, as thus conceived, a given thought makes a difference in action not because of its possible connection with the ultimate constitution of things, as we had been led to suppose from the original pragmatic doctrine, but through the world of concrete reality in which it occurs. It is, therefore, the objective order that simply selects certain of the thoughts that are conceived as projected into it, and rejects others. There is here no organic connection between thought and action. Thought just happens to be; and, owing to a purely external relation to reality, it is true or false.

The strong point of pragmatism is, however, that it *does* assert a connection between thought and action. Its greatest weakness is, that it does not give an adequate account of just what this relationship is. Thought seems, on the one hand, to be more or less a copy of the reality to which our conduct must conform,

¹ Dewey, *Psychology and Philosophical Method*.

and, in so far as it is a true copy, it does affect conduct. But, on the other hand, it seems that the world of action is the only reality in which thoughts of otherwise apparently equal validity must prove their worth.

If the pragmatist would conceive of thought as arising out of definite sorts of crises within activity, and as having a determinable function to perform with reference to further action, he would find that his ambiguities would largely disappear. Thought is organic with action in its origin as well as in its effects. The real question to raise regarding it is not whether it has effects or not, or whether it makes a difference in practice, but *what* effects it has, and to what sort of a concrete situation it owes its origin. Ideas are merely phases or stages within a single process. Their value does not depend upon their corresponding to supposed real differences in the constitution of things, but rather upon their efficiency in solving the difficulties in the experience that produced them. Every concept or notion is to be interpreted with reference to a certain kind of experience. By such a view of thought the pragmatist will in no wise lose a whit of what he has insisted upon from the start. He may still hold that thought is connected with action; but instead of holding to a connection of a more or less external kind, he can go further and insist that thought is a part of action, that it *is* action with the emphasis on the process of effecting new adjustments. In fact, it has no meaning except with reference to tensions within experience, on the one hand, and adjustments on the other. Pragmatism has neglected to take account of the former, and has thus been obliged to force an artificial treatment of the latter.

With such a reinterpretation of the fundamental pragmatic doctrine, *i. e.*, the connection of thought with action, the consequences or effects of thought can be dealt with more intelligibly. If thought is taken as having only an external relation to action, it becomes necessary to postulate over against it some sort of a coherent order of which thought is either a copy, or which selects what happens to be in accord with itself. But if thought is interpreted with reference to action on the side of origin as well as on that of consequences, the problem regarding it shifts

from that of its relation to an external order of things, to an inquiry into the sort of needs that produced it, and the degree to which it is effective in bringing about the required readjustments. We are not concerned to find whether our mental contents do or do not correspond with an external order, but to discover the exact nature of the relation that we take it for granted does exist.

Pragmatism, by neglecting to analyze completely the relation of mental activity to the larger whole of experience, really loses all the advantage it claims to have over the traditional philosophical modes of procedure. It falls into the very difficulty of which it accuses the latter. It involves itself in the necessity of defining a coherent order of things in and of itself, precisely the pitfall of the philosophical vagaries that it intended so astutely to avoid. To hold that the idea which has arisen out of a vital difference in the constitution of things may be distinguished by its effects, is to assume a knowledge of a coherent order of objective reality ; for, without such a knowledge, how could the proper effects be known as such ? It is certainly as necessary for us to be able to distinguish between good and bad effects as it is to distinguish between efficiency and non-efficiency. We want to be able to say what kind of a difference in action is desirable and what kind is not. Such a problem is surely a pertinent one ; but pragmatism, by failing to analyze fully this relation of thought to action in its solution of the problem, gives up its distinctive position as a philosophical method. That is, it postulates a coherent order of things in which ideas, acts, and feelings have values according to their efficiency in promoting this coherency, or in fitting into it. It presupposes a reality that is already rationalized, and its test for new matter is : Does it promote the rational process in which it claims to exist ? There would be less ambiguity if it held to the bald assertion that "every difference must make a difference" ; but such a philosophical method, however logical and easy of application, would be, to say the least, a very inadequate one. It is not strange, then, that pragmatism seeks to define differences, and in the way pointed out above. In so doing, it is logically involved in all the complications of previous

philosophy; for the rational order itself cannot be used without definition, and to define it surely requires a whole system of speculative thought. Even if it were to supplement its theory of the relation of thought to action by a theory of a rational order that could be clearly defined, it seems still that its problem would be full of difficulty; for it could never be sure that even apparently the most barren ideas might not eventually have some influence upon conduct. Even the pragmatist admits that there is a vast amount of theoretic activity that is not "immediately ministerial to practice," but which *is* ultimately so. How, then, shall we draw the line between that which is remotely connected with conduct and that which is merely verbal? Does not the assumption of the organic relation of thought and action preclude the possibility of the absolutely meaningless? Pragmatism is here, as we have said, involved in a difficulty that the traditional philosophy escapes. The latter assumes from the start that everything will in some fashion conform with the system that it presupposes. Hence it has nothing to do but to describe its system.

Pragmatism is, however, under the necessity of deciding which mental contents will, and which will not influence conduct, and which influence it in the right way, and which in the wrong way. We hold that it is absolutely impossible for pragmatism, without a further definition of its terms, to throw the slightest light upon either problem. If it proposes to distinguish different kinds of effects, it is evident that it must be able to determine what sort of an objective system is most desirable to have perpetuated; or, in other words, it must use as its criterion the function of the facts under consideration, their function in relation, not to an established order of existence within reality as a whole, but to clearly defined situations. By defining mental contents through their place in a process of reconstruction of experience, by making the question regarding reality one as to the functions of its elements rather than as to its structure, pragmatism would be susceptible of a far more satisfactory application; and it would, moreover, sustain its claim to be a real philosophic method. Its problem would then be not as to whether an idea has or has not effects, but rather as

to what its function is within the sort of experience in which it arose. This, of course, involves an analysis of experience, and of the possibility of its being modified in certain definite ways.

It is from a failure to analyze adequately the psychological postulate, that consciousness leads to some sort of movement, that pragmatism is involved in the apparent ambiguity of holding, on the one hand, that every true difference in thought must make a difference in action, and, on the other hand, that every mental content does tend to make a difference. We have an essentially inadequate view of thought if we regard it as related to action only on the side of effects. The larger view is that it bears a functional relation to experience both preceding and following; and hence that it necessarily has some sort of effects, but only such as can be estimated by taking into account the entire situation both before and after. The two sides of pragmatism may thus be brought into organic relation. We may judge of effects in terms of experience, recognizing that, while all thought serves a definite function, differences are verbal or apparent only in case the actual function is the same.

We can apply this larger conception to James's criticism of certain of the traditional attributes of the deity. If he fails to find any way in which aseity, necessariness, or simplicity modify action, it must be because he has sought for the wrong kind of effects. The problem is not whether these are really God's attributes or not, but rather what attitude toward him led the Schoolmen to postulate these attributes. They were certainly produced by some sort of a situation that either directly or indirectly had practical connections. If this is true, they can be explained only as we find out what that situation was. They become verbal and meaningless when they are abstracted from their true setting and set up as valid in themselves. The reason, on the other hand, that no scholastic argument can offer satisfactory proof of the so-called real attributes of the deity, is that such an argument, also, attempts to prove them out of the connection in which they have meaning. They are convincing to the ordinary man because he takes them where they belong, *i. e.*, with relation to certain aspects, or problems of his practical experience. They may be

said to be functionally related to particular crises, or tensions within his everyday life. If the philosopher would demonstrate them in this way, he might stand some chance of convincing others than himself of their truth.

All philosophy would probably admit that concrete practice is the ultimate ground out of which our problems arise, and that it is for the clarification of these problematic situations that we put forth our theoretical efforts. The difference between the pragmatic philosophy and the other types of thought should be found in the way in which it seeks to solve this common problem. If pragmatism attempts to do this by introducing a concept of concrete reasonableness, it involves itself logically in the most theoretical speculations. All science and philosophy, though differing in all other particulars, agree in the endeavor to present a coherent statement for the world of their experience. They may feel it necessary, in order to accomplish this, to postulate a world beyond experience ; but in any case the aim is to get an ultimate and consistent view that will serve as a setting for, and will give validity to, concrete experience. In so far the purpose of pragmatism reduces to something not materially different from that of the more speculative philosophies, namely, to the evaluation of every detail or fact that can possibly present itself by a scheme of previously constructed rationality. It may be urged that, even if pragmatism rests with this programme, there is nothing ambiguous about it ; that being essentially practical, it escapes these theoretical difficulties into which other philosophy has fallen. It concerns itself with the obvious fact that some ideas have good effects while others do not, and that some have apparently no effects at all. The only reply that should be necessary to this plea is, that if pragmatism begins to define what it means by kinds of effects, it is driven into the theoretic statement with all its difficulties, or it must admit the thoroughgoing functional relationship of thought and action. In other words, the test of feasibility is not something that can be applied off-hand. It is legitimate only when it is preceded by a genetic and sociological statement of the conditions within which the term to be evaluated appears.

Thought is an organic part of experience as a whole, consid-

ered as an active process ; and hence, the question as to *mere* effects is, to say the least, unnecessary. The real point of interest is the relation of the consequences of any thought to the larger whole of experience, the sort of situations that produced the thoughts and the function of the latter in the onward movement of the process. There is really no ultimate statement to which the particular can be squared, aside from its function in the development of experience. The single act is not interesting as a mere act or as a part of a static system, but only as accomplishing something that is related to other acts.

We will not deny to pragmatism its right to define what is real and vital, and what is false ; we simply maintain that it must make a preliminary investigation of what it is that we can rightfully assume as real, or what is subject to any statement that we can legitimately try to make. For one thing, we cannot state *our* experience in terms of any more ultimate reality. If it cannot itself be made consistent, there is no consistency for us anywhere. The problem of philosophy is to explain the particular by locating it in its context. There is no such thing as a merely verbal concept, nor a meaningless or erroneous idea. Whatever exists has meaning and validity, if not in one context in another ; and the task for philosophy is not one of selecting and rejecting, but of finding the setting of that which is.

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THE PHILOSOPHY OF EMERSON.

IF to be a philosopher means to have a closely reasoned system of metaphysics, then doubtless Emerson was not a philosopher. But there is a far more general, and equally valid, sense in which we use the term philosophy, where it simply implies an attitude, whether reasoned, intuitive, or instinctive, toward *life as a whole*. For the most part, men spend their days in an abstract, and proportionately unreal world. Never was this truer than in these days of rigid specialization, and of none is it truer now than of those who pride themselves most on their close adherence to *facts*, and their freedom from all illusions; who thank God they are not as other men are — or even as these idealists. We get habituated to our little private compartments, and are apt to forget that into them only so much of truth comes as can filter through those particular lenses — namely, our highly specialized points of view — with which our private compartments are fitted out. I need not elaborate the point. We all know how lawyer, physician, merchant, politician, man-of-the-world, scientist, each and all tend to settle down into the exclusive contemplation of life from the point of view of their special vocation. Yet, as human, man is always more than scientist, or lawyer, or merchant; and, if fully awake, feels the need of going visiting in his neighbors' compartments (as Goethe represents the babes in heaven borrowing successively the eyes of those who have seen to advantage here on earth); feels the need of rising above the limits of his private, compartmental points of view, and of endeavoring to get nearer to the world in its concrete variety and richness, that he may see things in the light of the whole. And whether a man deliberately and consciously seek this larger vision or not, none or less, in his practical life, does he in effect adopt an attitude toward life as a whole. He shows in his conduct that there are certain things which he regards as of supreme importance, in the light of which all other things get their relative worth. In this sense it may be said that every-

one is a philosopher. But, inasmuch as most men are such more or less instinctively and unconsciously, they have no firm grasp on their philosophy, and are apt to have as many philosophies as they have moods.

When we speak of the philosophy of a poet, we have in mind that attitude toward life as a whole which is the expression of his dominant, and more or less persistently dominant, mood. If he be a great poet, he is successful in presenting the things his genius touches upon in the light of the whole. Afterward, cold-blooded philosophers, analyzing, distinguishing, reasoning, articulating, systematizing, may seek to raise to the level of scientific and demonstrative certainty the substance of the poet's vision, eliminating the errors, making sure the gains.

As in science there are certain workers gifted with a particularly strong and happy imagination, who leap beyond the facts in some large and daring generalization which after-workers by the score must test and verify, correct or discard; so in this effort of man to transcend the limits of any and all the special sciences, of any and all private limited points of view, and see things veritably in the light of the whole, the poet, his "eye in a fine frenzy rolling," o'erleaps the results of plodding reason, that he may paint the thing as he sees it. He deigns not to argue; he simply trusts to the immediate response in the sympathetically vibrating intelligence of him who hears. If, however, he be a great poet, he also paints for the "God of things as they are." And philosophy, the after-thinking of poetry, may fix the gains the poet has made, trace them in all their ramifications, organize and make definite the vision, help to weave it into the fabric of civilization, and thus prepare the way for the larger vision of the greater poet to be.

I am well aware that this is not the popular view. The theory that holds sway in our generation—at least, if we are to judge by noise and numbers—is one of thorough sensualism: art has nothing to do with ideas, least of all with philosophic ideas, its aim being simply to please. Yet, as a matter of fact, no serious-minded person ever quite lives down to such a view. It is rather true, as our own Sill wrote, that "All great literature dips con-

tinually into the underlying current of philosophical thought and ethical feeling. . . . Take, for instance, *In Memoriam*. You may discuss its rhythm, its epithets, metaphors, felicities and infelicities as art—you are still on the surface of it. The fact is that a thinking man has put a good lot of his views of things in general into it, and those views and his feelings about them are precisely the literature there is in the thing."

Certainly this was Emerson's view. Philosophy and poetry were for him most intimately related, the latter seeking ever to reveal the beauty of truth, the former to make plain the truth of beauty. Yes, Emerson even held that the poets were to be the true philosophers of the future. He had a certain distrust of reasoning that did not culminate in poetry. For the poets alone are free to keep all doors open for light; they alone reflect truth in all its many-sidedness; they alone are not committed to their own past. This is the meaning of Emerson's distrust of consistency—the "foolish consistency." Do not feel bound by your past outworn insights; utter the vision of the present moment; do not try to make it tally with last year's vision; do the best you know now; don't bother to reconcile it with what you have done. People are sure to misunderstand you, but what of that? The man who is real, who is fully alive, has no time to be explaining himself. The only explanation he can offer is in his best present vision, in his best present action; he must be ever forging ahead. If he be but true to himself in every moment, honest and sincere, why, somehow, the different shreds and patches of his work will fall together and reveal the pattern that will be the consistent revelation of the character he *is*, and, therefore, of the message he owes the world, and the only message *he* has to give the world.

As I read Emerson's Essays and Poems with a view to his philosophy, I find that philosophy expressed in the continual iteration of three cardinal points. The first, which made inevitable his break with his church, and marked his entrance into philosophy, is an abiding sense of the contrariety among all finite expressions of truth, all finite efforts to realize the ideal. Truth

is too large to be compressed into any formula of the understanding. No sooner have we succeeded in compacting the truth that hovers before the mind's eye into a neat word package than we find that we have advanced beyond. Once more we are busy modifying, emending, enlarging that expression, groping after the larger insight that just eludes our grasp, but ever entices us onward. This is one of the curious contradictions of reasoning. We can only think clearly in so far as we succeed in making our notions definite and clear cut; yet that very definiteness and clearness seems to be won by sacrificing other aspects of the same truth that we are trying to express. The letter will always kill. Thought tends to crystallize in the phrase, and the phrase is then substituted for the thought—becomes dogma, convention, tradition, which are other words for idol. But the free spirit is a ruthless iconoclast, and will rise on stepping stones of its dead selves to the higher vision.

As with thought, so it is with action. The looked for satisfaction never comes in any deed, nor in any outward circumstance. "The fiend that us harries is love of the best." The stagnation of life, the arrested development of character, is marked whenever the soul would settle down in the comfortable possession of neat cut and dried rules of action, or formulas of truth. Vain delusion. These things will surely imprison and possess and kill that soul.

This insight explains at once Emerson's hostility to the older orthodoxy with its definite dogmas and pretended finality, and also his opposition to the earlier deistic unitarianism, which, with its equally final, definite, clear-cut formulas, differed from the older orthodoxy mainly in being more shallow and barren; and this also accounts for his contempt for all worshippers of convention. His life was a continual protest against all efforts to make the living soul feed on its dead past. This view Emerson has summed up in his poem entitled *Uriel*:

"Line in nature is not found.
Unit and Universe are round.
In vain produced, all rays will turn.
Evil will bless and ice will burn."

The poet then goes on to describe the consternation that Uriel's discovery caused in the "Holy festival:" How the "Stern old war gods shook their heads," — their occupation is certainly gone if a line cannot be drawn — and how the "Seraphs frowned from their myrtle beds." This truth always comes as a saddening discovery to the indolently inclined, who would like to dally an eternity away lounging on myrtle beds. There is no rest for the weary; one can never say, "It is finished"; every end is a beginning; every summit attained does but reveal a higher summit, beckoning one on, and one must struggle forward or die. This view is also a rock of offense to the stubborn, hard-headed disciple of the word; and it is evidence of signal impiety to the mind of the fervent social or religious fanatic, on fire to reform the world by forcing it to take in unlimited doses his particular nostrum.

To Emerson, however, this insight simply meant emancipation from fear. It was the light that banished the demon of darkness from the world. Nature became at a stroke smiling, friendly, sane, and reasonable — God's world through and through, and man's. To him it was the revelation at once of the infinite character of the human soul, and of the human character of the infinite universe. The old Greek joy in nature, calm and untrammelled, revived in him, and brought the seer of Concord that serenity and poise of mind which was ever one of his most pronounced traits of character.

The second point has already been indicated: the friendliness of nature. Nature is through and through ideal. Matter is but the living garment of spirit, the laws of matter but spirit's utterance of itself. And because this nature is intelligible to man, can be comprehended, owned, directed, and controlled by him, the spirit that utters itself therein is one and the same with the spirit that reveals itself in his thought and aspirations. "*Nihil humani mihi alienum.*" Emerson would erase the *humani* as being tautologous; for there is nothing in the wide world that is not human. Everything is fraught with meaning, which is the same as saying, everything is tinged and tinctured with mind; for meaning is certainly meaningless save in the presence of mind.

Emerson discusses idealism in one of his works. The discussion takes the form of a quasi-argument. It is very brief — occupies only a few pages ; and he fairly apologizes for making it so long. The fact is, Emerson was a born idealist ; the burden of proof, he assumes always to rest on the man who would deny anything so perfectly obvious. In the world in which he daily lives, serene, upon the heights, spirit is the only absolute reality ; all things are real only in so far as they can be read as the messages of spirit. The real is ever the ideal. In the discussion just alluded to, Emerson tells us that growth in culture makes idealism inevitable : First, there are the common experiences of everyday life which show how all things in nature are unstable, how they completely change with our shifting point of view. Compared with things, the mind, the seat of ideas, is fixed and permanent. Or again, he argues from the power of the poet to make nature plastic in the service of the ideal. Or, he appeals to the arguments of the philosophers which show that what we actually encounter in experience is not self-subsistent matter, but phenomena only, appearances within conscious experience. Finally, he reads the moral and religious experiences of mankind as one long record of triumphant spirit.

In his poem entitled *Experience*, he has given expression to this view. After speaking of the “lords of life” to whom we are all wont to bow down — “use” and “surprise,” “surface and dream,” “succession swift and spectral wrong,” “temperament without a tongue,” and e’en the “inventor of the game omnipresent without name” — he goes on to describe how

“ Little man, least of all,
Among the legs of his guardians tall,
Walked about with puzzled look ;—
Him by the hand dear Nature took ;
Dearest Nature, strong and kind,
Whispered, ‘ Darling, never mind !
’To-morrow they will wear another face,
The founder thou ! these are thy race ! ’ ”

For the rest, Emerson’s idealism remains vague, — many-sided, if you will. In one place he writes : “ Within man is the soul of the whole ; the wise silence ; the universal beauty, to which

every part and particle is equally related; the eternal One. And this deep power in which we exist, and whose beatitude is all accessible to us, is not only perfect in every hour, but the act of seeing and the thing seen, the seer and the spectacle, the subject and the object are one." In another passage, he declares that the soul is not organ, nor function; "Not a faculty, but a light; is not the intellect or will, but the master of the intellect and the will; is the background of our being, in which they lie — an immensity not possessed, and that cannot be possessed." This is sheer mysticism, expressed with all the assurance given by immediate experience. To the man of the world, sunk in sense, who places chief value on events, honors, things, circumstances, such expressions must remain foolishness, but the seer is untroubled; he knows, for he has seen, has been near to the centre of reality, and his scale of values has been adjusted to his vision there.

Just at this point the philosophy seems in danger of becoming a blighting pantheism. One has, indeed, been awakened from the nightmare view of materialism into the living, throbbing world of purpose, of beauty, and of truth, where experience ever reveals, under whatever disguise, only spirit answering unto spirit. But, alas! it would seem, only to find that it is always the self-same universal spirit one encounters, of which we, these finite struggling individuals, are but transient modes — mere fragments, blindly playing His game, and fancying ourselves to be real and free, working out our own purposes.

Much that Emerson says points this way. "The world runs round, and the world runs well" (Sill) — Yes, so very well. Why should we fash ourselves to make it any better? From the point of view of the Universal Spirit the harmony is always there. The discord only seems to be. Whatever we may do or may not do, God's will is being accomplished. Does not such a view threaten paralysis of the will quite as much as the direst materialism? And was it not, after all, Emerson who said: "When I see a man all fire and fury for a certain reform I feel like stopping him and saying: 'Why so hot, little man?'"

Emerson's pantheistic optimism is certainly the most vulner-

able point in his philosophy. Emerson has been called the "Unfallen man"; and in truth he never seems to have had any vivid appreciation of the heinousness of sin, or of the bitter anguish that may o'ertake the soul. He was what Professor James calls a "once-born soul." To many this must give a touch of unreality to his vision. There seems to be for him no real problem of evil. The world spirit with whom he ever dwells is too much like the Epicurean gods :

"The gods who haunt the lucid interspace of sphere on sphere,
Where never sound of human sorrow mounts to mar
Their sacred everlasting calm."

When, however, Emerson reaches this point, he suddenly faces about. His generations of protestant ancestry, his puritan conscience, his modern love of liberty assert themselves. He avails himself of the poet's license to picture the different phases of truth, troubling not over-much about their logical consistency. And this brings me to the third point in Emerson's philosophy, his ethical idealism. We find him now preaching the sovereignty of ethics; emphasizing heroism, self-reliance, character; proclaiming the gospel of individualism, an individualism uncompromising enough to satisfy the most ardent of the eighteenth century apostles of enlightenment. Every individual, he tells us, is unique. Each has a message which he, and he alone, can give, which the world needs, and which he owes to his fellowmen. Emerson recognizes the difficulty of reconciling this truth with his view of the absolute unity of the spiritual world, but is none the less sure that both views are somehow true, and that, as soul is supreme over matter, so the individual soul is, or may be, supreme in its world. All that is necessary is that man stand forth boldly for himself; do what his own peculiar capacities best fit him for doing; honestly, frankly, and steadfastly *be* himself. Most of our institutions and conventions seem expressly devised to make men insincere, to crush out individuality, and reduce all to the same mould. Hence Emerson's opposition to convention, tradition, dogma, authority. It is, of course, easier to lean upon others than to stand erect. But what the world needs is men of

character. Most men will do anything rather than be themselves. In place of reporting the truth as they see it with their own eyes, they would rather tell the opinion that someone else holds of what someone else has recorded that someone else saw and held for truth. A lazy, pleasure-seeking age always finds a ready welcome for such weak-kneed conformists. They are not troublesome; they bear a definite well-known brand. The man who strays from the broad and beaten paths disturbs our reckoning, makes necessary new computations. Yet the world has need of such men. It is the great dissenters that have made the world move onward and upward; and the great dissenters have simply been the men who have given new readings of the world's meaning by honestly, and fearlessly, and in all humility reporting what their inmost soul beheld when face to face with reality. The Great Spirit freely communes with every honest, every real self. In every such soul God is revealed anew. Suffering and disappointment may, from the worldly point of view, be the lot of such honest men, but never from their own. For they do not measure success by events, by outward circumstance, but by the inner wealth of the soul. No truth is plainer than that a man can rise superior to circumstances. We hear a great deal of environment, circumstance, temperament, as if these things were our masters. The man that has once truly and genuinely lived can laugh at these fears. He knows they are but shadows of the mind's own throwing. Your environment is not yours without your own coöperation, circumstances may all be mastered, temperament is the start, not the finish of life. You may indeed play the part of a thing, and then you will be mastered by things; but you need not. You may, if you will, be free. Character is yours if you will only have it so.

One of the most striking things about Emerson is the way in which he anticipated the practical wisdom of the present day. Take such a passage as the following from the essay on *Experience*: "Life is not dialectics. . . . Intellectual tasting of life will not supersede muscular activity. If a man should consider the nicety of the passage of a piece of bread down his throat he would starve. . . . Objections and criticisms we have our fill of.

There are objections to every course of life and action, and the practical wisdom infers an indifferency from the omnipresence of objection. . . . Do not craze yourself with thinking, but go about your business anywhere. Life is not intellectual or critical, but sturdy. . . . To fill the hour—that is happiness; to fill the hour and leave no crevice for a repentance or an approval. . . . To finish the moment, to find the journey's end in every step of the road, to live the greatest number of good hours, that is wisdom. . . . Men live in a tempest of fancies, and the only ballast I know is respect for the present hour." Those words might have been written yesterday by our chief exponent of the strenuous life. Let one dip into the practical essays almost anywhere; it is like giving the soul a cold plunge in the crystal springs of virtue. One returns to the fray all aglow with consciousness of power, and feeling, as Emerson's poet did, that "the world is virgin soil; all is practicable; the men are ready for virtue; it is always time to do right."

The real secret, however, of Emerson's hold at the present hour is to be found in the fact that he voices the aspirations of our western civilization taken at its best. That is why we like to honor ourselves by styling him "the true American philosopher," or "the philosopher of democracy." Certain it is that we as a people are not held together by any ties of blood—by our vaunted Anglo-Saxon ancestry—but by a common ideal. It is the task of philosophy to give precise and adequate expression to that ideal; it was the virtue of Emerson to bring into sharp relief many of its essential moments: a wholesome, whole-souled joy in life, an unflinching optimism, a generous idealism; a trust in the absolute freedom and integrity of the individual, based on his infinite worthiness; a firm belief in the lawful boundlessness of his aspirations, and the real boundlessness of his opportunities, since he may dominate, and need not be dominated by, circumstances; a steadfast conviction, not that every human unit counts for one and no one for more than one, as the pseudo-democratic phrase runs, but rather that every man counts, or might count, for all, if he but thoroughly comprehended himself—and that, too, although there is another aspect of the truth which with equal

insistence maintains that every individual is unique ; a willingness honestly to take the responsibility for one's own shortcomings, to recognize the clear call to "be a brave and upright man who must find or cut a straight path to everything excellent on the earth," and to count it shame to try to shift the blame for one's failure to God or to nature or to one's fellow men ; the belief that any reform that is to be of any real value must be addressed primarily to the inner man, to the spirit rather than to the surroundings of the body, the belief that has led to our trust in the efficiency of popular education ; and, finally, in the line of conduct, the revolt against all forms of ascetic morality, all morbid broodings of conscience, and the substitution of the sturdy virile attitude that looks into the past only long enough to gather up its lessons and then directs itself wholly to the present in the light of the future, that is impatient of introspection and the super-subtle analysis of motives as clogging action.

And while it is true that the poet will always lead and the philosopher follow, there is no reason why philosophy should lag as far behind as it frequently does. It is the sad truth that many of the reigning systems of philosophy are far better interpreters of a long departed day than of modern life, for they manage to belittle or explain away much that is essential in modern civilization, even if they do not all, as many of them do, culminate, in effect, in the *φυγή μόνου πρὸς μόνον*. The philosophy that would truly interpret the spirit of the present time must make ample provision for all its distinctive, positive, virile, individualistic strains, that Emerson appreciated so keenly ; and until it succeeds in doing so the wide-awake world of to-day will pay scant heed to the philosophers.

These, then, are the three chief phases of Emerson's philosophical attitude : (1) The inadequacy of every finite form of expression to reveal the fullness of truth, the inadequacy of every finite deed fully to realize the aspiration of the soul, the manifoldness of truth and the infinity of the soul ; (2) the supreme and sole absolute reality of spirit ; and (3) the absolute freedom and integrity of the individual human self, the sovereign worth of

character. Through the first his vision gains breadth, through the second depth, while through the third his message acquires its profound moral earnestness.

It would be as easy as it would be gratuitous to criticise Emerson's philosophy because he has not with faultless logic established these positions, because he has not woven them together by any definite method into a coherent system of truth. For he did not attempt to do this; and, in spite of the fact that certain portions of his writings wear a quasi-syllogistic garb, his standpoint is throughout that of the seer and poet, who does but report the several phases of his inward vision, letting their union into the congruent whole take care of itself. Indeed, one feels almost like apologizing for trying to single out and give formal expression to the definite threads of meaning that run throughout his works, as if even that much analysis were a sort of murderous vivisection of the truth. Having yielded, however, to the temptation and made the attempt, one is forced to admit that Emerson introduced no essential modification of philosophical doctrine, made no original contribution to the solution of philosophy's most perplexing problems. Yet, notwithstanding this, he has done yeoman's service in the cause of philosophy merely by making to prevail a certain philosophic posture and habit of mind. More than any other writer Emerson knew how to create the atmosphere of philosophy, so that men in reading him find their idealism voicing itself all unawares. What he says comes straight from the shoulder and strikes home. And although one would never turn to him for the baser materials of which systems are constructed, his writings will always remain the precious diamond mines of philosophy and ethics. Philosophers of the chair are apt to think too lightly of the service rendered their cause by the directer method of the poet. His welding vision it is that makes the contact between philosophy's issues and the daily business of life, and out of the materials of past philosophies fashions the prophecy of the future.

CHARLES M. BAKEWELL.

PROCEEDINGS OF THE THIRD ANNUAL MEETING
OF THE WESTERN PHILOSOPHICAL ASSO-
CIATION, HELD AT IOWA CITY ON
APRIL 10 AND 11, 1903.

REPORT OF THE SECRETARY FOR 1902.

THE third annual meeting of the Western Philosophical Association took place at Iowa City, April 10 and 11. All sessions were held in the Hall of Liberal Arts, Iowa State University. In the absence of the President, Vice-President Allin presided. In addition to the papers and discussions presented by members of the Association, Professor J. E. Creighton favored the association with a paper on "The Standpoint of Experience."

Socially the two days were made very enjoyable by the hospitality of the President and Faculty of the University. All arrangements necessary to the success of the meeting were carefully attended to by Professor Seashore. A letter was read from Professor Patrick, now in Europe on leave of absence, expressing his regret at not being at home when the association was in session at Iowa City.

At the business session, it was decided to leave the time and place of next meeting to be determined by the Executive Committee, the preference for time being given to Easter unless a joint meeting is arranged with other associations. The report of the Executive Committee in regard to the election of new members, under special provision made at the last meeting, was accepted and approved. This extends the membership to include practically all the men actively interested in philosophy in the North Central States. A few additional names were proposed and the to persons elected to membership at this meeting. A suggestion change the name of the society to "American Philosophical Association: North Central Section," in case a corresponding change is made in the name of the present American Philosophical Association, met with favor and the matter was referred to the Executive Committee. The following officers were elected for the en-

suings year: President, G. T. W. Patrick; Vice-President, J. R. Angell; Secretary-Treasurer, A. Ross Hill. W. A. Heidel and Arthur O. Lovejoy were made members of the Executive Committee.

The report of the Treasurer showed a balance of \$27.76 cash on hand, April 1, 1903.

A. ROSS HILL,
Secretary-Treasurer.

ABSTRACTS OF PAPERS.

The Problem of Metaphysics. (Address of the President.) By FREDERICK J. E. WOODBRIDGE. This paper appears in full in Vol. XII, No. 4 (July, 1903) of THE PHILOSOPHICAL REVIEW.

The Standpoint of Experience. By J. E. CREIGHTON.

Experience is not an unambiguous term to which one can appeal in an uncritical way. The truth is rather that its definition is in a certain sense the all-inclusive philosophical problem. Since, however, experience is constantly invoked by thinkers of all schools, it is well to make an attempt to call to mind what may fairly be said to be established regarding its nature by the historical teachings of the past, and by the reflections of the present generation. With this object in view the following propositions were maintained: (1) Experience cannot be regarded as a stream of subjective processes, existing as mental modifications in a particular thing called mind. (2) The relation of subject and object in experience cannot be adequately expressed in terms of cause and effect. And this carries with it the abandonment of the interaction theory of the relation of body and mind, as well as the representative or copy theory of knowledge. (3) The mind is not one particular thing, separated from other things, but as a true individual it contains within itself the principle of universality. In the discussion of these questions, reference was made to parallelism, to the difference between the standpoint of philosophy and that of the special sciences, and it was finally maintained that to give a philosophical interpretation of experience is to show its relation to the ideals and purposes of a rational self-consciousness.

The Relation of Ethics to Metaphysics. By EDGAR L. HINMAN.

The tendency to regard ethics as independent of metaphysics has of late gained the support of several idealistic writers ; among others of Mr. A. E. Taylor, author of *The Problem of Conduct*. The present paper discusses the argument of this book, with the purpose of partially opposing certain of its more important ideas. The first point of opposition concerns the line of separation drawn by Mr. Taylor between metaphysics and the special sciences. The proposed distinction, it is urged, is a defective one. It ascribes to the special sciences view points which are not only abstract and one-sided, but also laden with error ; whereas there should have been recognition that the scientific view points are partial, indeed, but are not false unless misunderstood. The distinction as drawn, if admitted, would require the worker in ethical science consciously to falsify his teachings. Such a separation could be carried out with precision only by the thoroughly trained student of metaphysics, if even by him ; and the science thus generated would be so falsified as to miss the main point of ordinary university instruction in ethics. The second point of opposition concerns the assumption that ethics, if it were founded upon metaphysics, would of necessity be rigorously consistent and exact. This assumption, important to Mr. Taylor's position, is unsupported by argument, and is erroneous. No science is deduced from metaphysics in this way. The statement that ethics is dependent upon metaphysics means that the conceptions and principles of ethics cannot be understood in their full rational meaning except by conscious reference to the central and organizing conception of truth which it is the task of metaphysics to outline. The truth of this statement does not exclude from ethics the possibility of incoherency and conflicting views. The third point of opposition concerns the interpretation to be put upon the contradictions which appear in the science of ethics. Mr. Taylor interprets them as showing that ethical conceptions neither constitute in themselves ultimate truth, nor are founded upon ultimate truth. They show in fact, however, that an ethical doctrine which disregards or denies its foundation in a metaphysical ideal which transcends time and space can never be made

self-consistent or intellectually tenable. These are three of the cardinal points of Mr. Taylor's book; and if they are not well taken, his argument for an independent science of ethics fails.

The Problem of Physical Interaction in Pre-Socratic Philosophy.

By W. A. HEIDEL.

Important as this question is, it has never been studied as a whole. It is intimately bound up with almost all the special problems to which the Pre-Socratics addressed themselves. Particularly is this true of the methods of 'becoming' in all of its variations. Naturally the difficulties were few and but indistinctly realized while the hylozoists maintained a monistic system; but they multiplied and compelled attention when, after Parmenides, Empedocles and his successors viewed the world as constituted of distinct and antagonistic elements or substances. The original homogeneity of the world, assumed without question by the hylozoists, returned to consciousness as the basis for interaction in the guise of the familiar principle that only like can act on like. This principle, distinctly enunciated by Empedocles, and reinforced by the conceptions of a general mixture of the elements and an elaborate system of pores and effluvia, was adopted with special developments by Anaxagoras, Leucippus, and Diogenes of Apollonia. The Atomists were led by it to postulate the essential homogeneity of the atoms, and Diogenes, despairing of the possibility of a pluralistic or dualistic system, demanded the return to monism. The precise attitude of Anaxagoras to the problem is somewhat in doubt, owing to accounts which can hardly be harmonized. The only means of determining the matter is to be found in the comparison of his position in regard to allied problems. These compel us to regard Anaxagoras as agreeing substantially with Empedocles, and to place him logically, if not historically, between Empedocles and Leucippus.

The careful study of this fundamental problem will do more, it is believed, to fix the relations of the various Pre-Socratic systems than the analysis of these theories upon the principle of a logical succession of the categories.

The Idea of Space.¹ By WALTER SMITH.

Space is an universal element in all adult human experience, not only in sense but in ideas of the intellect. What is its function? It is discrimination; this finds its manifestations in our judgments as well as in our sense-intuitions. Space is not a dead form; it is a vital activity of thought. Having gained this view of its nature, we can take up again the problem of its universality, and we now find reason for saying that it is not merely a form of adult human experience, but is present in all forms of consciousness.

Is space objective? In one sense it is subjective, for there are only the spaces of percipient subjects with their individual peculiarities. But since the universe known to us is made up of these subjective experiences, they are at the same time the objective world; hence the spatial form characteristic of them is objective. It is necessary to conclude that the soul is extended and that God is extended. The question as to the finitude or infinitude of the world is the question whether there is an infinite number of percipient subjects. Likewise, the question whether space has *n* dimensions, is the question whether there exist percipients whose space is of this kind.

Suggestions Toward a Theory of the Social Self Based on the Psychology of Primitive Peoples. By J. H. TUFTS.**Æsthetic Temperance.** By OLIN TEMPLIN.

The purpose of this paper is to consider the recent statement of Mr. Spencer that "the æsthetic ends occupy far too large an area of consciousness" in human life.

The two questions involved are: What are "æsthetic ends"? and, How are they related to the other ends of life? All attempts at definition of the Beautiful have been unsatisfactory. The hedonistic theories have failed in that they have never distinguished between æsthetic and other pleasures. They have also overlooked the painfulness of the Beautiful. The metaphysical theories have failed because of their obscurity and the complete inapplicability of their explanations to concrete æsthetic experi-

¹ This paper appears in full in the present number of this Review.

ence. The sociological accounts define by means of an accidental characteristic, namely, social utility, instead of the essential.

The æsthetic problem is distinctively psychological. Beauty is a form of value, and values originate in the will. Æsthetic judgment, therefore, is determined by an attitude of the will. All agree that it refers to an apprehended object. It will be found that the peculiar characteristic of the will determining æsthetic judgment is that of unconditional approval of the apprehended object. Beauty thus appears as value intrinsic in the object, and as such commands the approbation of the will. That is to say, an object is regarded as beautiful because it is approved by the will, not approved by the will because it is beautiful. That the Beautiful is pleasurable, useful, or occupies a peculiar position in a metaphysical system, is accidental. Thus conceived, æsthetic ends are the most ultimate, indeed, the only ultimate ends in life, and æsthetic value the only intrinsic value, justifying all others. It therefore follows that æsthetic ends, as such, cannot be excessively pursued. It is nevertheless evident there may be forms of Beauty, mere 'prettiness,' for example, the pursuit of which may become excessive on account of their disturbing influence on an otherwise well-ordered life.

Fallacies Concerning the Law of Recapitulation in its Relation to Education. By FREDERICK E. BOLTON.

Cope and Baldwin show very conclusively that the parallelism between an individual and its racial ancestors is very inexact, *i. e.*, recapitulation is very imperfect. This is easily seen to be true, because the structure and functions of any organism are continually subject to modification, causing an atrophy and an elimination of some characteristics and the development of new and modified ones. If we accept this theory, it becomes evident that the whole race history cannot be recapitulated. Whole chapters become excised and others are so slightly hinted at as to be illegible. If we examine mental characteristics, the search is still more elusive. It is evident that, in both physical and mental characteristics, the 'short cut' becomes the hereditary product. Thus it becomes impossible for the individual to recapitulate

the *adult stages* of his ancestors, as is assumed by many theorists in building up an educational scheme. The embryo of the higher forms passes along the same general road as that of its humbler ancestor, but after a while each goes its own way. Each contained potentialities from the beginning which made it differ from those that preceded it.

The Culture Epoch Theory is derived from the doctrine of recapitulation, its exponents claiming that, to be educated normally, the individual must receive the same educative material and go through the same processes as his *adult* ancestors were subjected to in the corresponding stages of racial history. For example, at a given age the child must build wigwams and shoot with bows and arrows. Now, what is really recapitulated is the pre-adult stage and not the adult. The civilized child and the savage child are much alike, but not the civilized child and the adult savage. When an individual passes through stages similar to ancestral stages, these are recapitulated at a time corresponding to individual development, and not at a time corresponding to a point in race history. For example, the play period is dominant through ten or twelve years. Now, did the race have a play period which extended through a sixth of race history? The corresponding period racially seems to have been a drudgery period. Plainly, that which occupied the race during a period cannot be taken as a guide to that which should now occupy the individual. The child may be interested in fairy tales and bows and arrows, but not because it represents an ancestral race epoch. The child is equally interested in hero stories of to-day, and in Winchester rifles, locomotives, and telephones. Children's interests are better guides than ancestral epochs.

Preliminary Experimental Data on Variation in Tradition and Imitation. By ARTHUR ALLIN.

In this paper attention was called to the fact that the remarkable thing about tradition and imitation is the similarity element. Imitation was shown to be a subdivision of suggestion, the reaction in imitation happening to possess more similarity to the stimulus than in other cases of suggestion. The following pos-

sible avenues of error, or, more correctly speaking, processes liable to involve variations from the stimulus copy, as seen in imitation and tradition, were noted :

1. *Defective perception* due to (a) Exaggeration or minimizing of external or extra-sensory media. (b) Defective functioning of peripheral sense-organs ("The eye possesses every defect known to an optical instrument." — Helmholtz). (c) Defective functioning of afferent nerve fibers. (d) Defective functioning (fatigue or hyper-excitation) of sensory cortical or subcortical nerve cells. (e) Incorrect associative activity within the perception itself (*e. g.*, sense-illusions).

2. *Apperceptual or Associative Activity*. (a) The fringe of muscular, glandular, vascular, metabolic, and nervous associations probably present with the appearance of every perception or idea. Owing to these several factors, the reaction may be the resultant of a unique combination of many of these forces. (b) The lack of firm and lasting impression on the part of sensory cortical cells, and consequently the innervation of but a few motor nerve cells. (c) The cumulative motor effect produced by the arousal of successive additional associated ideas (persuasion, temptation). (Baldwin, "Methods and Processes," p. 284.)

Motor Expression. (a) Too few or too many motor nerve fibers innervated. (b) Defect (fatigue, lesion, hyperexcitability) of motor peripheral apparatus. (c) Inhibition or exaggeration of possible motor movements due to other concomitant dynamic factors. (d) The influence of such extra-organic media as marble, paper, colors, machines, etc.

Experimental data were brought forward to show the great extent of variation in tradition and imitation. Various geometrical figures and other designs, stories, etc., had been given to pupils in various grades of school life with instructions, as follows :

The first pupil was to imitate as closely as possible the copy given. Each successor was to copy as accurately as possible the predecessor's copy and so on through a large number of intermediaries. The conclusions from the experiments were also given, but cannot be cited in a résumé.

Royce's "The World and the Individual." By A. O. LOVEJOY.

Professor Royce's treatise marks an epoch in the working out of idealistic monism, because it is the first work which takes the conception of "inclusion" seriously, and, with entire frankness and a clear comprehension of the implications of the monistic doctrine, declares that "the Absolute is no absorber or transmuter," but an explicit totality of distinct and definite elements of content. But in thus making the meaning of idealistic monism clear and unmistakable, Professor Royce's book also makes evident the inherently self-contradictory character of that conception. The book shows us the complete development of the doctrine, and therewith its complete breakdown. For if the Absolute is declared explicitly to include within itself all human experiences, as real and untransmuted elements, it follows that we must assert several highly contradictory things concerning the Absolute. For example, the Absolute experience now presents a strictly quantitative character—it is a whole made up of parts. But—as including the experiences of past or future time—it must contain an infinite number of constituent elements, must think and perfectly know an infinity of "organized individual facts." It thus appears, as Professor Royce for the first time confesses, that idealistic monism cannot be maintained unless the conception of an infinite sum, realized and definitely presented in a consciousness, can be shown to be intelligible and free from self-contradiction. But this the argument of his "Supplementary Essay" fails to show. It shows, not how we can conceive an infinite multitude of items to be presented in consciousness and completely known in their numerical distinctness, but, at best, only how we can get a sort of summary formula, or Platonic idea, for such a multitude—something quite different from the realization of that infinity itself, of which the notion remains as hopelessly self-contradictory as ever.

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 Angell, Professor J. R., University of Chicago.
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Hogg, Professor Archibald, University of Kansas, Lawrence.
Huey, Dr. Edmund B., Miami University, Oxford, Ohio.
Hugh, Professor D. D., State Normal School, Greeley, Colorado.
Johnson, Dr. Thomas M., Osceola, Mo.
King, President H. C., Oberlin College, Oberlin, Ohio.
Knowlton, President P. G., Fargo, N. D.
Libby, Professor M. F., University of Colorado, Boulder.
Lindley, Professor E. H., Indiana State University, Bloomington.
Lloyd, Professor A. H., University of Michigan, Ann Arbor.
Lovejoy, Professor A. O., Washington University, St. Louis.
Luckey, Professor G. W. A., University of Nebraska, Lincoln.
Major, Professor David R., Ohio State University, Columbus.
MacLennan, Professor S. F., Oberlin College, Oberlin, Ohio.
MacMillan, Dr. D. P., Board of Education, Chicago, Ill.
Meyer, Professor Max, University of Missouri, Columbia.
Millard, Professor Clara, Iowa College, Grinnell.

Miller, Professor Irving, Illinois College, Jacksonville.
 Moore, Dr. A. W., University of Chicago.
 O'Shea, Professor M. V., University of Wisconsin, Madison.
 Patrick, Professor G. T. W., University of Iowa, Iowa City.
 Pillsbury, Professor W. B., University of Michigan, Ann Arbor.
 Powers, Professor J. H., Doane College, Crete, Neb.
 Raub, Professor W. L., Knox College, Galesburg, Ill.
 Rebec, Professor George, University of Michigan, Ann Arbor.
 Rogers, Professor A. K., Butler College, Irvington, Ind.
 Ross, Professor E. A., University of Nebraska, Lincoln.
 Scott, Professor W. H., Ohio State University, Columbus.
 Seashore, Professor Carl E., University of Iowa, Iowa City.
 Sharp, Professor Frank, University of Wisconsin, Madison.
 Sheldon, Walter L., 4065 Delmar Avenue, St. Louis, Mo.
 Sherman, Dean L. A., University of Nebraska, Lincoln.
 Slocum, President W. F., Colorado College, Colorado Springs.
 Smith, Professor Walter, Lake Forest University, Lake Forest, Ill.
 Stearns, Professor John, University of Wisconsin, Madison.
 Stephens, Chancellor D. S., Kansas City University, Kansas City.
 Stuart, Dr. H. W., University of Iowa, Iowa City.
 Swenson, David, University of Minnesota, Minneapolis.
 Templin, Professor Olin, University of Kansas, Lawrence.
 Thilly, Professor Frank, University of Missouri, Columbia.
 Thompson, President J. H., Tarkio College, Tarkio, Mo.
 Tufts, Professor J. H., University of Chicago.
 Turner, Professor William, Saint Paul Seminary, St. Paul, Minn.
 Wenley, Professor R. M., University of Michigan, Ann Arbor.
 Wilde, Professor Norman, University of Minnesota, Minneapolis.
 Williams, Dr. Mabel Clare, Iowa State University, Iowa City.
 Wolfe, Dr. H. K., Lincoln, Nebraska.

REVIEWS OF BOOKS.

Lectures on the Ethics of T. H. Green, Mr. Herbert Spencer, and J. Martineau. By HENRY SIDGWICK. London, Macmillan and Co., Ltd. ; New York, The Macmillan Company, 1902.—pp. xli, 374.

The aim of the late Professor Sidgwick in these lectures, which formed a single course, delivered several times to his students at Cambridge, is clearly stated by the author himself in the introductory lecture on Martineau: "It appeared to me that having expounded my own system in my book, what I could further do in the way of making it clear would be best done in the form of criticism on the views of others" (p. 315). Accordingly, he takes Green as the representative of transcendentalism, Spencer as that of evolutionism, and Martineau as standing for the latest version of the intuitional theory of ethics. It is with the theories of Green and Spencer that Sidgwick is especially anxious to come to terms. The editor of the volume, Miss Constance Jones, of Girton College, who must be congratulated upon the care and skill which she has brought to bear not only upon the text of the lectures, but also upon the exhaustive "analytical summary," remarks in her preface: "Before the publication in 1874 of *The Methods of Ethics*—the great constructive achievement of which was the unification of intuitionism and Benthamite utilitarianism—the prominent doctrines in English ethical thought were the intuitional and utilitarian views, and these were currently regarded as being in thoroughgoing antagonism to each other. Later, Professor Sidgwick came to regard the transcendentalist and evolutionist schools as the principal rivals in contemporary English ethics of his own system. . . Readers of *The Methods of Ethics* have sometimes complained that it does not contain a more detailed consideration of Green's ethical theory. Green's *Prolegomena to Ethics*, however, did not appear until after the publication of the early editions of Professor Sidgwick's book. The same is true of Mr. Herbert Spencer's *Principles of Ethics*, and of Dr. Martineau's *Types of Ethical Theory*, which latter is probably the most influential recent work on ethics from an entirely 'intuitional' standpoint. The following Lectures are thus to some extent supplementary to *The Methods of Ethics*."

As might be expected from this statement of their scope and method, these lectures are even more critical and less constructive than *The Methods of Ethics*, or rather the construction is even more indirect

than in the earlier work. And while the volume can hardly be said to raise our opinion of its author's critical acumen, it throws no little light upon several points in his own theory, and by the very limitations of insight which it reveals, especially in the criticism of the transcendental theory, enables us better to understand the alternative accepted by Sidgwick and his reasons for its acceptance. It is peculiarly instructive, as well as often entertaining, to be privileged to 'assist' at Sidgwick's personal encounters with the critics of his own theory; and the comparative freedom of the lecture style allows him to develop a gift of humor which the reader of the *Methods* would hardly have suspected. We can easily believe the editor's statement that the lectures were "listened to with delight" by Professor Sidgwick's pupils. They might well be taken as models of what academic lectures to advanced pupils ought to be.

The discussion of Spencer and Martineau may be passed over lightly by the reviewer. In the case of Martineau, it may be questioned whether the intrinsic importance of the theory warrants its inclusion in such a course of lectures, at least in their published form; still the fact that Sidgwick considered the theory important enough to be treated along with the other two, and that the discussion of it gives him the opportunity of differentiating the intuitional element in his own theory from the intuitionism of the 'Common Sense' school, as well as from Martineau's peculiar version of the theory, is perhaps a sufficient reason for its publication in the present volume. The chief points in the discussion had already, however, been made by the author in his criticism of Martineau in *The Methods of Ethics* (Bk. iii, ch. 12).

The discussion of Spencer occupies the largest space, but is largely devoted to what Sidgwick calls "the details of Utilitarian politics." The main point which he is concerned to establish against Spencer is the impossibility of exchanging the empirical for the 'rational' or deductive method, or of making utilitarianism 'scientific,' by connecting hedonism with evolutionism or 'relative' with 'absolute' ethics. By a consideration of particular cases, after his own manner, Sidgwick has no difficulty in showing not only that in all these cases "we have to fall back on empirical utilitarianism," but that Spencer himself illustrates this necessity in his own procedure. For the most part, indeed, he finds Spencer's own utilitarianism "empirical to triviality," and he is never more effective or entertaining than when he is engaged in exposing the commonplaceness and triviality that underlie the pompous technical language and scientific phraseology of Mr.

Spencer. "For instance, in the chapters on Marital, Parental, and Filial Beneficence, and in those which discuss the positive duties of 'aiding the sick and the injured,' and giving 'pecuniary aid to relatives and friends,' Mr. Spencer's counsels, judicious for the most part, are usually courageously commonplace. He tells us that when a man in business thinks of asking a brother to lend him money, 'there may fitly be hesitation on both sides'; and suggests that the brother who hesitates to lend may feel that he is taking a 'wise forethought' for the welfare of a brother disposed to borrow, by sparing him the anxiety that the debt would cause. Perhaps it would be difficult for philosophy to illuminate further this delicate problem; but certainly one hardly required to have surveyed the process of the world from the nebula to the nineteenth century, in order to attain this degree of insight into fraternal duty" (pp. 310-311).

Most readers will doubtless turn with special interest to the lectures on Green, not only on account of the essential importance of Green's theory, but because it is this form of ethical theory that offers the most serious opposition to that of Sidgwick himself. The discussion suffers, however, from a single fatal defect, already suggested, namely, the author's inability to appreciate the point of view which he is criticising to the extent which is necessary to give his criticism substantial value; with the best intentions in the world, Sidgwick never seems to have been able to take, even provisionally, and in order to understand its significance, the idealistic point of view. In the discussion of Green, we seldom feel that Sidgwick is master of the situation as we do throughout the discussion of Spencer and Martineau. The discussion gathers round three main points: (1) the connection, or absence of connection, between Green's ethics and his metaphysics; (2) Green's failure to differentiate will from intellect, or to recognize the fact of "wilful choice of evil"; (3) the ambiguity of his view of the good, his oscillation between a wider view of it as realization of capabilities in general and a narrower view of it as realization of moral capability, the latter view alone establishing its "non-competitive" character.

1. Sidgwick succeeds, I think, in making out the absence of any organic connection between Green's ethics and his metaphysics. "Supposing that the argument in Book I is completely cogent, it still remains for Green to explain the bearing of it on the problems of ethics: to explain how we are to get an 'idea of holiness,' of an 'infinitely and perfectly good will,' out of this conception of a combining, self-distinguishing, and self-objectifying agency: to explain what

perfection the human spirit can aim at, so far as it is merely conceived as the reproduction of such an agency, except the increase of knowledge, extensively or intensively — the presence of the combining intelligence of a more extensive manifold of combined objects, or the presence of them as more effectively combined. As we shall find, nothing can be more unlike this conception than Green's moral ideal; in which, indeed, as I shall hereafter argue, knowledge rather occupies a too subordinate place; but assuming his metaphysical arguments valid, and his ethical view sound, there seems to me a great logical gap to be filled up in passing from the one to the other. . . . I, at least, can find no grounds in the argument of Book I for attributing to Green's spiritual principle any such characteristic as the term 'holiness' expresses: I cannot even find adequate reasons for attributing to it anything analogous to will. It is merely, so far as I understand, an eternal intellect out of time, to which all time and its contents are eternally and (we may say) indifferently present; being equally implied in the conception of *any* succession, it is not shown to carry with it the conception of progress towards an end in the series of motions or changes of which the process of the world in time consists. The series might be altogether purposeless — a meaningless round of change — and still the 'unification' which appears to be the sole function of Green's eternal mind would be none the less completely performed. And even if we grant that such a progress is implied in the development of the eternal consciousness in *us*, it is . . . still a purely intellectual progress, a growth of that which knows in knowledge alone" (pp. 11-14).

2. Green's failure to differentiate will from intellect might perhaps be regarded as the result of the influence of his metaphysical intellectualism upon his psychology of ethics, if not upon his ethics proper. Sidgwick's argument here seems rather forced. Since in all cases of choice, according to Green, the object is chosen as constituting the 'good' of the agent, it follows that there is no "wilful choice of evil." Green is "so far under the influence of ancient Greek and especially Aristotelian modes of thought as to ignore usually, and expressly exclude sometimes, that wilful choice of wrong known to be wrong which is so essential an element in the modern Christian moral consciousness of 'sin'" (p. 25). "In my view what is personally, or deliberately, chosen, is to be distinguished from what is chosen as 'right,' 'good,' or 'reasonable' — the latter terms being used as equivalent. I hold . . . that in 'wilful sin' I have chosen evil known as such; on the other hand, in deliberate self-sacrifice I have

preferred the 'good' of others to mine — not consciously identified it with mine" (p. 27). Green confuses, in short, "choice" with "judgment as to choice-worthiness"; his view, on the whole, is that "vicious choice is always made under an illusory belief that the end chosen is the chooser's greatest good" (p. 39). But while it is true that "willing the best" is not the same thing as conceiving it," and that vicious choice is not reducible to intellectual error, Green's view, fairly interpreted, does not seem to carry these implications, and it cannot be maintained that the choice of evil differs from the choice of good, so far as the *form* of the action is concerned.

3. Coming to the properly ethical issue, Sidgwick admits that "if Green can consistently maintain an 'idea of true good' that 'does not admit of the distinction between good for self and good for others,' his system will, in this respect, have a fundamental superiority over hedonism" (p. 65). It was, indeed, one of Sidgwick's own fundamental positions in *The Methods of Ethics* that on the hedonistic theory, even when based upon intuitional principles, such a dualism between egoistic and altruistic good is inevitable. He finds, however, two distinct interpretations of true good in Green's *Prolegomena to Ethics*, the one of which makes the good non-competitive, while the other makes it no less truly competitive than the hedonistic interpretation does. He "allowed his thought to swing like a pendulum between a wider and a narrower ideal of the good, sometimes expanding it to Culture, sometimes narrowing it to virtue and the good will" (p. 71). "He entirely fails to see how the acceptance of the proposed condition of true good, that it 'does not admit of the distinction between good for self and good for others,' inevitably alters, and alters radically, the common notions of virtue, even the notions to which he himself adheres most unquestioningly and emphatically in his delineations of the moral ideal" (p. 66). "His own conceptions of justice, self-denial, self-sacrifice, as he himself expounds them, involve the conception of possible incompatibility between benefit to one man and benefit to another" (p. 65). He speaks constantly of the 'sacrifices' made by the virtuous man, of his 'self-sacrificing will,' his 'habitual self-denial,' his 'self-renunciations.' Yet the virtuous man is aiming at 'good' or 'self-satisfaction,' and "what sacrifice is there in giving up things that are no sort of good to one" (p. 68)? "In all this I seem to find, in Green's account of moral action, pagan or neo-pagan elements of ethical thought — in which the governing conception takes the form of self-regard — combined with Christian or post-Christian elements, without any proper philo-

sophical reconciliation of the two" (p. 68). But is not Sidgwick's criticism here again a little forced? Even in a theory of Self-realization there is a legitimate place for self-sacrifice, and even if the self-sacrifice of the virtuous man is never a sacrifice of ultimate good, it is surely permissible, and necessary if we would avoid pedantry, to 'speak with the vulgar' on this as on other topics. And as to the ultimate issue between the pagan and the Christian estimate of good, everything depends upon the relation in which we conceive the competitive elements to stand to the non-competitive, upon whether we subordinate the latter to the former or conversely. That for Green the good will is the *supreme* good is indubitable. On the other hand, the *complete* good, we may say, includes for him those intellectual and æsthetic elements which, while in themselves they are competitive, cease to be so when subordinated to, or taken up as elements in, the good will, as the supreme good.

Even the severe condemnation which Sidgwick passes upon Green's interpretation of Greek ethics is significant of Green's own real position. The condemnation is that Green reads Christian meanings into Greek ethical thought; Sidgwick finds him "modernizing very naïvely." He tries to make Socrates and Plato say that the supreme good is the will to be good; he seeks to socialize the Aristotelian virtues of courage and temperance. It is hardly conceivable that one whose own thought was at least half pagan should have so completely failed to understand the great expressions of the pagan spirit.

JAMES SETH.

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Experimental Psychology and Culture. By GEORGE MALCOLM STRATTON. New York, The Macmillan Co., 1903. — pp. 331.

Professor Stratton, of the University of California, has in this attractive sheaf of essays put forth a volume of distinct value — a value due not alone to the intrinsic merit, originality, and pertinence of the data and views presented, but even more to the underlying strength and unity of the interpretation of larger psychological issues that pervades the whole. This interpretation contributes to a reconciliation of the apparent antagonism between the experimentalist and the introspectionist; to a reassertion of the proprietary and hereditary tenure of the psychological estate in behalf of contemporary psychologists, for whom experimental mindedness is an indispensable warrant for continued sovereignty; to a varied proof that the psychology of to-day deals neither with the *corpora vilia*, nor with the superficial or incidental aspects of mind, but in spite of difference of approach and of novelty

of emphasis still exerts a profound influence upon general conceptions of life and nature, and upon the culture that makes possible their sympathetic appreciation.

Such a book as this by Professor Stratton was much needed as a serviceable and dignified message to which contemporary psychology could point as an instance of the temper and the import of much that, to the intelligent onlooker, might seem insignificant or beside the vital issues. Under modern conditions every science profits by a general and correct appreciation of its aims, its methods, its advancement, on the part of the wide clientele composed of general students of science, of specialists in other fields, of teachers and readers and other devotees of the intellectual life. No volume of studies in psychology that has yet appeared is more nicely suited to serve such a corrective and illuminating function than this interesting collection of products from a busy psychological workshop. Apart from new interests and practical guiding principles, the discerning reader will carry away from the volume a more appreciative sense of what modern psychology means, than he is likely to have had at the outset. He will equally appreciate what psychology is not; that psychology is ready to utilize the data of physiology without in the least forfeiting its independence; that the facts of greatest significance to psychological interpretations are not to be found with much pains in out-of-the-way corners, in strange mental experiences, in weird coincidences or in garbled accounts of the paradoxical, but in the most commonplace but profound experiences of daily life; that psychology is not a matter of theory without practical bearing upon views of life, upon methods of culture, and upon the conduct of affairs; and that equally psychology has not in any way or degree renounced its interest in, or its claim to, a hearing upon those more comprehensive questions of logical principle, philosophic import, and theoretical interpretation from which many blessings and not a few sources of danger flow.

Professor Stratton has chosen both widely and wisely in his selection of specific investigations to represent his main contentions. An historical introduction that clearly sets forth the antecedents and credentials of the modern psychologist; a clear-cut discussion of the status of the experiment in psychology, of the necessary involvement of introspection in experiment and of experiment in introspection; a pertinent and practical elucidation of how far and in what sense mental measurement is possible; these somewhat introductory presentations bring the reader to the first of the special topics, that of Unconscious Ideas. From here on the topics range from Illusions to Mental Space,

to Memory and Time, to Imitation and Suggestion, to the *Æsthetics* of Sensations, to the connection of Mind and Body—the latter leading naturally to the final chapter, which discusses the Spiritual Implications of the experimental work.

As the general tenor and guiding spirit of these contributions to knowledge have been here emphasized, it will be pertinent to select, in further presentation of Professor Stratton's purpose, a few specific illustrations of the points above referred to. The chapter on Illusions begins thus: "Our illusions of perception seem contrived for the special purposes of psychology—as if Providence, foreseeing the natural perplexity of the student of mind, had sent them for his comfort. For nothing else reveals as they do the manner of the mind's activity. As long as our mental operation is perfect and does not color or distort the facts, the mind is like some subtle medium that permits us to see all things, while remaining itself unseen. But when once the mind's action becomes troubled so that it tinges and deforms the scene, then our psychic processes themselves come to view and we are enabled to note their form. For psychological purposes, therefore, illusions might perhaps be compared to the delicate artificial stains which are of such help to those who use the microscope; the dyes discolor the aspect and render it in a way untrue, but only to bring out with tenfold clearness the hidden niceties of its structure." The explanation of even the simplest illusion calls for a complex equipment of psychological principles; for illusion, like habit, like perception, like inference, like attention, like judgment, results from experience, and represents a momentary and interesting concentration-point of these several activities. "No sensation has an inviolate inner character which remains unaffected by the larger mental life. The connection, the significance of impressions alters their very essence." It is the comparative uniformity amidst diversity of mental experience that produces alike the "fixity of interpretation" and the exception to it that constitutes an illusion. The illusion that bears the name of Aristotle has remained the classic instance: a small roundish object held between the crossed forefinger and middle finger feels like two objects. This startling tactual duality, in violent contradiction to the visual unity, becomes intelligible when it is made clear that the position of the contacts under ordinary circumstances would naturally be the consequence of two separate objects. To this time-honored illusion Professor Stratton has added a converse: "an impression which is habitually due to a single object will be felt as a single object, even when, from the unnatural position of the fingers, it is now produced by two

objects quite a distance apart." These and other illustrations enforce the valuable precept that "the world merely gives us a succession of impressions which of themselves have no single and inevitable meaning;" we must learn to see and read the characters of the language of sensation, in much the same way, though with less artificiality, of course, as we draw meaning from combinations of black marks upon white paper.

In the treatment of unconscious ideas, as also of imitation and suggestion, the supreme significance of the commonplace is well insisted upon. "The fact that to-day I can recall experiences which had faded away during the night, and that in the dream state the mind of the most staid of us may drop its usual contents and live for hours in a mental whirl of dime-novel adventure, is just as good or bad evidence for unconscious ideas as the fact that Krafft-Ebbing's poor patient Ilma S. could sing Magyar songs and secrete articles while in an abnormal state of mind, and knew nothing of these acts until the same state was reinduced." There are more examples of the processes of suggestion within the commonplace field of daily experience than in all the literature of hypnotism. When we interpret a two-dimensional photograph on canvas as a three-dimensional reality, a variety of suggestions lead us to do so. In the social community of ideas each affects the other, and in the social intercourse of individuals each is at once the pattern and the clay. Imitation and suggestion are important to psychology, not because of the striking phenomena to which extreme instances thereof give rise, but because of their daily contact with the realities of mental life. A survey of imitation reveals it to be a "kind of go-cart in which the infant mind learns finally to walk alone;" by imitation and suggestion each learns to conduct himself psychologically, taking and giving according to his parts. "Each person, be he genius or be he dolt, is in some degree both imitator and pattern. . . . Genius does not produce isolated and unprecedented work, but comes as a culmination of much partially successful striving on the part of others working in the same line."

The other essays of the collection are less susceptible to a brief selection of their central message. The discussion of space relations most characteristically represents the great complexity of data and inference necessary to even a probable comprehensive interpretation of how we come to endow the mental world with its permanent qualities.

The conception of the relations of mind and body, responsive as it has ever been to increase in knowledge, particularly to detailed knowledge of nerve cells and their behavior, still gives abundant room

for hypotheses and immature generalizations, for the cautious judicial preference of this view or that, for the dogmatic rushing in of the less experienced where the wiser fear to tread.

To a helpful and interesting selection of types of problems, and an illuminating point of view, Professor Stratton adds the advantage of a presentation that is forcible and original, but most of all is realistic. There is no touch of the weary pedagogue tired of treading worn paths with new groups of charges; no showing, peddler-like, of novel wares with exaggerated encomiums of their value; but a keen and alert zest in handling problems that the author feels to be real and vital, breathing realities that walk and move, and not the conventional flat representations thereof, too familiar in text-books. Professor Stratton's volume makes no pretence to be a *magnum opus*; it is frankly eclectic; it is designed to meet a distinct, and, in some senses, a limited need. But because it meets that need with more than usual success, and because the service that it is likely to perform is one of peculiar timeliness, does the volume deserve a more than usual welcome.

JOSEPH JASTROW.

THE UNIVERSITY OF WISCONSIN.

A Study of the Ethics of Spinoza. By HAROLD H. JOACHIM. Oxford, at the Clarendon Press, 1901.—pp. xiv, 366.

Spinoza's Political and Ethical Philosophy. By ROBERT A. DUFF. Glasgow, James MacLehose & Sons; New York, The Macmillan Company, 1903.—pp. xii, 516.

If one undertook to collect evidence of the continued interest in metaphysical questions at the present time, the occupation of philosophical scholars with Spinoza would be a fact of much significance. For Spinoza takes us directly to the great fundamental problems regarding the nature and relations of God, man, and the world, and shows in a most convincing manner that upon the solution of these problems depend in a very real sense the practical issues of life. In spite of the somewhat pedantic and forbidding form in which he expressed his thought, the breadth and profundity of his insight and the clearness with which he perceived the vital and practical importance of fundamental problems, give a perennial interest to his philosophy. It is true that at the present time we cannot begin as Spinoza began, and that we are able to see that the method that he tried to employ is an impossible one. But if we follow Spinoza's spirit, refraining from passing judgments of censure and seeking simply to understand, we shall be able to see that the defects of his system are to a large extent

defects of form that are historically conditioned. Still further, as one understands Spinoza better, one must recognize that his thought is essentially modern, that he is leading the way, in the face of Descartes's dualism, to that idealistic and organic view of the world which did not find clear philosophic expression until more than a century after his death.

It is natural to compare Mr. Joachim's book with Sir Frederick Pollock's *Spinoza*, which was published more than twenty years earlier, and has since remained the standard work in English. The two books, however, have been written with an entirely different purpose and for a different class of readers. Pollock wrote primarily for the general reader, for those who do not know Spinoza at first hand, or who have been unable to find much meaning in the formally arranged propositions that compose his principal work. It is true that his interpretations of difficult passages and his historical elucidations of particular points have made the work indispensable to special students as well; nevertheless it is, in the best sense, a popular account of Spinoza's life and philosophy. Mr. Joachim, on the other hand, has provided a commentary to Spinoza's *Ethics*, a book that can only be used in close connection with the text. He has written, as he himself says, 'only for readers who wish to make a special study of Spinoza's philosophy.' He has therefore given a much more technical statement than we find in Pollock, keeping closer to the text, and occupying himself more with the systematic relations of Spinoza's thought.

The result seems to me in every respect a sound and valuable piece of work. The author displays excellent critical judgment and an insight that comes from a thorough acquaintance with Spinoza's writings as a whole, and from the most important literature of the subject. He does not hesitate to admit difficulties and to point out inconsistencies in Spinoza's system, but his criticisms are always of principles, not of petty details or verbal inconsistencies.

From the character of the book it naturally follows that it is impossible to give a summary or a running account of its contents in a review like the present. To take up for discussion particular questions on which the reviewer differs from the author's interpretation would also be unprofitable. I shall only call attention to the results of the author's study on one or two fundamental points that have been recognized as presenting special difficulties in the interpretation of the system.

First, regarding the Attributes. Mr. Joachim sums up his interpretation very clearly in four propositions: (1) "Each Attribute is a real character of what is." (2) "Each Attribute is an ultimate char-

acter of the real." (3) "Each Attribute includes the whole character which it expresses, and excludes all other characters." (4) "Each Attribute is coextensive with Substance; or Substance is whole in all its Attributes, though different in each" (pp. 22-25). In defending the first proposition, it is shown (conclusively, I think) that the debate as to whether the attributes are to be regarded as 'subjective' or 'objective' is based on an antithesis which is quite foreign to Spinoza's thought. "Attribute is neither the Reality apart from knowledge, nor knowledge apart from Reality. . . . And it is a false abstraction which gives isolated being to either side of the antithesis" (p. 27). But with regard to Spinoza's doctrine of the relation of Substance and Attribute, as summed up in the fourth proposition just quoted, the author maintains that there is an inner contradiction. (1) "Substance and Attributes, the two moments in Spinoza's conception of God, involve the fusion of absolute unity and complete variety of character. Spinoza merely states the togetherness of the Attributes in God as a fact; and again, he merely states as a fact that God comprehends in unbroken unity infinite variety of ultimate characters. (2) And Spinoza's conception of Attributes, or again of Substance, renders the intelligible coherence of the two moments of his complete conception of God impossible. There is an inner contradiction in his conception of God as at once excluding all determination, and comprehending an infinite variety of ultimate characters" (p. 106).

The exact content of Spinoza's conception of God has been a matter of much debate with the commentators. Mr. Joachim's conclusions on this point are summed up at the end of the first chapter of his second book: "The question has been much debated whether Spinoza's God is 'personal,' is 'self-conscious,' has 'intellect' and 'will.' In one sense all these predicates belong to God, so far as they express anything real. But God is not a person, nor is he self-conscious, nor has he intellect and will, in the sense which those terms would bear if unqualified. . . . Any of these terms, if applied to God, lose the distinctive meaning which popular thought gives them in their application to man. God is not indeed without these qualities—in the richness of his nature he is not less, but more than human; so far as any human properties express reality, they must be expressed in God's completeness. . . . And in any case, the intellect and self-consciousness of God belong to him in his *modal* nature; *i. e.*, he is not intellect any more than he is motion-and-rest. They are but partial expressions of his being, consequents of his substantial nature, and that nature is not exhausted in any or all of them" (pp. 144-45). This

is no place for extended criticism ; but it is possible, I think, to dissent from the statement that God is not intellect *any more*, or in a different sense, than he is motion-and-rest. For in self-consciousness, *i. e.*, in thinking himself, God's intelligence or thought ceases to be merely coördinate with the other Attributes, overlapping them and expressing in a more essential way the essence of his substance. And there is evidence too that Spinoza at least partially recognizes this distinction.

Mr. Duff's book is devoted to Spinoza's political and ethical ideas, a side of his philosophy that has been somewhat neglected in comparison with the attention which has been devoted to the metaphysical discussions of the *Ethics*. Mr. Duff insists that this neglect is an evidence of misunderstanding regarding Spinoza's main interest and purpose. "For it can be shown that Spinoza had no interest in metaphysics for its own sake, while he was passionately interested in moral and political problems. He was a metaphysician at all only in the sense that he was resolute in thinking *out* the ideas, principles, and categories which are interwoven with all our practical endeavor, and the proper understanding of which is the condition of human welfare. A true metaphysics meant to him true and adequate thinking of our own nature and of our place in the universe" (p. viii).

One may accept the latter part of this quotation, as well as the statement at the beginning of Chapter II that "the consideration of human *utilitas* is the dominating motive of all his [Spinoza's] speculation" (p. 12), without being prepared to grant "that Spinoza had no interest in metaphysics for its own sake." For this assertion seems to rest on an antithesis between the 'theoretical' and the 'practical,' that is false in fact and also entirely foreign to Spinoza's thought. For "the true and adequate thinking of our own nature and our place in the universe," is not an external means to some further independent end, but is rather an essential part of the end. Ultimately it is knowledge or complete understanding which gives permanent satisfaction to the deepest need of our nature ; while, at the same time, knowledge is never dissociated as an abstract principle from our concrete life as a whole. It may, however, be granted that it has been common to concentrate attention in a too abstractly theoretical way on Spinoza's metaphysical doctrines, forgetting that for him these are always connected with man's practical life. He was doubtless intensely interested in working out the best form of the State, holding that the generality of men, at least, could only attain a knowledge of their true good through its instrumentality. But it also seems clear, when we

consider Spinoza's doctrine of 'Intuition,' and of intellectual love towards God, that he believed that 'blessedness' — perhaps of a higher and more adequate type — could be attained by the independent power of individual reason. This path is exceedingly difficult, and there are few, he admits, who are capable of following it. The generality of men are led by their passions; nevertheless it is possible for the philosophical thinker to control his passions and be guided by an emotion that is not a passion, but is the result of complete insight and perfected activity. Mr. Duff's treatment of this point seems to me the least satisfactory part of his very able and suggestive book.

I have dwelt on this point at some length, because it seems to indicate a radical departure from the current way of interpreting Spinoza. Notwithstanding my opinion that a very important element of Spinoza's thought has been completely ignored, I cannot help feeling that Mr. Duff's book is of the highest importance, and takes rank at once with the best work that has appeared in the Spinoza literature. The author shows not merely an external familiarity with the text, but also proves that he has the ability to bring things together and exhibit points in their systematic relations. The book, however, is a long one (over five hundred, closely printed, large octavo pages), and gives (at least on first reading) an impression of diffuseness and some unnecessary repetition. It would be an advantage if the results of the various discussions were more frequently summed up at the end of the chapters.

The first half of the work deals with Spinoza's psychological analysis of human nature, as preparatory to a comprehension of the ethical and social theories which he erects upon this foundation. In this connection we have chapters dealing with "Man's Place in Nature," "Natural Necessity and Freedom of Will," "Unity and Difference," "Divine Determination," "The 'Conatus sese conservandi' and the Good," "Nature and Defects of the Passions," "Place and Function of Reason." Then follow chapters on "The Good as an Ideal Human Nature," "The Good as the Principle of Sociality," "The 'Jus Naturæ,'" "The 'Status Naturalis' and the Natural Man," "God's Laws and Human Laws," "The Fundamental Laws of Human Nature," "The Problem of Evil," "The 'Lumen Naturale' and the Idea of God in Man." The remaining chapters deal more directly with Spinoza's political theories and discuss the necessity, origin, powers, and functions of the State, and the various forms of political constitutions. The psychological chapters omit, as we have already mentioned, to take account of Spinoza's doctrine of Intuition, or to carry on the discussion to the fifth part of the *Ethics*. Apart from

this, however, they are eminently sound and enlightening. The chapters which deal with ethical topics seem to me particularly valuable, and bring out in a striking manner the essentially modern character of Spinoza's conceptions. Mr. Duff says in his preface: "This exposition of Spinoza may seem to borrow from later idealistic philosophy, and put to his credit principles which were developed only at a much later time. Of this I would only say that I have conscientiously tried to avoid doing this, and have, as far as space permitted, furnished the reader with the passages on which my interpretation of his thought is based." In the ethical chapters at least, it seems to me that, in the light of the passages which he has thus reproduced from Spinoza's writings, Mr. Duff must be acquitted of the charge of 'modernizing' his author.

One of the most interesting points in the exposition of Spinoza's political ideas is the clear distinction that is drawn between his theory and that of Hobbes, from whom some elements were certainly borrowed. Some of these differences had been already noted by Sir Frederick Pollock in his book on Spinoza. But the fundamental difference in spirit is more adequately brought out in Mr. Duff's more extended discussions. The difference is not merely that Spinoza maintains that there are certain limits to sovereignty, certain rights that the individual cannot give up, but rather that the purpose of the State is conceived differently by the two writers. For Hobbes the preservation of order, the peace and security of the individual, is the end of the state. For Spinoza the state is an instrument for the perfection of the nature of the individual. "Hence the only validity, or force, that any law ever has, or can have, comes . . . from the measure in which it recognizes and helps men to attain those satisfactions and ends of human desire in which God has ordained that they can alone find their happiness" (p. 332). This distinction in the conception of the end of the State is thus seen to involve a view of its relation to the individual which is fundamentally different from the Absolutism of Hobbes. For, on Spinoza's view, it is only as embodying right, and as leading the individual to a knowledge of the good, that the State can claim absolute authority. Apart from this moral sanction, it cannot command the obedience and allegiance of men, who by the very law of their nature can be governed only by that which their reason can learn to recognize as their own interest and good.

Both of these books are to be heartily welcomed as notable additions to the literature of Spinoza, and both, I think, deserve to rank with Pollock's work, so long a classic in this field.

J. E. CREIGHTON.

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.]

LOGIC AND METAPHYSICS.

Mind and Body from the Genetic Point of View. J. MARK BALDWIN.
Psych. Rev., X, 3, pp. 225-247.

The author proposes to discuss the relationship of mind and body from the point of view of the genesis of the distinction of the two concepts and, furthermore, to indicate a position that transcends the dualism. The entire genetic process is embraced in three successive types of experience: (1) the projective type in which 'Projects become personal projects and thing projects'; (2) the subjective type in which 'personal projects become Subject-self and Object-self'; (3) the ejective type in which the 'Object-self becomes Mind and Body'; the problem must be treated on the basis of the third stage of genesis, since in it alone are the two concepts differentiated. In this stage, the two terms, mind and body, are strictly correlative in meaning; the predicates which attach to one, must therefore, by virtue of their correlativity, attach to the other. Consequently, if body is treated as presentation, mind also must be so treated. Subjective idealism and materialism both err in not observing this correlativity. Thus, in the case of subjective idealism, mind is taken as conscious self-function which occurs in the first and second types of experience, while the body opposed to that mind is a product of reflection which occurs only in the third type. Conversely, in the case of materialism, body is considered from the spontaneous standpoint and set over against mind, which is considered from the reflective standpoint. As regards the relation of mind and body, B. upholds psychophysical parallelism as against interaction, on the ground that the two series are incompatible. For the characteristics of the mechanical or 'agenetic' series are equivalence of cause and effect and uniformity; while, on the other hand, the genetic or mental series is characterized by irregularity and caprice. The question then arises: Is there a point of view which, while admitting the antithesis of the two series, transcends the dualism? B. answers, that such a point of view is found in æsthetic experience, which consists in the "essential union of the two

points of view of the 'producer' and the 'spectator.''' This point of view is called *Æsthetic Idealism*.
H. C. STEVENS.

The Philosophical Meaning of Energy. W. OSTWALD. The International Quarterly, VII, 2, pp. 300-315.

Ostwald maintains that "there is really an idea which bridges over not only the chasm between force and substance, but also that between mind and matter, and which is of a nature sufficiently manifold to embrace the totality of one experience, the interior as well as the exterior. This idea we term energy." It is possible to subordinate to the idea of energy the totality of psychical phenomena. In all that we know of intellectual processes, there is nothing to hinder us from regarding them as a particular form of energetic activity. Nor does this view contradict the law of the conservation of energy. For since this law holds only for the sum total of all kinds of energy, there is no contradiction in the thought of one form disappearing in order to be converted into other forms. Moreover, there seems to be nothing in the peculiar properties of psychical phenomena which would forbid their being brought under the idea of energy. What appears to be the greatest difficulty is to comprehend the facts of self-consciousness, the *ego* or the personality, as a phenomenon of energetics. Yet this difficulty is lessened by the fact that not all psychical processes are carried on within self-consciousness. Since, then, consciousness is not a general property of psychical processes, the difficulty of explaining the *ego* does not involve the question of the *general* conception of psychical phenomena, but belongs within the *special* domain of psychology.

J. E. C.

The Present Estimate of the Value of Human Life. RUDOLF EUCKEN. The Forum, XXXIV, 4, pp. 608-616.

Though the nineteenth century achieved more than any previous century in science, in industry, and in education, yet it showed a greater tendency toward pessimism than any previous century. This decline in happiness is due to several reasons. First, according to modern scientific views, man occupies a much less important place in the universe than he was given by the anthropocentric religious views of the past. The prevailing tendency now is to regard him merely as the most highly evolved member of a natural series. Second, men's relations with society are more complex and more confusing than ever before. Third, competition between individuals is sharper than ever before. Fourth, though externally, contact between men is closer than ever before, yet internally, men were never more divided; witness the universal labor troubles of the present time. Fifth, old ideals are shattered by modern criticism, and there is a general uncertainty in regard to the reliability of moral standards. Though this pessimism rests on undoubted facts, and is too deeply rooted to be merely reasoned away, yet it represents a one-sided construction of life, and

must be answered by a broadening of the intellectual horizon. Philosophy may show other possibilities in our nature than those which pessimism recognizes. First, though modern life emphasizes the egoistic tendencies in men, it still offers great scope to altruism. The vast scientific, industrial, and educational enterprises of the present offer an infinite field of labor to which pure egoism cannot give the animus. Second, love is a most important factor in eliminating the *ego*. Here the personality is absorbed, not in the cause for which we labor, but in regard for humanity. Viewed in the light of this doctrine of labor and love, the problem of happiness assumes a new aspect. True activity elevates us above mere sensation and emotion; we find happiness by merging ourselves in our task. Our relation to the world is also seen in a new light. Labor and love, not a mere soulless nature, become the real actualities. The destiny of man remains hidden, it is true, but we are assured that the being and striving of man stand in an infinite relation to the cosmos.

G. H. SABINE.

Optimism and Immortality. G. L. DICKINSON. The Hibbert Journal, I, 3, pp. 425-440.

Optimism may be defined as an unreflective attitude toward life, indicated by high spirits and active impulses. It prompts to action, believing that the action will somehow lead to good results. In order to justify this optimism to reason, we must either hold that the world is eternally perfect, or that it is a process toward some attainable good end. The former hypothesis may be seen in the Substance of Spinoza, or in the Absolute of Hegel. This world of perfection, however, is not the world of experience; evil is too patent. Our activity is directed toward the suppression of evil and the furtherance of good. If everything is eternally good, the root of our activity is taken away. If evil is only so in appearance, we should not contend against it, for in some way this appearance is essential to perfection. Hence it must be admitted that evil and good exist, and that they are real. In evil we have an antagonist, and life is a continual struggle. Now this struggle cannot always be an end in itself, even for the lover of strife. We must rather believe that our efforts produce good, else we ultimately lose heart. But the modern doctrine of progress cannot be a basis for optimism; for the progress of humanity has hindered that of the individual; he has been reduced to a mere means to an end in which he has no share. Optimism demands that the individual participate in the end which he has furthered. Hence we must suppose a good to be attained by the individual after death. For optimism we must postulate that the individual soul has a series of existences, in the course of which it is gradually purified and made fit for heaven, which it ultimately attains.

R. B. WAUGH.

PSYCHOLOGY.

The Inter-Play of Human Minds. GABRIEL TARDE. The International Quarterly, VII, 1, pp. 59-85.

It is the purpose of the author to define 'inter-psychology' with a view to substituting that term for 'social' psychology; and to outline a programme for the development of that science. As for the use of terms, it is claimed that 'inter-psychology' is at once more general and exact than 'social' or 'collective' psychology. It is more general because it includes, in addition to social relations, mental relationships with other minds which are not social. Mental relationships of the latter sort are the study of animals or men without entering into social relationship with them. The term is more exact because it clearly marks the character of the facts studied by social psychology. The peculiar character of these facts consists in their being psychological phenomena produced in one mind by encounter with another mind. As for the programme of inter-psychology, T. states that it has its own method and materials. Its method is the genetic method, since the study of the social relations of the child throw light on the social relations of the adult. Its materials are feelings, ideas, plans, desires, and beliefs. These constitute the materials of inter-psychology because they are communicable; sensations are excluded because they are not communicable. A thorough treatment of the subject would have to answer the questions, why some feelings are propagated in a given environment, at a given time; by what methods they are propagated; what transformations they undergo. In the propagation of feelings, five cases are distinguished. First, the influence of one individual on another, as in conversation; second, the influence of an individual on a crowd; third, the influence of a crowd on an individual, as in timidity; fourth, the influence of an individual on a public; fifth, the influence of a public on an individual. Inter-psychology possesses in statistics an instrument for exact measurement which, it is true, must be used with great care.

H. C. STEVENS.

La psychogénèse de l'étendue. W.-M. KOZŁOWSKI. Rev. Ph., XXVII, 12, pp. 570-594; XXVIII, 1, pp. 71-88.

It is a matter of no small moment whether the development of concepts is due to external causes or to the mind's spontaneous activity. The psychogenesis of extension is scarcely touched upon by the nativistic and empiristic theories of spatial determinations, both of which are concerned rather with the physiological question of localization. The former theory—which is really Kant's doctrine applied to physiology—was first advanced by Müller; the latter by Helmholtz. The nativist postulates a special optical mechanism; owing to the natural endowment of the various retinal points, tridimensional space perception is a part of every visual sensation. According to the empiricist, such sensations are merely signs which

the mind, through experience, interprets in terms of space. Both views were embodied in the German physiology of the nineteenth century, which regarded the perception of surface as a primitive content of sensation, and depth as the product of experience. Berkeley and Condillac, minimizing the value of sight, made touch the basis of space knowledge. Dunan, on the other hand, considers sight as all-important. Bain distinguished intensity and duration in muscular sensations. When the corresponding ideas of physical effort and a temporal series of tactile impressions are combined, extension is recognized. Mill, objecting that extension is not a sequence but a coexistence, employed the hypothesis of "psychic chemistry," according to which the idea of extension is a product unlike any of the elements composing it. It is the nature of vision to give simultaneity to all spatial sensations. Thus the really consecutive sensations received in moving the hand over a visible body, are presented to consciousness at one time, and the body is thought of as a coexistence. For Kant, space is intuitive, not a general or discursive concept about the relations of things. In perceiving a surface, says Herbart, eye or hand moves over it. The result is a series of impressions of graded intensity, the one immediately present to consciousness at any moment being the strongest. Relative intensity of impressions thus denotes the relative spatial positions of the various points in the impressing surface. A rapid sequence of these impressions produces the idea of extension. Weber has pointed out that, if a certain number of unstimulated visual or tactile nerve fibers intervenes between stimulated ones, distinct sensations occur, and space is thereby suggested. Lotze makes the amount of muscular effort necessary to touch or clearly see a peripherally lying object the "local sign" of that object's spatial position. Helmholtz derived extension from degree of muscular innervation and from the intensity, quality, and local signs of visual and tactile sensations. Wundt invokes the "associative fusion" of peripheral sensations and those of central innervation. Stumpf, affirming the spatiality of sensations, makes tridimensional space an immediate perception; depth is suggested positively by a curved surface, negatively by a plane. Göring distinguishes active and passive space, or transcendent and transcendental. The combination of these two ideas results in the "concept" of space. According to the author of this article, an ocean of black greets the eye prior to so-called visual sensations. This blackness, which is independent of any particular objects, cannot be separated from the idea of extent. Hence, vague superficial extension is a primary form of vision. Without this immediacy the complex idea of space would be impossible. The consequence of this primarily extensive perception given by the eye is that the extension continues to exist even when the organ is at rest. The retinal sensation has a negative character, the extent is without sensuous content (color), and is best described as a preformation of visual perception. But whatever it may be, we certainly *see* darkness, black being classed by language among the other colors. Thus Kant's statement that we can

think away all space-filling bodies but not space itself, only confirms the result of a scientific analysis of vision. Depth, however, presupposes actual or remembered movement. Now the obviously extensive character of visual perceptions, together with the no less obvious impossibility of perceiving distance by sight alone, refutes the deduction of all the elements in the concept of space from one and the same source. The representation of the extended world is, rather, the result of a psychic synthesis of three distinct spheres of our sensibility, which in their immediate perceptions contain the elements of the following fundamental concepts: (1) *Mass*, the hypothesis of tactile sensations of resistance or pressure; (2) *Force*, the hypothesis of muscular sensations, and the subjective aspect of movement; (3) *Form*, determined qualitatively by color, as a product of vision. The first two senses serve as the basis of our concepts of the solid and the void. The third facilitates the synthesis of the two preceding, because it gives rise to the idea of form, which combines with that of the void, and also the idea of color, which combines with that of a solid. It is vision which transforms the vague notions of solid and void into ideas of geometrical space and of the bodies which fill it. These ideas, which seem to be elementary data of consciousness, are in reality complex products of discursive thought. The analysis just given makes it possible to discover also the psychic sources of four very general postulates of science: (1) the unity of physical forces, (2) the unity of matter, (3) the principle of equality of action and reaction, and (4) the impenetrability of matter. The part played by will in the psychogenesis of extension is of prime importance. The feeling of effort in willing is the basis of the idea of force. This feeling, together with tactile and muscular impressions of resistance, is a constituent part of all movement consciousness, whether the movement be impeded or free. In the former case, the idea of inertia, in the latter case, that of successful force is the result. But in both there is a clear consciousness of will power. This will or force being the cause of movement, of which space is the indispensable condition and distance the measure, it follows that personal activity is as important as perceptivity in tridimensional space constructions. This dynamic explanation is an essentially modern one.

ANNIE D. MONTGOMERY.

ETHICS AND ÆSTHETICS.

The Domain of Utilitarian Ethics. G. L. ROBERTS. Int. J. E., XIII, 3, pp. 320-340.

The weakness of utilitarianism consists in the fact that in the category of moral actions are placed not only those which alleviate pain, but also those which produce positive pleasure. Now the superinduction of pleasure is seen not to be attended with the same kind of feeling on the part of the moral agent as is the alleviation of pain. It is universally recognized that right actions are acts of abstention from the infliction or augmentation of

suffering, and acts of direct endeavor to prevent or mitigate suffering. Wrong acts are those by which suffering is inflicted or augmented, or those by which the prevention or mitigation of suffering is neglected. Hence pain alone, and not pleasure and pain, is the subject matter of morality and immorality. Now ethics needs for exact discussion a new nomenclature. The terms 'utility,' 'good,' 'welfare,' have non-moral application. Something is wanting to emphasize the all-important fact that morality deals with problems of pains. The words 'alypic' and 'alypism' are suggested in place of 'hedonic' and 'hedonism.' Now the conduct of the moral agent is concerned with two classes of pains, viz., those which he experiences, and those experienced by others. Hence personal and social morality. Again, pains arise from natural and supernatural causes. Hence secular and religious morality. Savage morality, owing to shortsightedness and a belief in the supernatural, is personal and religious; that of civilized man, through his foresight and knowledge of natural law, is social and secular. The psychological basis of morality is the instinctive effort to banish pain; therefore, morality is at first personal. Finally, through the enlargement of the individual self into the tribal self, morality becomes social. However, moral progress has not resulted from any change in the fundamental character of the moral sense, but rather from the extension of proprietary environment. Modern altruism is the mere extension of the feeling of self-protection. Conscience is composed of all the emotional impulses which tend to alleviate one's own pain and that of one's fellowmen, and it is attended by a belief that conduct directed by it will avert some pain. The beliefs that determine the deliverances of conscience are derived from authoritative training, but man must constantly inquire into their validity. It is sometimes objected to utilitarianism that it claims that pain is only alleviated by some other pain. This is not a valid criticism; for conscience prompts to action where a greater pain may be averted by a lesser. Self-sacrifice is thus required in varying degrees. This deliberate comparison of pains, however, does not and cannot take place in every case. In moral judgment allowance must be made for circumstances. An act is morally right if the agent sincerely believes that by so doing he avoids a greater evil. There is another province of ethics. Society is founded on reciprocal acts, hence, while return in kind is not desired, yet one is morally bound to bestow reciprocal gratification. A deliberate slight, even in conventionalities, is wrong.

R. B. WAUGH.

Instinct et servitude. F. LE DANTEC. Rev. Ph., XXVIII, 3, pp. 233-251; XXVIII, 4, pp. 384-410.

The desiderata of a perfect human society are expressed by the three words, liberty, equality, fraternity. These three words are here studied from the point of view both of man and of animals. The first, liberty, leads to reflection on the general signification of instinct. The writer, rejecting absolute liberty as an illusion, defines liberty in the philosophical sense as

the "faculty which the animal possesses of acting at each moment from grounds that lie within him." These grounds are a series of conscious states. It follows from this definition that all the acts of the animal, and the successive variations of its mechanism, depend upon the animal's own nature, and consequently cannot go beyond certain limits. The study of instinct is, accordingly, inseparable from that of liberty in the philosophical sense; but to study instinct, or, what is the same thing, to break up into conventional elements the general functioning of the organism, we must refer to a particular group of these elements which is called the will.

(1) A man or animal is an association of mechanisms. Of these mechanisms the intellectual are non-adult, while those which are hereditary or acquired through long practice are adult. The response of an organism to an excitation of the adult mechanism, or lower centers of the nervous system, is always the same, and can be foretold by an outsider who has once seen it. But in an excitation of the non-adult mechanisms, or higher centers, their variability will render prediction by an outsider impossible. In such cases the organism will seem free to do as it wishes. There is, then, a volition in an organism each time that a nerve current, arising from any source whatever, crosses the non-adult parts of the nervous system, each time, that is, that the results cannot be foreseen by an external observer. This definition of volition is a purely physiological one. A psychological definition would distinguish the following operations in volition: excitation, perception, association of ideas, determination, and execution.

(2) "Instinct is the totality of faculties of an organism which depend on the functioning of adult parts of the nervous system; intelligence is the totality of faculties of an organism which depend upon the modifiable parts of this system." In this definition there is a topography of the nervous system parallel to that in the definition of will.

(3) Inasmuch as the struggle for existence brings every animal into conflict with others, we cannot call any animal free, in the sense that he lives in conditions in which his natural appetites are satisfied without interference from other animals or from man. It is the necessities arising from the struggles for existence which have been the point of departure for associations between animals of the same or different species. In the association of man and the domestic animals there is manifestly a mutual advantage. But the association of animals of the same species is more difficult to understand. Having common wants they would seem to come into closer conflict with each other than with animals of a different species. This, however, would be less true when they combine against a common foe. Fear is one great cause of associations of the same species, union and a division of labor giving greater security from the object of fear. The liberty of man, *i. e.*, the faculty which each of us has of acting for internal reasons, will be restrained by law as long as this law does not form so close a part of his organism as to become one of the grounds of his individual determinations.

(4) The only equality possible in a society of dissimilar individuals is that each shall enjoy the same

amount of liberty. This is usually expressed by saying that the "law is the same for all." From this it follows that men do not enjoy equal liberty, since obedience to law profoundly hinders the functioning of some, while for others it is agreeable and pleasant. Inequality, then, and not equality, is the law of nature. As for fraternity, it is indeed difficult to conceive of a society existing without it. On closer examination it is seen to be included in liberty and equality, rather than something added to them.

M. S. MACDONALD.

L'imitation dans les beaux arts. ADOLPHE LANDRY. Rev. Ph., XXVIII, 6, pp. 577-601.

M. Landry, after discussing the special significance of imitation in the imitative arts, and the very different rôle which it plays in the non-imitative, touches suggestively upon the nature of the beautiful and of æsthetic judgments. In painting, sculpture, and the drama, artistic imitation stops short of exact reproduction; (1) because such reproduction is beyond the power of any single art, (2) because the excellence of art consists in the accentuation of essentials to the neglect of details, and (3) because the appearance of objects is not an unchanging phenomenon to be accurately copied, but a matter of individual experience. Works of art reveal the personality of the artist rather than any permanent aspect of things. The average man estimates a painting by its perfection as a copy, the artist by its success as a creation. Were the subject-matter of art the same for all men, every masterpiece would resemble every other—there could not be one style for Rembrandt and another for Titian. Thus truthfulness of imitation really means truthfulness of interpretation. The purpose of art is not the portrayal of particular objects but of general types. In this it resembles science. But the former embodies truth in concrete form, the latter in abstract propositions. There are two reasons for art's exaltation of what is typical. In general, the richer a work is in suggestion, the greater is its appealing power. A successful portrait pleases those familiar with the original; but the ideal face has as many meanings as observers—its message is universal. Again, only upon what is general can purely æsthetic judgments be passed. Familiarity with the particular subject represented—appreciation of resemblance, etc.—adds to the emotions aroused and so colors the judgment. Although architecture and music are not primarily imitative, the secret of their charm lies in resemblance. The æsthetic pleasure taken in the former is due to the fact that architectural grandeur, massiveness, simplicity, etc., suggests corresponding types of interesting human actions, while the compelling power of melody and rhythm lies in their analogy to the physiological accompaniments of the emotions called forth. Thus, the function of imitation in the imitative arts and of resemblance in the non-imitative is the same; each stimulates emotion, which is the basis of æsthetic enjoyment. By emphasizing special features of its subject, and so producing certain emotions, art may

gain an advantage over nature ; by subordinating the parts to the whole, and so increasing the harmony, an added beauty is given to reality. Were it possible to copy what he sees exactly, the artist would never have learned to embellish ; that is, art's inferiority to nature has proved its superiority. In the representation of simple objects, fidelity of imitation is all-important ; in that of complex objects contradiction is the unpardonable sin. Undoubtedly, the idealists are right in postulating the beautiful and the ugly. But the realists are equally right in saying that there is nothing which is absolutely without beauty for art. Excellence of composition, the degree to which the artist expresses himself, mastery of technique, etc., may give a unique beauty to the portrayal of objects in themselves unlovely.

ANNIE D. MONTGOMERY.

HISTORY OF PHILOSOPHY.

Un mot sur Descartes. PAUL TANNERY. A. f. G. Ph., IX, 3, pp. 301-306.

Tannery discusses in this note a difficulty raised by Pfeffer in his *Die Entstehung der Philosophie Descartes' nach seiner Korrespondenz* (A. f. G. Ph., IX, 1, pp. 1-26), viz., the reading in the letter to Mersenne of April 15, 1630. Pfeffer emended 9 to 4, in order to bring the statement into harmony with the letters of October 9 and November 13, 1629. The question concerns the length of time Descartes was occupied with metaphysical studies in 1629. Tannery points out that the MS. has the figure 9 in Descartes's clear handwriting and he defends its correctness. The nine months, according to Tannery, would extend from November 1, 1628, to August 1, 1629. During the winter of 1628-29 he allowed his friends to believe he was in Holland, while he was really at work in solitude somewhere in France. The first news we have of Descartes in 1629 is a letter of June 18 to Ferrier.

W. A. H.

Leibnizens Beziehungen zur Scholastik. FRITZ RINTELEN. A. f. G. Ph., IX, 2, pp. 158-188 ; IX, 3, pp. 307-333.

The writer of these two articles points out that Leibniz left no work in which his relation to his philosophical predecessors is explained. This relationship is discoverable only by casual passages in Leibniz's writings and by an examination of the course of his early education, so far as known, and of the characteristic elements of his theology and metaphysics. The writer, therefore, divides his treatment of Leibniz's relation to scholasticism into three sections : (1) Leibniz's youth ; (2) his theology ; (3) his metaphysics. (1) In regard to the youth of Leibniz, the first document put in evidence is the *Dissertation on the Principle of Individuation* (1663), which, Rintelen remarks, is clothed in the garb of scholasticism, but has little to do with its spirit. That he had no considerable knowledge of the late Scholastic Suarez, is shown by his neglect of the Twenty-ninth Dispu-

tation of Suarez (*cf.* Leibniz's Proof of the Existence of God, 1666). The student period in Leibniz's life ended 1672 (*i. e.*, with the beginning of his travels), and at that time his hope for the reformation of philosophy was based on the new development of empiricism. His small knowledge of scholasticism was a dead capital and not an element in his spiritual life. His theology and his effort to unite Aristotle with the moderns give him the appearance of having studied deeply the works of the scholastics. (2) From 1761 Leibniz was absorbed with physical and mathematical studies, and was interested in the work of Descartes, whom, however, he never adequately understood. Rintelen thinks that Leibniz aimed to bring his theology into harmony with science by means of his conception of substance (principle of motion), in which he vigorously opposed Descartes. In his theology is found the bond that unites Leibniz to the Catholic middle ages, and this separates him from both Spinoza and Descartes. But to write his *Theodicy* he needed no minute knowledge of mediæval philosophy. (3) Leibniz's metaphysics is essentially a metaphysics of substance. Substance for the scholastics and for Aristotle meant an independently existing thing. In the philosophy of Leibniz, substance is identified with force. Even when he expressly identifies his monad with the scholastic *forma substantialis*, the conceptions are totally different. Leibniz is further mistaken when he asserts the identity of the *vinculum substantiale* with *forma substantialis*, and when he assumes his agreement with Thomas Aquinas on the eternity and indivisibility of the immaterial substance. The conclusion of Rintelen is that Leibniz's relation to scholasticism is only of a general character, and is neither based on intimate knowledge, nor is there any vital agreement between the two. W. A. H.

Ueber die Entwicklung der ethischen Theorie Beneke's. A. THOMSEN.
A. f. G. Ph., IX, 2, pp. 204-217.

Beneke's first ethical treatise was written in direct opposition to Kant's *Grundlegung zur Metaphysik der Sitten*, and was entitled *Grundlegung zur Physik der Sitten*. While Kant established subjective formalism in German ethics, Beneke was the first to establish an objective principle and give to ethics a content. Beneke's ethical development extends through two distinct periods. The first period is marked by the *Grundl. z. Ph. d. S.* (1822), in which he, like Kant, bases all ethical values on motive, but from this he draws the false conclusion that ethics is based on psychology, to which he gives a biological significance. In this period, he does not get beyond the position of subjective formalism. In the second period, the important thing for Beneke's development was his study of Bentham. During the years 1837-40 appears his chief ethical work, the *Sittenlehre*. In this he arrives at the conclusion that, along with a subjective formal principle, ethics demands an objective real principle. The objective real principle he finds in the principle of the general well-being. He has nothing of Kant's aversion to eudæmonism, and even in the *Grundlegung* he combines

an individual psychological eudæmonism with his formal criterion. In the *Sittenlehre*, he regards all ethics as impossible, if the evaluation of happiness is individualistic. In the *Grundlegung*, Kant is criticised from the standpoint of metaphysics, the *a priori*, free will, etc.; in the *Sittenlehre*, from the standpoint of eudæmonism. By his altruistic eudæmonism he supplements Bentham by giving the formal subjective element its proper place.

W. A. H.

Emerson — The Philosopher of Democracy. JOHN DEWEY. Int. J. E., XIII, 4, pp. 405-413.

Though Emerson's philosophy is constantly criticised as unsystematic, yet the movement of his thought is compact and unified. Emerson is not a philosopher in a narrow, technical sense; he is rather an artist. He is lacking in neither respect, however, and no hard and fast line is to be drawn between the philosopher and the artist. The essential characteristic of Emerson's thought and method is his application of idealism to life. The distinctions and classifications which to most philosophers are true in and of their systems, he makes true of the common experience of the everyday man. Reference to life is the test by which he tries every philosophy. The thinker is only a translator of things in every man's consciousness. For Emerson, "truth lies on the highway"; every individual is the focus of all mankind's endeavor. His ideas are not fixed on a reality beyond the present. Emerson, moreover, stands for the truth that philosophy, religion, and art are the common heritage of all men, not of a chosen few. For these reasons he is preëminently the philosopher of democracy, and hence of the future.

G. H. SABINE.

NOTICES OF NEW BOOKS.

Scottish Philosophy in its National Development. By HENRY LAURIE.
Glasgow, James MacLehose & Sons, 1902.—pp. viii, 344.

Technically the term Scottish philosophy applies to the school of Reid and his successors, in which the appeal was made to common sense as against the scepticism of Hume. Professor Laurie uses the term in a broader sense as including all the distinctively Scottish thinkers, thus following the example of the older historian McCosh, who includes Hume in the scope of his work. It has been the fashion, however, to exclude James Ferrier from the list of distinctively Scottish thinkers, and one is glad to see his merits properly appreciated. The aim of Professor Laurie is to include in his list every thinker whose impulse to philosophize has been mainly due to his Scottish traditions, and one is disposed to agree with him as to both his inclusions and exclusions.

Francis Hutcheson, the founder of the distinctively Scottish development, was curiously enough, as Professor Laurie remarks, an Irishman, but one who spent the greater part of his life in Scotland, and became thoroughly identified with its spirit and traditions. Hutcheson represented the national movement in certain general characteristics: (1) in his effort to found philosophy on psychological observation of the facts of human nature; (2) in his postulation of an internal sense as the source of moral and æsthetic distinctions; (3) his reference of knowledge to certain self-evident and immutable truths as its ultimate ground. Professor Laurie is generous in his estimate of Hutcheson, regarding him as the true founder of the psychological method in Scottish philosophy, and as the principal agent in the introduction of those larger ideals of liberality and culture which made possible the later movements of Scottish national thought.

Not to mention minor philosophers, to whom Professor Laurie gives their full due, the Scottish development after Hutcheson is marked by three epoch-making thinkers. The first is David Hume, who, adopting the method of psychological analysis, and prosecuting his inquiries under the presuppositions of the empirical school, applies his analytic in a thoroughly sceptical spirit and reaches negative and destructive conclusions. Professor Laurie regards Hume as essentially sceptical and iconoclastic, the destroyer of an old system rather than the prophet of a new, a judgment with which, doubtless, many of his contemporaries will not concur.

The scepticism of Hume, threatening as it did the very foundations of those convictions which seem to underlie Scottish character, brought forth Thomas Reid, the second epochal thinker, who endeavored to stem the sceptical tide at two points. In the first place, Reid, conceiving that scepticism is in part the logical result of the idealism which Hume had in-

herited through Berkeley from Locke and Descartes, developed in opposition to it a realistic doctrine of perception founded on faith in the ability of our faculties to grasp in our perceptions the real as it is. Secondly, in the field of those higher convictions which transcend the limits of perception, he appeals against Hume to the universality of their acceptance as a sufficient guarantee of their trustworthiness. These Reid entitles 'Principles of Common Sense,' though later members of the school object to the designation and prefer to call them fundamental truths or intuitions. Whatever may be our opinion of the value of Reid's work, it will be clear that he succeeds in planting himself on the opposite alternative of scepticism, namely, faith in our nature and in its fundamental deliverances.

The third epoch in Scottish thinking was brought about by Sir William Hamilton, who, under the influence of Kant's *Critique of Pure Reason*, sought to establish a middle ground between Reid and Hume by introducing Kant's distinctions of phenomenal and noumenal under the correlated terms of conditioned and unconditioned. Hamilton identified the conditioned with the knowable, while the unconditioned, as that which negates the conditions of thinking, was relegated to the sphere of the unknowable and inconceivable. Hamilton thus stated the well-known position of a school of agnosticism whose principles were still further developed by Mansel and Herbert Spencer. One of the most interesting and valuable parts of Professor Laurie's book is his chapter on Hamilton, in which he sheds important light on the somewhat difficult question of the nature of the modifications which Hamilton's Kantism led him to introduce into the statements of Scottish doctrine.

We have already referred to Professor Laurie's treatment of James Ferrier, to whom, notwithstanding his eccentricities, he ascribes the character of a genuine Scottish thinker. Two short concluding chapters treat of æsthetic theories in Scottish philosophy and recent developments in which some of the later Scottish thinkers are briefly mentioned. In this connection, the writer would venture the opinion that the mention of McCosh is not quite adequate, in view of the fact that he gave us the clearest statement of the intuitional position, while in his defense of fundamental truth we have the most elaborate and systematic restatement of the doctrines of the Scottish school against Mill's destructive criticism of Hamilton. This connection suggests also a somewhat important criticism on the generally excellent history of Professor Laurie. It is now generally conceded that Reid, on account of the crudeness of much of his work and the emphasis which he put on the appeal to the plain man, has been judged in rather harsh measure by the older critics. But a reaction has set in in recent years which has brought with it a tone of more appreciative criticism. It has become evident that Reid, notwithstanding his crudeness and appeal to the vulgar, developed fundamental positions by means of a method which though homely, was not altogether uncritical. The importance of Reid as a thinker would, in my opinion, bear a little more emphasis than it has received from the author.

Professor Laurie's work is timely and valuable. It combines interesting biographical matter with exposition that is eminently satisfactory, while in the exercise of critical judgment it is generally impartial and judicious. It will be a welcome addition to the growing list of works in English which treat of philosophy in its historical aspects.

A. T. ORMOND.

PRINCETON UNIVERSITY.

Personal Idealism: Philosophical Essays by Eight Members of the University of Oxford. Edited by HENRY STURT. London, Macmillan & Co.; New York, The Macmillan Co., 1902.—pp. ix, 393.

The present volume of essays offers itself as an exponent of a relatively new tendency in philosophy, and it therefore will be better, perhaps, to consider it as a whole, instead of trying to give an account in detail of the various articles of which it is made up. One's estimate of the volume is likely to follow pretty closely his preëxisting sympathies. It is not a book which, on the whole, is calculated to conciliate or convince opponents, and it offers many handles to the critic who is inclined to be captious. Occasionally there is apparent a certain tone of condescension towards conflicting views, which in the most elaborate essay of the book approaches to flippancy. One perhaps should not be too critical of anything that is conducive to gaiety in philosophy; but there are conventions which it is well to respect, even under provocation. A more serious limitation, so far as convincing power goes, is the fact that, by reason of its unsystematic character, it does not easily lend itself to a single, clear-cut impression. This is increased by the fact that the line of attack is directed against two very different foes, naturalism and absolutism; and the result is that the papers fall into two groups whose close relation is not always immediately obvious.

A more sympathetic study will, however, tend to do away in considerable measure with this impression. There is, in spite of rather important differences in detail, a unity to the book which grows with a more careful reading; and the tendency for which this stands is one of distinct importance and promise. It is, of course, not wholly novel. It is in the air, and has appeared more or less independently of late in different quarters. But it is given here a significant expression, and one which appears to be in some degree distinctive in form. The point which the writers have chosen as most fundamental is the emphasis on personality. It is easy to disparage the value of this as a philosophical point of departure. Even, however, if it meant no more than a general appreciation of the worth of personality, and a rather indefinite wish to secure satisfaction for our personal, *i. e.*, emotional and volitional, demands, it represents a task worth doing. Philosophy involves content as well as form; and it is no small gain to have emphasized a neglected aspect of experience, even if its logical justification lags behind. There has been an insistent attempt, both practical and theoretical, to disconnect the reality and value of experience from personality and personal relationships, and to find it in what are

essentially abstractions—laws of nature, or streams of tendency, principles of truth and right, humanity, civilization, an impersonal unity or absolute. First of all, then, the volume may be regarded as built upon the perception that personality is the central implicate in the meaning of human experience. From this side, reference might be made in particular to Mr. Bussell's paper entitled "The Future of Ethics," and to Mr. Sturt's "Personality in Art," which maintains in a striking way the thesis that "enthusiasm" for persons is the mainspring of the æsthetic impulse.

The principle of personality does not, however, stop with this. It implies both a method and certain more or less well-defined results. The method is characterized as an idealistic empiricism. It starts with the recognition that thinking is an act of the personal self, and is subservient to the ends of life. Truth and error have no meaning except by reference to a definite intention or interest of the thinking subject. There are two aspects of this in particular. In the first place, the self is fundamentally active or conative, and thought is an instrument for this active striving and partakes of its nature. Experience is experiment. Our beliefs are hypotheses, postulates, thrown out to be tested by experience. Advance in truth is in the nature of a bet on our partial knowledge. This empiricism in method, in particular, distinguishes the doctrine of the book from that of Professor Howison, to which it approximates in certain of its results. In the second place, the self whose interests are subserved by thought is no mere lover of abstract truth, but the concrete living person of experience. The interest in logical consistency is only a secondary one. Thought is tributary to life, and in life emotional and practical aspects are fundamental. A philosophical result which, in the interests of an abstract unity of principle, loses all relevancy for practical living experience, for which alone this unity has meaning, is self condemned, whether it takes the form of an artificial simplicity of natural law, or of an Absolute which, whatever it may mean to itself, is above all human concern.

Whatever limitations there may turn out to be to this point of view, it certainly is not destined to be ignored by the philosophy of the immediate future. It is possible to hold it, however, with various shades of interpretation, and it is not quite clear how far the writers are in agreement. The most obvious objection to the theory is, that it can be made to seem too much like giving us a right to believe what we please. Most of the writers apparently intend to guard against this. It is not a question of our making reality, so far, that is, as the intent of our knowledge is concerned, but of our coming to know it. The object is in a real sense independent of the subject; we are active in cognition, as Mr. Stout puts it, merely in order that we may be passive. In the case of Mr. Schiller's essay, "Axioms as Postulates," however, there seems more reason to doubt how far this is a right interpretation. The doctrine of the entire plasticity of the world, appears to imply a more thoroughgoing form of theory, which is open to the accusation of swinging too far towards the other extreme.

Granted that it must be a practical article of faith that the world will satisfy our needs, the process of experience is also evidently one of bringing our needs into accordance with the facts. It is necessary to disentangle real needs from spurious ones ; and to give a basis for this, we have to recognize that the universe does not stand ready to meet any and every wish. That knowledge is always functional, and, therefore, in some degree constitutive of real existence, not merely a pale copy of it, it is very desirable to emphasize. In some connections, in the sphere of the ethical side of experience in particular, it is often illuminating. But it is at least open to question whether knowledge could serve its purpose, were there not also another aspect of it, according to which it simply recognizes conditions unaffected in any considerable measure by the action to which it leads. One feels like making the criticism upon Mr. Schiller's essay as a whole, that it does not recognize enough the determinate character of reality, and that it tends to exhaust the meaning of knowledge too completely in its practical usefulness. As an account, however, of the driving-force back of our construction of the world, and of the way in which the fundamental categories are related to an active unity of end, in which lies the ground of our confidence in their universality, the essay is suggestive, and to a considerable extent convincing.

In general, it may be said that the danger to which the method of the book is exposed is that it will lead to an undue minimizing of the value of logic and system. It is one thing to say that a really fundamental demand should be allowed to check a too hasty formulation which finds no place for it. It is another to hold that it is sufficient by itself, and that its apparent conflict with other postulates need not bother us particularly. The fact that man is a unitary being makes it impossible for him to rest satisfied in his postulating short of a system of knowledge. The tendency to minimize this demand is occasionally in evidence in the present volume ; and, in connection with the attitude towards naturalism, more especially, it seems to have affected in some degree the results. There is some disposition to treat scientific postulates with less rigor than is perhaps desirable. This is in line with the tendency, shown in certain recent acute criticisms of naturalism, to emphasize a little too much the merely phenomenal and practical character of science, as if this went part way toward absolving us from the need of trying to reconcile it in detail with other aspects of experience, and left us free to make what constructions we please in the spiritual realm. The doctrine of the methodological character of scientific beliefs offers a temptation to a too easy disposition of certain problems to which they give rise. The recognition that a scientific law, *e. g.*, the law of the conservation of energy, is a postulate, does not necessarily interfere with the fact that we are bound to postulate it as universally valid. It is the demonstration of universality, not the belief in universality, which is primarily affected. The scientist will not easily give up the confidence that his laws are valid everywhere in their own sphere, and that this sphere has

at least enough reality to give the right to demand that other postulates recognize this universal validity, and adjust themselves somehow to it in a single intellectual construction of the world.

Turning to the side of positive philosophical construction, the results are less easy to summarize briefly and definitely. Of course, as opposed to naturalism, the conclusions are idealistic. Evolution is teleological. History, rather than nature, is the truest revelation of reality. Validity, not origin, is our ultimate principle; since, however, experience is a conative process, the inquiry into the history of its progressive self-revelation is necessary as an intellectual tool. Causality is in the last resort free self-determination, which is distinguished both from the determinism of science and from indeterminism. This side is represented especially by the essays of Mr. Gibson, Mr. Underhill, and Mr. Marett. As to the more particular form which this idealism takes, all the writers would agree in emphasizing the reality and relative independence of the human self. This stands in opposition to attempts, on the one hand, to reduce the self, in the sacred name of experience, to atomic elements which no one ever by any possibility can experience; and, on the other hand, to a submerging of the self in an Absolute which marks the death of all human interests. Furthermore, the same concept of personality would apparently be accepted as determining our understanding of the world beyond human selves. Mr. Rashdall's essay on "Personality, Human and Divine" is the only one which tries to outline an ultimate constructive system. It is an attempt to justify a personal God, who is of a determinate nature, and, therefore, in one sense of the word, finite, a God distinct from the Absolute, or system of selves, and standing in relative independence of human selves so far as immediacy of conscious existence goes. Such a position, of course, starts many questions, to which the book does not pretend to give more than the suggestion of an answer, and which the different authors probably would, in some cases, answer differently. The relation of the human self to God as a created product would presumably not be accepted by Mr. Schiller at least; and it may be questioned whether it is consistent, either, with the conception of the self as a free causal agency, for which Mr. Marett's essay argues. I have omitted reference to a number of important points which it would require too much space to discuss, notably certain aspects of the doctrine of Mr. Stout's essay on "Error." The metaphysical bearing of these is not entirely clear, and the promised development of the theory will be awaited with interest.

A. K. ROGERS.

BUTLER COLLEGE.

La responsabilité pénale. Par ADOLPHE LANDRY. Paris, Alcan, 1902. — pp. xv, 192.

This little volume, written from the utilitarian point of view, presents a thoughtful and interesting discussion of a problem of so great practical importance that writers representing the fields of law and medicine have

attempted its solution no less zealously than philosophers. The fact that so much has been and is being written on this subject, says M. Landry in his Introduction, would seem to indicate that no satisfactory theory has been worked out and may serve as an apology for yet another attempt.

The book is divided into two parts, the first of which treats of penal responsibility as distinguished from moral, while the second discusses penal responsibility in the light of utilitarian theory.

The kernel of Part I is found in the first chapter, and comprises the author's exposition and criticism of the classical doctrine, which identifies penal with moral responsibility, and regards the penalty as a retribution or expiation for the moral fault without reference to social utility. Though refuted time and again, and no longer accepted in its uncompromising rigor, nevertheless this doctrine, so M. Landry believes, continues to obscure the truth that punishment is justifiable only in that, and so far as, it tends to prevent further crime. The author would seem to be somewhat too insistent in maintaining that to the difference in theory between the classical and utilitarian doctrines there must correspond an equally important difference in practical results. There is certainly a surprising unanimity on matters of practical common sense among men who differ widely in theory. In his discussion of the origin of the classical doctrine, M. Landry cleverly resolves its essential notions into utilitarian elements, and argues from this that the true theory of penal responsibility must be based upon the idea of utility.

Part II comprises four chapters. The first of these states certain definitions and principles; the second reviews briefly various modifications of the utilitarian theory; the third discusses the question as to what are the conditions that constitute responsibility and irresponsibility; the fourth treats the question whether responsibility admits of degrees, and passes rapidly in review various categories of criminals of whom normal responsibility must be denied. That man should be held responsible for his misdeeds whose punishment will be useful to society, considered from the point of view of the intimidating, and hence restraining influence upon the criminal himself and upon others, this good result being estimated to outweigh the evil results of the punishment inflicted.

While there is nothing particularly new or striking in this work, it is a clear and consistent treatment of the problem from the author's point of view. If it is more critical than constructive, and in the end leaves the expected solution somewhat vague and remote, it is nevertheless not without interest and value. An incomplete work is by no means necessarily a worthless one, as M. Landry himself remarks in his Introduction; and he would seem to be quite justified in his expectation that this little volume may help towards the correction of errors and the establishment of a tenable theory.

VIDA F. MOORE.

ELMIRA COLLEGE.

David Hume and His Influence on Philosophy and Theology. By JAMES ORR. New York, Charles Scribner's Sons, 1903.—pp. ix, 246.

As Huxley's Hume presents that philosopher from the standpoint of a scientist, so Dr. Orr's book presents him from the standpoint of a theologian. The first three chapters after the introduction are devoted to a narrative of the events of Hume's life. These chapters contain nothing new, being drawn from the standard sources—Hume's account of his own life, his letters to William Strahan, and Burton's Life. The next four chapters are devoted to a discussion of Hume's epistemology, particularly his first principles, his doctrine of cause and effect, and his doctrine of substance. These chapters are critical rather than expository. The author first sketches Hume's doctrines in their larger aspects, without discussing points of interpretation, and then gives the criticisms which have been developed by later philosophy. In one sense, this criticism is fair, representing, as it does, the results of philosophers since Hume who have dealt with the same problems, but the method of treatment is essentially unsympathetic. The author presents not so much Hume's point of view as that of a thinker of the present time who works in the light of a century and a half of progress. Sometimes this critical method seems to run away with the author, and he appears to be using Hume as a pretext to start a discussion on some philosophical question. This is particularly noticeable in the chapter on Hume's ethics (Chapter IX). Here the author, after briefly presenting and criticising Hume's moral philosophy, indulges in a five-page refutation of hedonism in general (pp. 185–190)! In fact, the author frankly admits in his preface that he regards Hume's philosophy as a type of all endeavors to solve the problem of knowledge without rational presuppositions (p. vii). He does not hesitate, therefore, to direct his criticisms against experimental psychology, utilitarianism, agnosticism, evolutionary treatments of religion, etc., of the present day.

It is in the discussion of Hume's religious philosophy that the author's theological bias most appears. He does not attempt to meet Hume on his own ground, but contents himself with restating the usual idealistic argument for the existence of the Absolute, based on the rational and moral constitution of man's nature. This phase of the question, we may safely say, was entirely outside Hume's conception of the problem and is scarcely a fair criticism of his discussion of the purely rational proofs for the existence of God. The *Natural History of Religion* the author puts aside as an offensive satire on Christianity (p. 197), though he admits that it has been the forerunner of many later attempts to explain the development of religions. The essay "Of Miracles" is criticised as inconsistent with Hume's own principles, and the author is of the opinion that Hume greatly over-estimates the amount of proof necessary to establish a miracle.

Dr. Orr closes with a short exposition of Hume's contribution to Adam Smith's great work, and with a brief criticism of the *History*. The book is popular in its nature and is written in a clear and readable style. Its chief

faults are due to the author's theological bias, and to the unsympathetic attitude which he adopts toward the empirical philosophy. The beginner, who is unacquainted with Hume, will get little help in understanding him, but the student who wants a short digest of the standard criticisms on his doctrines will find the four chapters on the epistemology extremely useful.

G. H. SABINE.

Benoit de Spinoza. Par PAUL-LOUIS COUCHOUD. Paris, Félix Alcan, 1902.—pp. 305.

This work, as the author states, is "a history and an exposition of the works of Spinoza"; it is a study of a philosopher rather than of a philosophy. Spinoza, as he says, is not essentially a metaphysician, or even a metaphysician and a moralist, but he is an exegete and a student of politics as well, and hence the writer gives less prominence to the *Ethics* than is usually the case. Nothing less than a survey of all the Spinozistic writings is attempted, and the order adopted in the presentation is in the main chronological. Of the eight chapters in the book, the first two are devoted to Spinoza's early life and general environment up to the time of his expulsion from the synagogue, while the eighth gives a glimpse of his life at the Hague and also an inventory of his library. In the third chapter is traced the development of his concept of substance through his various writings, with some comments on the characteristics of his modes of thinking. Then comes, in the fourth chapter, a discussion of his earlier works, the *Cogitata Metaphysica*, the *Short Tractate*, and the *De Emendatione*, in which, as in the "Principles of the Philosophy of Descartes," considered in the fifth chapter, Spinoza makes certain departures from the standpoint of Descartes. The next chapter takes up Spinoza's writings on theology and politics, emphasizing the essentially modern attitude adopted by him toward these subjects. The seventh chapter, the longest in the book, presents a critical discussion of the fundamental doctrines of the *Ethics*, such as causation, individuality, knowledge, etc. Throughout, the author attempts to preserve the unity of the work by tracing back Spinoza's various doctrines to the concepts by which all his thinking was dominated and to which he gave most complete form in the *Ethics*. It need scarcely be said, perhaps, that the treatment is often sketchy; yet considering the magnitude of the task which the author has set himself, it has been well done, and furnishes an interesting and suggestive summary of the Spinozistic doctrine.

B. H. BODE.

UNIVERSITY OF WISCONSIN.

Zur Einführung in die Philosophie der Gegenwart. Acht Vorträge von ALOIS RIEHL. Leipzig, B. G. Teubner, 1903.—pp. 258.

In this volume, the well-known author of the *Philosophischer Kriticismus* has presented a series of lectures which was given at Hamburg before a large audience a little over two years ago. The circumstances

which occasioned the production of the book have caused a departure from the usual Introductions to Philosophy. Its standpoint is that which is already familiar to readers of Professor Riehl's larger work, a position which has been designated Positivism, but which is better described as Critical Realism. Of the eight lectures or chapters into which the exposition falls, the first five are devoted to a discussion of fundamental problems of the Theory of Knowledge. The sixth and seventh are concerned with problems of standards and values, while the last deals with the present position and possible future of philosophy.

The most general problem of philosophy — which consists in recognizing in the very existence of philosophy itself a problem — having been developed and formulated in the opening lecture (p. 5 and pp. 21–24), it is pointed out in the second lecture that modern philosophy begins with the era of Copernicus, with Giordano Bruno, the prophet of the Copernican system, and with Galileo, the creator not only of the science of dynamics, but of modern scientific method as well. It is further shown in what intimate connection the first great modern systematizers, Hobbes and Descartes, stood towards scientific methods and results; how mathematical principles became for the former the foundations of philosophy, and that Descartes thought more highly of his physical than of his metaphysical speculations, claiming only for the former objective validity (p. 40).

The appearance of Locke's essay marks, as has often been said, the introduction of a new standpoint and new method into philosophy, the full significance and extent of which the author of the essay did not understand. This critical movement, initiated but left undeveloped by Locke, has followed after modern science, appearing, however, in a much less brilliant aspect. "*Diese Philosophie verheißt uns weder, uns in die Weiten kosmischer Räume zu führen, noch uns einen Einblick in das Wesen der Natur zu eröffnen. Sie richtet die Betrachtung auf das erkennende Subjekt, und indem sie es der Wissenschaft überläßt, die Dinge zu erforschen, untersucht sie den Verstand, der die Dinge begreifen will. . . . Die sokratische Weisheit der Nichtwissens, in Fragen die den Umkreis der Erfahrung überschreiten, ist ihre Maxime*" (p. 52).

After a criticism of the doctrine of primary and secondary qualities, re-introduced by Galileo into modern philosophy, and an examination of the dogma of specific energies which is closely allied with the former and at present forms an essential element in the teachings of the mechanical theory of the universe, the author passes in the fourth chapter, entitled the "*Foundations of Knowledge*," to a comparison of the method of pure experience with the critical method. He maintains that Kant's doctrine of the conditioned character of the world of experience forms a necessary part of any scientific theory of the universe. The world is the "*Inbegriff der Erscheinungen*."

Experience is not mere perception. "*Es geht ein Urteil voraus, ehe*

aus Wahrnehmung Erfahrung werden kann." Experience is, therefore, intelligible or judged perception ; "das Produkt des Denkens in die Anschauung, die Einheit von Anschauung und Begriff" (p. 104). Hume made the mistake of identifying the impressions of sense and objects of experience. The difference between the methods of Hume and Kant, conditioned by their divergent conceptions of experience, is shown with admirable terseness and perspicuity by contrasting their treatment of such concepts as those of substance and causality (p. 114). Though Kant's treatment of these principles is held to accord better with their actual significance for modern science, yet his views certainly require further development and some modification, as is explained in the fifth lecture, which discusses the question of scientific and philosophical monism (pp. 128-168). The scientific dualism of Dubois-Reymond's "*Ignorabimus*," and the dogmatic monism of Ostwald's "*Energetik*," are both here shown to be untenable ; the first involving the fictitious problem as to the origin of sensations from the motions of atoms and other alleged world riddles ; the second unable to eliminate, as it supposes, the concept of mass, and ultimately to become metaphysical. The only tenable hypothesis, according to the author, is that of psychophysical parallelism, combined with the doctrines of critical monism. Riehl's interpretation of the parallelistic theory appears to me to represent the most enlightened form of it yet put forward. It is not to be identified with modern agnosticism, which is dogmatic and ultimately dualistic, or with Spinoza's theory of correspondence, which, the writer asserts, has been falsely identified with panpsychism.

Since man is not a purely contemplative, but a practical being as well, we are unavoidably led to the consideration of problems of life and conduct, to the general problem of worths or values. In physical science, the "*Werthbegriff*" has no place. On the other hand, "*Die Probleme der Lebensanschauung sind Wertprobleme*" (p. 173). The author insists on the necessity of distinguishing between "*Ethik*" and "*Moralwissenschaft* ;" the difference being analogous to that between "*Kunst*" and "*Kunstwissenschaft*." Nor are "*Ethik*" and "*Moral*" identical. "*Die Ethik gibt der Moral die Ziele, die Moral ist ein Weg zu diesen Zielen*" (p. 175). Now the creation of ethical standards does not mean their arbitrary invention. They are not invented at all, but rather discovered, in a way similar to the creation of scientific knowledge. The remainder of the chapter is given up to a discussion of the moral teachings of Socrates and Kant. The seventh lecture contains an acute and trenchant criticism of Schopenhauer's pessimism, and a critical but more sympathetic treatment of Nietzsche's ethical position. A more detailed exposition and examination of Nietzsche's doctrines is contained in the author's excellent monograph in Frohmann's "*Klassiker der Philosophie*." The last chapter emphasizes the increased interest shown in philosophical problems by men of science generally, especially in the problems raised by Kant. The influence of Hegel's Philosophy of History is admitted, but his Dia-

lectic and "Naturphilosophie" can only be regarded as "*Irrwege*" which no one hereafter will be inclined to enter upon (pp. 239-241). Is not this perhaps too optimistic a view? It may surprise some readers to hear that Professor Riehl considers the present a most philosophic age (p. 246). "Die Zukunft der wissenschaftlichen Philosophie ist die Erhebung der Wissenschaft zur Philosophie" (p. 248), a view which need involve us neither in the doubtful philosophy of Spencer's *First Principles*, nor in the positivistic denial of logic and epistemology.

Necessarily in so short a treatise, very little space is devoted to an analysis of logical method. The work is much less pretentious than Paulsen's introduction, but exhibits more internal connection, while it partakes less of the nature of a compendium than Külpe's book, with which, therefore, it can hardly be compared. The mere size of the work gives no adequate idea of its suggestiveness and penetration. The style appears to be clear and incisive. The author himself has anticipated an objection that might be urged on the ground of the incompleteness of his Introduction, by saying at the outset that its aim is rather to suggest solutions of problems than to teach a fixed system of philosophy. "Sie sollen der Philosophie unter den wissenschaftlich Gebildeten neue Freunde gewinnen und zum Verständnis der philosophischen Bestrebungen der Gegenwart beitragen." (Vorwort.) J. W. A. HICKSON.

MONTREAL.

The following books also have been received :

The Moral System of Shakespeare : A Popular Illustration of Fiction as the Experimental Side of Philosophy. By RICHARD G. MOULTON. New York, The Macmillan Co., 1903.—pp. viii, 381.

Introduction to the History of Modern Philosophy. By ARTHUR STONE DEWING. Philadelphia and London, J. B. Lippincott Co., 1903.—pp. 346. \$2.00.

An Introduction to Systematic Philosophy. By WALTER T. MARVIN. New York, The Columbia University Press : The Macmillan Co., Agents ; London, Macmillan & Co., 1903, pp. xiv, 572. \$3.00.

Psychology and Common Life : A Survey of the Present Results of Psychological Research with Special Reference to their Bearings upon the Interests of Everyday Life. By FRANK SARGENT HOFFMAN. New York and London, G. P. Putnam's Sons, 1903.—pp. viii, 286.

Fundamental Problems : The Method of Philosophy as a Systematic Arrangement of Knowledge. By PAUL CARUS. Chicago, The Open Court Publishing Co., 1903.—pp. xii, 373.

The Surd of Metaphysics : An Inquiry into the Question, Are There Things-in-Themselves? By PAUL CARUS. Chicago, The Open Court Publishing Co., 1903.—pp. vi, 233.

The Perception of Number. By J. FRANKLIN MESSENGER. The Psychological Review, Monograph Supplement No. 22 ; New York, The Macmillan Co., June, 1903.—pp. 44.

- Discourses on War.* By WILLIAM ELLERY CHANNING. Boston, Ginn & Co., 1903.—pp. lxi, 229.
- Motor, Visual, and Applied Rhythms.* By JAMES BURT MINER. The Psychological Review, Monograph Supplement No. 21; New York, The Macmillan Co., June, 1903.—pp. iv, 106.
- Logical Conditions of a Scientific Treatment of Morality.* By JOHN DEWEY. The Decennial Publications of the University of Chicago. Chicago, The University of Chicago Press, 1903.—pp. 27.
- Geschichte der strafrechtlichen Zurechnungslehre. Band I: Die Zurechnungslehre des Aristoteles.* Von RICHARD LOENING. Jena, Gustav Fischer, 1903.—pp. xx, 359.
- Was ist Raum, Zeit, Bewegung, Masse? Was ist die Erscheinungswelt?* Von JULIUS VON OLIVIER. München, L. Finsterlin, 1902.—pp. viii, 153.
- Die Theorie des Schönen.* Von THEODOR DAHMEN. Leipzig, W. Engelmann, 1903.—pp. viii, 191.
- Kleinere philosophische Schriften.* Von ANTON ÖLZELT-NEWIN. Leipzig und Wien, F. Deuticke, 1903.—pp. 90.
- Friedrich Nietzsche und das Erkenntnisproblem.* Von FRIEDRICH RITTELMEYER. Leipzig, W. Engelmann, 1903.—pp. 109.
- Morale: Essai sur les principes théoriques et leur application aux circonstances particulières de la vie.* Par HARALD HÖFFDING. Traduit d'après la deuxième édition Allemande par LÉON POITEVIN. Paris, Schleicher Frères et Cie., 1903.—pp. xv, 578.
- La fonction du droit civil comparé: I. Les conceptions étroites ou unilatérales.* Par ÉDOUARD LAMBERT. Paris, V. Giard et E. Brière, 1903.—pp. xxiv, 927.
- L'ennui: Étude psychologique.* Par ÉMILE TARDIEU. Paris, Félix Alcan, 1903.—pp. viii, 297.
- L'expérience morale.* Par F. RAUH. Paris, Félix Alcan, 1903.—pp. 247.
- Vers le positivisme absolu par l'idéalisme.* Par LOUIS WEBER. Paris, Félix Alcan, 1903.—pp. 396.
- La morale et la science des mœurs.* Par L. LÉVY-BRUHL. Paris, Félix Alcan, 1903.—pp. 300.
- L'année philosophique.* Publiée sous la direction de F. PILLON. Paris, Félix Alcan, 1903.—pp. 308.
- De l'étude des phénomènes au point de vue de leur problème particulier.* Par GASTON GAILLARD. Paris, Schleicher Frères et Cie., 1903.—pp. 245.
- L'esprit scientifique et la méthode scientifique.* Par LOUIS FAVRE. Paris, Schleicher Frères et Cie., 1903.—pp. 83.
- De posteriore Schellingii philosophia quatenus Hegelianæ doctrinæ adversatur.* Thesim Facultati Litterarum in Universitate Parisiensi proponebat VICTOR DELBOS. Lutetiæ Parisiorum, Alcan, 1902.—pp. 65.
- Principii economici dell'etica.* Per N. R. D'ALFONSO. Roma, Società editrice Dante Alighieri, 1903.—pp. 46.

NOTES.

DEVELOPMENT AND EVOLUTION.

It gives me pleasure to recognize the kind appreciation by Professor Angell of the book *Development and Evolution* in the July issue of this REVIEW. His points of criticism are so apt that I take occasion to send a word of reply, which will, I think, serve to indicate even greater accord between us than appears on the surface.

In the first place, the criticisms of my "circular reaction" theory of accommodation have been urged in the main before by other writers, and they should have been taken up in a revision of the book on *Mental Development* (where the theory is principally expounded). This I hoped to do; and to some extent did in the French and German versions. But through the unfortunate procedure—to say the least—of the publishers in repeatedly reprinting the book without my knowledge and against my specific request and understanding, my revisions have never been allowed to appear.¹ I hope, however, to go in detail into the points at issue, in the theory of accommodation at an early date. The general point of view, however, from which Professor Angell's strictures may, I think, be met is that of the recognition of the necessary variations and special forms which the typical pleasure-pain reactions have gone through in the processes of evolution and development. Admitting that there are cases of seemingly wide departure from the antithetic motor reactions of expansion and withdrawal, I still hold that in no other formulation are the great facts of habit and accommodation to so large an extent explained. If this be admitted, it then becomes a problem—or a series of problems—to account for the special phenomena of this sort cited by Professor Angell (p. 448, *loc. cit.*), as being in some sense variations, special adaptations, pathological aberrations, etc., of or from these fundamental types of organic reaction. It is somewhat the same sort of question as that of the variations and special cases occurring in the entire mass of "emotional expressions," considered as in some way following upon the operation of Darwin's principal formula—that of "serviceable associated habits."

Second, as to the criticisms of the main teachings of *Development and Evolution*, I may say that the theory of organic selection as a *scientific formulation* may be appraised quite apart from "psychophysical parallelism" and the theory of "genetic modes." Biologists have received it hospitably, simply as a theory of the method of evolution supplementary to Darwinism. It implicates the mind only by recognizing "mental characters," equally

¹ Four times has the second edition of this book been reprinted, after what in each case I supposed to be a distinct understanding with the publishers that it was not to be. I think it is due to other writers to let this sort of thing be known.

with any other characters, of the individual which have "orthoplastic" value — that is, which serve during individual development to screen and supplement inadequate variations. *This may hold quite apart from any particular theory of the relation of mind and body.*¹

Further, it is in the *interest entirely of such a scientific neutrality* that the theories of "parallelism" and "genetic modes" are developed in connection with organic selection. Only on the theory of parallelism can, in my opinion, the questions of cause and effect, interaction, etc., be ruled out.² So what seems to be Professor Angell's feeling that I am to be ranged on the side of mental causal efficiency, because of the emphasis laid upon mental characters, is in so far mistaken. I argue for a *psychophysical unit* of explanation, rather than a dualism of organic and mental units, in all cases involving the joint phenomena of the two series. As it is stated in the book in question (p. 15): "The principle of parallelism assumed, we claim once for all the right to *neglect the relation of the two terms, mental and physical, in all circumstances whatsoever*" (italics in the original).

Third, the theory of "genetic modes" also tends to simplify the scientific problem; it urges the recognition by science of the possibility of real genetic series and the development of methods of dealing with and interpreting them. This calls a truce in the discussion between vitalism and physico-chemical theory, inasmuch as it distinguishes the ideals of the two scientific procedures, and allows each the free application of its own methods. It may turn out that all science is genetic — that there are no cases fulfilling the ideal of exact mechanical equivalence and convertibility; still fruitful results are arrived at by treating facts in chemistry and physics, if not in biology, *as if they were agenetic*: so it may be that biological and psychological series are after all strictly agenetic, mechanical — but again it is fruitful for these sciences to treat them under categories of teleology and real genetic change. In the theory of genetic modes, a point of view is sketched in which genetic science assumes a recognized place and function, by its own right, and armed with its own categories and ideals.

These points seem to be largely realized by Professor Angell in his own appreciation of the scientific value of "organic selection" (p. 447, sentence beginning — "It is not to the reviewer's mind, etc."; and p. 445, sentence beginning — "Such a statement is, like, etc."); but he seems to find that I prejudice them by the additional theories (pp. 445-6; p. 447, first line — "it constitutes," etc.) of parallelism and genetic modes. These, on the contrary, have both as their purpose, and, in my judgment, as their effect, to make secure the net scientific result of the theory of evolution.

One point remains which shows the result of Professor Angell's interpretation: he finds "organic selection" working only when consciousness

¹ As is seen in the very varied views of certain of its advocates, Professors Morgan, Osborn, Poulton, etc.

² This has now been developed in an article on "Mind and Body" in the *Psychological Review*, May, 1903.

is present — that is, he interprets me as finding consciousness the only “orthoplastic” (accommodation) influence in evolution. This is not my view. I classify such influences as mechanical, vital (nervous), and conscious (p. 93), placing the conscious or mental character on precisely the same plane as any physical character which, in a given case, may be found to play the rôle of supplementing or screening congenital variations. Since, indeed, *where psychophysical process is concerned*, the pleasure-pain reaction is, I think, the original mechanism¹ of accommodation, it follows that conscious characters become most important; but there are perhaps cases in highly evolved organisms in which certain adaptive processes may be construed as possibly not psychophysical at all, but only vital or mechanical.² I find, however, that it is not made sufficiently clear in this passage (p. 109ff) of the book that there may be such cases of modification, and the statement is therefore in place here. It is possibly this misunderstanding that leads Professor Angell to say that the orthoplasia theory of evolution does not apply to plant life, “unless one adopt the precarious hypothesis that plants are conscious” (p. 445). On the contrary, the hypothesis finds some of its best illustrations in plants, where the accommodation processes are so great and rapid in their working, quite apart from the question as to whether these accommodations are in whole or part psychophysical (conscious).

J. MARK BALDWIN.

PRINCETON UNIVERSITY.

The philosophical chairs in McGill University have been filled by the appointment of Professor William Caldwell, of Northwestern University, to the Chair of Moral Philosophy, and of Mr. A. E. Taylor, M.A., of Owens College, Manchester, to that of Mental Philosophy.

The vacancy in the Chair of Education in the University of Edinburgh, occasioned by the resignation of Professor S. S. Laurie, has been filled by the appointment of Mr. Alexander Darroch, M.A.

Dr. Albert Lefevre has recently resigned from his position as Assistant Professor of Philosophy at Cornell, having accepted the chair of Philosophy in Tulane University. The vacancy at Cornell has been filled by the appointment of Henry W. Wright to an Instructorship in Philosophy.

Mr. A. D. Sorrensen has been appointed Associate Professor of Psychology and Moral Philosophy at Colby University.

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

MIND, NO. 47: *W. McDougall*, The Physiological Factors of the Attention Process (II); *B. Bosanquet*, Hedonism among Idealists; *M. W.*

¹ See p. 109 f. Yet I add (p. 109): “It may be said with emphasis that the position taken in the foregoing pages, which simply makes the fact of ontogenetic accommodation a factor in development [evolution] is not involved in the solution of the further question as to how the accommodations are secured.”

² As, for example, possible color effects of the environment in organisms, so far as such effects are “coincident” with “protective” variations.

Calkins, The Order of the Hegelian Categories in the Hegelian Argument ; *F. C. S. Schiller*, On Preserving Appearances ; *H. MacColl*, Symbolic Reasoning ; *J. H. Muirhead*, The Problem of Conduct ; Discussion ; Critical Notices ; New Books ; Philosophical Periodicals.

THE PSYCHOLOGICAL REVIEW, X, 4 : Studies from the Psychological Laboratory of the University of Chicago : IV. *R. L. Kelly*, Psychophysical Tests of Normal and Abnormal Children — A Comparative Study ; *J. P. Hylan*, The Distribution of Attention ; Discussion ; Psychological Literature ; New Books ; Notes.

INTERNATIONAL JOURNAL OF ETHICS, XIII, 4 : *John Dewey*, Emerson — The Philosopher of Democracy ; *Wm. M. Salter*, Emerson's Views of Society and Reform ; *W. R. Sorley*, Betting and Gambling ; *F. C. S. Schiller*, The Ethical Basis of Metaphysics ; *G. H. Howison*, Personal Idealism and its Ethical Bearings ; *Norman Wilde*, The Limitations of Ethical Inquiry ; *Frederick Hammond*, The Search for Unity of Belief ; *R. B. Perry*, The Practical Man and the Philosopher ; *R. Bren*, The Ethics of St. Paul ; Book Reviews.

THE MONIST, XIII, 4 : *E. A. W. Budge*, Neter, The Egyptian Word for God ; *Paul Carus*, The Foundations of Geometry (concluded) ; *H. R. Evans*, Cagliostro : A Study in Charlatanism ; *G. Papini*, Philosophy in Italy ; *Lucien Arréat*, Literary Correspondence : France ; Criticisms and Discussions ; Book Reviews and Notes.

THE HIBBERT JOURNAL, I, 4 : *F. G. Peabody*, The Character of Jesus Christ ; *Wm. Miller*, Are Indian Missions a Failure ? *W. Ward*, The Philosophy of Authority in Religion ; *W. F. Cobb*, Do We Believe in the Reformation ? *Philip Sidney*, The Liberal Catholic Movement in England ; *P. S. Burrell*, The Growing Reluctance of Able Men to Take Orders ; *J. H. Poynting*, Physical Law and Life ; *T. K. Cheyne*, Pressing Needs of the Old Testament Study ; *James Moffatt*, Zoroastrianism and Primitive Christianity ; *W. R. Cassels*, The Purpose of Eusebius ; Discussions ; Reviews.

THE INTERNATIONAL QUARTERLY, VII, 2 : *Elizabeth von Heyking*, Professor Herman Grimm ; *W. N. Guthrie*, The Theory of the Comic ; *Edward Rod*, The Dramas of Paul Hervieu ; *F. H. Giddings*, The American People ; *W. Ostwald*, The Philosophical Meaning of Energy ; *E. C. Sanford*, The Psychic Life of Fishes ; *L. Marillier*, The Goncourts ; *Paul Pelet*, The Exploration of the Tchad ; *G. de Azcarate*, The Present and Future of Spain ; *Helen Bosanquet*, Administration of Charity in England ; *Eugen Schwiedland*, The Sweat-shop and its Remedies ; *H. A. White*, The Pacification of Batangas ; *J. B. Bishop*, Are American Legislatures Declining ?

THE AMERICAN JOURNAL OF THEOLOGY, VII, 3 : *C. A. Briggs*, Catholic — The Name and the Thing ; *A. H. Wilde*, Decadence of Learning in Gaul in the Seventh and Eighth Centuries, as Viewed Especially in the Lives

of the Saints ; *W. B. Smith*, The Pauline Manuscripts F and G : A Text-Critical Study, I ; Recent Theological Literature.

ARCHIV FÜR GESCHICHTE DER PHILOSOPHIE, IX, 4 ; *W. Meijer*, Spinozas demokratische Gesinnung und sein Verhältnis zum Christentum ; *Bruno Bauch*, "Naiv" und "Sentimentalisch" — "Klassisch" und "Romantisch" (Eine historisch-kritische Parallele) ; *J. Breuer*, Senecas Ansichten von der Verfassung des Staates ; *Clodius Piat*, Le naturalisme Aristotelicien ; Jahresbericht.

ZEITSCHRIFT FÜR PSYCHOLOGIE UND PHYSIOLOGIE DER SINNESORGANE, XXXI, 5 u. 6 : *Leo Hirschlaff*, Bibliographie der psycho-physiologischen Literatur des Jahres 1901 ; Namenverzeichnis der Bibliographie ; Namenregister.

XXXII, 1 : *Johannes Volkelt*, Die Bedeutung der niederen Empfindungen für die ästhetische Einfühlung ; *G. Heymans*, Über Unterschiedsschwellen bei Mischungen von Kontrastfarben ; *Max Dessoir*, Die ästhetische Bedeutung des absoluten Quantums ; Literaturbericht.

XXXII, 2 : *Bernhard Fuchs*, Über die stereoskopische Wirkung der sogenannten Tapetenbilder ; *K. L. Schaefer* und *Alfred Guttman*, Über die Unterschiedsempfindlichkeit für gleichzeitige Töne ; *H. Piper*, Über die Abhängigkeit des Reizwertes leuchtender Objekte von ihrer Flächen- bzw. Winkelgrösse ; *J. v. Kries*, Über die Wahrnehmung des Flimmerns durch normale und durch total farbenblinde Personen ; Literaturbericht.

ARCHIV FÜR SYSTEMATISCHE PHILOSOPHIE, IX, 2 : *Eduard von Hartmann*, Mechanismus und Vitalismus in der modernen Biologie ; *A. Goedeckemeyer*, Das Wesen des Urteils ; *Else Wentscher*, Phänomenalismus und Realismus ; *Berthold Weiss*, Gesetze des Geschehens ; Jahresbericht.

REVUE PHILOSOPHIQUE, XXVIII, 6 : *A. Landry*, L'imitation dans les beaux-arts ; *A. Schinz*, Esquisse d'une philosophie des conventions sociales ; *B. Ch. Mourre*, La volonté dans le rêve (2^e et dernier article) ; Revue générale : *E. Blum*, Le mouvement pédologique et pédagogique ; Analyses et comptes rendus ; Revue des périodiques étrangers ; Table des matières.

XXVIII, 7 : *M. Mauxion*, Les éléments et l'évolution de la moralité (1^{er} article) ; *Dr. P. Bonnier*, Le sens du retour ; *G. Palante*, Une idole pédagogique : L'éducationisme ; *P. Regnaud*, La mythologie a-t-elle été un recul de l'esprit humain ? Analyses et comptes rendus ; Revue des périodiques étrangers ; Correspondance ; Nécrologie ; Livres nouveaux.

ARCHIVES DE PSYCHOLOGIE, II, 3 : *F. Consoni*, Mesure de l'attention des faibles d'esprit ; *T. Jonckheere*, Notes sur la psychologie des enfants arriérés ; *Th. Flournoy*, F.-W. Myers et son œuvre posthume ; Faits et discussions ; Bibliographie ; Notes diverses ; Nécrologie : Ernest Muri-
sier.

THE PHILOSOPHICAL REVIEW.

THE STANDPOINT OF EXPERIENCE.¹

THERE is perhaps no word more frequently employed in the philosophical literature of the present day than 'experience.' On taking up a new book, one not infrequently finds the author eager to acknowledge the sins of his predecessors and the discredit they have brought on philosophy by following the high *a priori* road, while at the same time announcing his own intention of founding his conclusions on the impregnable rock of concrete experience. Now I neither wish to deny that there are sometimes grounds for such criticism, nor that these resolves have often borne good fruit. At the present day, the proposition that philosophy must derive its results from experience would undoubtedly command almost universal assent. We all claim to be empiricists, in the sense that we seek to base our philosophical arguments and results upon the facts of experience. But what is often overlooked is the fact that this agreement is only verbal, a mere profession with the lips that carries with it no real unanimity of opinion. For experience, far from being a clear and transparent medium that presents to us facts in unambiguous and unmistakable form, is rather something so many-sided and complex, in some relations so shifting and unstable, as to be capable of yielding various and even contradictory readings. Not only is this true as a matter of fact, but from the very nature of the case it must to a large extent remain true. For the standpoints from which we view experience vary indefinitely with the nature of the ends and purposes that lead us to consult it. Any

¹ This paper was read at Iowa City before the Western Philosophical Association, and also before the Philosophical Seminary of Princeton University.

object of experience, a loaf of bread, for example, may be variously defined from the standpoint of experience as an object in space possessing certain physical and chemical properties, as a complex of sensations, or as an object of desire and will.

The ambiguity which arises regarding the standpoint of experience as a whole is, of course, much more serious and more difficult to avoid than that which obtains where only a single term or element of experience is concerned. However strongly we insist that we propose to deal only with 'facts,' the result always shows that we have approached our facts with conceptions and presuppositions which have determined in large measure our selection and reading of the facts. In setting out to give an account of experience, one may assume, for example, that we are dealing merely with mental states, with a stream of psychical processes which are related to objects beyond themselves only in a secondary and external way. One may further go on to assume, employing more or less consciously Hume's dictum, that whatever is distinguishable is separable, and whatever is separable is distinct and individual, that these psychical processes have no internal principle of connection, but simply become associated and fused together in a mechanical way through the fact of their contiguity in time. We see, then, that the so-called empirical philosophy, far from being a plain historical and unequivocal account of experience, is based on very definite assumptions about the general character of experience. In Hume's system, we see these assumptions carried through by a master mind. And the result, as is well known, seemed to Hume himself in the highest degree artificial and unsatisfactory, though he saw no way of reaching a different conclusion.

Kant's significance in the development of philosophical theories arises from the fact that he questioned the assumptions of his predecessors regarding the nature of experience. As against Hume, he insisted that the mind is an active principle of synthesis which unites the various parts of experience, and is the source of the relations that give it significance. The defects of Kant's philosophy, as is now generally admitted, were due to the fact that his questioning of Hume's presuppositions was not suffi-

ciently thorough-going. If we take merely the letter of his writings, we have to acknowledge that experience, as he describes it, is still an affair of mental representations, and also that the elements of which it is composed stand apart from each other and are only operated upon externally by the principle of synthesis. Without considering these defects further at present, I wish here to urge that Kant, like Hume, is giving an account of experience. In spite of his constant reference to the *a priori* conditions of experience, his real problem is to describe the nature of experience. His account differs from that of the so-called 'empirical school' just because he approached his task with conceptions and presuppositions which were different from theirs. It must not be forgotten, however, that Kant's system is at least as empirical, *i. e.*, as closely based upon the facts of experience, as is the philosophy of the English school.

I.

These introductory remarks may serve to illustrate the statement that experience is no unambiguous term to which one can appeal in uncritical and confident fashion. The truth seems to be that the definition and determination of the true standpoint of experience is, in a certain sense, the essential and all-inclusive problem for philosophy. In discussing the question, therefore, what I shall mainly try to do is to offer some general reflections regarding the nature of experience, and to bring together some conclusions with reference to this topic that appear to have been established by historical criticism and the discussions of the present day.

In the first place we may ask : What test of the adequacy of any description of experience can be laid down ? What general conditions must be fulfilled by any account which professes to be true and adequate to the facts ? It will not be sufficient to say simply that the account must be true to the facts ; for, as we have already seen, the nature and correct reading of the facts is the very point at issue. Here as everywhere, I think, we can only apply the general criteria of intelligibility. What our intelligence demands is completeness and consistency, both of fact and relations. In other words, that account will be most satisfactory

which exhibits most fully and consistently at once the distinctions and relationships which obtain among the various parts of our experience. Philosophy has to render experience intelligible, and to this end it must bring to light its manifoldness and unity, its complete differentiations and integrations.

This implies, of course, that experience must be apprehended through intelligence. And the truth of this at once makes obvious the contradiction involved in the conception of a 'pure' or presuppositionless experience. That experience involves a knowing mind is overlooked by those who propose to begin with a 'pure' experience as something that is directly given, and thus unspoiled by any conceptions or introjections of thought. Every attempt to determine the nature of experience in its so-called purity, before it is corrupted and transformed by the influence of thought, must prove futile, just because experience always exists for a mind, and *to be a mind* is to meet the object with conceptions and practical purposes. From the first, we may say, experience is in the clutches of thought, moulded by the mind's conceptions and presuppositions. Since, then, it is impossible to deal with experience without these presuppositions and conceptions, it follows that the only possible procedure is to test and criticise these as we proceed in order to eliminate their contradictions and correct and supplement their inadequacies. The true nature of experience, therefore, can be discovered, if discoverable at all, only at the end of the process of philosophical reflection and criticism. It is, of course, true that philosophy must start from experience, *i. e.*, from what is already known and established regarding experience. But any such standpoint, however elementary and presuppositionless it may seem, is one that has been already touched by thought, and is no simple datum that is passively reflected in consciousness. We must give up once for all the notion of experience as a mere lump or matter, upon which thought works *ab extra*, as upon something foreign and external to itself. There is no experience in itself, and there is no thought in itself standing as a merely subjective principle in independence of its content. Experience at every stage contains within itself, as an integral part,

the moving principle of thought as its dynamic and integrating factor. From this it follows that experience is no static thing, no permanent storehouse where facts exist in changeless form, but that it is essentially a process of transformation and adjustment, a process that aims both at logical determinateness and consistency, and at the realization of practical ends.

The question which I wish more directly to raise at this point is: Where may the philosophical reflection of the present day strike into this process? What, in other words, is the standpoint of experience for the philosophy of our time? The obvious answer would seem to be that we should begin with what we know, with the standpoint that has been gained through the reflection of the philosophers of the past and the labors of our own generation. This is regarded as the essential condition of further progress in the other sciences, and it is difficult to understand why it should not be equally important in philosophy. Nevertheless, in philosophical discussions one still hears frequent reference to the standpoint of the plain man. I do not assert that this is in no case justifiable. But very frequently it is certainly misleading; and, in addition, to appeal to an uncritical and unreflective reading of the facts seems to betray a fatal misunderstanding of the achievements of philosophy, and a lack of confidence in its results which almost renders impossible any further progress. The astronomer and the physicist would hardly feel that the plain man was competent to speak regarding the facts of experience within their sciences. They would very properly object, if such an appeal were proposed, that their standpoint was the outcome of centuries of intellectual toil, and that the verdict of the plain man could consequently have no weight. Now it seems to me that the same thing is true in an even higher degree in philosophy, where the all-important thing is to understand the form in which questions may legitimately be put. Such knowledge comes only from insight into the way in which the conceptions that form the framework of the science have grown up. The standpoint of experience which we must adopt at the present day is that which has been wrought out and defined by the history of philosophy. One must follow the history of phi-

losophy, not merely mastering its external details, but also gaining insight into the evolution of ideas that it exhibits, before one can hope to contribute in any fruitful way to the solution of its problems. The history of philosophy thus furnishes the indispensable propædæutic through which one is raised to the philosophical point of view, the necessary discipline through which one attains the ability to define one's problems and give them intelligible form.

To answer our question regarding the standpoint of experience, then, it is necessary to make an attempt to bring together what has already been established on this point by the teachings of the past. Perhaps everyone would readily admit that much fruitless effort has been expended, and much time wasted, in philosophical discussions, from a failure to understand adequately the significance of the historical movement as exhibited in the great systems of the past. Not only do we often go on thrashing over old straw, but not infrequently we also continue to employ methods and conceptions which have clearly been discredited and superseded in the evolution of philosophical ideas. The result is that our labors are rendered useless. Nor is this all. Through such unmeaning and anachronistic controversies the standing of philosophy is seriously injured in the scientific world. It is of the utmost importance, then, to ask ourselves what may fairly be said to have been established as to the philosophical standpoint of experience through the reflection of the past and the discussions of our own day. In approaching the facts of experience, what conceptions are likely to prove most fruitful for philosophy?

It would doubtless be vain to expect that complete agreement on all points can be reached in answering this question. But an effort to formulate an answer may perhaps lead us to see the exact problems involved, as well as to perceive some underlying basis of agreement. In attempting, on the present occasion, to outline my own view, I shall be obliged to confine my attention to certain general notions that seem to me of fundamental importance. To render the discussion more definite, I shall state my conclusions somewhat dogmatically in a number of negative

propositions, adding, in each case, a short discussion of the point involved. The logical relation of these propositions, will, I hope, appear as we proceed.

II.

1. *Experience is not a stream of subjective processes, existing as mental modifications in a particular thing called mind.*

Such a view is inadequate, whether, with the empiricists, we think of mind as a passive receptacle, or with Kant, as an activity capable of functioning as a principle of synthesis. It is doubtless true, as I shall have occasion to acknowledge more fully hereafter, that for certain purposes it is useful and necessary to look at consciousness from this point of view. But the proposition which I would now urge is that this is not the view of experience itself, and that, above all, it can never serve as a basis for philosophical construction. If we begin with mental processes, our philosophy must end with mental processes. The only way of avoiding the conclusion of Berkeley is by denying the proposition which forms the real sum and substance of his argument: 'We never know anything except our own ideas.' Nor do we get a satisfactory account of experience by simply accepting Kant's new insight that, through the activity of the mind, thought enters as a principle of synthesis into experience, so long as we regard this activity as a merely subjective principle, a principle whose function is exhausted in bringing order and unity into our representations. For although the deeper spirit of Kant's philosophy doubtless leads beyond this conclusion, what he terms experience never really deserves the name, but remains a thing of representations and never attains to real objectivity.

Subsequent philosophy, however, largely through the criticism and development of Kant's doctrine, has led us to see that it is not sufficient to assume merely the activity of consciousness. In order to render experience possible, it is necessary that this functioning shall be of such a character as to connect the mind with objects. In other words, we have been led to see that a more adequate account of experience does not find the subject here and the object there, the mind on one side and the things

which it knows on the other. Experience is not the resultant of a mechanical interplay of two independent things, but the concrete expression of rational life, having subject and object as organic, though distinguishable members of its essential unity. Not only is there no object without a subject, but it is also equally true that there is no subject without an object. There is no independent object outside of thought, and there is no 'thought in itself,' standing apart and in abstraction from the contents of experience and entering into only occasional and external relations to this content. We do not first have a mind and then become conscious of our relations to objects, but *to have a mind* is just to stand in those self-conscious relations to the objective realities. As Hegel has remarked, it is the very nature of thought 'to shut us together with things'; and we may add that it is the very essence of things to exist necessarily in relation to thought. In stating the matter thus, we are, of course, using the term 'thought' in its broad sense, as inclusive of the volitional and emotional aspects of the life of a rational being, as well as of his merely theoretical or cognitive relations.

2. *The relation of subject and object in experience cannot be adequately expressed in terms of cause and effect.*

This proposition follows immediately from what has been already said, as it is obvious that the application of the causal category presupposes the mind as a consciousness-thing, receiving impressions from an extended object, upon which, it may be, it in turn reacts. It is not altogether superfluous, however, to consider by itself this corollary of our general position. For the causal standpoint is so strongly entrenched in the assumptions of common sense, and so firmly rooted in the metaphors of language, that it still seems to retain its influence in the discussion of special doctrines upon the minds of many writers who have perhaps clearly perceived its general inadequacy. There seems, then, to be some justification for stopping to point out that, when we abandon the causal standpoint and admit that subject and object are related in a more essential and intimate way, we have thereby left behind both the interaction view of the relation of body and mind, and the copy or representative theory of

knowledge. However obvious this truth may appear, it is not always regarded in practice. It seems to me that there are many illustrations, in recent philosophical literature, of a tendency to abandon well-established philosophical positions, and to fall back to the plane of common-sense dualism. This, of course, is to operate with conceptions which have been tried and found wanting by historical criticism, and, as a result, seriously to lessen, if not entirely to destroy, the value of one's conclusions.

The relation of consciousness and its object cannot be represented as that of a consciousness-thing, shut up within itself, to other independently existing physical things. I have spoken of the interaction theory as condemned by this assumption. But in so far as parallelism is based on the same presuppositions, in so far, that is, as it simply denies, from the same standpoint, what interaction affirms, it is equally an anachronism at the present day. The truth in parallelism consists in its insight that the relation of body and mind is no external and occasional relation of two separate entities, but is so close and intimate, so essential and organic, that it cannot be adequately described by means of the mechanical notion of action and interaction. Those who uphold this theory, however, are not always conscious of the real bearing of their doctrine, and understand it as a denial from the common-sense standpoint of any real interconnection between the physical and psychical.

The representative or copy theory of knowledge is based essentially on the same presuppositions, and its breakdown forms one of the most instructive chapters in the history of modern philosophy. According to this view, the object in some way gives rise to a copy or image of itself in the mind. But as the mind is a mere 'consciousness-thing,' shut up in itself, the object is never directly presented in consciousness at all. A number of insoluble problems, then, at once result: What test can the mind find within its own states (to which by hypothesis it is strictly limited) to determine whether or not the copy corresponds to the object? How is it possible for such an external object to impress its image on the mind? And, finally, what evidence is there within experience of the existence of any such

external object at all? These and other difficulties with which the history of philosophy has made us familiar have compelled us to revise our presuppositions regarding the function of subject and object in experience, and to adopt a new view of the nature and relations of these terms. The view of experience, then, to which it seems to me historical criticism leads may be further enforced and defined by means of a third proposition:

3. *The mind is not one particular thing, separated from other things, but as a true individual it contains within itself the principle of universality.*

This is shown by the fact that it is able in one indivisible act to differentiate itself from things and to relate them in the unity of its own life. As Aristotle remarked, 'reason is the potentiality of all things,' not a particular kind of existence separated off from other things. To be a mind at all, is just to stand in essential relation to objects which are not thus left standing without it, but which enter as a real and constitutive element into its nature. Its center of gravity, so to speak, falls outside of what is taken to be the limits of its real nature, so long as it is viewed from the standpoint of an external spectator as a mere mode of existence. In other words, when we take our stand within experience, as philosophy must do, the difficulties regarding the relation of subject and object which seem so persistent and insoluble fall away and lose their meaning. The problem of the interpretation of experience no longer requires us to perform the impossible feat of uniting elements which are eternally and absolutely separate; but, from the internal standpoint, it requires only that we shall render more determinate and precise the relation of two inseparable elements within experience itself.

III.

Before passing on from the general propositions which we have here been considering to any attempt to define more exactly this relation, it seems necessary to say a few words regarding the standpoint of the special sciences in its contrast to that view of experience which we have just insisted must form the basis for philosophy. From the external point of view, experience

appears to be made up of a variety of objects of different kinds. These objects are then parcelled out into groups among the different sciences for investigation. In this division, the first and fundamental distinction is between consciousness-things or minds, and extended things or physical objects. The former class of objects is frequently analyzed into distinct elements like sensation and affection, while the latter is divided into organic and inorganic physical things; the limits of division being determined in each case partly by the satisfaction of the logical demand for distinction and interrelation, and partly by practical considerations of convenience in carrying on investigations. There thus arises the attitude of the special sciences toward experience. This, as we have seen, is always the attitude of one looking at experience from without. Experience is consequently always a collection of *objects* (in the literal sense of the word) or things over against the scientific observer, upon which his thought has to operate in an external way. This attitude is, of course, demanded by the purposes that the special sciences have set themselves to carry out, and within its own field has proved abundantly fruitful.

Philosophy, on the other hand, has its own purpose, and its own standpoint with regard to experience. It has to deal with the world in its immediate relations to the knowing and willing subject, *i. e.*, with experience as we actually live it. When we take this internal point of view, the objects are not viewed in isolation from the subject as a foreign content upon which the thought of the latter has to work, but rather as representing certain situations with which the life of the subject is essentially connected. This, as history has shown, is the only starting-point from which it is possible for philosophy to advance. And I may add that it is just the possession of this concrete standpoint that makes philosophy preëminently the science of experience, and differentiates it from the special sciences, which, from the standpoint of an external observer, investigate the various groups of objects of which experience is composed. Indeed, if the latter were the only legitimate way of viewing experience, there would, I think, be no possible answer to the demand, so often urged, that philosophy should give way to the special sciences.

IV.

It is now time to attempt to make more precise our view of the relations between the subjective and objective elements of experience as these exist from the internal point of view of the philosopher. As we have already seen, the process of experience from this point of view includes and embraces thought as its immanent principle of life and movement. The philosopher's business is not, as an internal observer, to investigate the nature of objects and their outer relations, but to interpret from within the experience which is at once both subject and object, a living process of thought and the being of the world. Now, in the first place, it is important to notice that the relation to objects, which is the very essence of the mind, is an eminently practical relation. In thus defining it, however, I am not opposing in any sense the practical to the theoretical, but rather using the term practical to denote that complete and concrete relation of the mind to objectivity which includes the theoretical as one of its elements. The objects are not indifferent to the mind, things that appeal merely to its theoretical interests as subjects of calm and disinterested contemplation, but they rather represent the means for the satisfaction of its complete interests and the realization of the ends of its complete life. The possession of a mind on the part of the individual denotes just this total practical relation to objects. A being with merely theoretical ends, and without feelings and practical desires, if such a thing were conceivable, could not be said to have experience in the human sense at all. Objects are thus bound up with our feelings and practical purposes, as well as related to us through ideas. Indeed, there is a distinct advantage in interpreting even the ideational relation of the mind to objects by means of the teleological category, so long as this category is not regarded in such a narrow and one-sided way as to subordinate the theoretical life to what is merely externally practical.

We may say, then, that the world is not merely my cognitive idea. It is rather that through which I am able to find satisfaction for my desires, and to obtain the realization of my ends. Among these ends the intellectual demand for comprehension

occupies a real and important place. But it exists always in close and organic connection with other ideals of my nature, such as the demand for practical control and for ethical and æsthetical realization. All of these ends, as elements of a concrete totality, constitute the reason or complete mind of a rational being. It consequently follows that all of these sides must contribute something to a complete interpretation of experience. To assign to each of these factors its proper place and determine its significance, to discover the categories that will preserve the truth and lead to the most complete harmony of these various ideals, is the task of philosophical reflection.

It must never be forgotten that this total attitude of the mind toward experience is not simply a complex of functions that exist in isolation from one another. They are rather to be regarded as a system of ends that expresses the organic and essential unity of the experiencing subject in its complete and concrete attitude toward the world. The synthetic unity of apperception, that which gives significance and unity to experience, is something more than a merely theoretical or logical principle. In order really to perform its function, there must also enter into it the practical and emotional factors which constitute our rational human life. Only by regarding these various elements as a system of functions existing in relation to objects do we reach the view of a concrete totality of mind.

There still remain two points which seem to demand further consideration in this connection.

I. In the first place, it may be objected that we do not escape subjectivism by interpreting the world in terms of purpose instead of in terms of sensation and idea. If I construe reality as a set of means for the realization of my purposes, as an instrument for the realization of my will, its real objective character seems to be lost. 'The world is my oyster,' is even less satisfactory as a philosophical principle than, 'Die Welt ist meine Vorstellung.' Now this objection, though possessing force against a certain external view of purpose, does not apply to the view of experience we have been attempting to outline. The objection, in short, rests upon and presupposes the abstract separation of

subject and object, of knowledge and will, against which our whole view is directed. It would be a false view of experience to suppose that the subject confronts reality with fully defined and unyielding purposes as fixed standards by which its nature is to be determined. The truth is rather that the purposes of the subject are only real through their relation to the concrete situation in experience. So far from being fixed standards, according to which facts must be ruthlessly construed, the concrete process of experience is constituted by the organic interplay of those two factors.

On the one hand, we see the purposes of the subject becoming progressively limited, corrected, and defined through the stubborn character of the 'facts' before they can reach fulfillment. We learn by the hard discipline of the real world what we really want and intend, what exact content is essential to the realization of our purposes in a given concrete situation. The mind's purposes — just because they are the purposes of a mind — are never merely subjective purposes or internal meanings. For quite apart from things they would have no meaning. As they at first appear, however, this reference to things is vague and indeterminate. But in the concrete development of experience new facts and situations come to light that give definiteness and content to these purposes. The objects which, as stubborn external facts, seem to annihilate and bring to naught our purposes, in reality correct and supplement them in such a way as to afford the true fulfillment and embodiment that they demand.

On the other hand, it must not be forgotten that the objects are not external realities which exist and operate upon the mind apart from its interests and purposive ideas. It is our reason itself which, as a thinking will or a willing thought, goes on to define and determine more adequately its own meanings and purposes. And it does this by selecting through active attention the objects it wants, those which stand in the required relation to its own ends and ideas. Facts, then, gain their significance in the development of experience only in so far as they become ideas ; that is, only in so far as they are selected by our thinking-will as fulfilling and defining its own meanings and purposes. Without being thus chosen,

so to speak, no 'fact in itself,' if such a term has any meaning, has power over our purposes and ideas, either to fulfill them or to overthrow them. The object that leads the mind beyond subjectivity is the object that the attention selects as just that which is demanded by the mind's purposes and ideas. Thus we may say that the evolution of experience is the mind's own process of self-determination. In this process it becomes progressively aware of its own meaning through its commerce with the objects which it has itself selected as the necessary means for the embodiment and fulfillment of its own demands.¹

II. Proceeding now to our second point, we may ask if it is necessary to subordinate the real to the ideal element in experience as our account has done. Instead of interpreting the object in terms of the subject, we must accept these elements, it may be urged, as simply existing in mutual coördination in experience. Or the question might be raised whether it would not be more truly scientific to construe the mind as a function of the object. These questions are of the utmost importance, and I realize that my treatment of them here must necessarily be very summary and far from complete. It seems necessary to refer to them briefly, however, in order to render reasonably complete the view of experience we have been occupied in outlining.

Once again we must defend the results we have reached by insisting that the standpoint of philosophy is that of internal experience itself. From this point of view, the subject is seen to include the object, the ideal to furnish the system within which the real falls. Both of the objections which call in question this interpretation draw their support, I think, from a consideration of experience from an external standpoint. When we attempt, for example, to understand man and man's life from the point of view of biology, it is natural to take as our starting-point the bodily organism, and to interpret the mental life as a set of functions that ministers to its wants. From this standpoint, it is possible to regard consciousness as a variation which possesses survival value, and its content and constitution as determined by the biological needs that have arisen during the life of the physical organism. Such an account might for biology be useful

¹ Cf. Royce, *The World and the Individual*, Chap. VII.

and true. It must not be forgotten, however, that this standpoint is abstract, and consequently that the account cannot be accepted as philosophy, *i. e.*, as a complete and adequate reading of the facts of experience.

Among certain philosophical writers of the present day, however, it is more common to insist on the exact coördination of the subjective and objective factors in experience. The direct view of experience, it is said, shows us subject and object together in fundamental or organic unity. We cannot, then, so long as we are true to experience, subordinate one of these terms to the other. Indeed, when once we give up the ontological view, which regards subject and object as entities, and recognize that these are simply functions within experience, we see that there is no necessity for such a subordination. The account of experience, then, cannot rightly be couched either in terms of idealism or in those of materialism. The relation between the subjective and objective elements is rather to be regarded as that of two coördinate factors that derive their meaning from their functional interplay and interaction.

I must certainly apologize for attempting to criticize, in a paragraph, a theory which has not even been fully stated. But I venture to refer to it here because I think its essential defect has been already indicated in the course of my paper. Perhaps we may get at the root of the matter most quickly, if we examine the concept of function which plays so large a part in the discussions to which I have referred. Outside of mathematics, where the term indicates merely a constant ratio between two quantitative expressions, function denotes an activity of some part or member of an organic unity. Thus we can speak of the function of the blood in the body, or of the legislature in a state. That which functions is always a member of an organism, and the end of the function always includes a reference to the whole of which this member is a part. Now it seems pertinent to ask: What is the whole of which the subjective and objective factors in experience are functions? We do not get a true totality by simply adding together the two sides. If it be said that the concrete experience itself is the true totality, the real organic whole

of which subject and object are functions, I reply that experience is only known in this way when apprehended from within. When looked at from an objective point of view, as when I regard the experience of another individual, it appears as a complex of separate parts entirely without organic unity. In other words, it is only in virtue of self-consciousness that we are able to speak of experience as an organic unity. And self-consciousness shows itself as the concrete unity of subject and object which we have been seeking. It is not a particular fact, alongside of and coördinate with other facts, but a universal principle which interpenetrates all the particulars, and comes to a consciousness of itself just through forming and expressing the nature of all these particulars. Without the object there could be no self-consciousness, just as without self-consciousness there could be no object. Very true. But this does not imply that these two correlated terms are at the same time coördinate. We might say that without the various members of a plant or animal there would be no life, and yet not regard life as another fact to be coördinated with these members. But doubtless I shall be reminded that organic life is nothing over and above the functional relation of the parts—that life is not a thing but a relation. Carrying out this analogy, it may be further urged, we consequently cannot impute to experience any principle of unity over and above the functional interplay of parts that are actually found there. To do so would be to hypostatize a system of relations.

It would be foreign to my purpose to enter into any discussion of the adequacy of this conception of organic life, and it is by no means necessary for our argument. For the analogy between any physical organism and experience breaks down. In experience this unity not only exists as a fact for an outside spectator, but comes to a knowledge of itself in self-consciousness. And self-consciousness cannot properly be regarded as just an additional characteristic of the experience process to which no more special importance attaches than to any other characteristic. Self-consciousness, in other words, is unique and all-important. It transforms the whole process by reducing all the objective relations into terms of its own life. By becoming conscious of the

objective relations, and of its own life in connection with these relations, it thus raises itself above the mere process of experience. Now it is essential to see that it is only in the light of this central principle of self-consciousness that we can regard the various elements in experience as related functionally. Functions, as we have already maintained, imply a central unity which is something more than the mere togetherness of parts. Or, to put the same thing in a different form, the *fact* of functional relationship implies the existence of an inner pervading identity running through the parts. In experience this principle of identity comes to consciousness of itself by distinguishing itself from the objects in which its nature is expressed and embodied. And in this act of discrimination and recognition there is to be found the central principle in the light of which the whole process of experience gains significance and the possibility of interpretation.

It is in this sense that the mental may be said to overlap the physical, the ideal to include the real. And if the existence and position of such an ideal principle be admitted, it would seem to follow directly that to give a philosophical interpretation of experience is to show its relation to the ideals and purposes of a rational self-consciousness.

J. E. CREIGHTON.

A SUMMARY EXPOSITION OF SAINT THOMAS AQUINAS'S PHILOSOPHY OF KNOWLEDGE.¹

THE aim of the present article is to state briefly, not to discuss, a theory. It does not purpose to justify, but simply to interpret it in a reliable and trustworthy manner, in strict conformity with the tenets of the venerable system which for several centuries was the prevailing philosophical doctrine of the Western World.

Thinkers of to-day begin to realize that there is more to be found in the works of the great authors of the scholastic period than was formerly supposed, and accordingly there may perhaps be aroused in some reflective minds a desire to look into the depths of the thought of a period, in which it has been too commonly supposed that nothing was stored up but rubbish and useless subtleties. The difficulty, however, is to get at the right meaning of those early scholastic philosophers, so as to understand their doctrines as they themselves understood them. Separated as they are from our times by a distance of several centuries, they are enclosed, so to speak, within the walls and barriers of a special dialect framed, used, and available for scholastic purposes only. The conciseness, as well as, at times, the prolixity of their style, altogether devoid of pretension to any literary merit, and the summary, rather algebraical character of their formulas, that aimed at nothing but expressing an idea with the greatest possible precision, often make interpretation a task of great uncertainty for the uninitiated.

To such persons, therefore, as may care for a faithful and reliable exposition, one that does not substitute the private views of the exponent for the genuine conceptions of the author, we offer the present essay as a contribution intended to convey to their minds the authentic doctrine of Aquinas, a doctrine which, on this particular subject, was that of his contemporaries gener-

¹ The author desires to express his thanks to Dr. Clarke Murray, of McGill University, for helpful suggestions made by him in regard to the following article.

ally, concerning what may be considered, and has in fact become, since the days of Kant, the most controverted and most important of speculative problems — that of the philosophy of knowledge.¹ But since St. Thomas's views on human knowledge are essentially connected with his psychological system, it will first of all be necessary to give a short summary of the latter.²

I.

If we should attempt to give a definition of the human soul, as St. Thomas himself would have formulated it, we should define it: "The substantial form of a physical organic body endowed with rational life." Anyone who is at all acquainted with the *Περὶ Ψυχῆς* of Aristotle will, at the first glance, have discovered in the first member of the foregoing definition the equivalent of that which the celebrated Peripatetic gave of the soul considered in its generic aspect as the vital principle common to every living being, or as "the first entelechy (fundamental constitutive perfection) of a physical organic body;"³ that is to say, that first fundamental constitutive perfection that raises the body in which it resides to the dignity of a real living organic body, by generating in it the vital impulse, the vital activity. What Aristotle called 'first entelechy' the scholastics used to render by the synonymous expression 'substantial form,' an expression which we cannot avoid and which we shall therefore explain somewhat more fully.

¹ The author, being a member of the religious order to which St. Thomas himself belonged, and having been for twelve years a student or teacher of his system, may venture to hope that he merits some confidence as an interpreter of the views of one whom he may style his brother and master.

² The doctrine of St. Thomas concerning the human soul may best be looked for in his *Summa theologiae*, Part I, from question lxxv to question xc inclusive, where he treats the subject *ex professo* and in full, although in his characteristic scholastic manner; also in the *Contra gentes*, Book II, from chapter lvi to chapter xc inclusive, again in the *Questiones disputatae* at the question *De anima* (twenty-one articles), and in his commentaries on Aristotle's three books *De anima*. St. Thomas deals with the subject of the human soul in other passages, but we content ourselves with mentioning those in which the exposition is most complete and systematic; the same remark may apply also to the quotations that we are going to make further on, this article purporting to be a faithful interpretation, not a concordance.

³ *Ἐντελέχεια ἡ πρώτη σώματος φυσικοῦ ὀργανικοῦ* (*Περὶ Ψυχῆς*, Book II, c. 1, line 44, Didot edition).

Spectroscopic analysis shows us that matter is everywhere identical throughout the sidereal world, while chemical analysis reveals to us the fact that all things are made of the same elementary principles, the so-called simple bodies. If we omit for the present the question as to whether the given number of simple bodies that we admit nowadays cannot or will not eventually be reduced to some smaller number, there is one thing, at all events, that we may safely assert, viz., that those simple bodies, whatever their real number may be, are all but various, primitive forms of one and the same nature, matter. For even granting that they are chemically quite unanalyzable through any material agency, there are still some features that all have in common, those that are characteristic of materiality. All, indeed, have more or less extension; all have weight, density, and the other properties that are inseparable from matter, wherever and under whatever form it can be found. We are therefore led by the simple observation of facts to conceive of some generic element common to all, attainable indeed by reason only, but which reveals itself to us under the primary forms of the simple bodies of which it is the common and radical substratum, the simple bodies being merely its primitive and original forms. This substratum was the primary matter, *materia prima*, of the Scholastics.¹

Furthermore, experience reveals to us that, whenever, either in the organic or inorganic realm, some new combination takes place, the elements thus combined, either compound or simple bodies, seem to disappear—to melt mysteriously together into some new entity into which they are absorbed, the total sum of which has indeed the same weight, but, seemingly at least, properties of a quite different nature from those of the component elements. The qualities of water, for instance, are admittedly altogether different from those of its elements, the gases hydrogen and oxygen. Water, therefore, may be considered as being only virtually contained in both before combination. On the basis of this experimental fact, that matter, as it is found under

¹ Cf. Zigliara, *Summa philos., Cosmologia*, Liber II, cap. ii, art. 2 et 3; Aquinas, *Sum. theol.*, Part I, q. lxvi, 2.

any form whatsoever, either in simple or compound bodies, may always be transformed chemically so as to be brought under some other, which is seemingly, at least, essentially different from the preceding one, the Scholastics laid down as a general principle that any natural being, either organic or inorganic, ought reasonably and upon good experimental grounds to be considered as made of two constitutive substantial elements, the original matter and its own proper form. The first was ever identical under all possible forms; but the forms were always different from one another, either specifically, as the form of a dog is from the form of a tree, or numerically, as those of different trees of the same species.¹

Let us also remark here in passing that the Scholastics distinguished between the substantial form, which was a constitutive essential part, and the accidental form; the latter being only an accessory and complementary determination supervening in the individual upon his constituted nature. Fluidity, for instance, or, in the case of frozen water, solidity, were only accidental forms of the water that was in itself substantially constituted by matter and the 'watery form.' The human soul also was a substantial form, the first act or entelechy of that physical organism, the human^a body.² It was the soul that generated in it the ensemble of activities, regularly and harmoniously coöperating, which we call life; without the indwelling and immanent agency of the soul, that body would have remained inanimate, lifeless; through it, it became a real 'physical organic body' because a living one.³ The soul, therefore, was residing in the body, not, as Descartes would have said, somewhat like a horseman sitting

¹ Cf. *Sum. theol.*, Part I, q. 66, a. 1 and 2, and *passim*. The concept of matter and form, as every one knows, was no creation of the Scholastics; they had simply borrowed it from the Greeks. For St. Thomas's interpretation of the Aristotelian doctrine on that point, one may consult his Commentaries on Aristotle's *Physics* (*De physico auditu*), Book I, and on his *Metaphysics*, Book VIII.

² Cf. *Sum. theol.*, Part I, q. lxxvi, a. 1; *Contra gentes*, Book II, c. 68. We should like to remind the reader that the following exposition of St. Thomas's psychology is a mere statement of his views. It would be impossible within such a narrow compass as that of the present article to attempt anything like a sufficient justification of them.

³ *Sum. theol.*, Part I, q. 75, a. 1.

on his steed, or like a pilot in the ship that he guides, but as a constitutive principle forming by its combination with the body a single new being, to wit, the individual man, that was different from both, as water is from hydrogen or oxygen; for the man is neither the soul nor the body but a compound of the two.¹

This doctrine must appear very materialistic, and hardly reconcilable with the spiritualistic creed which is the necessary 'pre-suppositum' of Christian belief, if the human soul is to be considered as entering into combination with a purely material nature like the body, and if it is to be regarded as exerting upon it that sort of quasi-chemical, or, one might say, fermentative action that generates in it the vital activity, just as the soul of a brute or the vital principle of a plant.²

Still that substantial form of a material body was considered by St. Thomas, at the same time, as immaterial and therefore simple. It was immaterial, because being able, as all will admit, to form some conceptions of immaterial objects, such as the Good, Virtue, God, etc., such conceptions could be the product only of proportionate and similar, that is to say, immaterial, operations; for even if necessarily accompanied, as has been abundantly proven by physiology, with material concomitants in the brain, those operations could not have reached an immaterial object if they had been essentially and exclusively material themselves. Again, the idea of an immaterial operation cannot be understood without the idea of an immaterial faculty that produces it, and which in its turn points necessarily to an immaterial nature, from which alone it can spring.³

Being immaterial, the human soul is consequently immortal,

¹ *Sum. theol.*, Part I, q. 76, a. 8. This doctrine concerning the substantial union of the soul and the human body is now a dogma of faith in the Catholic Church since the definition that was formulated by the council of Vienne (France) in 1311. (Cf. *Enchiridion symbolorum* of Denzinger, No. 409, 9th edition, 1901, Würzburg.) It is on this basis of the mutual, natural, and necessary correlation of body and soul that some eminent commentators of the master inferred that the human soul after death, being on account of its separation from the body in an unnatural or violent condition, required a future resurrection of that body, as some sort of natural right. The Church, however, has not adopted that inference.

² Cf. *Ibid.*, Part I, q. lxxvi, a. 1, 3, 4.

³ Cf. *Ibid.*, Part I, q. 25, a. 2.

not by privilege, but by its nature, so that it cannot be otherwise conceived,¹ and therefore it cannot come into existence, except by creation, nor possibly be destroyed, except by annihilation, just like the primary quantitative elements of the simple bodies themselves.²

How, then, does Aquinas reconcile the seeming contradiction that exists between the concept of a spiritual soul and that of the same as 'substantial form' of an organic body? The solution of the apparent antinomy is to be found in the grand view in which, following Dionysius Areopagita, his mind embraced the whole world.³ The divine wisdom that made the universe disposed the scale of beings in such an order of rising and gradual perfection, that every superior form virtually contains in its own perfection all the attributes that can be found in the inferior beings, together with its own superior characteristic properties, so that it may be laid down as a general principle in nature, that "*Summum infimi attingit infimum supremi*," the superior grades of perfection of any given being are to be found again as inferior perfections in some higher species, so that there is no gap in nature, which rather rises steadily through multiple intermedia, from the lowest to the highest organisms.⁴ In plants, we find minerality, but associated and subordinated to the functions that are characteristic of the living beings, nutrition, growth, and generation, under the vegetable form; in the animal kingdom, we discover vegetative life, but associated with it that higher degree of activity which is peculiar to sensitive beings and manifests itself principally in locomotive power; in man, we find at the same time minerality combined with vegetative and sensitive life, but subservient to moral and intellectual activity. That is why the ancients used to call man a *microcosmus*, for he was like a résumé of the various perfections scattered through the universe. But since the human being possesses one superior order of faculties, those that fit him for a distinctly spiritual activity, it must

¹ Cf. *Sum. theol.*, q. 95, a. 6, and *Contra gentes*, Book II, ch. 79.

² Cf. *Ibid.*, Part I, q. 90, a. 2.

³ *Contra gentiles*, Book II, ch. 68.

⁴ Let us remark in passing how nearly related to the evolutionary theory is the view that we mention here.

be admitted also that that organic body of which the soul is the substantial act or form, was raised by it to the participation of its own immaterial being, of its own intellectual and moral pursuits. It shared in them, as the subject required to support the exercise of those intellectual and moral operations, and as the instrument through which the soul comes in contact with the external material world. As man partakes of all the attributes of material beings, which are, so to speak, epitomized in him, while at the same time he partakes of the higher functions of intellectual and moral life along with the angels, he appears to us like a horizon¹ in which heaven and earth unite, as the intermediary being through which material life blossoms, as it were, into spiritual and immaterial activity.

Such, in brief, then, is the meaning of our definition of the human soul as "the substantial form (first act or entelechy) of a physical organic body endowed with rational life."

II.

A theory of knowledge based on such psychological foundations must logically follow the same plan in its systematic elaboration, as will become apparent from the remainder of this article. Like the soul from which it emanates, the cognitive power in man will be at the same time material and immaterial, or, to express it more accurately, will, although essentially immaterial, exercise some of its operations with the necessary concurrence of the body ; there will be in it something material and something immaterial. The faculties of the soul spring forth from its essence as the boughs from the stem of a tree, distinct from it but as a natural and necessary production of it.² The human intellect, therefore, is an efflux of the soul ; it is the eye through which it explores the material and even peers into the spiritual world, being, as the Scholastics would have said, 'a spiritual accident of a spiritual substance.' Nevertheless, all knowledge must develop from the data of sensuous perception,³ and it is only through inferences and indirectly that it can rise to any immaterial notion concern-

¹ Cf. *Contra gentes*, Part II, 68.

² Cf. *Sum. theol.*, Part I, q. 77, a. 1, 6.

³ Cf. *Ibid.*, Part I, q. 84, a. 6.

ing the immaterial world. A careful analysis of the process of intellection will help us to realize that fact, which the Scholastics expressed in the trite axiom, *non est intellectus sine phantasmate* — there can be no intellection without some picture in the imagination — not only as the starting point, but also as the necessary and indispensable subject of any operations of the intellect, even the most abstract and seemingly immaterial one.¹ Such a conception obviously must imply that there are for St. Thomas no innate ideas, since all knowledge must begin from sensuous perception. And, indeed, if by innate ideas we understand such concepts as we might have inherited ready-made, there are not for him, in the proper sense of the term, any innate ideas.² This is for him a simple statement of fact: it does not require any demonstration. Did not Aristotle, *the* philosopher — he whom we might term the prophet of the Scholastics — tell us that the individual human mind at the outset is like a *tabula rasa* on which nothing has as yet been written?³ Such is undoubtedly the condition of the mental faculty of a child before the awakening of his intellectual activity. As a fact, therefore, man is not born with ready-made ideas, and in that sense there are not any ‘innate ideas’ so-called.

But if no ideas are innate in the human mind, there is nevertheless in it an inborn tendency to frame some very definite ones which universally appear in it as soon as the first awakening of the intellectual faculty takes place; for that awakening itself implies and involves the acknowledgment of the *first principles*⁴ which form themselves spontaneously in the intellect as soon as it comes in contact with ‘intelligible’ objects; exactly as the first contact of food causes the gastric juice to spring from the walls of the stomach.

The simile is a very material one, but it may be pardonable to employ it in default of a better one; and it may help us to realize the meaning of the Scholastics. The difference, however, is that

¹ Cf. *Sum. theol.*, Part I, q. 84, a. 7.

² Cf. *Ibid.*, q. 84, a. 3.

³ Ὅσπερ ἐν γραμματείῳ ὃ μὴδὲν ὑπάρχει ἐντελεχεία γεγραμμένον (Περὶ Ψυχῆς, Bk. III, c. 4, no. II, Didot edition).

⁴ *Sum. theol.*, *secunda secundæ*, q. xlvii, a. 6.

the gastric juice is produced by the stomach alone, being secreted by its walls at the presence of a digestible object, but the latter contributes nothing to the substantial constitution of the said gastric juice : whereas the first principles are generated in the intellect by the intelligible object itself, and in fact they are nothing but mental conceptions based on, and representing, its most abstract and general feature, to wit : being, *ratio essendi*.

When a photographic plate of slow action is exposed to light in a camera, if developed after a very short exposure, it reveals nothing but a vague and indistinct outline of the object, of which it was intended to reproduce the likeness. It is only after a sufficient exposure that the image of the object will have imprinted itself with all its details in perfect clearness of reproduction. So with the human intellect, the earliest idea that it receives at first sight from any object whatever is that very vague and indistinct notion that 'there is' something before itself, that a being appeals to its cognitive power ; but it is only after a careful examination and a progressive investigation, that it may hope to acquire a full knowledge of the said being in all its details.

The idea of Being is therefore the very first intellectual impression that the human mind gathers, although confusedly, from the outward object.¹ That idea of Being, expressed in a negative formula, is the very first of all first principles, the principle of contradiction, viz., 'Being is not not-being.' All other so-called first principles of theoretical knowledge are nothing but various applications of that one and unique first principle. The principle of causality, for instance : 'Nothing takes place without there being some sufficient cause to account for the change,' simply means that no new being can come into existence, springing from Naught, since the contrary would imply that Being and Naught are practically identical. A similar explanation might be given of all other first principles, bringing them all down to the principle of contradiction, if we could afford such a digression for the present.

Those first principles, therefore, are the only ideas that might perhaps in a derived and secondary sense be called 'innate ideas,'

¹ Cf. *Sum. theol.*, I^a 2^{ae}, q. 94, a. 2.

inasmuch as they form themselves naturally and uniformly in every human mind ; still, since they are generated from the potentiality of the intellect by the object, they come from without, and are of objective origin, although subjective as to their formation.¹

All other ideas, those representing things or facts, are acquired by some mysterious intuition by which the human intellect reads into the nature of some given material object, and that process we are now going to try to investigate by means of psychological analysis.²

The process of intellection is naturally divided into two successive stages, one which we have in common with the animals, the preliminary stage, the stage of sensuous and imaginative preception ; the other, which is peculiar to man, is the stage of abstraction, of properly universal or intellectual knowledge. Sense perception, considered in its general conditions, is easy to describe and presents no special difficulties. Any sensible object that appears before our senses is a complex of various qualities, visible, audible, odorous, tactile, or gustatory. The sensorial apparatus of man will by its five organs, sight, hearing, smell, touch, and taste, separate each group of qualities from the others ; each one of them will find its own entrance, organized and adapted for it, into the sentient subject. All those qualities that first enter in separate groups will, in the next instant, be reunited into a sensible imaginative picture that will be the exact representation of that very individual object that stands before us, let us say a dog, for instance, or a tree.

In the animals, knowledge stops at that stage ; there is no further progress ; the animal can imagine, remember, even form some instinctive judgments, but it cannot have universal ideas — it cannot think. In man there is something more : that raw material, that sensible and single picture of that individual dog, that individual tree may, by the mysterious process of intuition that we call abstraction, be converted, manufactured, into the intellectual universal representation of the tree in itself, or the dog

¹ Cf. Zigliara, *Summa philos.*, *Log.*, No. 55.

² Cf. *Sum. theol.*, Part I, q. 85.

in itself, into the 'intelligible' idea of *the* dog, *the* tree. In what manner, then, does that abstraction take place? Every picture that is in the imagination appeals to the intellect, but the intellect may or may not, according to its present condition or circumstances, advert to it; however, there stands the 'phantasm'¹ before the intellectual faculty, apt to arouse its activity, ready for use. It is also admitted by all that a single individual phantasm is not sufficient to cause the intellect to act: it is only by the recurrence of similar appearances, that it is aroused into activity, and then spontaneously abstracts the universal from the singular.

Let us now suppose that several individuals or instances have already appeared in the imagination, that they have left an enduring impress upon it, without however having succeeded, up to the present, in bringing the intellect to the act of manufacturing a universal idea. The intellect has remained inactive, it is in the condition of a looking-glass before which stands an object, but in which no reflection appears, because the object is, as yet, in the dark.

But now the succession of similar experiences is sufficiently complete. A new 'phantasm,' clothed with all its sensible qualities, is offered again to the intellect, together with the remembrances of past similar experiences; then, as if by the turning of some electrical switch, a flood of intellectual light, if we may use the metaphor, flashes upon it; the complex of sensible qualities, that is, the phantasm, assumes an 'intelligible,' immaterial condition, and that immaterial mirror, the intellect, receives in itself the immaterial picture thus revealed, the universal abstract idea.²

Following the data of Aristotle, the scholastics therefore divided the intellectual faculty, in itself one and indivisible, into two powers — the active intellect, *intellectus agens*,³ and the passive intellect, *intellectus possibilis*.⁴ The first, the *intellectus agens*, is that power, that aptitude, inherent in the human mind, to dis-

¹ By the word 'phantasm' the Scholastic philosophers understood the representation of a thing as it is in the imagination.

² Cf. *Sum. theol.*, Part I, q. 79, a. 2.

³ *Ibid.*, a. 3.

⁴ *Ibid.*, a. 10.

cover and bring into prominence the universal, to illuminate the phantasm with intellectual light, we might say, so as to immaterialize it. The *intellectus possibilis*, on the other hand, is the faculty of perceiving and assimilating the universal idea that has been evolved from the individual by the activity of the *intellectus agens*. It is the mirror in which the immaterial likeness of the object, the universal idea, reflects itself, when it has once been brought forward by the illuminating power of the *intellectus agens*. It is called passive, *possibilis*, from its aptitude to take up any idea ; but it is essentially active, as soon as it has acquired the idea. This it is that thinks, judges, reasons, organizes science, and so on ; it is the thinking mind itself, of which the *intellectus agens* is only the servant and the tributary.¹ There are, indeed, besides the first one that we have just described and that was called by the Scholastics simple apprehension, two other operations which are proper to the *intellectus possibilis* alone, viz., judgment and reasoning. When once in possession of several ideas through abstraction, the human mind may also mentally associate or dissociate them by judgments that are expressed in propositions ; again, it can evolve by reasoning some new judgment from others in which it is implicitly contained. These are the three fundamental operations of the human intellect : perceiving, judging, reasoning ; all others are more or less forms or complexes of these three.

III.

After having perused the preceding exposition of St. Thomas's doctrine on the human soul and the human intellect, one more question will naturally occur to a modern mind familiar with post-Kantian philosophy. What were the views of Aquinas concerning the value of human knowledge ? What was his standpoint in regard to the epistemological problem ?

The answer to this inquiry allows of two different researches, viz., first, stating and defining that standpoint, and secondly, solving from a Thomistic point of view the difficulties that might be urged against it from a Kantian point of view. But as the second part of such a study would imply a critical examination

¹ Cf. *Opusc. de potent. animæ*, ch. vi.

of the Kantian system as a whole, we shall for the present refrain from such an attempt, and content ourselves with stating St. Thomas's position and defining his doctrines concerning the reliability of our knowledge and the grounds on which it rests.

As regards his general conclusions, he decided the question by vindicating the absolute objective value of human knowledge, although not, of course, the infallibility of the individual mind. When the intelligible universal idea has been evolved through the agency of the *intellectus agens* from the sensible phantasm, the question will arise, Where does that intelligible idea come from? It cannot have come out of Naught, for this would be an utter impossibility; the intelligence of man cannot, any more than any other finite being, create anything, not even an idea.¹

It might be supposed that the idea is produced by the intellect itself from its own substance when it comes in contact with the object, just as a spark will spring from the pole of an electric apparatus when touched by the finger of the operator. Neither St. Thomas nor any of his contemporaries seem even to have considered such a hypothesis, to which, however, Kant's doctrine of the *a priori* forms would come very near. St. Thomas would very likely have answered that, according to all appearances, whereas the electric spark, whatever may be the nature of the object that comes in contact with the pole of the electric machine, is always the same, different sorts of objects give rise in the mind to different ideas of objects with perfect and infallible mutual correspondence, so that the variety of ideas cannot be satisfactorily accounted for, except by the diversity of the objects that generate them in the human mind.

If it be further urged, and this is more distinctively the Kantian position, that there are positive and *de facto* motives to distrust the testimony of our intellectual faculty concerning the external realities, the answer, as already stated, would involve a critical examination of the various motives brought forward to batter down the authority of reason; we are consequently obliged to decline to attempt that in the present article. One thing, however, we shall not hesitate to state in advance, viz., that neither

¹ Cf. *Sum. theol.*, Part I, q. 45, a. 5.

the *a priori* forms of the sensibility, nor the *a priori* categories of the understanding, nor the *antinomies* of reason would have disturbed the serene confidence of St. Thomas in the objective value of our knowledge; for all those objections he would have discarded, maintaining that they did not apply to *his* view of Space and Time, to *his* Categories, to *his* arguments concerning God, the World, and the human soul.

For Aquinas, therefore, if mind discovers the idea in the phantasm of the sensible individual, it is because the idea is contained in that sensible individual as a letter in its envelope or a diamond within its gangue; indeed, it is nothing but the substantial form of the thing in itself ideally reproduced in the *intellectus possibilis*, as the likeness of a person in a looking-glass or on some photographic plate.¹

Now if the substantial form is capable of being so ideally reproduced, it is because it is itself an idea, a concept of the divine mind embodied in matter, the archetype of which exists in God, and which has been enclosed in it by Him.² Hence it follows that the cognitive process is nothing other than a communion with the divine mind through the intermediary of things,³ a deciphering of the book that He has written in Nature for our instruction; for the whole universe is the handiwork of God and the heavens declare His glory (Ps. 19). Another objection may be raised, viz., since the idea is universal whereas the individual is singular, how can the one be a faithful picture of the other? In that form, apparently the only one in which the epistemological problem appealed to the minds of mediæval philosophers, it gave rise to the celebrated quarrel about the *Universale*.

Without reciting here the various opinions that were set forth at the time, we shall simply reproduce Aquinas's solution of that question. But there is first of all a preliminary observation that will force itself upon our attention: those features, those modes, universality or singularity, are in themselves accidental or external to the essential constituents of the 'form' in itself.⁴

¹ Cf. *Sum. theol.*, Part I, q. 85, a. 2.

² *Ibid.*, q. 14, a. 8.

³ *Ibid.*, ad 3^{um}.

⁴ *Ibid.*, q. 85, a. 1, ad 1^{um}; *Opusc. de ente et essentia*, ch. 4.

Just as, in the case of a photographic picture, the likeness of a man must not be supposed to be unlike to him *in representando* because it is apt to be reproduced in an indefinite number of paper prints, so an 'intelligible' likeness, though it be universal, remains the same in the essential features, and universality is a merely extrinsic condition that makes no difference to its representative value.¹

But, moreover, universality is *not* a creation of the intellect; it is derived from the objective world, it has its objective counterpart. It is because the mind has discovered the same feature in several individuals that it is naturally induced, from the very objective condition of things, to conceive that feature as *one* element, possessed in common by several singulars, as a universal. Universality, therefore, as it is in the mind, has for its objective foundation that plurality by means of which it is participated in by several individuals in the external world.

It is not an arbitrary or spontaneous creation of the mind; it represents something, to wit: the fact that one and the same reality or portion of reality is to be or can be found in several distinct individuals, and we may therefore conclude that 'nothing' is to be discovered in the idea which is not somehow in the object, according to the trite scholastic axiom: *Nihil est in intellectu quin prius fuerit in sensu*.

That is why St. Thomas held that in the first operation of the intellect, the one that we have described above as 'simple apprehension,' there is, on the part of the human mind, not even a possibility of error — and that error can occur only in the second operation (judgment) or in the third (reasoning). With the examination of these last propositions we shall conclude the present study.

First of all, no error can occur in the process of the first operation of the mind, the 'simple apprehension,' except inasmuch as judgment mixes with it to some extent.² That assertion is already manifest from the analysis of the process of abstraction that we have given above. In the presence of the object, the intellect may

¹ *loc. cit.*

² *Ibid.*, q. 85, a. 5.

or may not advert to it. If it does not, no intellectual action will take place, and therefore there will be no error because no act of intelligence ; if, on the contrary, the intellect does advert to the object as presented by the imagination, and an act of intelligence does indeed take place, it will understand the object fully or at least partially. If some person comes toward me in the dark, I may recognize that this is a human being, without, however, being able to discern what person it is. In that case, I shall gather only partial information, but a partial truth implies no error of itself except in so far as my mind may mistake that partial truth for a complete one.

If in the presence of some dubious animal, let us say a coral, for instance, I notice in it some vegetative properties, without, however, discovering the animal characteristics that are to be found in it at the same time, and if, therefore, I gather from that incomplete observation the idea that there is something vegetative in the coral, there is as yet no error in that partial truth, unless I *judge* that a coral is only and exclusively a plant ; but forming such an erroneous opinion is going beyond the limits of simple apprehension, is launching into a judgment, into the second operation of the mind, in which, as well as in the third, viz., reasoning, no natural privilege of immunity from error can be guaranteed to us.

The causes of the errors that may befall the individual mind in its search for truth are subtle and manifold ; all of us are more or less doomed to fall into mistakes now and then, but this is no proof that the human mind itself is not made for truth, or is incapable of reaching it. There is no reason why we should at all doubt of its inherent capacity to grasp truth. Judgment, therefore, and reasoning are also operations by which we are capable of attaining to the truth. This will be our concluding proposition.

Judging is mentally associating or dissociating two concepts, two essences, on the basis of some characteristics that they have in common.¹ Having, for instance, perceived the idea of animal and that of biped, I may form the judgment : ‘ An animal may be a biped.’ Now the two ideas that are thus associated in the

¹ *Sum. theol.*, Part I, q. 85, a. 5.

foregoing judgment are, as we have shown, objective in their origin and objective in their representative value. Supposing, therefore, that a judgment is not founded on ignorance, or an imperfect knowledge of the two elements involved as subject and predicate, the mutual agreement on which my judgment is based is inherent in those two ideas themselves; but then it must exist also in the things that are represented by those ideas, and of which they are merely the mental substitutes, the intellectual likenesses. We have, therefore, consistently to admit that our judgments have a real objective value in and through the ideas on which they are based.

Reasoning, as St. Thomas remarks,¹ is a property of the human intellect founded on its relative weakness and inferiority, that makes it unable to embrace the whole domain of truth at one glance, and to discover at once all that is contained in one idea. This makes it necessary for it to grope its way, to run successively (*discurrere*) from one judgment to another, so as to proceed from known propositions to unknown truths. It may, therefore, be defined as the process by which, be it inductive or deductive, on the basis of two given mental judgments, we are enabled by bringing them together to perceive the truth of a third, which, without the help thus afforded by the two first, would either never have occurred to us, or would have remained forever dubious in our minds, exactly as the meeting of two electric currents, the positive and the negative, will cause an electric spark to flash in the darkness.

Here, again, while having more than sufficient motives for distrusting the capability of the individual mind, there is no cause why we should doubt the objective value of the reasoning process in itself, provided all the necessary precautions against a possible error be taken. For if the two premises are objectively true and fully understood, and if no flaw finds its way into the process of comparison, the third judgment that springs from it must also be considered as objectively true and reliable, since it is but the inherent and natural content of objectively valid judgments. We are therefore entitled legitimately to extend the conclusion of our reasonings to the objective world without.

¹ *Quæst. disput. de verit.*, q. 15, a. 1.

To sum up in one sentence the whole epistemological system of Aquinas, we should say : Man's mind is, in itself, a faithful mirror of the external universe, that mirrors itself in it ideally and immaterially. Such would be, on the principles of St. Thomas, the outcome of the foregoing study.

Readers who have had the patience to read the present article thus far, will find perhaps that we have touched upon a great number of questions, while leaving an even greater number untouched. Our excuse is that this exposition could not be more than an epitome of the principal tenets of the Thomistic system, and that, if thoroughly developed and enlarged to its proper size, it might easily fill several volumes. If, however, we have succeeded in making it sufficiently suggestive to induce some reflective minds to turn to St. Thomas himself, we shall be fully satisfied with the result. Nothing can supply the want of direct contact with the text and the knowledge of an author which we obtain by communing immediately with his thoughts in his own original works. Thus only from a conscientious and careful study, can one expect to experience that 'rest of mind' (*quies animi*) in the possessed truth, in which Aquinas, in conformity with the dicta of the great Aristotle, made the natural beatitude of the soul consist—that rest being the loftiest enjoyment of our noblest faculty exercised about its highest possible object.

F. L. VAN BECELAERE.

OTTAWA.

ETHICS, A SCIENCE.

I. In popular parlance art and science are often confused. After seeing some brilliant bit of dexterity, as in some difficult game, we sometimes hear persons exclaiming: "Look at the science of that," whereas it is quite possible that the performer has very crude and ill-defined notions about his methods. He has the knack of the thing, but he cannot explain wherein the knack consists. In such a case the term science is misapplied. Science, as its etymology would indicate, is knowledge, not cleverness, but all facile correct performance has the character of art, which may be broadly defined as skill in the production, or skilled activity directed to the production, of some desired object other than knowledge. For example, the art of music is the activity which concerns itself with the production of certain sounds that please the ear by reason of their rhythmic character, their melody or their harmony. The musician may know nothing of the natural principles which underlie the operations of sound. He may be absolutely ignorant of the fact that different wave-lengths of vibrating atmosphere correspond to different pitches of the sound heard. He may know nothing of the theory of over-tones; he need not even have knowledge of the principles of counterpoint and harmony; and yet, in spite of all his musical ignorance, he may be able to please the most fastidious taste with the rich, sympathetic, soul-stirring or soul-quieting character of his musical performance. On the other hand, who has not known some tone-scientist who can tell all about timbre, melody, harmony, counterpoint, and a thousand other things in music, who knows how to finger the keys or the strings, whose execution is faultless, and yet whose playing 'has no soul in it'? We thus see that there is an art of music and there is a science of music. The musical scientist does not primarily aim at the production of music, but at the understanding of it. His ideal is complete knowledge of the principles underlying the art of music. His compositions are technical articles for scientific journals, not

operas or oratorios or songs. The musical artist, on the contrary, as artist, does not care for these laborious productions of the scientist, except in so far as they may perhaps enable him to attain some artistic effect he is striving after. His productions are melodies and symphonies. He makes music; the musical scientist knows music. The motives actuating these two persons are very different. The scientist is prompted by love for the true, the artist by a love for the beautiful.

Very frequently, as in the case of music, the scientist studies what the artist produces. Indeed, every art forms or may form the subject matter of a science. Thus the art of building has given rise to the science of architecture, and the art of linguistic expression to such various sciences as rhetoric, etymology, syntax, prosody, phonetics, poetics. But not every science has a corresponding art; thus the science of palæontology, which is concerned with fossils, has no art corresponding to it, for the reason that the facts which palæontology studies are not produced by human agency. Men discover, they do not make, genuine fossils. For our present purpose, we may classify all objects of scientific investigation into two distinct groups, one including all objects of human production and achievement, the other including objects not brought about by human agency. The sciences which deal with objects of the first group have correlated arts; those which deal with objects of the second group have not.

While in the latter there is no danger of confusing art with science, — for the very good reason that there is no art present to lead to confusion, — in the former case confusion is frequent. A base-ball pitcher is said to be ‘scientific’ in his curves, when, as a matter of fact, he is not scientific at all. He ‘knows how’ to do it, but he does not know why he does it so. In this case an art is called a science. Often the mistake is the other way round; that is, a science is called an art. For instance, logic is quite generally recognized now as a science and not an art, and yet not long ago perhaps the majority of writers on logic insisted on calling it an art. This was because correct thinking is an art, and it was uncritically assumed that therefore a knowledge of the methods of correct thinking must also be an art. The object of

knowledge—the art of thinking—was mistakenly confused with a knowledge of the principles controlling that object, *i. e.*, with the science of logic.

A mistake of this sort is at work in the minds of those who define ethics as the art of correct conduct. Morality is such an art, in which various persons are more or less proficient. Some moral lives have the high æsthetic finish of an exquisite poem, others the massive grandeur of a noble pile of masonry, while unfortunately too many are comparable only to ribald verse or meretricious architecture. When we speak of a man's weaving the web of his own character, of his hewing it out of unpromising material, of his refining it in the fire of adversity, and so forth, we are saying that life is an art, character an art-product, virtue an art-quality.

But this is no reason why ethics should be an art, any more than the fact that poetry is an art makes an art of poetics. Ethics bears the same relation to the moral life that poetics bears to poetic activity and poetic product. Ethics is the science of the principles of an art; it is a systematized knowledge of the ways in which a certain kind of art-activity is carried on, of the reasons why the results of that activity produce certain effects, in short, of the various relations in which a particular art-activity and art-product stand. Morality is an empirical fact having various bearings; the moral man and the immoral man are phenomena of every-day life, and are as amenable to scientific investigation as are poems and financial movements, chemical reactions and mechanical operations. There are many questions which the experienced existence of morality and immorality challenges us to answer if we can. Ethics, in its widest sense, is the name given to any systematic attempt to answer these questions. Such answers do not constitute an art but a more or less complete science.

II. The question has been much discussed whether ethics is a descriptive science. The majority of writers on ethics have considered it not descriptive, but normative; some have admitted the presence of a descriptive feature in ethics, but have recognized along with this a large independent mass of normative

character, while a few maintain that it is entirely descriptive and nowise normative.

A normative science may be, and often is, defined as a science which lays down standards, rules, or laws to be used in some sphere of activity. The question here is as to the meaning of the term 'lay down.' In what sense can science be said to lay down rules for the guidance of the simple? Take the science of hygiene for example. This science is regarded and expounded by many as a system of rules of practice: "Eat this, drink that, breathe deep, bathe often, and eschew excesses." But a little reflection will serve to show that what is really scientific in these prescriptions is not their mandatory character, but the implied statements of connection between certain courses of action and certain generally desired ends. "If thou dost these things, happy shalt thou be, and it shall be well with thee." The prescriptions we find in scientific writings are disguised statements of facts. The true scientist, as scientist, does not advise or exhort. He gives an unimpassioned recital of the facts in their connections. He does not lay down any rules of any sort for the guidance of anybody. He merely says: "This is the way things are." That is, all science is descriptive — descriptive not merely of isolated individual objects, but of objects in their interrelations. Now if a normative science is defined as a science which is not descriptive, it is not a science at all. Science is knowledge, not will. It is indicative, not imperative. Hence, if there are to be any normative sciences at all, another definition must be sought for them than that given above. A point of departure for such definition can be obtained in the fact that many things known by science have a bearing upon human desires and human wills. While knowledge is not power, it is light, and makes possible the use of power along lines of advantage to the agent. Not only may we know that strychnine is $C_{21}H_{22}N_2O_2$, obtained from *nuxvomica*, insoluble in water and ether and scarcely soluble in absolute alcohol, but readily soluble in ordinary alcohol, and when so dissolved turning the plane of polarization to the left; we may also know that it is a most powerful poison, and taken in any considerable quantities causes death. Now every one of these

statements about strychnine is descriptive, and purely so, the last no less than any of the previous ones. But to most persons there is a very decided difference in the statements. The last has a tendency to convert itself into an imperative. Now why this difference? The answer is easy. None of the items of information above given concerning strychnine except the last makes any appeal to the desires and will of most persons. The last item of information, however, has a very direct relation to normal human desires. Very few men want to be poisoned, hence the fact that strychnine poisons can be indirectly stated in a prohibition: "Don't eat it." The prohibition, however, taken literally as it stands, is not an expression of knowledge, but of will — the will to live and let live. This will abhors strychnine because it is known that strychnine tends to antagonize the will. Knowledge here determines the direction of the will, but the knowledge is not will, and the expression of the knowledge (in the indicative) must not be confounded with the expression of will (in the imperative). Science does not lay down the rule to avoid eating strychnine; it ascertains the fact that the man who eats strychnine, except in very small doses, dies. In view of this scientific information, the normal human will lays down the law to itself not to take strychnine as food. We may generalize from this case and say that no science lays down any rules whatever, hence, if a normative science is defined as a science that lays down rules, it must be replied that it is by that token not a science.

But while a science may not lay down rules in the sense of imposing them upon men, it may have rules of procedure as its object matter. There are many sciences of this kind. For instance, the science of jurisprudence does not make the laws of the land. It is nothing but the more or less systematic knowledge of the various laws that have prevailed and do prevail, of the various tendencies for good or evil possessed by these laws, and of the various objects of juridical will these laws indicate; in fine, it is knowledge of the various principles of law. Jurisprudence may disclose the disastrous results of a certain type of laws, as, for example, punitive laws impossible of enforcement; but as a *science* it goes no further. It does not proceed to dep-

recate such laws ; but the legislative reformer and the practical statesman desirous of avoiding the evils resulting from the presence of such laws in the code, urges their repeal. Science suggests procedure, but the demand for procedure is not made by knowledge, but by will ; not by unimpassioned science, but by strong clamant desires for certain objects. Science sets the objects before us and discloses the means by which they can be secured ; but unless, when means and end are thus set before us, our affections and desires rise up and set the machinery of will to work, there can be no imperative issued. Jurisprudence, then, does not lay down laws ; it merely sets forth facts, and men's likings and dislikes for these facts prompt them to action. But the facts which jurisprudence sets forth are facts in connection with rules of conduct. It is normative in the sense that it is a science which deals descriptively with norms.

What is true of jurisprudence is true also of ethics. Ethics did not create morality, nor does it legislate to moral beings better moral laws. It describes the various types of morality and the results flowing severally from these types. But it is not imperious or dictatorial. It does not command men everywhere to repent, to reform their ideals and better their habits. It merely says : "There are various ways of behaving observable among men, and others conceivable. These various ways have these respective characteristics and consequences." If a man says, "In defiance of these consequences, I will to conduct myself in this way," ethics is unconcerned, for ethics is systematic knowledge, and knowledge as mere knowledge is equally hospitable to every existent fact and to every law of connection. As Huxley, I think it was, once remarked, the fiercest cataclysms of nature, the wreck of matter and the crash of worlds, are as orderly occurrences and as beautiful illustrations of the laws of nature as the sabbatical peace of a summer sea. So are human folly and madness and immorality as much ethical phenomena to be treated by the science of ethics as are moral walk and conversation. But ethics does and can say to the immoral, "Your conduct is mischievous and detestable to those of your fellows who are normal,"—which again is a purely descriptive statement.

What has been said makes it evident that jurisprudence and ethics are abstract. They do not give expression to the whole psychic attitude of the scientist toward the objects of his investigation. The jurisconsult, unless all milk of human kindness is dried up in him, is not only a man who knows law, but also one who likes some kind of law and some principles of legislation better than others. His legal knowledge is only a part of his mental endowment, for to a scientist science may not be the only thing of value in the universe. So to the ethical scientist practical moral questions may be of stupendous interest. He may be the supporter of a crusade against intemperance or impure civil service ; but this fact would be due to his temperament and general affectional nature, enlightened, it is true, but not created, by his ethical knowledge. An ethicist is not *ipso facto* a man of high moral ideas, but his scientific impartiality need not make him a practically impartial onlooker in the theatre of the moral life. As a scientist he may be impartial, as a man he may have his decided preferences. But his actual preferences must not be allowed to interfere with his impartial scientific attitude. An unimpassioned survey of all the accessible facts, unbiased generalization from the facts to general principles, — this is the task of ethics and this task is entirely descriptive.

But such description does not exclude scientific criticism. It is compatible with an appreciation of objective values. This may not at first be clear, for are not all values subjective? Yes, in a certain sense values are subjective. But in that same sense it would be hard to find anything objective. Value may be as objective as color. No ornithologist is deterred from describing orioles as orange-breasted, because, forsooth, to the color-blind man they may be dirty gray. Again, the chemist does not feel it necessary to qualify as subjective the statement that hydrogen sulphide has a stinking smell, because only to normal olfactory organs is the smell disagreeable. Many — if not all — objective scientific statements are objective in the sense of being valid of all normal human experience. Now objects have value that is objective in the same sense. For instance, money has an objective value, not because apart from the affective natures

of conscious beings it would still be of absolute worth, but because its value is a generally recognized fact in a community of conscious beings. On this account it is possible for the economist to criticise the efficiency of the various articles which serve as money. This criticism consists in the purely objective description of the consequences of the use of these various things. He shows that, when a great amount of paper is circulated and is not redeemable by gold or silver, it depreciates. This is criticism, but it is mere description. Now this unimpassioned description of consequences which are disagreeable is easily confounded with a hortatory treatment of the subject, for the very good reason that often the economist, assuming the existence of certain likes and dislikes, loads his statement of economic fact with economic harangue, and because the reader often meets the scientific statement with very strong emotional and voluntary reaction. But the harangue of the economist and the feelings and resolutions of the reader or hearer are not science, though they may be the normal response to scientifically ascertained fact. The science in it all is nothing but the methodically obtained knowledge of fact; and this knowledge often includes, as in this case, a knowledge of unpalatable circumstances. An unimpassioned expression of such knowledge of unrelished but removable fact is scientific criticism. Such criticism may play a large part in ethics; but in any objective ethics the criticism must not be a philippic against some practice merely obnoxious to isolated personal prejudice, but a true statement of the harmful consequences of certain modes of conduct.

III. It is often debated whether ethics is a theoretical or a practical science. What has already been said as to the normative and yet merely descriptive character of ethics should help us solve this question. Just as all sciences are descriptive, so all sciences are theoretical, that is, they are concerned with the rational explanation of experienced facts. Rational explanation is not the *a priori* demonstration of the necessity of facts. That is, it is not an attempt to show that things cannot possibly be other than they are. It is merely ascertainment of actual uniformities of connection between phenomena, *i. e.*, it is compre-

hension of natural principles or natural laws. A natural principle or natural law is an identity observable in nature, a discovered or discoverable sameness in the ways in which natural objects behave, or in the relations obtaining between certain objects. Thus a law of mechanics is an ascertainable identity in the way physical objects move or tend to move. The law of gravitation is a well-known example. This law is nothing but the fact that material bodies move or tend to move toward each other in a similar way, a way capable of description in the Newtonian formula: "Every particle of matter in the universe attracts every other particle with a force directly proportional to the mass of the attracting particles, and inversely to the square of the distance between them." So far as we know, every particle of matter might repel instead of attract every other particle of matter. And even if it did attract, it might attract in, say, inverse proportion to the distance instead of to the square of the distance between them. The number of possible substitutes for the actually obtaining law of gravitation is beyond recounting. The Newtonian law given above is *the* law only because it *is* the law. But though the law does not carry with it a self-evidence which excludes all possible rivals, as a matter of fact it satisfactorily *explains* many things otherwise inexplicable to our intelligence. We are so constituted that we do not find intellectual rest until the initial disjointedness of experience is removed by the discovery of uniformities of relations and of behavior in experienced objects. Any such discovery which brings order into what was chaos is highly gratifying to us as rational beings, for our theoretical reason is a tendency—of the nature of instinct—to look for such uniformities, and to see things in relations. Any object is 'explained' when this instinct is gratified. Now it would carry us too far afield to prove this statement in detail, *i. e.*, to show that in all explanation this is what happens. The exhibition of this fact belongs to the science of logic or epistemology. Here all that can be done is to state dogmatically that explanation is the satisfaction of the intellectual instinct to comprehend the laws of things, or their principles, or the uniformities of their relation and behavior,—these expressions all meaning the same thing.

Now the Greek word *θεωρεῖν* means originally to behold, to be a spectator of. But in psychological parlance, it was used to designate the contemplation of things in their relations, the grasp of them in their order, the knowledge of their laws. A theoretical knowledge of anything is properly, therefore, a systematic knowledge, a knowledge of them as systematically interrelated, a knowledge of their principles of connection. But this is exactly what every true science is. Hence every science is, as science, theoretical. To call a science theoretical is to commit a tautology, but, as with many tautologies, a useful end is gained. The attention is riveted by the tautological adjective on an essential characteristic, which may easily be, and in this case has been, ignored. All science, to repeat, is theoretical; it is a matter of *seeing*, not of *doing*, and no new mark is added to the concept of science by calling it theoretical, but the danger is averted of supposing that a science may not be theoretical.

The fact, however, that all science is theoretical, does not preclude some sciences from being practical, provided that by practical is meant what it often means, namely, facilitating practice, advantageous in practice, having a direct bearing upon practice. Thus a practical suggestion is one that helps to the doing of something desired; a practical idea is one that aids in the accomplishment of some purpose; a practical rule is one the observance of which is of value in the performance of some work. Now it requires but little reflection to observe that very much of our knowledge is directly practical in this sense. It is not itself a doing of some work, unless we call the activity of knowing itself a work, but it is indispensable for the performance of the complicated work which men have to do. This is so obviously true that it is now often maintained that knowledge is to be accounted for as a result of natural selection. This means that knowledge as a psychic phenomenon is so useful to the knower that by its help he wins in the struggle for existence, and is thereby enabled to propagate his kind, transmitting to his descendants his useful power of knowing. Thus we have what has been called the doctrine of the bionomic value of knowledge, and the advocates of this doctrine include within it also the asser-

tion of the bionomic¹ value of science. This is, of course, to be expected. If knowledge is selected for survival because of its utility to the knower and to his race, systematic knowledge, or science, would disappear as a temporary freak unless it were likewise useful.

Now it is not necessary that we examine this doctrine in its entirety before we avail ourselves of the truth brought out by it. That truth is the truth of the practical utility of science. It is to science that we owe a very large part of our modern civilization, with all its practical achievements. But this is saying that science is practical. It helps in the performance of human work. But this practicality of science is not incompatible with its theoretical character. Indeed, it is because of its theoretical character that it is so practical. That is, it is because science is such a comprehensive knowledge of things in their interconnections and their laws that men with this knowledge of nature can do things never dreamed of in earlier days of human ignorance. Nothing has shown itself in human history to be so practical as broad, inclusive theory—if the theory be true. The world's work does not need less theory, but more. Infinitely much is waiting to be done, but it will wait till some one who *knows* comes along; it is held back because theoretical science has not gone forward more rapidly. The theorist, it is true, is not himself necessarily practical. But his knowledge communicated to others more interested in achievement than in science is the light which reveals the pathway human progress is to take.

But not all theoretical sciences have proved as yet to be equally practical. Not all have equal value in indicating ways by which objects of human desire can be reached. But no one can safely and confidently predict that these relative values will remain constant. Unexpectedly even to specialists in a science, that science may at a stroke prove to be one of the utmost value to the practical life of the world. All that can be done is to say that up to the present time one science has yielded more practical

¹ *I. e.*, value in promoting life. Bionomics is the science of "the economics of the living organism" (Minot, *Science*, N. S., Vol. XXI, No. 392), *i. e.*, the science of the principles which are involved in the maintenance of living organisms.

results than another. But this is no reason for discouragement in the pursuit of the less practical science, for what is last to-day may become first to-morrow. Thus we see that the practical character of any theoretical science is a variable quantity, and no science is to be judged unpractical merely because as yet it has borne no useful fruits. The seed-sowing must precede the harvest, and it is not always the most rapidly maturing crops that bring in the largest returns.

Now applying what has been said to ethics, we may say that ethics is a theoretical science, as all sciences are. Its practicality is hard to estimate, but is undoubtedly great. Not that it has any great money value, but money values are not the sole values. The practical value of ethics consists largely in two ends it gains. First, it secures a progressive liberation of the mind from the bondage of moral prejudices, many of which not only are irksome, but are serious bars to progress in civilization. It requires but little knowledge of the world to convince the open-minded observer that some of the heaviest weights men carry in the race of life are moral weights. Morality is itself not a handicap — far from it; it is one of the things without which no civilization is possible at all. But not all types of morality are equally conducive to human welfare. The morality of unenlightened benevolence, which requires that no beggar shall be turned from the door without a gift of some kind, has pauperized many a man who if alms had not been forthcoming would have turned his hands to useful work. The morality of Pharisaic condemnation of all fallen women has shut the door of reform in the face of many women who have loved not wisely but too well. The morality of alcoholic prohibition has closed law-abiding saloons, to open joints where all vice thrives. The morality of "Sunday closing" has in New York given rise to the Raines Law Hotel, and put a premium upon brothel-keeping. These are but a few instances from present day life in our own country of the incalculable harm which certain prevalent types of morality can work in a community. If we look to other places and other times, we can multiply instances without limit. Now one of the most potent correc-

tives of misguided morality is scientific ethical knowledge. It is, of course, not the only corrective. He would be a rabid intellectualist who should suppose that knowledge is the panacea of moral ills. The unconscious operation of natural laws does much toward eliminating noxious ideas. Many forms of harmful morality have been eliminated by natural selection. Races that have sunk deep in moral error have often lost stamina, and proved easy prey, by reason of their very perversity, to races of a better moral fibre. Again, unconscious imitation and appropriation of alien ideals have been mighty instruments of moral reform. Good communications have often purified bad manners and bad morals. But even here more or less systematic criticism of two conflicting codes has perhaps always played a part in helping to the installation of the better type of ideals. But granting that there are always many agencies at work for the betterment of morality, other than scientific criticism of morality, this criticism is and has been an extremely salutary influence in moral progress, in that it weakens the hold of blind and baneful prejudice upon the minds of men. Ethics, then, helps men to emancipate themselves from the tyranny of false and vicious ideals.

But its effects may be positive as well as negative, although, of course, here as elsewhere the positive and the negative go hand in hand. The positive work of ethics in moral reconstruction consists in the sometimes slow, sometimes rapid, emergence of new and better ideals, suggested by study of actual moral conditions. Liberation from prejudice would do little good if something affirmative, some positive ideals newly espoused, did not take their place. It would be the old story of casting a devil out of a house and leaving it swept and garnished, only to furnish habitation for seven other devils worse than the first. The empty room must be filled with something better, and scientific knowledge will often reveal what that something better should be. Thus the abolition of indiscriminate private charity might easily lead to reckless indifference to misfortune—something must be done in a wise way for those who cannot take care of themselves. A careful study of the actual conditions, and conservative experimentation, may suggest a way in which the

deserving can be helped without flooding the community with paupers. Sympathy for the victim of unscrupulous lust may give place to an indifference for female virtue. The evil of stoning every adultress must be removed, not by ignoring the adultery, but by devising some way that shall make it possible for the woman to go and sin no more. And knowledge of human nature and human conditions is indispensable for securing this consummation. This knowledge systematized is a part of ethics—it may be not of any ethics yet actualized, but of that ideal ethics for the realization of which every ethical scientist works. For it must be remembered that ethics, like every other science, is imperfect. We know only in part, but we strive toward the day when that which is perfect shall come and that which is in part shall be done away. This is the unattainable ideal of every science. The imperfection of science is its incentive, not its despair.

Ethics, therefore, is to be reckoned, both on the ground of its actual achievement, and more especially on the ground of its prospective accomplishment, as a practical science, though as science it is theoretical through and through. This combination of the theoretical and the practical in the character of the science gives rise to the question, In what spirit should it be prosecuted? Shall we study ethics out of intellectual curiosity or for its utility? The answer is that there is no necessary incompatibility in the two motives. They become incompatible only if an inordinate desire to turn our knowledge to practical use leads to undue haste in observation and generalization, and to lack of scientific caution generally. What makes knowledge scientific is not this or that motive which prompts to its acquisition. It is method, not motive, that counts. A man is no less of a scientific ethicist, even if he pursues his study mainly because thereby he can support his family and keep his own body and soul together—provided only he works with scientific caution in gathering and sifting his materials and in his generalizations. There is danger always that an extrinsic interest in a scientific subject may impair the integrity of scientific method. Hence the man who pursues a science merely because he hungers and thirsts after knowledge

is more likely, other things being equal, to get knowledge than the man who is prompted by other cravings as well. But other things are not always equal, and the one thing needful in any scientific study is to keep one's methods bright and clean and to use them scrupulously.

But desire for utilization of results is not the chief danger in ethics. For the objects studied are objects which generally make an indefinable claim to our veneration. But in ethics loyalty to traditional duty must yield to loyalty to truth. No reverence for moral laws, no devotion to moral ideals, however hallowed either laws or ideals may be by immemorial custom or by religious association, must be allowed to interfere with an impartial handling of them. As well may we expect the awe-stricken worshipper of a volcano to make any valuable contribution to the scientific knowledge of volcanic disturbances as to expect the unquestioning moral devotee to advance the study of morality. The man who trembles before the voice of conscience is not, while the fear is on him, in a suitable frame of mind to pursue with profit the ethical science. He is an important moral phenomenon; he is not likely to be an important moral theorist. This is said without any disrespect for such a man. He is without doubt generally a very useful member of society, and in his way he is as useful as the ethicist is in his. One star differeth from another star in glory, and the exceeding glory is not always in the scientific star. The unquestioning loyalty of a man to his sacred duty may save a nation in a crisis; what scientist has ever achieved such a result? And even in the ordinary round of life the awed servant of duty is one variety of the salt of the earth, with perhaps more savor in it than is to be found in the scientific sort. But this is neither here nor there. The point is that not every man is by nature or disposition qualified for scientific work, and of those so qualified some are not qualified for work in the science of ethics, because they cannot deal with moral phenomena without fear and without favor.

The ethicist, however, need not be without moral enthusiasm, but his enthusiasm must be a zeal according to his ethical knowledge, not blind devotion to unchallenged duties. Yet it is well

that he should have had such a devotion. The larger and more varied his moral experience, the better fitted is he to deal with moral phenomena, provided only he can hold his experience off at arm's length and survey it as an objective fact. In support of this view, the weighty authority of Aristotle may be urged. "Everybody," said he, "is competent to judge the subjects which he understands, and is a good judge of them. It follows that in particular subjects it is a person of special education and in general a person of universal education, who is a good judge. Hence the young are not proper students of political¹ science, as they have no experience of the actions of life which form the premisses and subjects of the reasonings. Also it may be added that from their tendency to follow their emotions they will not study the subject to any purpose or profit." But by youthfulness Aristotle means not shortness of days, but immaturity of experience and lack of perspective, for he goes on to explain: "It makes no difference whether a person is young in years or youthful in character; for the defect of which I speak is not one of time, but is due to the emotional character of his life and pursuits. Knowledge is as useless to such a person as it is to an intemperate person. But where the desires and actions of people are regulated by reason, the knowledge of these subjects will be extremely valuable." Aristotle thus looked at ethics as having merely a practical value. "Its end is not knowledge, but action." But while he thus overlooked the purely theoretical character of the science, he rightly emphasized the need of personal moral experience, and also the need of regarding the experience with the clear, impartial eye of reason, not through the glasses of passion which cast a glamour over life and pervert the judgment. It is judgment that we want: calm, sober, collected judgment on life.

IV. It is an extremely important matter that, if ethics be a science, its methods should be scientific. Historically, various methods have been pursued, each with its own assumptions.

¹ Aristotle considered ethics a branch of political science, or rather, as we should call it in these days, of sociology. Hence the pertinence of this quotation to the present purpose. Indeed, it was in its bearings upon ethics that the remark was made. *Nic. Ethics*, I, I. (Welldon's tr., pp. 4 and 5.)

Thus, for example, one of the most popular methods has been the theological. There can be no doubt that morality and religion have been closely connected in human experience. It is true that in some cases morality seems to have cast loose from religion altogether, but there are many thinkers who regard this divorce as merely temporary and accidental. They maintain that morality is rooted in man's relation to the Infinite and Eternal Ground of Things. Hence, they proceed, we must first work out a true theology, and ethics will be but a corollary from it. Not only is this a favorite way of dealing with the subject in books, but also in popular thought there is a marked tendency to regard morality as somehow dependent upon religion. Now, whatever may be said in favor of this method of solving the ethical problem, it is clear that an ethics thus obtained is not a natural science. It may satisfy some thinkers, but there always have been, and there probably always will be, persons unsatisfied with this procedure, as they are unsatisfied with an attempt to study the nature of the physical universe by theological means. Why not take the facts of the moral life and investigate them by the same methods that we apply to the study of other empirical facts? Why not be scientific in our treatment of the subject? When we come to think of it, it is hard to see why not, unless there is something in the nature of this particular subject which makes it intractable by this method; and that there is such a difficulty cannot properly be asserted until various attempts have been made without success. Even then the failure may be due to the difficulty of the subject, and not to any impossibility inherent in the nature of the problem. Before scientific ethics can be ruled out as impracticable, it must be shown conclusively that there is something in morality which science cannot grapple with, and no satisfactory demonstration of this fact has been given. It is easy enough to say what science has not done. It is not easy to say what science cannot do. It may be true that, after all the thought that has been spent on morality by men who have approached the subject with scientific methods, much remains unilluminated; that does not prove that ethics is not and cannot be a science. As a matter of fact, however, science has done more than theology to make

morality intelligible, and there is every reason to hope that it will do more in the future than in the past.

But while scientific, ethics does not boast of mathematical precision. The complexity of the subject is very great, and must be borne in mind by the reader of scientific works on ethics, else he will probably demand an exactness of statement which no one is prepared to make. Precise mathematical laws holding in the realm of morals have not been discovered. Rigid formulæ such as one finds in mechanics there are none. As Aristotle remarked long ago: "An educated person will expect accuracy in each subject only so far as the nature of the subject allows; he might as well accept probable reasoning from a mathematician as require demonstrative proofs from a rhetorician." "Our statement of the case will be adequate, if it be made with all such clearness as the subject-matter admits."¹

In this respect ethics is in similar case with such sciences as economics. No one expects an economist to lay down laws of the relations between supply and demand so exact that, given the number of persons who shall within a month desire to buy a certain commodity, and the amount of that commodity then available, any calculator can sit down and compute the exact price at which that commodity can be had in open market thirty days hence. The shrewd merchant and the successful speculator are engaged in such problems as this, and the uncertainty of their calculations shows that they have no infallible formula to fall back on. A civil engineer can tell quite exactly how many cubic yards must be excavated from a hillside in order to secure a road-bed of a certain grade and a certain breadth; but no manufacturer, unless he is working under contract, can tell with like precision how many yards of cloth he should turn out in order to be sure of securing a certain price for the cloth. There are too many unknown factors in the problem. If conditions remain very much the same as they have been, his calculations may be quite accurate; but an unreasonable financial panic, weather unparalleled even 'in the memory of the oldest inhabitant,' some new device in manufacture, these and a hundred

¹ Weldon's tr. of *Nic. Ethics*, pp. 4 and 3.

other unforeseen conditions may upset all his calculations. His problem is too complex for absolutely accurate mathematical treatment, and yet, in spite of this lack of mathematical precision in economic matters, there is a science of economics. What makes a study scientific is not so much the mathematical accuracy of its formulæ, as the method in which it is conducted. Now scientific ethics is scientific, as scientific economics is. It discovers certain laws, but cannot claim upon the basis of these laws to predict the moral future of mankind. These laws express general tendencies, and the knowledge of them serves to make actual morality much more intelligible.

V. We must now take a brief glance at the claim often made that ethics is a branch of philosophy, not a science. A thorough examination of this claim would necessitate the raising of questions as to the nature, tasks, and method of philosophy which we cannot attempt to answer here. For instance, before giving any adequate and satisfactory answer to the question whether ethics is a science or a part of philosophy, it would be necessary to ask whether science and philosophy are mutually exclusive, as the question would seem to assume. Is philosophy non-scientific, and is science non-philosophical? Various answers have been given to these questions, but it would require too much space here to discuss them and to justify ourselves in the selection of some one answer as preferable to the others. Whether there may be a valid philosophical ethics, and whether, if there be, its contents differ from those of a scientific ethics, and how its methods are different from those pursued by scientific ethics, — all these questions must be passed over, as requiring more space than is available here for their discussion. This article is written in the belief that when a satisfactory delimitation of the spheres of science and philosophy is made, the two will be found to have more points of connection than is commonly supposed; and yet that ethics will be found on the scientific rather than on the philosophical side of the boundary line. For all the data which the science of ethics must describe, organize, and explain are empirical data of the same order as the data of the other special sciences. The ethicist takes these data

and by comparison, by generalization of observed principles of connection, by the formation and testing of hypotheses—in short, by the methods of procedure called induction—he attempts to understand them. Ethics, dealing with phenomena or facts of experience by inductive methods, is an empirical science.

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REVIEWS OF BOOKS.

La logique de Leibniz d'après des documents inédits. Par LOUIS COUTURAT. Paris, Alcan, 1901. — pp. xiv, 608.

The body of this work (pp. 1-441) consists of a short critical Conclusion (pp. 431-441), preceded by nine expository chapters dealing with the following subjects: (1) The Syllogistic, (2) the 'Combinatoria,' (3) the Universal Language, (4) the Universal Characteristic, (5) the Encyclopædia, (6) the 'General Science,' (7) the Universal Mathematics, (8) the Logical Calculus, (9) the Geometrical Calculus. Then follow (pp. 443-538) five Appendices: (1) Abstract of the Classical Logic, (2) Leibniz and Hobbes, their Logic, their Nominalism, (3) Some Mathematical Discoveries of Leibniz, connected with the Combinatoria and the Characteristic, (4) On Leibniz as Founder of Academies, (5) On the Geometrical Calculus of Grassmann. The work closes (pp. 539-608) with twenty notes, a table of bibliographical abbreviations, a table of correspondence between the editions of Gerhardt and Erdmann, indexes, etc.

The book is, from every point of view, a noteworthy one. It is the product of an author who is at once — a rare combination — a trained mathematician, logician, and philosopher. It is the result of laborious and scholarly research, including a careful study of many important unpublished writings of Leibniz, neglected even by Gerhardt. Out of a great wealth of material all pertinent facts have been seized upon, admirably marshalled without apparent distortion or undue emphasis, and the whole presented in a charmingly lucid style. And finally, the conclusions reached are revolutionary; if accepted, the traditional interpretation of much of the contents of Leibniz's philosophy and the usual account of its evolution must be discarded.

The book originated in an attempt to make a study of Leibniz as a precursor of modern Symbolical Logic, to analyze his Logical Calculus and his Geometrical Calculus, and to reconstruct the conception of his Universal Characteristic. In carrying out this design, M. Couturat was led to examine the unpublished writings of Leibniz contained in the library at Hanover, being greatly aided in doing so by Herr Bodemann's catalogue. He found that the various editors of Leibniz's works, such as Raspe, Erdmann, and even Gerhardt, had particularly neglected in their editions the logical writings; that, for one manuscript on logic which they had published, they had left a score of

others, just as important and as finished, if not more so, unpublished ; and, what is most remarkable, nearly all the dated manuscripts. M. Couturat's explanation of this astonishing fact is doubtless the true one, viz., that Leibniz's editors did not understand these fragments on logic and were unable to appreciate their value.

The revolutionary conclusion to which the author comes (pp. vii f. ; 431 f.), the central and essential outcome of the work before us, is that above all things else and throughout his life Leibniz was a logician, and his logic was the real foundation of his whole system. His philosophy reposes solely upon the principles of his logic and proceeds entirely from them. His logic is at once the source, the center, and the connecting bond of his metaphysical speculations and of his mathematical discoveries. Both the *Monadology* and the *Infinitesimal Calculus* rest upon and flow from it. Thus, according to M. Couturat, Leibniz's logic was not only the heart and soul of his system, but the center of all his intellectual activity and the source of all his discoveries, "le foyer obscur, ou du moins caché, d'où jaillirent tant de lumineuses 'fulgurations'" (p. xii).

The work, however, is not a piece of special pleading ; far otherwise. The revolutionary conclusion to which it comes as to the capital place which Leibniz's logic occupies in his system, was, we are told, neither sought by the author nor even foreseen by him ; it was forced upon him almost in spite of himself. The calm and unprejudiced manner in which the body of the book is written fully bears out this statement. The work is characterized throughout by an absence of all apparent special pleading, and of any detailed criticism. It is preëminently, what its author calls it, a *purely historical work* (p. 431), a calm exposition of what he believes he finds in Leibniz's own writings, supported by copious references to, and quotations from, the unpublished manuscripts as well as from the published writings.

M. Couturat's book, however, apart from the importance of the conclusions to which it comes regarding the relation of Leibniz's logic to the rest of his system, is of great value on account of the full account it gives of Leibniz's various logical labors, of their historical development, and of their connection one with another. All students of Leibniz have known that he was interested, especially in his youth, in schemes for improving logic, and in schemes for a sort of universal language. Expositors and critics of his philosophy have, however, usually regarded schemes of the latter sort as quite visionary, and have given little attention to them. Credit has always, however, been given to Leibniz for a certain amount of valuable work in logic. The

law of sufficient reason ; the criteria for determining the quality of terms — their clearness, distinctness, and adequacy ; certain forms of immediate inference, such as the inversion of relations and inferences from added determinants ; certain imperfectly understood suggestions toward a Symbolical Logic, and the like, have usually been given as the sum of his logical achievements. But it is safe to say that heretofore his real aims, the extent of his interests, and his actual achievements in logic have never been fully understood or properly appreciated. In M. Couturat's book we have the first adequate account of them. In spite of the fact that many of these labors were abortive, there is a large amount of successful work and a wealth of fruitful suggestion ; and M. Couturat's book cannot fail to give one a fresh and vivid impression of Leibniz's genius and of his astonishing versatility.

In his first chapter, M. Couturat gives a brief account of Leibniz's views of the traditional logic of Aristotle and the Schoolmen, especially of the syllogism and of his suggestions towards its improvement. Attention is called at the outset to the well-known passage in the *Nouveaux essais* (IV, xvii, 4) in which Leibniz declares that the form of the syllogism is one of the most beautiful and most considerable discoveries of the human mind, and that it is a *sort of universal mathematics*. Leibniz, it is shown (p. 4), reduced propositions as to quantity from the traditional four to the now accepted two ; he adopted (p. 8) the ingenious method, suggested by Ramus and Thomasius and now known as *reductio ad absurdum*, of re-reducing the modes of the last three figures to the first ; he demonstrated (p. 49 f.) syllogistically subalternation and conversion ; he vigorously defended the fourth figure against its critics ; he anticipated (pp. 21, 25) Euler in the use of circles by which to represent the meaning of propositions, and also invented a more ingenious and more perfect linear symbolism. He appears, however, to have constantly oscillated between the intensive and the extensive interpretation of propositions, while showing a marked predilection, although apparently more instinctive than reasoned, for the former.

In Chapter II, we have an account of Leibniz's youthful production, published in his twentieth year (1666), *Dissertatio de arte combinatoria*, and of its relations to his later projects. In this essay Leibniz held (p. 49) that all complex concepts or ideas can be resolved into simple ones, by an analysis analogous to the resolution of numbers into their prime factors ; and, conversely, that all complex ideas can be obtained and composed by the progressive combination of these simple ones. The simple concepts or ideas, the constitutive elements of all

the others, are few in number, and to each of them a name or sign should be assigned, and thus the *alphabet of human thoughts* would be formed. Here, according to M. Couturat (p. 431), we have the two fundamental postulates of Leibniz's logic, *viz.*: "(1) All our ideas are composed of a very small number of simple ideas, which together form the *alphabet of human thoughts*; (2) Complex ideas proceed from these simple ideas by a uniform and symmetrical combination analogous to arithmetical multiplication." Both of these postulates are declared (pp. 431, 432) by M. Couturat to be false; but nevertheless the importance of the *De arte combinatoria* in the evolution of Leibniz's thinking and in the formation of his logic can hardly be overestimated, for the *Combinatoria* translated the combinations of simple ideas by the help of the signs or characters which symbolize them; and thus we are led to construct a Universal Characteristic; and from that we are led to form a Symbolical Logic which will substitute for ideas the combination of signs or characters, for propositions the relations between these symbols, and for inference a sort of calculus, and thus furnish a universal and infallible method for demonstrating known propositions and for discovering from them new ones. Leibniz himself later refers to the *Combinatoria* as the prelude and the anticipation of his further discoveries; and he seems to have held to the end of his life that its basis was sound. M. Couturat finds (p. 49, note) among the unpublished manuscripts of Leibniz two later plans for a new *De arte combinatoria*, from which it appears that the conception in its details underwent considerable modification in the mind of Leibniz.

Chapter III deals with Leibniz's various projects for a universal spoken or written language, the form under which he at first conceived his Characteristic. He seems to have been quite familiar with the different contemporary projects of Becker, Kircher, and others. These projects hardly deserve to be called schemes for a universal language, resembling as they do more nearly modern diplomatic ciphers or telegraphic codes, and resting on no logical and philosophical basis. The ambiguity of terms, giving a term several meanings in each language; the lack of exact synonyms, rendering exact correspondence between the words of two languages impossible; the diversities of syntax, rendering literal translations often unintelligible, make these earlier projects impracticable. At the age of twenty, Leibniz conceived a plan of a universal language which should be truly philosophical and rest upon a logical basis; *viz.*, a complete analysis of concepts or ideas and their reduction to simple ones, each simple term to be represented by as natural and simple a sign or character as possible. In this way

Leibniz would form a sort of ideographic alphabet composed of as many symbols as there are elementary ideas. In a word, the scheme was for an *ideography*, rather than for a *stenography*. Stimulated more or less by the projects of Wilkins and Dalgarno, Leibniz labored to develop and to perfect his project. A *real* Characteristic is for him an *ideography*, that is, a system of signs immediately representing things (or rather ideas), and not words; so that the people of each nation could read them and translate them into their own language (p. 61). Leibniz came, however, to see that the problem was less simple than he had at first supposed; and, in prosecuting it further, he adopted an *a posteriori* method. He took the living languages as his point of departure, and by a logical analysis undertook to derive from them, on the one hand, the simple ideas, and, on the other hand, a rational or philosophical grammar. He began working on a rational grammar as early as April, 1678; and primarily applied it to the Latin as a basis or intermediary. All exceptions and inflections, and all distinctions of number and gender, were eliminated. He rejected the Aristotelian view that the office of the verb is to express time. He held that the noun expresses an idea; the verb a proposition (affirmation or negation). All speech is finally (p. 70) reduced to "the one noun *ens*, to the one verb *est*, to adjectives (expressing qualities), and to particles which serve to connect all the preceding words and to indicate their relations." He attempts even to carry further the analysis of particles (pp. 71 f.). These studies in comparative philology and grammatical analysis all had a logical aim. In the *Nouveaux essais* (III, vii, 6) he writes: "I truly believe that language is the best mirror of the human mind, and that an exact analysis of the meaning of words would reveal better than anything else the workings of the understanding." Such a grammatical analysis reveals primitive logical relations (p. 76) and enables us to demonstrate certain 'asyllogistic' inferences (p. 75), such as the inversion of relations, *e. g.*, Peter resembles Paul, therefore Paul resembles Peter. The ideal, indeed, of the universal language is to express concepts by characters which will make manifest both their composition and their relations (p. 75).

In order to constitute the *alphabet of human thoughts*, which is to serve as the basis of the universal language, there is need of an inventory of human knowledge, a demonstrative encyclopædia; and at the same time that our primitive concepts are enumerated and classed, they must be represented by appropriate characters, and signs must be invented to express their combinations and their relations — the work of the Universal Characteristic (p. 79). Thus the true universal, or

rather philosophical, language presupposes the Encyclopædia and the Characteristic; and these two must be elaborated together, for the one involves the other (p. 80). In considering them, however, we may begin with the Characteristic (Ch. IV).

Leibniz understands, as we have seen, by *real* characters, signs which directly represent, not words, letters, or syllables, but things, or rather ideas. Among these signs he recognizes an important difference; some represent ideas only, others assist in reasoning. Egyptian and Chinese hieroglyphics, and the astronomical and chemical symbols, are examples of the first class; arithmetical marks and algebraic signs, of the second. Characters of the latter sort — to aid reasoning — are what Leibniz wanted for his Characteristic. Hence he regarded arithmetic and algebra as samples of his Characteristic, and as proofs of its possibility and value. The capital advantage which he attributed to his Characteristic was that it would reduce all human reasoning to a sort of calculus (p. 84 n.), enabling us to reason by a calculus analogous to those of arithmetic and algebra. Mathematics owes its progress, according to Leibniz, to the fact that it possesses suitable symbols in its arithmetical and geometrical signs; and his own progress in mathematics he himself attributed to the fact that he had succeeded in finding appropriate symbols with which to represent quantities and their relations (p. 84). His discovery of the Infinitesimal Calculus grew out of his constant search for new symbolism (pp. 84, 87), and in turn contributed much to confirm him in his estimate of the great importance of a good characteristic for the deductive sciences (p. 84). The conditions of a good characteristic (pp. 87–89), if realized, would, he thinks, give us a logical calculus which would be superior to the Cartesian method, and would be the real geometrical method sought for in vain by Descartes and Spinoza. Among the many uses of the Characteristic, Leibniz boasts especially that it would put an end to disputes and the interminable discussions of the schools (p. 97); he speaks of it, in fact, as “un juge des controverses veritablement infallible” (p. 98 n.). To settle a question, philosophical or otherwise, or end a controversy, future disputants would only need to take their pens, call in a friend to act as umpire, and say ‘*Calculemus!*’ (p. 98). His Characteristic was to be applicable to all domains of knowledge, prevent error, discover truth, be the *organon* or instrument of reason, and, in fact, be an actual substitute for reasoning (p. 101). Leibniz by turns employed various schemes of symbols, arithmetical, algebraical, geometrical, and even mechanical. These he seems to have admitted as parallel and equivalent systems (p. 116).

In addition to the difficulty of settling upon a definitive symbolism, the realization of Leibniz's great project for the Universal Characteristic was retarded, he himself tells us, by the fact that it presupposed the elaboration of the Encyclopædia, or at least a collection of logical definitions of all the fundamental concepts of the different sciences (p. 117).

In Chapter V, we have an interesting account of the various projects for an Encyclopædia which Leibniz entertained during the course of his career, and of the reasons why his far-reaching enterprise failed of realization. This Encyclopædia was to have been Leibniz's great philosophical and scientific work. It was to have been (p. 119) "an abstract or summary of all human knowledge, historical and scientific, arranged in a logical order and following a demonstrative method, commencing with definitions of all the simple and primitive terms (those forming the *alphabet of human thoughts*)." As a result, all the sciences would assume the deductive type (pp. 152, 154), and all of them would rest upon a small number of principles or hypotheses (p. 152). They would also "be abridged in being augmented" (p. 152). The very earliest essays of Leibniz relating to this project for an encyclopædia reveal the fact that he was even then deeply interested in all orders of knowledge with a curiosity truly universal, and that he aimed to introduce into all the sciences, even the moral and practical sciences, the logical clearness and the demonstrative force which he thought he found in mathematics. At one time he plans to found a Bibliographical Review which should give an account of all new books; at another, he conceives of a sort of portable library, an *Opus Photianum* (p. 123), giving the substance of all literature; at another, he plans the correction and completion of the *Encyclopædia* of Alsted, which had appeared about 1671. In 1676 he aims to found a scientific society which should enlist men of learning generally in advancing the sciences; the outcome of their joint labors would be the Encyclopædia. An *Imperial German Society*, under the patronage of the Emperor, is also outlined (p. 127); and until the very end of his life Leibniz labored without ceasing on an astonishing number of similar projects (see the interesting Appendix IV, "Leibniz as Founder of Academies"), turning now to this, now to that sovereign, and to individual scholars and to the learned generally, for help in realizing them. And in all these projects he never lost sight of his scheme for the Encyclopædia. In this connection, also, he occupied himself throughout life in finding or collecting *definitions* of all sorts, attaching great value and logical importance to good definitions. He

speaks of having "quantité de définitions" (p. 169), especially in logic, in metaphysics, and in ethics. Numerous long tables of definitions, five of especial importance (p. 170), are found among his manuscripts.

This vast project of an Encyclopædia, cherished through a long life, was never realized. Leibnitz himself gives (p. 175) two reasons for this — lack of collaborators, and lack of time.

The elaboration of the Encyclopædia presupposes a *Scientia generalis*, that is to say, a universal method applicable to all the sciences. This general science, to which M. Couturat devotes over one hundred pages (Ch. VI), constituted the whole of Leibniz's logic. Logic, in the most comprehensive sense, consists, according to Leibniz, of two parts. The first is the art of judgment and proof, is the method of certainty, and serves to demonstrate truths already discovered and to verify doubtful or contested propositions. It proceeds from principles to consequences, from causes to effects; is progressive and synthetic. The second is the art of discovery; aims to discover new truths by a sure and nearly infallible method and in a systematic order. It proceeds from consequences to the principles required, from known effects to unknown causes; is regressive and analytic. The two parts thus resemble synthesis and analysis in geometry. Later, however, Leibniz came to see that analysis and synthesis are alike employed both in demonstration and in discovery and together form but one method. The real difference, therefore, between the two parts of logic is found rather in the purpose with which the one method is employed, and in the purely subjective fact that the truth to be established is in the one case known and in the other case unknown.

The *Scientia generalis* is thus a generalization of the method of mathematics (p. 179). Analysis consists in decomposing all concepts into their simple elements by means of definition; synthesis consists in reconstructing them by means of the art of combination. Thus the *De arte combinatoria* is the germ and principle of this logic and furnishes the key to this double process of analysis and of synthesis. But fortunately analysis need not be carried on indefinitely; for "the analysis of a truth is finished when its demonstration is found, and it is not always necessary to finish the analysis of the subject or predicate of a proposition in order to find its demonstration" (p. 183).

At first Leibniz affirmed that demonstration is nothing but a chain of definitions. Hence all axioms ought to be demonstrable. But the certainty of axioms does not come from experience, for induction

could never justify a universal and necessary proposition (p. 185). Hence it rests upon the principle of identity or contradiction, the sole *a priori* principle that Leibniz recognizes. He boldly declares (p. 185) that all truths must be capable of demonstration, except *identical* propositions (those reducible to the principle of identity) and empirical propositions (those known by experience). All truths are first reduced to definitions, identical propositions, and empirical propositions; and finally to definitions and the principle of identity. All demonstration rests upon definitions and the axiom of identity (pp. 184 f., 203 f.).

The necessity belonging to axioms is found in the principle of contradiction or identity. The necessary is that whose contrary implies contradiction, "*qui est verus atque unicus character impossibilitatis*" (p. 187). Axioms are proved *by means* of definitions, but their truth does not rest upon the definitions but upon the principle of identity (p. 187). In contrast with the nominalism of Hobbes, Leibniz established a difference between nominal and real definitions which is of capital importance in his theory of knowledge. Only those definitions are *real* which make manifest the *possibility* of the thing defined, *i. e.*, the absence of all inner contradiction in the concept. Hence a real definition is not arbitrary (as with Hobbes), for it conforms to a true 'essence,' a possible 'nature' which does not depend upon us. Leibniz, therefore, rejects the scholastic rule for definition and substitutes for it one which may be formulated mathematically thus: "The definition ought to comprise the conditions necessary and sufficient to demonstrate all the properties of the object defined." This whole theory of definition starts from the *De arte combinatoria*; for to reach a perfect definition of a notion the analysis of the notion must be complete. When the notion has been resolved into its elements, the slightest contradiction becomes apparent and destroys the concept; hence an *adequate* notion is necessarily a true one, for all simple ideas are compatible among themselves. Leibniz's famous critique of the ontological argument, of so much consequence in his metaphysics, proceeds directly from these logical theories (pp. 195, 196, and note). His theory of definition is also of capital importance in his theory of knowledge, as expounded in his *Meditationes de cognitione, veritate, et ideis*, with its doctrine of clear, distinct, and adequate ideas. The complete analysis of truths and notions is indeed the ideal goal of science (p. 200). Its realization would establish the unity of science and furnish a rational basis and justification of the special sciences. The demonstration of axioms (other than the principle of identity)

would contribute to this end ; but, more important still, it would contribute toward the completion of the analysis of ideas and the discovery of the truly primary notions needed for the composition of the *alphabet of human thoughts* (p. 200). The insufficiency of the Cartesian rules of method, according to Leibniz, is due to the fact that they are psychological precepts, not logical ones, and consequently have a subjective rather than an objective reference (p. 202). The sole remedy for our errors is to be found in a good logic.

As all demonstration consists in substituting the definition for the thing defined, that is to say, in replacing a complex term by its equivalent group of more simple terms, the essential basis of deduction is *the principle of the substitution of equivalents*. This, and not the *Dic-tum de omni et nullo* of Aristotle, is the supreme and only principle of logic. Thus Leibniz anticipated Jevons's doctrine, "*The Substitution of Similars the true Principle of Reasoning*" (p. 206).

Not only all necessary truths, but all propositions whatsoever are analytic. In every true proposition the predicate is contained in the subject (pp. 208 f., and notes). "In saying," wrote Leibniz in 1668, "that the notion of Adam contains all that will ever happen to him, I am saying only what all philosophers understand in saying *prædicatum inesse subjecto veræ propositionis*." "That logical thesis," declares M. Couturat (p. 209 n.), "is the foundation of the whole of Leibniz's metaphysics." But if all propositions are thus analytic, what becomes of Leibniz's distinction between truths of reason (necessary truths) and truths of fact (contingent truths)? Are not the latter just as necessary as the former? The answer which Leibniz makes is that truths of fact are probable only *for us*, and because of our incomplete and merely approximate knowledge ; in themselves, like the truths of reason and on the same ground and in the same degree, they are absolutely certain, for like them they are analytic or virtually identical. Like them, too, they are evident *a priori*, at least to an infinite intelligence which can grasp all their constitutive conditions. Herein consists properly the *principle of sufficient reason*, which Leibniz seems to have stated as early as 1670 (p. 214). The exact logical meaning of that famous principle, ordinarily stated as "Nothing is or happens without a reason," is "All truths are analytic," or "In every true proposition the notion of the predicate is contained in that of the subject" (pp. 214, 215). The principle is thus the converse of the principle of identity : "The principle of identity affirms that every identical proposition is true ; the principle of sufficient reason that every true proposition is analytic, that is, virtually identical" (p.

215). These two complementary principles are inseparable, and are equally valid for all sorts of truths, for "it may be said," Leibniz declares (p. 217), "in a way, that these two principles are contained in the definition of the True and the False." The principle of identity, however, may be regarded as applying more particularly to truths of reason, and the principle of sufficient reason as applying more particularly to truths of fact, which latter cannot be justified without it (p. 217).

The necessary for Leibniz being that the opposite of which involves a contradiction, there is for him no necessity but logical necessity, and no impossibility but the logically contradictory (p. 219). But although whatever is not in itself contradictory is possible, all possibles cannot be realized together, for they are not all *compossible*, *i. e.*, mutually compatible. "It is as yet unknown," he tells us (p. 219 n. 2), "whence the impossibility of different things springs, or what can make different essences to be opposed to each other, since all purely positive terms seem to be compatible." According to M. Couturat (pp. 219 n. 2, 432), Leibniz's difficulty here is to be attributed to his failure to take due account of logical *negation*. The principle of contradiction, Leibniz tells us, is the law of possibility or essence; the principle of reason, or of "the best," is the law of compossibility or existence. The principle of reason, purely logical in origin, thus assumes a metaphysical and theological character; and, applied to causality, a cosmological character. It enables us to find in God the 'first' or 'ultimate reason' of things. The laws of nature are contingent propositions depending upon the principle of reason, the free choice by God of 'the best.' By the principle of reason, as is well known, Leibniz rehabilitated the use of the principle of finality in physics. And his famous axioms, which play such a rôle in his physics and metaphysics, such as the axiom of symmetry, the principle of economy, the principle of the identity of indiscernibles, and the law of continuity, are (pp. 227 f.) but special applications of the principle of reason. Leibniz energetically and persistently affirms the perfect and absolute intelligibility of the world. For him things are hung on principles and have a logic running through them, are permeated by a sort of divine mathematics (p. 227); and God is "*avant tout le grand calculateur et l'éternel logicien*" (p. 237). "*Cum Deus calculat et cogitationem exercet, fit mundus*" (p. 227 n. 2).

Leibniz persistently deplored the absence of a satisfactory logic of probability, and himself made some valuable contributions towards

its realization (pp. 248 f.). The theory of probability was regarded by Leibniz (p. 249) as the natural complement of the logic of certainty. It forms, indeed, the essential part of the logic of discovery ; so much so that Leibniz in places substitutes the one for the other and gives as the two parts of logic the Logic of Certainty and the Logic of Probability, instead of the Logic of Certainty and the Logic of Discovery. The theory of probability plays an important rôle in the mathematical and rational sciences ; but it is especially applicable to the natural and experimental sciences (p. 255), being their proper method. The sciences of nature deal with truths of fact, and the laws of nature are contingent truths. These truths and laws are known *a posteriori* and by experience. Two important truths of fact are the basal experiences, primitive data of consciousness, *I think*, and *I think different things*. They both testify to the actual existence of things : the first, as Descartes showed, reveals our own existence ; the second, what Descartes failed to see, reveals the existence of an outer world (pp. 257, 258).

Leibniz's view of induction (pp. 261-271) is extremely interesting. Induction, as understood by empiricists, Leibniz condemns absolutely as insufficient and as even misleading (pp. 261, 262). It is unscientific and without logical value. In what, then, does the demonstration of a truth of fact, or of an empirical law, consist ? It consists in deducing it from a more general hypothetical law, which may serve as the principle of other empirical laws ; and in ascending thus progressively to laws more and more general, in such a way as to make all empirical laws depend upon the smallest possible number of principles or hypotheses. Thus the sciences of nature must be constructed upon the same deductive type as the rational sciences, and the method of the physical sciences be assimilated to that of mathematics ; the only difference being that in the one case we proceed regressively and analytically, and in the other progressively and synthetically (pp. 264, 265). In fine, abstract mathematics is the true logic of the natural sciences, and the only experimental method is deduction, direct or inverse (p. 271).

An hypothesis is the more probable, according to Leibniz, (1) the more simple it is ; (2) the greater the number of phenomena it explains with the smallest number of assumptions ; and (3) the more insight it gives us into new phenomena and the better it explains new experiences. The world of phenomena is a great cryptogram, the keys to which are the laws of nature ; such a law becomes more probable the greater the number of words and phrases it enables us to de-

cipher. Thus the experimental sciences employ deduction in its two forms, the logic of certainty and the logic of probability, or the Characteristic and the Calculus of Probabilities, which latter is the true inductive method (p. 274).

In Chapter VII, M. Couturat seeks to determine Leibniz's conception of universal mathematics and the relation which logic and mathematics held in his thought. Mathematics served Leibniz as the model for his logic and was its inspiration. Mathematics, as traditionally conceived, has as its subject-matter magnitude and number. Mathematics, as conceived by Leibniz, has for its subject-matter not only number and magnitude, but whatever in the domain of sensible intuition is susceptible of exact and precise determination; it is, according to his expression, the *logic of the imagination*. Now the objects of the imagination are quality (or form) as well as magnitude; as to magnitude, things are equal or unequal; as to quality, they are like or unlike. The consideration of likeness, then, is as general and as fundamental as that of equality and belongs as essentially to universal mathematics. Consequently universal mathematics embraces two principal branches. The one is the science of magnitude (or equality) and its relations and proportions; that is, the traditional mathematics, summed up in logistic. The other is the science of forms (or of likeness), of order and of position; that is, the Combinatoria (pp. 290, 291). Mathematics in the traditional sense, *i. e.*, logistic or mathematical analysis, is subordinate to the Combinatoria, and the latter to logic itself (p. 299). Leibniz, therefore, long before modern discoveries and progress had revealed the fact, perceived that there is a universal mathematics, from which all the special mathematical sciences derive their most general principles and theorems, and that this universal mathematics is identical with logic itself, or at least is an integral part of it (p. 317). Universal mathematics is then the general science of relations (p. 317); but as a true formal logic is the science of all the general laws and forms of thought, the two coincide. Thus Leibniz conceived his logic as a mathematics of thought, or, as he expressed it, a "Universal Algebra"; something which has been realized by Whitehead in his *Treatise on Universal Algebra* (pp. 319, 320).

Side by side with the traditional algebra, which is nothing but the logic of number and magnitude, based on the single relation of equality, Leibniz conceived other algebras based on relations of congruence, similarity, etc. M. Couturat points out (p. 437) that Leibniz had "all the elements, or at least the materials of a Logic of

Relatives''; and that (p. 303) he may justly be considered as the precursor of the Logic of Relatives as developed in more recent times by De Morgan, C. S. Peirce, and Schröder.

Of all the theoretically possible algebras included in universal mathematics, Leibniz attempted but two: the logical calculus, which consists in the theory of identity and inclusion, and is applicable to both logic and geometry; and a geometrical calculus, immediately applicable to the study of spatial relations and embracing principally the theories of congruence and likeness (p. 321). Both proceed from the idea of the characteristic and are but two applications of it (p. 321).

In Chapter VIII, M. Couturat gives us an extremely interesting account of Leibniz's various labors in the province of symbolic logic (the logical calculus or algebra of logic). He shows that Leibniz occupied himself with this subject principally at three periods, 1679, 1686, 1690; from each of which we have a series of essays which taken together show that Leibniz was in possession of nearly all of the principles of the Algebra of Logic of Boole, Peirce, and Schröder, and on certain points was in advance of Boole himself (p. 386). He formulated the law, not only like Boole for logical multiplication, but also like Jevons for logical addition (p. 344). The important idea which constitutes perhaps Boole's finest discovery, Leibniz had clearly grasped as early as 1686; viz., the perfect analogy between categorical propositions and hypothetical ones, or, as Leibniz said, between incomplex terms and complex ones, that is, between concepts and propositions (p. 354). Leibniz had a more or less accurate idea not only of logical multiplication, addition, and negation, but also of logical subtraction and division. He knew the fundamental relations of the two copulas. He had found the true algebraical expression of the four classical propositions under their two principal forms. He had discovered the principal laws of the logical calculus, notably the rules of composition and of decomposition. Finally, he had a very clear conception of the double interpretation of which the logical calculus is susceptible, according as the terms represent concepts or propositions (p. 386). Why then, it may be asked, did Leibniz not succeed in definitively constructing the Algebra of Logic? M. Couturat finds the answer in Leibniz's preference for the intensive rather than the extensive view (pp. 386, 387), while the Algebra of Logic can only be based on the latter. That Leibniz failed to see this is, he thinks (p. 362), astonishing; for Leibniz clearly comprehended the difference between the two views, and, in a fragment of 1690,

accurately defined and contrasted them, and even enunciated the law according to which extension varies inversely with intension (p. 362).

The final chapter (IX) deals with Leibniz's geometrical calculus, in which he attempts to free geometry from the consideration of magnitude, and, by an analysis of position (*Analysis situs*), express position directly (pp. 406, 427). What he succeeded in producing, however, was but a system of bipolar and tripolar coördinates (p. 428); and his lack of success was due to his failure to free himself from metrical considerations (pp. 412, 428, 438). That his idea of the geometrical calculus was, nevertheless, neither chimerical nor sterile, as so many philosophers and mathematicians have held, is shown, M. Couturat thinks, by the fact that Grassmann in his *Ausdehnungslehre* (1844) has successfully built upon Leibniz's foundations. As Boole rediscovered and realized one part, so Grassmann did another part of Leibniz's Universal Characteristic, and the two have revealed the fact that Leibniz's most daring conceptions were no idle dreams, but prophetic intuitions, anticipating by nearly two centuries the progress of science and of the human mind.

The brief Conclusion (pp. 431-441) brings together the more important intrinsic difficulties and defects in Leibniz's logical labors, which the exposition in the body of the book reveals, and declares that, however powerful and original Leibniz's mind may have been, he was in no sense the *autodidact* that he boasted of being; and that his great erudition and his reverence for the authority of Aristotle in logic and Euclid in mathematics, from whose influence he never fully freed himself, were the fundamental causes of his failure successfully to perfect himself in his logical calculus and his geometrical calculus. "It will never," remarks M. Couturat (p. 440), "be known how much such overperfect works as Aristotle's *Organon* and Euclid's *Elements* have cost the human mind, nor how many centuries they have retarded the progress of the sciences by discouraging innovators through their appearance of definitiveness."

This is not the place to discuss the merits of Leibniz's logical labors. As for M. Couturat's work, the scholarship and temper displayed throughout this book are worthy of the highest admiration; in these respects, it is a model of what such a book should be. Furthermore, the book is a contribution of the very greatest importance toward the correct understanding and the evaluation of Leibniz's philosophy. Certain it is that no one hereafter who undertakes to discuss the philosophy of Leibniz can ignore it. M. Couturat has conclusively proved that Leibniz's logical labors were far more extensive and in-

trinsically significant, and far more influential in shaping Leibniz's thought as a philosopher, mathematician, and theologian than has been hitherto realized; and he has given us a most full and able account of what these labors were in all their aspects. While greatly impressed with the strength of the evidence which the book also presents in support of the conclusion that Leibniz's logic was the real foundation and center of his whole system, the present reviewer is not prepared, without further investigation and an examination of the logical writings of Leibniz, published by M. Couturat since the appearance of this book, to regard that conclusion as fully established. In the case of a universal genius like Leibniz, it is easy to make out a strong case for this or that interest as being primary and central; for example, it would not be difficult to make out a plausible case (cf. p. 165, n. 2) in support of the view that Leibniz was primarily a theologian and that his logical and his mathematical labors alike were but auxiliary to his theology. This is said not to disparage the evidence adduced by M. Couturat in support of his revolutionary conclusion, but to lead to its being soberly weighed.

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Mind in Evolution. By L. T. HOBHOUSE. London, Macmillan & Co.; New York, The Macmillan Co., 1901.—pp. xv, 415.

The book has several claims to consideration: first, it is a fairly comprehensive review of the literature and status of comparative psychology. Mr. Hobhouse has made use of many authorities—even the most recent. Yet there are very singular omissions: for example, it is singular that James's name should not occur in a book which discusses instinct, habit, the limits and methods of acquisition, etc.

Second, it contains new experimental and critical matter. Mr. Hobhouse has endeavored to conduct experiments on animals (including monkeys) under conditions which more nearly fulfill the normal ones than many heretofore carried out (*e. g.*, Thorndike's). In this he is fairly successful, and his effective criticism of Thorndike, for example, is supported by experimental results. At the same time, the 'naturalness' of the conditions is certain to be criticised by the extreme advocates of exactness. The present reviewer's opinion, however, is on the side of Hobhouse and Mills—that artificiality in such experiments is the extreme to be avoided. Better 'natural history' observation in such a complex thing as an animal's learning processes, than an artificial exactness which paralyzes the learning process or ren-

ders it to any extent incompetent ; for that is just the matter to be interpreted — the relative normal “incompetence” of the creature in comparison with man. Certain positive results of Mr. Hobhouse’s investigations are noted below.

Third, the author discusses evolution. This is the least valuable feature — except the next noted — of the book. The attempt to construe evolution under general descriptive formulations is bound to be merely verbal, as Mr. Spencer demonstrated long ago. Such formulations are interesting from the point of view of general philosophy — as, for example, Mr. Spencer’s definition of life. Mr. Hobhouse’s formulation is thus interesting. It emphasizes the gradually increasing dominance of mind in evolution. But, except in so far as it aids in the further interpretation of facts — and it is hard to see how it can — the interest terminates there. Furthermore, it shows the dominance of the philosophical preconception of Mr. Hobhouse in the way indicated in the next paragraph.

Fourth, mental development (and evolution) is construed under a logical formula or analogy. An implicit inferential process is discovered in the simplest mental functions — especially those of adjustment and accommodation — and mental progress is looked for and recognized as the development of such assumed process into explicit logical function. All this is to the writer so much confusion, psychologist’s fallacy, and irrelevancy. It is hard to see the motive for it, except the interests of an idealistic epistemology. It is further a distinct confusion of the psychic (agent’s) and objective (spectator’s) points of view. The book would be greatly strengthened as a contribution to scientific psychology were this strain of logicism expunged.

So far the general features of Mr. Hobhouse’s book ; for details the reader may consult discussions of it which have already appeared (*e. g.* in the *Psychological Review*, 1902, p. 508). As to the net result, the present writer is interested in the following :

1. The theory of what Mr. Hobhouse calls “practical judgment” in animals, and his evidence in support of it. By “practical judgment” he means a stage in the animal’s accomplishment at which he seems to be able to use items of earlier experience somewhat out of their original setting, for practical purposes, that is, for the purpose of relatively new adjustments.¹ I think he is fairly successful in establishing such a function. It indicates — if finally made out — a stage in the growth of experience between association proper and the use of

¹ Thus stated in my own words ; I find Mr. Hobhouse’s many versions of it not entirely consistent with one another, nor always clear.

'generals,' inasmuch as it allows the play of relatively 'free' ideas in the realm of action.

2. The outcome in the matter of animal imitation. Here the extreme negative conclusions of Thorndike are fairly overthrown. It is shown, I think conclusively, that animals do imitate one another; the question being only when and where. I think it is a fair interpretation of Hobhouse's observations, taken with earlier ones, to say that such imitations are *mainly*, at any rate, and below the monkeys, in the line of the normal activities of the species; and that in all other cases of imitative acquisition the function is along the line of somewhat facile or already partially acquired function. This is consistent with the principle of "kinesthetic equivalents" now pretty well established for action in general. Even the human imitator can only do imitatively *things that he can do* — that is, for which he has some kinesthetic equivalents derived from former action.¹

There are many other points of interest which it would be profitable to discuss. On the whole, it is safe to say that Mr. Hobhouse has produced an interesting and valuable book on comparative psychology.

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Agnosticism. By ROBERT FLINT. New York, Charles Scribner's Sons, 1903. — pp. xviii, 664.

Professor Flint of Edinburgh has written so much on matters connected with Natural Theology, and his work has been so widely read and commented on, that one cannot expect a book from his pen to bring to the fore any philosophical or theological views with which his readers are not already familiar. What he writes always shows range of reading, historical perspective, deliberate judgment, and an unusual familiarity with French literature, which in the matter of his last work stands him in especially good stead. He has, moreover, a way of selecting illustrative material from comparatively unknown authors which is saved from pedantry by its fine appositeness, and which serves to both clarify his theme and inform his reader. Then, too, he knows how to write English that can be understood, and his views are frankly expressed. These characteristics, together with his common sense Scotch philosophy, have secured him a wide audience, and they are all manifest in his latest work on Agnosticism.

Still, the book will not be read as it would have been a quarter of

¹ Cf. Bair's research on the acquisition of the power to move the ear, *Psych. Review*, 1901, 474.

a century ago. It is characteristically a nineteenth century work. Writers of current literature are quite right in insisting that the turn of the century meant more than buying a new desk calendar. There is a mood of thought in theology, philosophy, natural science, that the new century has already stamped as its own. Men may not be very sure just what it is, but they are certain that it is not the thought of yesterday; and they are right. Reading this book in the dawn of the twentieth century, instead of the evening of the nineteenth, things appear somehow out of perspective. The shadows are on the wrong side of the trees and the sunlight touches the twigs that ought to be in the shade. In fact, it almost convinces one that Darwin was wrong and that species are immutable. The book represents that peculiar British temper which, possessed by both parties to the dispute, made possible in England, as in no other land, a Deistic controversy and an Agnostic debate, and at the same time made it certain how both would eventuate.

It is the spirit of Locke speaking. Not Locke's sensationalism; but his insistency on the necessity of the intellectual basis of religion. When Dr. Flint says, in respect to religious belief, "evidence should be the measure of assent. Assent should be in proportion to evidence" (p. 513), he is enunciating the common platform of the Deist of the eighteenth century and the natural theologian of the nineteenth. It is the temper of Locke, too, that appears in the author's fair, candid, self-respecting treatment of his adversaries no less than in his restrained positiveness and acute clarity in supporting his own views. If it had been published when it was first projected, the book would have proved largely serviceable to both philosophy and theology. For here is a man who can hold that there is truth in Agnosticism, but who can at the same time make it perfectly clear that Agnosticism is not true.

The main contention of Dr. Flint is the perfectly sound one that, as a philosophy, Agnosticism can be made to work only by a suicidal inconsistency. Or, to use the author's felicitous phrase, it is a "scepticism mitigated by dogmatism." Now this criticism of Agnosticism holds unquestionably. In the specialized form in which Dr. Flint presents it, it lacks timeliness. It was a number of years ago when President Schurman observed that the farce of nescience playing at omniscience was about played out; and it is just as true when Professor Flint characterizes the same philosophy as "a kind of omniscient nescience": the only trouble is, it is a bit late. Such criticism seems ungracious, especially in view of the fact that there is room

in our literature for a critical and historical treatise on Agnosticism from the author's philosophical point of view, which should be standard for reference. Such this book of Dr. Flint's might have been, and is not. It is rather a sort of posthumous product of the debate than an historico-critical evaluation of the philosophical system discussed. This is the more the pity, for the author's scholarship, temper, and acumen fit him for the larger task. In fact, the book seems less like a unified whole than like the effort of a trained writer to edit his own literary remains. There is no dearth of excellent material, there is an abundance, not to say a surfeit, of just criticism of particular authors, there is much of sagacious well-turned observation. It would be difficult to find a shrewder estimate of the popular deification of Science, spelled with a very large capital letter, than is given by the author when he says: Physical science "is spoken of as if it were alone science, and as if there were hardly any other knowledge properly so called. That is to ascribe to it a most exaggerated value and authority, and should be treated as what it is, a mischievous modern form of superstition" (p. 342). But the trouble with the book is that it is put together with a soldering iron instead of a welding hammer.

The main outline of the book is excellent — Introduction, definitions, history, classification of forms of Agnosticism, discussion of successive forms; but the arrangement of matter under the divisions is disproportionate, often repetitious, and sometimes almost contradictory. To cite only a couple of instances. Under the general head of "History of Agnosticism," about twelve pages are devoted to a critical history of Post-Socratic and Roman Agnosticism, and two hundred pages later, under the head of "Mitigated Agnosticism," as many pages are devoted to Pyrrhonism; and the discussion is presented in substantially the same historic spirit as in the earlier treatment. Similarly we find substantially the same phases of Hume's philosophy treated in the same spirit in a number of different places. Again, in respect to classification of Agnosticism, Dr. Flint seems to have wavered in position. The criticism here is not as to the abstract excellence of the classification employed so much as to the author's consistency in the use of that adopted. On page 243 we read: "For the ends which the present writer has in view the most suitable classification of the incomplete or partial forms of Agnosticism will be into non-religious, anti-religious, and religious. It is chiefly with anti-religious and religious agnosticism that he is in this work concerned. On non-religious partial agnosticism it will be unnecessary for him to say more than suffices to indicate its bearings on the agnosticism

which deals adversely or favourably with religion." On page 310 he makes a more formal classification of Agnosticism into (A) Agnosticism having special reference to religion, which he subdivides into two kinds—that supporting and that opposing religion; and (B) Agnosticism having no special reference to religion. Division 4 under this latter head is "Agnosticism as to Ultimate Objects of Knowledge," the third of which is God. The introductory sentence to the chapter on "Agnosticism as to Religion" reads as follows: "It is now necessary to treat exclusively of the agnosticism which has a direct and special reference to the third great ultimate object of human thought, namely, God." This, in accordance with the above classification, makes the discussion of agnosticism as to religion an elaboration of one division of what he has denominated Agnosticism having no special reference to religion.

The main trend of Dr. Flint's thought is much more consistent than his classification. Holding that the intellectual ascent to theism is an essential element of religion, or at least of Christianity, agnosticism as to God could not be non-religious; it must be anti-religious. The confusion in presentation arises presumably from his writing his chapter on classification with one purpose and his chapter on agnosticism in religion with another, and then soldering them together without waiting to bring them into consistency.

Defects of this kind are of wearisome frequency throughout the book. They are probably to be explained by a glance at the palæontology of the volume. As long ago as 1879 the author wrote in the preface to his *Anti-theistic Theories* that he had "long cherished the hope of publishing a work on agnosticism." Eight years later his occupancy of the Croall Lectureship provided him with the opportunity of so doing. Possibly it was the psychological effect of "hope long deferred" that made him postpone for fifteen years longer the publication of these lectures. It appears as if the author, in the meantime, had not abandoned his purpose, and had written from time to time, under the stimulus of fresh literature, such observations as came to him on the general theme. Finally, the lectures and this new material were brought together by a process of agglutination, an extract from his article on "Theism" in the *Britannica* was tacked on, and the whole put between covers to constitute the volume under review. If a full index and a considerable bibliography had been added, they would have done much to redeem the book; but as it is, the chief feeling it arouses is one of regret that it is not what it could have been, and should have been.

ARTHUR L. GILLET.

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*; *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.]

LOGIC AND METAPHYSICS.

Gehirn und Seele. PAUL SCHULTZ. *Z. f. Ps. u. Phys. d. Sinn.*, XXXII, 3-4, pp. 200-259.

The author's standpoint is that of transcendental idealism. His object is to consider, from the Kantian point of view, the relation of brain to consciousness, or the relation of matter to mind. The problem reduces to the relation of the two modes of the mind's perceiving. What are called objects or things in the world, are perceptions in space and time. But space and time are forms of perception of the mind; therefore, objects and things share in the subjectivity of space and time. Consciousness is also conscious of itself; but this knowledge is not objectified. However, it is not more subjective than the knowledge of things. The problem of the relation of mind to matter, therefore, becomes the problem of the relation of these two kinds of knowledge. Science has to do with objects; objects reduce to matter, matter to motion, motion to energy, and energy to the laws of inertia. But the mechanical ideal of science obtains only in the inorganic world. Once in the organic world, a new concept must be introduced, namely, purpose. The principle of purpose is a peculiarity of our consciousness, just as are the forms of perception, space and time, or the categories of the understanding. It is *a priori* given, and, in so far as it is the presupposition and condition of science, it is transcendental.

H. C. STEVENS.

La notion idéaliste de l'expérience. L. WEBER. *Rev. de Mét.*, XI, 2, pp. 139-165.

From the point of view of metaphysics, physics postulates the possibility of experience as understood by the realist and dualist, a postulate the examination of which falls outside the science based upon it. Kant was the first to bring this postulate to light, and to interpret it by the method which

he had applied to the problem of the possibility of an *a priori* science of mathematics. The Kantian conception of experience provokes the same objection as the correlated conception of mathematics. The dualism from which it proceeds it sometimes affirms, sometimes disavows. Critical idealism explains the relation of phenomenon to subject, but is far from clear as to the relation of the phenomenon to its absolute object. There is an implied contradiction between the transcendent relation of the thing-in-itself to the phenomenon, and the transcendental connection of phenomenon and knowing subject. Elaborated at a time when mathematics was regarded by philosophers as the type of perfect science, the psychology of the Critique of Reason is inadequate to the continuity, flexibility, variability, and actual and potential infinity of the living intelligence. The Kantian theory is accordingly unable to give answers to the questions which arise as physics advances. It is unable to say whence comes the diversity of the descriptive symbols of physics, or what relation these symbols bear to reality. But can these questions be answered by a psychology which has more regard to the complexity of its subject? In every psychology of physics, there is a superimposing of a realism of mind and matter, and a consequent admission that it does not stand face to face with ultimate reality. From this it is clear that psychology is powerless to solve the problem which physics by its very existence lays down. The physicist has not to concern himself with the question of the possibility of experience. The psychologist, on the other hand, must demonstrate what the physicist takes for granted, namely, that there is possible a harmonious coöperation between the physical and the psychical, or that mind is so constituted as to know truth. But where, outside of physical experience, shall we find the guarantee of this harmony of mind and things? Experience is unable to decide between the physicist's belief that his ideas and symbols constitute reality and the reflective belief of the psychologist, because both the realism of the physicist and the idealism of the psychologist are statements and not explanations of experience. What for the physicist is indubitably real and radically distinct from the activity of thought, is for the psychologist only the ideal texture with which the activity of thought clothes the real. But if the psychological reality which reflection substitutes for the physical reality is not reduced to the thing-in-itself, unknowable and contradictory, it becomes one with the intelligible appearance; it is but the beginning of being, so that what is gained on the one side is lost on the other, and in both cases experience remains a primary and irreducible given. Each interpretation is valuable in its own domain; and if a philosophy embracing both physics and physiology in a single act of reflection is more than a vain hope, the antinomy pointed out above ought to be soluble. It is so in fact, on condition that we do not stop with a negation of physical realism, but go on to deny psychological realism, which the idealistic theories of experience have preserved for purposes of explanation.

M. S. MACDONALD.

Le 'second principe' de la thermodynamique. J. PERRIN. *Rév. de Mét.*, XI, pp. 166-205.

This paper aims at showing that the second principle of thermodynamics is suggested by comparatively familiar observations, and can be expressed in language which is not at all mysterious. After an introduction dealing with the manner in which the diverse elements of the universe interact, and with the concepts of work, heat, and reversible transformations, the second principle is enunciated as follows: When a change can be isolated, the inverse change cannot; or, an isolated change never passes twice into the same state. This is called the principle of evolution, because it affirms a necessary order in the causal series, without the possibility of a return to the state already passed through. A discussion of objections suggested by reversible transformations and periodic oscillations leads to the following slightly modified form of the enunciation given above: It is highly improbable that an isolated system passes twice into the same state; and the improbability is greater the greater the complexity of the system. The remaining part of the paper is devoted to establishing the following deductions from the first and second principles of thermodynamics: (1) An isolated change cannot be reduced to the raising of a weight or the cooling of a thermostat. (2) It is impossible to construct a machine which shall use only one source of heat. (3) The heat liberated along a monothermous cycle is necessarily positive, and the labor supplied is necessarily negative. (4) When a monothermous cycle is approximately reversible, the external labor and the liberated heat approach zero. (5) One cannot, without the expenditure of work, effect the passage of the heat of a cold body to a warm body. (6) Two temperatures being given, the relation Q/q of the heat given up to two sources having these temperatures has an absolutely fixed value, independent of the cycle chosen.

M. S. MACDONALD.

What is Life? JUSTUS GAULE. *Am. J. Ps.*, XIV, I, pp. 1-10.

This article is a protest against the prevailing tendency to regard the body as analogous to a machine. This is a total misconception, because the structure of the machine remains always the same, while the structure of the body is continually changing. Moreover, the body is not to be regarded as a mere 'Zellen Staat,' in which cells exist in a state of independence. Every cell is dependent upon the products of other cells for its building materials. Life is a continual change of the organism, that is influenced, indeed, by its surroundings, but is not directly called forth by them. Examination of frogs, rabbits, and other animals shows that their organs follow a law of periodicity; in some definite period each organ has its maximum and minimum state, a state in which it is developed at the expense of other organs, and a state in which it contributes to the development of other organs. Thus the organism is continually adjusting itself to the great cosmic governing forces of the world. Like a crest on this great

wave of change, it is a smaller wave of variation by which the organism adjusts itself to environment. For example, a sudden change of altitude causes a corresponding change in the number and condition of the blood corpuscles. All these changes show that the problem to be studied in the organism is always a change of structure; in the machine, on the other hand, the change consists in the development of power while the structure remains the same.

GEORGE H. SABINE.

Personal Idealism and Its Ethical Bearings. G. H. HOWISON. Int. J. E., XIII, 4, pp. 445-458.

The writer, by exposing the inadequacies of all other current philosophies, suggests the moral need for his system of Personal Idealism. The external world is a world of minds, human and divine. The difference between these lies in the possession by the former of a sensuous consciousness, rising everlastingly, through a serial being in time and space, toward the divine mind, their eternal and essential ideal, in striving after which they seek to harmonize the rational and sensuous parts of their nature. Human minds, which are non-derivative, self-active, and determining, coëxist in a mutual recognition, essential to them, and constitute the only truly moral order possible. God is the absolutely realized perfection of personality, both the logical ground of existence and its ideal goal. He is not an efficient but a final cause, and so is responsible for the good in the world but not the evil, which results from the failure of human beings to determine their wills by reason. Thus creation and regeneration are valid terms, but only in the sense of final causation. With reference to creationism, historic philosophies fall into four groups: (1) those which directly express, or are unconsciously influenced by post-exilic Hebraism, (2) pantheistic emanationism, (3) materialism, and (4) positivism. The third and fourth groups, confessedly necessarian, afford no basis for individual freedom and deny the existence of the problem of evil. The second swallows up individual activity in that of the monistic whole, which thus becomes the source of wrong-doing. The first is unavoidably deterministic, through its postulate of beings who register the will and plan of a literal creator, the acknowledged author of evil. As opposed to these systems, Personal Idealism establishes the reality of moral freedom and solves the enigma of evil. It shows the socially objective nature of the self-active consciousness, and the validity of the belief in God. It offers the hope of the steady improvement of this world by our moral endeavor, and proves that fulfilled freedom depends upon the immortality of the individual, in the sense of the everlastingness of his process of experience. The writer's postulate of deity and denial of divinity to all other minds, differentiate his idealism from Davidson's *apeirotheism*, with which it is otherwise in agreement.

A. D. MONTGOMERY.

The Ethical Basis of Metaphysics. F. C. S. SCHILLER. Int. J. E., XIII, 4, pp. 431-445.

The metaphysical assumption of the Absolute is the death blow of ethics. For a transcendent Whole, which swallows up moral distinctions as partial and relative, deprives human conduct of its significance. The antithesis of this immoralistic position is found in Professor James's 'Pragmatism,' which is based on a teleological psychology. Thought, instead of being isolated from, and exalted at the expense of, action, is treated as a mode of conduct, and practical results as essential determinants of theoretic truth. The purposive character of mental life influences our most remotely cognitive activities. And since the most theoretical cognition has thus a practical value, it is potentially a moral act, a source of responsibility. The pragmatic assertion of the intellectual right to decide between alternative views by emotional and practical as well as by intellectual considerations, instead of favoring Irrationalism as opposed to Intellectualism, really resolves the conflict between the two. Reason is humanized and faith rationalized by showing their common root—practical value. A 'pure' reason, not developed from its practical use in the struggle for existence, would be a failure of adaptation soon eliminated by natural selection. The principle that purpose and interest are the motive power of knowing has an important bearing upon the ultimate question of metaphysics: What can I know as real? Reality and the knowledge of it essentially presuppose a definitely directed effort to know, the effort being inspired by the idea of some good at which it aims. Thus both the metaphysical concept of 'real' and the logical concept of 'true' contain a reference to the ethical concept of 'good': the question of value is raised whenever the questions of fact and of knowledge are raised. If, then, there is no knowing without valuing, Lotze is right, and the foundations of metaphysics really lie in ethics. Since our own activity is the necessary revealer of reality, fatalism and the naturalistic view of an indifferent universe are untenable. Nature must in some way respond to us. This reference to self, and the fact that all our other relations with responsive beings are personal, call for an anthropomorphic treatment of experience. Our metaphysics must be *quasi ethical*.

A. D. MONTGOMERY.

On Preserving Appearances. F. C. S. SCHILLER. Mind, 47, pp. 341-354.

It is here proposed to examine and put on a different footing the familiar antithesis between 'appearance' and 'reality,' which, since the work of Bradley, has become the too easy solution of philosophical difficulties. I. It is first urged that the ultimateness of B's absolute criterion, used to convict the whole universe of self-contradiction, is too readily assumed. The very existence of reality proves that seeming contradictions belong not to it, but to our thought. Hence we must assume an ultimate harmony, which can be attained only by taking into account the whole of experience.

It is this principle of harmony of which the absolute criterion is really a postulate. II. The true relation of reality to appearance arises within experience, and is not to be discovered by a denial of their continuity. The higher and more ultimate 'reality' can be reached only by acceptance of, and constant reference to, the lower reality of immediate experience. It is because this is incomplete in and for itself, that the higher realities are demanded to satisfy and harmonize its discrepancies. Thus the phenomena of science demand hypotheses, which become more real than the phenomena in proportion as they satisfy and make them intelligible. By this same process we reach the conception of an Ultimate Reality, which harmonizes the conflicting groups of higher realities demanded by different phases of experience. III. In the effort to obtain this, we must observe certain principles. (1) The Ultimate Reality must be a real and not a transcendent explanation. (2) The 'appearances' must be really preserved. (3) Immediate experience is more directly real than its explanation. (4) An assumed reality is true only so far as adequate to harmonize the lower. (5) Ultimate Reality can be accepted only if absolutely satisfactory to the whole of experience. This means not only that it must be so conceived, but that it must actually establish perfect harmony, and thus unite 'appearance' and 'reality.'

GRACE MEAD ANDRUS.

PSYCHOLOGY.

The Simplicity of Color Tones. I. M. BENTLEY. Am. J. Ps., XIV, 1, pp. 92-95.

The existence of composite colors has long been a matter of dispute. Examination of a general system of color tones shows four distinct continua, R to Y, Y to G, G to B, and B to R. These continua are perfect qualitative series, and hence all their members are equally simple, though it must be conceded that there are four types of qualities corresponding to the termini of the four continua (R, Y, G, B). This fact raises the question of the criterion for elementariness. It may be either psychological or psychophysical. The psychological criterion is the more satisfactory for psychology, and consists in analyzing introspectively as long as one can think a quality or group of qualities as existing apart from its context. According to this criterion, each color tone is undoubtedly simple.

GEORGE H. SABINE.

La négation: étude de psychologie pathologique. G.-L. DUPRAT. Rev. Ph., XXVIII, 5, pp. 498-507.

Is negation something positive, and are its mechanism and its principle other than those of affirmation? This question the author answers in the affirmative by appeal to mental pathology. We find cases of mental derangement where there is a propensity toward volition, refusal, or objection to any new suggestion. The subject, for instance, believes that he pos-

sesses no organism or organic needs, and refuses to supply such needs. Nolition, then, has a positive character. As nolition implies opposition against an action, negation implies opposition to an affirmation. The latter is a rejection of the content of objective thought, truth in general. In its operation, it does more than affirm a proposed synthesis to be false. It places an obstacle against the universality of a formula or idea.* It is nolition especially concerning the establishment of truth or objective thought. Pathological observation shows that the 'insanity of doubt,' a morbid exaggeration of normal doubt, intermediary between affirmation and negation, corresponds to abulia, exaggerated deliberation intermediary between volition and nolition. As repulsion is a phenomenon which prohibits appetite, so negation is a positive fact which disputes in reality, efficacy, and importance, an affirmation. The former takes the point of view of action; the latter that of intelligence.

C. A. HEBB.

Die Bedeutung der niederen Empfindungen für die ästhetische Einführung. JOHANNES VOLKELT. Z. f. Ps. u. Phys. d. Sinn., XXXII, 1, pp. 1-38.

The present paper is concerned with the question whether and to what extent, within æsthetic appreciation (*Einführung*), the lower sensations are present as mediating factors. Æsthetic appreciation is conceived to consist in a fusion of perception and feeling. The question then arises whether this fusion takes place through the mediation of certain lower sensations or without that kind of mediation. There is the still more general question whether æsthetic appreciation always requires a mediating factor or is sometimes immediate. So much for the statement of the problem. The result of the discussion is, that æsthetic appreciation consists in a fusion of perception with mood, emotion, conation, or sorrow. But the ways in which this fusion takes place are different. According to V., there are three ways: (1) somatic mediation, (2) associative appreciation, (3) immediate appreciation. Movement sensations are the chief mediating sensations; *e. g.*, in viewing a picture depicting human or animal bodies in motion, actual movements or memories of movements are present in the observer. Sensations of movement predominate in the world of tone, so far as rhythm and pitch differences are concerned. Pressures and temperatures are mediating sensations in the world of colors and tones, *e. g.*, some tones are hard and others soft. Associative appreciation denotes a weakened degree of appreciation, although an enrichment of content is afforded. Examples of what is meant are the wringing of the hands, throwing oneself on the ground, and an increase of muscular movement. Immediate appreciation, in general, has a small province; it is most conspicuous in poetry and music.

H. C. STEVENS.

ETHICS AND ÆSTHETICS.

The Definition of Will. II. F. H. BRADLEY. *Mind*, 46, pp. 145-176.

This article considers first the practical identification of self with the idea, the realization of which constitutes volition. The practical relation of the self to its world adds to the mere passive 'otherness' of the not-self, characteristic of the theoretical attitude, the new element of opposition to the self. Along with this new felt opposition of the not-self, goes a felt oneness with the idea in its conflict, the two being inseparable aspects of one fact. In so far as I enter into the content of the idea, I become an object to myself. Since the idea, although itself an object and a not-self, is in its conflict felt especially to be mine, this identification is specific. The result of volition shows further contrast between the attitudes of theory and practice. In the former, it is the object which is actively concerned in the process and affected in the result. My self, not opposed to the object, experiences only passive reaction, and fails of self-realization. In the latter, the realization of the idea in the not-self is less important in itself than as the process by which I have realized my ideal self. To avoid misunderstanding, it must be remembered that the not-self may be internal; but in any case it must be limited, for conflict with my whole world would render life impossible. Before considering agency and the entrance of my self into the content of the idea, reflective volition, choice, and consent are briefly discussed. In reflective volition, self is identified with a higher idea or principle, and, through this, with the particular, related to the higher as the means for its realization, and so for the realization of the self. By this principle are explained choice and consent. Choice is a form of reflective volition, involving rejection of a particular idea in favor of another, both appearing as means to a higher end. Consent is less than volition, but more than belief. With this preliminary, the main question may be considered. The idea of change need not, at the beginning of the process, contain the idea of self, but need only be felt as mine. In the actual realization of the idea, my self, in also being realized, enters into the idea. Agency is thus experienced as such only in the process itself, but, once experienced, tends to qualify future ideas. Perception of agency can be acquired only when the process is felt to arise from my idea, and not independently in the not-self. A lower experience of activity involving no idea realized in the result does not amount to agency, and hence is no evidence of the necessity of the idea in volition. In conclusion, it is noted that (1) the opposition of the not-self is not fixed; (2) through transitoriness and weakness it may not give an awareness of resistance; (3) a strong and definite expectation of the result is possible. Further questions will be discussed in the next article.

GRACE MEAD ANDRUS.

Hedonism among Idealists, I-II. B. BOSANQUET. *Mind*, 46, pp. 202-224; 47, pp. 303-316.

The chapter "On the Supreme Good and the Moral Criterion" in McTaggart's *Studies in Hegelian Cosmology* is criticized in this article as

representative of the progress of Hedonism among idealists ; but disagreement does not imply denial of the author's position as a whole. The object is (1) to argue that the Hedonic criterion of the author necessarily passes into a criterion of a different kind ; and (2) to explain and defend this other criterion as in harmony with Green's ideas. McT. holds that the Supreme Good, although not merely Hedonistic, must contain pleasure, since derived from a reality which is the perfection of individual natures. Yet because it is abstract, a practical criterion may be substituted, necessarily Hedonic so far as operative, which measures only likeness to the Supreme Good, and not tendency to hasten or hinder its advent. Against this B. argues that (a) an extraneous criterion is unsafe ; (b) a criterion can be applied only through a systematic individualized construction ; (c) achieved good remains. McT.'s argument that the possession of a sum of pleasures is possible in the same sense as is perfection or good will, is held to be based on a confusion of identity and similarity. For a series of states characterized by perfection or good will, form a true concrete identity based on a coöperation of differentiated parts ; while states containing pleasure are identical only in the possession of a common element. McT.'s claim that choice involves a quantitative comparison of sums of pleasures and pains as homogenous wholes, is not verified by introspection. Quantitative comparison tends here to pass into a process analogous to the estimation of theories with reference to their truth. Choice rests on the acceptance of some hierarchy among the activities of life. B. also urges that the direct argument against the objection that pleasures cannot be added, apparently assumes the point at issue, *i. e.*, that pleasures are quantitative in a numerical sense, which assumption involves important psychological problems. Further, what may be regarded as the 'relativity of pleasure' renders Hedonic calculation impossible, and causes the nature of the criterion to change. By this is meant that variation in affective values which occurs with change in the trend of interest and desire, and in the combination of factors, and consequently takes place during the very act of deliberation, which consists in conscious readjustment of combinations. The claim for the correctness of the Hedonic criterion in the satisfaction of actual ideals, is confused by identification of happiness with the greatest quantity of pleasure. Pleasure cannot be the guide to happiness, or complete satisfaction ; for the sciences of ethics and æsthetics have been built upon the failure of the natural man in following this direct process. Happiness is only achieved by a foregoing of the 'easy' pleasures and a choice of the 'arduous.' An adequate theory might be based on a distinction between bodily, or relatively partial, and spiritual, or relatively total, satisfactions, in which pleasure would be a concomitant of, but not proportional to, satisfaction.

The second paper deals with McTaggart's objection to the idea of perfection as a moral criterion. What has already been said regarding the nature of a true criterion and the true process of judgment may be ap-

plied to McT.'s contention in three respects : (a) to his ruling out the work of a criterion in hindering self-deception ; (b) to the assumption that the idea of perfection can be applied only by comparison in the abstract ; (c) by showing that the process advocated is not confined to development of ideals alone. (a) McT.'s argument here virtually separates the moral and intellectual elements in choice, by assuming that the chooser, already having determined to do right, needs the criterion only as a means of impartial judgment. But in most moral choices the application is not to *bona fide* perplexities, and hence the criterion of perfection is safer, since less open to the self-deception of desire. (b) In *bona fide* moral difficulties, McT. argues, the idea of perfection can be no guide, for no comparison is possible between an abstract universal and the concrete particulars of experience. In reply to this, B. urges that such comparison is parallel to the attempt to deduce scientific details from the Principle of Uniformity of Nature. Although abstract comparison is in both cases fruitless, yet the principle in each must be the ultimate basis of a working theory, without which practical results are impossible. The dependence of morality on the metaphysical idea of the Supreme Good is essential for its ultimate unity, but not for the immediate working-out of detail. In this, choice, which is always compromise, is based on existing morality and the social conditions determining the individual problem. The aim is always toward removal of contradictions in experience and the attainment of satisfaction by following the logic of the objects of desire. Each decision is based on a rationalized habit in conformity to the central design of life. This mode of determination of concrete detail is dominated at every stage by our idea of perfection representing our best construction for that stage, and constantly subject to the criticism of metaphysics. (c) This point of view brings into relation the two standards of immediate harmony with environment and of development of ideals. Happiness, or satisfaction of the whole to which we belong, is the only test, and can be applied only in the light of individual experience. In conclusion, a possible contention of McT.'s, viz., that the above involves a confusion of the empirical and metaphysical, is met by accepting at the outset the imperfection of morality as a whole and of our morality. Although actual morality cannot in itself claim metaphysical sanction, the logical effort towards harmony is consistent with, and implies, ultimate perfection. Our experience, while in one sense less perfect, yet in another is a fuller revelation than an abstract idea of ultimate reality.

GRACE MEAD ANDRUS.

Esquisse d'une philosophie des conventions sociales. A. SCHINZ. Rev. Ph., XXVIII, 6, pp. 601-633.

The starting point of this discussion is found in Thoreau's *Walden*. A brief sketch of this book and its author is followed by the question : Why has not practice followed theory among the many who have praised this

eloquent plea for life according to nature? S. attributes Thoreau's failure to win disciples to his false analysis of the really simple life, and lack of historical sense in estimating modern social conventions. For all except the philosopher poet, such as Thoreau himself, the primitive life led at Walden would defeat its own purpose, spiritual development. Utility is here made the sole consideration in the selection of food, clothing, and shelter. A vegetarian diet is urged, as the use of meats and delicately prepared foods develops the animal in man at the expense of the intellectual. Society is spoken of as a slave to fashion in dress, and the rich man in his mansion is considered scarcely more free than the prisoner behind the bars. But all this is a mistaken view of the advantages of civilization. Health of body and therefore of mind is promoted by the *cuisine*. As for animal food, it is unavoidable that warfare and death should be the law of progress. Clothing and shelter have an æsthetic as well as practical value, and this Thoreau overlooks. In spite of appearances, the trend of convention is towards the greatest possible freedom. In society, as elsewhere, the change from the simple to the complex marks the path of improvement. Social usages have a survival value, a moral or economic reason for their existence; their development constitutes an historical science. Etiquette follows fundamental rules of morality, and is most rigid where the greatest need of restraint is felt. True, there is some right conduct which is above convention. But to act wisely in defiance of social custom presupposes a superior class of moral agents, such as Nietzsche describes. Whether or not his view is the right one the future must decide.

ANNIE D. MONTGOMERY.

Sociologie et sciences sociales. E. DURKHEIM et P. FAUCONNET. Rev. Ph., XXVIII, 5, pp. 465-497.

If sociology is to be a science, is it to have the same object as those special sciences called historical and social, and thus be confounded with them, or is it to be a distinct science, having an object especially pertaining to it? The authors point to this as the inevitable dilemma, if sociology is to have anything more than a merely verbal significance. Their purpose is to show that sociology is, and can be, only the system, the *corpus* of the social sciences, and that this comprehension under a common title does not constitute a simple verbal operation, but implies a radical change in the method and organization of these sciences. The founders of sociology, they argue, did not regard it as a system of social sciences. With Comte (as with Spencer later) it was of a philosophical nature, and maintained a certain indifference to the detail of facts and researches of specialists. The dynamic, rather than the static, side was alone treated. Comte's method opposed a division of the work into the progressive quantity of specific questions which progress necessitates. With more recent sociologists, however, there has been a tendency to maintain a *general* social science, opposed to the particular disciplines, and having its own object and

special method. For Mill the object was the "states of society," such as succeed each other in a people's history. But it is evident that these "states of society" are made up of an assemblage of phenomena so diverse that it is impossible for one and the same science to master them; and the science of society must thus become a multitude of distinct branches. Moreover, one state of society is not an indivisible identity, a whole produced by a whole; rather, each part has its genesis in another part. For Giddings, again, the general social science is based on the fact of association and its elementary forms. The latter, however, never exist in isolation. The primary fact appears to Giddings to be the social population. But there is a special science — demography or demology — which treats of population. The vague indetermination of the object that we find in Tarde, Gumplowicz, Ward, and others, means no real science. Finally, Simmel holds that the object of the general social science is the social form, as distinguished from the social matter. The special sciences treat of what occurs in society; general social science treats of society as such. This distinction between the contained and the containing, however, is difficult to maintain; for society is characterized in form only by matter or content, by the actions and reactions which occur between individuals. If form thus depends on matter, there can be no science of form, matter abstracted. To conclude, the authors hold that sociology must treat of societies in their organization and development. It cannot be merely a system of special sciences. Comte's notion of the social reign in general has significance, and must be brought into the detail of facts and acclimatized in the special researches. A tendency in this direction has recently been manifested in the transformation, *e. g.*, of historical method, of the study of religions, etc. The problem for sociology is to develop a certain number of existing sciences under a social aspect. The social idea is to descend profoundly into the diverse specializations, and the unity of the social reign, guaranteed by the fact that social phenomena are manifestations of the one reality, society, will find its adequate expression in the various social sciences, not in any general philosophical formula.

C. A. HEBB.

Physical Law and Life. J. H. POYNTING. Hibbert Journal, I, 4, pp. 728-746.

A physical law is the statement of certain likenesses which we observe in the action of nature; each law is a typical instance which expresses the essential fact of a great body of phenomena. Finally, in our observations we are brought face to face with a simple type which we cannot explain by likening it to any other phenomenon. In the physical series we are able to foretell events by our knowledge of laws and conditions. The question arises: Does a similar uniformity exist in the psychic series, and could an observer foretell events in that series provided he had sufficient data? There appears to be a lack of analogy between the physical and psychical

series, and hence we are led to believe that each individual is unique, a fact not to be brought under a law of likeness with other beings. The freedom of the will is a simple fact, unlike anything else, inexplicable. Any calculation, therefore, in the psychic series would miscarry because of the power of the will, not, indeed, to create energy, but to direct it.

GEORGE H. SABINE.

The Limitations of Ethical Inquiry. NORMAN WILDE. Int. J. E., XIII, 4, pp. 458-466.

The presuppositions of ethics are common to all the natural sciences. None of these is called upon to prove the existence or the possibility of knowledge about its subject matter. Each is free to start with unquestioned data and to investigate them with uncriticized knowledge. In their general method, also, ethics and science are at one. To understand anything, whether physical or moral, is to interpret its meaning in terms of universal experience, and to this end the only sound method of procedure is observation and analysis. Yet the explanatory symbols or concepts of ethics are of necessity unique. The world of experience presents itself as a problem both for our intellect and our will, as an objective series and as an ideal system of values. The concept expressive of the former aspect is causality, of the latter, obligation. These, obviously, are not interchangeable. Causality has no significance in ethics, nor has obligation in physics. Thus the demand for one absolute category of scientific interpretation is illegitimate. The standard by which we value facts is not itself a fact.

A. D. MONTGOMERY.

Dis ästhetische Bedeutung des absoluten Quantums. MAX DESSOIR. Z. f. Ps. u. Phys. d. Sinn., XXXII, 1, pp. 50-66.

If art were concerned simply with beautiful appearance, no quantitative determinations would affect it. But, as a matter of fact, a certain amount of quantity is necessary for the production of æsthetic satisfaction. The quantity may be spatial, as in the dimensions of a church or a picture; it may also be temporal, as in the repetition of a figure in decorative designs; or it may be intensive, as in music. The rule, first pointed out by Fechner, which underlies these facts, is that the magnitude of a work of art shall be proportional to its æsthetic significance, *i. e.*, its outer magnitude must be equal to its 'inner' magnitude. This rule is borne out by Burke's thesis, that the sublime is concerned with great objects and the beautiful with small ones.

H. C. STEVENS.

NOTICES OF NEW BOOKS.

An Introduction to Systematic Philosophy. BY WALTER T. MARVIN.
New York, The Columbia University Press, 1903.—pp. xiv, 572.

According to the author, this book is not an historical introduction to philosophy. Only in a few cases does it deal with the history of the problems under consideration. Nor is it a handbook of philosophy; "it does not give *pro* and *con* all the various doctrines held by great philosophical writers of the past and leading writers of the present." The book is an attempt to state and explain the chief problems of philosophy as problems actually existing to-day, and to give such solution of these as the author is able to give. Its chief value, he thinks, lies in the selection and order of the problems with which it deals.

The work is divided into six parts. Under Part I, entitled "Metaphysics," we have "The Philosophy of Nature," "The Philosophy of Mind," "Ontology," "Cosmology," and "Cosmogony." Part II is devoted to "The Theory of Knowledge," discussing "The Nature of Knowledge," "The Validity of Knowledge," "The World as Presupposed by Knowledge," and "The Manifold Interpretation of the World." The next three parts deal with "The Philosophy of Religion," "Theoretical Ethics," and "Æsthetics," while in a concluding division, headed "Philosophy as a Science," general problems concerning the nature and method of philosophy are discussed.

The standpoint of the work is defined by the author as 'rational idealism.' By 'idealism' he means the doctrine that denies the existence of a transcendent world and limits all problems to the world of experience. By 'rationalism' he means that our attempt to interpret the world presupposes premises or *a priori* truths about the world. Against naturalism he maintains that man's ideals can rightly lay claim to the same validity as does science; and in behalf of naturalism he attempts to justify the atomic, mechanical interpretation of nature and indirectly of mind.

The task which the author has set himself in this book is, of course, an immense one, perhaps the largest task which the human mind can set itself. No one should, in my opinion, undertake to publish a complete theory of the universe in our days who has not had a great deal of philosophical experience, and who has not made a careful study of the different special problems in the field. Dr. Marvin appreciates this fact when he says: "I am quite aware that the book has many faults, but my excuse for publishing it now is, first, the belief that it is an approach toward what an introduction to philosophy should be, and, secondly, the desire to learn through it how to write a better introduction some time in the future, especially in case a second edition is called for. Doubtless, the reader

will find inconsistencies ; but inconsistency between the solutions of different problems does not seem to me a fatal fault, for I believe that we philosophers should profit by following the example of natural science and devoting ourselves chiefly to separate problems and their solution, even if we have to set aside for the time being the making of a system. Hence I have tried to present a series of problems and their solutions rather than a complete philosophical system."

But it does not seem to me that the desire to learn how to write a better introduction some time in the future, especially in case a second edition is called for, is a sufficient excuse for such an enterprise. I do not regard this book as thorough or mature enough to serve any good purpose ; it does not go to the bottom of things, it is not what the Germans call '*durchdacht*.' It does not, in my judgment, make a sufficiently careful study of the different special problems, the very thing which it starts out to do. Particularly disappointing is the treatment of the substance problem, the causality problem, the soul-substance problem, dualism, interaction and parallelism, the theory of the conservation of energy, the atomic theory, the teleological problem, and the freedom of the will. All of these are fundamental questions, and on the correct solution of them everything depends. And as for inconsistency and lack of system, it seems to me that the more thoroughly the problems are worked out, the less inconsistency there is bound to be. I think the beginner will often feel lost in studying this book, he will not see the connections, he will not be able to make the results of different chapters fit into each other.

In dealing with many problems, the author's treatment seems unfortunately vague, confusing, and conflicting. Everything is atoms in motion, and at the same time atoms are mere abstractions. The physical and mental are both manifestations of the same substance which determines their character, and yet the mental must be explained by the physical, and the mental is a special creation and creation is inexplicable. We are told that our mental life possesses that unity of structure and that permanence of character which justifies us in calling it a thing ; that its unity is the soul, and the principle and character of this unity are just what we mean by personal identity. Then, again, we cannot find permanent qualities in secondary qualities and mind ! And to multiply our troubles, we are told in a chapter concluding the metaphysics : "The world in the concrete is truly one analogous to our wills. Creation is ever taking place. Spontaneity describes it as does no other term. . . . The world is will, if you choose so to call it ; but it is will in a broader sense than psychology uses that term. The world is alive, but it is alive in a broader sense than biology uses the term. . . . The world contains life and it contains spirit. It creates both. There can be no contradiction between it on the one hand and life and will on the other." This teaching, taken in connection with the general impression created in the theory of knowledge that the will is the primary and ultimate reality, only adds a new difficulty and increases the confusion.

In his theory of knowledge, Dr. Marvin is, as was already stated, an idealist and a rationalist. There is no transcendent world. The object of knowledge is always a fact, always some real or existing thing. Facts are always given through consciousness. Our perception is not a fact; it is fact *plus* recognition or interpretation. The given is the sum-total of facts revealed to our present consciousness. The given is the absolute. "It is consciousness or the content of consciousness, only in the sense that robs this term of all meaning. That is, it is not consciousness. The given is obtained, in short, by robbing the interpreted fact of all interpretation and so leaving us the fact and nothing more. The given is the reality, the absolute, in short the object robbed of every trace of interpretation, relativity, or aught else in the form of knowledge." That is, the given is a mere abstraction, like the atom, the result of a process of analysis, and it is nonsense to talk about our "intuiting" it, as Dr. Marvin does. If to know means to interpret, and the given is the object robbed of every trace of interpretation, how can we say a single word about it, or even refer to it without contradiction?

The arguments urged against the existence of a transcendent world also strike me as very inadequate. A transcendent world would be absolutely unknowable, says our author; because, to know is to have in the mind, the object must be revealed to us. Now the transcendent cannot be experienced or revealed to our mind, hence it cannot be known. Again, we cannot predicate anything of the transcendent, not even existence, for existence is whatever manifests itself to our minds. The transcendent does not manifest itself, hence it does not exist. All this looks like question-begging to me. If to know means to have in the mind and existence means to be in the mind, why, of course, what is not in the mind does not exist. All that is very simple, to be sure. Still I do not understand how on this line of reasoning we can assert the existence of a given, of other minds than our own, of an infinite universe, of a will, of God, etc. I do not see how, in spite of all these desperate attempts about the given, this kind of idealism can transcend subjectively, or differ from solipsism.

Rationalism or apriorism is justified as follows: Knowledge transcends its premises and has a right to. Knowledge presupposes principles, *e. g.*, the knowableness of the world. The world is knowable, hence knowledge cannot be invalid as a process. Whatever premises are needed for knowledge to do its work must be granted. Among these principles of reality, Dr. Marvin enumerates the following *mixtum compositum*: Causation, repetition, change, past, present, and future, likeness and difference, subject and object, absolute and relative, infinite and finite.

Beyond knowledge lies the will. Our ideals are what our will chooses; they are expressed in judgments. Hence the ideal is also an interpretation of the world and is just as valid as the scientific judgment. For the ultimate authority in life is not the real, but the ideal. To know is ultimately but one mode in which the ideals of our mind are being realized. Besides, if

our wills and feelings have no valid right to judgments that express their ideals, then action is impossible and even knowledge could not be. So the ideal has absolute authority over life. If our ideal judgments are valid, all must be granted them which alone makes the ideal valid. The author finds that we have such ideal judgments in religion, ethics, and æsthetics, and proceeds to illustrate at length the function of the ideal in these fields.

The whole method employed here strikes me as very loose and unsatisfactory. We have a right to our ideals, some of them help us to live; but it does not follow from this that they are *valid* in the same sense in which a scientific judgment is valid. Indeed, the term *valid* seems to be out of place here. We may grant, moreover, that if we did not will, we should not know and act; but it does not follow from this that, if our ideals (or what we will) are not valid, knowledge and action are impossible. Again, it does not follow that because we are conscious partners and co-workers with the creator or because we approve of particular acts or parts of the world, that therefore we approve of the world *as a whole*. Nor would it be a logical contradiction for us to approve of particular acts and yet despise the world as a whole. And, finally, it would not necessarily follow from the fact that I despise the world as a whole, that knowledge is impossible.

The only ideal that Dr. Marvin seems to have left after all is that the world is ideal, that there is no inherent contradiction in our living as such. A man who approves of the world and reverences it, has this ideal, has religion, believes in God. According to this view, the ideals of a selfish and base nature would have just as much value as any one's else, and be just as valid as a scientific judgment. It would appear that as long as a man approves of the world and believes that it realizes his ideal, everything is all right.

The attempt made to prove the logical necessity of our ideals, to show that there can be no knowledge, no action, unless we grant the validity of our ideals, cannot but fail. In the last analysis we cannot prove the validity of our ideals, but must accept them as facts. They represent our attitude towards reality, and the terms true and false, valid and invalid, do not apply to them. Dr. Marvin has more faith in the ability of the human mind to furnish absolute proofs than I have.

In conclusion, it is to be regretted that Dr. Marvin has followed the too common practice of failing to mention the English translations of the works from which he quotes. This is not a very serious matter, of course, but when one draws on a translation for lengthy passages it seems only right to make acknowledgment.

FRANK THILLY.

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History of Philosophy. By WILLIAM TURNER. Boston and London, Ginn and Co., 1903.—pp. v, 674.

The writer explains that his "purpose in compiling this text-book has been so to set forth the succession of schools and systems of philosophy as to accord to scholasticism a presentation in some degree adequate to its importance in the history of speculative thought." Yet this statement, taken by itself, does less than justice to the thorough scholarship, the appreciative insight, and the eminent fairness which characterize the work throughout. The author's predilections are, indeed, often apparent, but very little of the spirit of partisanship creeps into his pages. He is sincerely convinced of the validity and significance of the essential ideals of scholastic thinking; and his ample knowledge and sympathetic exposition have a very telling effect upon the reader. Nor is it true that the care bestowed upon the period of Scholasticism has resulted in leaving the other periods to be treated in a perfunctory manner. Both the ancient and the modern periods have been treated with reasonable completeness, and in a manner which gives evidence of extended acquaintance with the best works in the history of philosophy. Two hundred pages are given to ancient philosophy, two hundred to the mediæval period, and two hundred and fifty to modern philosophy. A preliminary sketch of twenty-five pages summarizes the thought of the Oriental nations of antiquity. As the narrative passes through the period of Greek philosophy, we have, to be sure, little that is original, but we have in general good insight, clear judgment, and clear exposition. The judgment passed upon the atomists, however, fails to do justice to the great importance of atomistic conceptions in science, or to recognize the vitality and significance of the logical motives which went to create and sustain them. "The atomists fall lower than the level which the early hylozoists had reached" (p. 65). And the Sophistic movement is not valued highly. "It was the philosophy which suited that age. . . . Yet Sophism did not constitute an advance in philosophic thought. It is true that it directed attention to the subjective element in human knowledge. In fact, it made the subjective element everything in knowledge. And herein lay the essential error of Sophism, vitiating the whole system" (pp. 74-75). But surely the recognition of the subject as a coefficient in knowledge was a very marked philosophic advance. One wishes also to see the Sophists credited with making men more sharply conscious of the problems, the solution of which gave rise to Greek idealism. We soon discover, however, that Father Turner does not sympathize with idealism, either in its sensationalistic or in its rationalistic form. Plato's personality and spirit appeal to the author, but his philosophy is objectionable. "Nothing is clearer than that Plato understood by the Idea something existing apart from the phenomena which make up the world of sense" (p. 101). The Aristotelian critique is consequently justified. Indeed, both here and repeatedly throughout the work Peripatetic preferences become apparent. The account of Platonism is vigorous and clear, except in regard to two

significant doctrines : the doctrine of recollection is described, in one short paragraph, in a way which gives no inkling of the genuine meaning for epistemology of the theory of the idealism of the human intellect ; and the description of the basis of ethics and of the state by no means succeeds in getting clearly before the reader the essential ideas of the Republic. An uncommonly detailed description of Aristotle is attempted, and shows the author at his best. The problem regarding active intellect is described with comments adverse to transcendentalism. Aristotle's teaching of the eternity of the world is met by the contention that his premises, if carried to their logical conclusion, would lead to the doctrine of creation.

As soon as we enter the Christian era, we find that "from this time onward there will be the religious view and the rationalistic view of every question" (p. 215). "From the beginning, however, the rationalizing spirit of which mention has been made began to assert itself in a tendency on the part of some Christian writers to subordinate revelation to the teaching of pagan philosophy. It was from this tendency that the heretical systems sprang. At the same time, the religious spirit, working in the minds of the orthodox exponents of the teachings of Christianity, led them to place high above all human speculation the authority of Christ and His Church, although they did not reject the philosophy of the pagan world, but made use of it in their expositions of revealed truth. Writers of this class are the true philosophers of the early Christian era" (p. 217). Now it was the supreme task of Scholasticism to organize this conviction of the existence of a supernatural truth, and to harmonize it with the just claims of reason. "The schoolmen were the defenders of the rights of reason" (p. 417), and Father Turner repeatedly urges that the doctrine of the two-fold truth was Averroistic and hostile to Scholasticism. In the Thomistic contention that the realm of faith is above reason and yet continuous with it, not hostile, Scholasticism expressed the thought which had throughout inspired its labors, and the thirteenth century is its Golden Age. Subsequent schoolmen failed to extend the essential thought of Scholasticism and to interpret it in relation to natural science. They wasted their powers in idle dialectic. They opposed the scientific spirit, the very spirit of Aristotle. They took up the doctrine of the two-fold truth, and thus by treason they brought about the destruction of that which in itself deserved to be perpetuated. Indeed, the Thomistic philosophical synthesis is fully as successful as any which has been attempted since, and our attitude toward it should be, *Vetera novis augere et perficere*. This period is treated in a very successful manner, and sets in a deservedly favorable light a movement often handled with little appreciation.

Cartesianism fares ill. Father Turner sympathizes neither with its rationalistic, Platonic motive, nor with its dualism. One is gratified, then, at the excellent account of Spinoza, almost perfect both in matter and manner. The English "sensists" are neither highly valued nor fully presented. The system of the arch-representative of idealism, Hegel, is outlined as

completely and strongly as any devotee of that view could wish. It seems strange that while, on page 629, the writer looks to the followers of T. H. Green to determine the future trend of philosophy in England, on page 649 he holds that the future course of philosophic thought in America is likely to be influenced less by the Neo-Hegelians than by the Neo-Voluntarists. The conclusion of the whole matter is that philosophy does not advance steadily toward a more perfect grasp of truth, but that its history is like a record of wave movement, a chronicle of advance and retrogression, and one of the highest waves was the one which marked the thirteenth century.

The book seems to contain fewer errors regarding matters of fact than any other manual I know. The style is simple, clear, and agreeable, so that the impression made by the work as a whole is more favorable than this brief sketch of its peculiarities might indicate.

EDGAR L. HINMAN.

UNIVERSITY OF NEBRASKA.

The Theory of Prosperity. By SIMON N. PATTON. New York, The Macmillan Co., 1902.—pp. 237.

To students of economics, for whom Professor Patton's *Theory of Prosperity* is primarily intended, the chief interest in the work will lie in the bold treatment of the classical categories of distribution. Overlapping of the conventional funds — wages, rent, and interest — has gone so far that, in his opinion, nothing short of a complete new classification can obviate the difficulties thus created. No doubt this attitude of dissatisfaction at certain outworn distinctions is broadly characteristic of economic thought at the present time, however little one is inclined to follow Professor Patton in all his conclusions. It seems unfortunate that, in maintaining so strong a position, the argument should be used; even casually, that the "putting together the rent of Henry George, the profits of Walker, the interest or exploitation fund of Marx, and the wages of Ricardo or Clark does not give the total product of industry, but a much larger fund" (p. 6). Certainly all that can be asked of any individual economist is that his scheme of classification shall be consistent with itself and with the facts of the economic world. Tests like the above would readily produce the appearance of 'overlapping' in all the phenomenal sciences, even if writers were not chosen whose fundamental positions are so unlike as those of Ricardo, Marx, Walker, George, and Clark.

Professor Patton's own division of the subject is based upon the distinction between income as due to existing conditions of environment, and income as determined by heredity. The laws of the first are presented as physical and economic; of the second as mental and social. The author's attitude toward the conventional classes of distribution is stated as follows: "Instead, therefore, of being three distinct funds [wages, interest, and rent] these shares are the bases of three view-points from which income may be

examined. Give to wages its broadest meaning, and both rent and interest disappear. Do the same to rent and interest in turn, and in the one case there is neither wages nor interest; in the other neither wages nor rent" (p. 8). To this it may well be objected that what is needed in economics at the present time is not the "broadest meaning," which causes differences to disappear, but clear, consistent definition and interpretation of the facts of the economic world. There are few, however, who would be unwilling to concede the brilliance and suggestiveness of many of the details of Professor Patton's argument. His extensive use of the principle of substitution gives it a significance which it has failed of obtaining in many current discussions. The relation between increased variety of consumption and interest (p. 101) and the statement of the consequences arising from interest-paying in a community where the minority do not feel the need of following social customs (p. 103) are well developed, though here attention seems to be drawn to the accidents rather than the fundamentals of the theory of interest. On the other hand, most of Professor Patton's readers in economic circles will object vigorously to his attempt to read costs out of the lexicon of the science.

The second part of the work, devoted to the social aspects of income, is divided into three chapters: income as fixed by struggle, income as increased by adjustment, and income as modified by economic rights. Particularly interesting is Professor Patton's treatment of exploitation, which emphasizes the will of the exploited to be exploited. Many of the economic rights which he maintains would entail consequences which are not discussed as fully as one might desire, although an attempt to do so would undoubtedly have extended the treatise to cyclopædic dimensions.

ROBERT C. BROOKS.

CORNELL UNIVERSITY.

La sociologie positiviste: Auguste Comte. Par MAURICE DEFOURNY. Paris, Alcan, 1902. — pp. ii, 370.

In view of the increasing interest in all social problems and in the science of sociology, this work is one to attract attention, while by reason of its clearness and systematic arrangement, as well as a certain vigor of treatment, it holds the reader's attention to the end.

In an introductory chapter, the author gives a brief biographical sketch of Auguste Comte, followed by a bibliography of his works and another of critical and biographical matter. Part I, which comprises some two hundred pages of the volume, is an exposition of Comte's social theories disentangled from the mass of his writings and brought together in something of systematic completeness. Comte's system is presented in four main divisions—the prolegomena to sociology, static sociology, dynamic sociology, and the consummation of sociology in the religion of humanity. The work of selection and organization is done with much care and with admirable clearness. While M. Defourny does not wholly suppress his own opin-

ions, for the most part he contents himself with indicating the direction that criticism has taken or should take.

Part II is a criticism of Comte's sociology. Following the order of exposition in Part I, the author proceeds to elaborate a searching criticism of Comte's method and principles. The exact correspondence of the second part to the first by similar divisions and subdivisions will probably be somewhat distasteful to most readers, suggesting the precision of mechanical adjustment; yet this arrangement carries with it the advantage of ease and accuracy of reference. The author has purposely ignored the historical development of sociological doctrine, so far as any explicit tracing of such development is concerned. His work is strictly dogmatic and critical.

M. Defourny's conclusions may be summed up as follows: Comte cannot be accredited with much originality either in matter or method. He owes much to Aristotle, Montesquieu, Adam Smith, Burke, La Mennais, Turgot, and others. He is somewhat in debt even to the Catholic theologians. It is his chief merit that he gathered up the disordered and incoherent ideas of his time and worked them over into a system of sociological doctrine. His work can scarcely be termed scientific, however, since his laws are rarely true to facts. In his employment of the method of observation, Comte belongs to the nineteenth century; in the deductive rigor of his system, he is of the eighteenth. More exactly, he is a transitional thinker, partaking of the characteristics of both periods.

VIDA F. MOORE.

Joh. Fr. Herbart: Sein Leben und seine Philosophie. Von WALTER KINKEL. J. Ricker, Giessen, 1903. — pp. 204.

In this work the first fifty pages are devoted to a sketch of Herbart's life, while the remainder consists of an outline and criticism of his metaphysics, psychology, practical philosophy, æsthetics, philosophy of religion, and pedagogy. The method followed throughout is to present first a complete outline of the subject under discussion, and then to add some brief but suggestive comments by way of criticism. While it would seem that the exposition would have been improved if Herbart's connection with Kant had been kept in view more constantly, the author is nevertheless to be commended for the ability which in the main characterizes his handling of the subject. The book, while containing nothing very novel, presents the main features of Herbart's thought in a clear and skilful manner, and in the critical passages the author shows especially how the rationalistic leaven is present throughout the Herbartian system. Certain shortcomings, however, must also be admitted. To cover, as the author attempts to do, so great a variety of subjects within the small compass of two hundred pages, obviously requires considerable condensation, and this in some places impairs more or less the value of the work. This is especially true of the section on Herbart's pedagogy, which is dismissed with a summary statement the brevity of which is out of all proportion to its relative value.

The author himself is aware of this defect, and explains it by stating in the preface that the book was originally intended for Frohmann's series of the "Klassiker der Philosophie." In the present form of the book, the exposition of Herbart's pedagogy appears as a sort of adjunct, too condensed and general in statement to be very helpful or satisfying. In general, however, the work affords an excellent survey of the various phases of Herbart's thought and is well worth a careful reading.

B. H. BODE.

UNIVERSITY OF WISCONSIN.

The following books also have been received :

- Dissertations on Leading Philosophical Topics.* By ALEXANDER BAIN. London, New York, and Bombay, Longmans, Green, and Co., 1903.—pp. vi, 277.
- An Introductory Study of Ethics.* By WARNER FITE. New York, London, and Bombay, Longmans, Green, and Co., 1903.—pp. xi, 383.
- The Mental Traits of Sex.* By HELEN B. THOMPSON. Chicago, The University of Chicago Press, 1903.—pp. vii, 188. \$1.25.
- The Unity of Plato's Thought.* By PAUL SHOREY. Chicago, The University of Chicago Press, 1903.—pp. 88. \$1.25.
- Evolution.* A Lecture by CHARLES WHEDON. Medina, N. Y., Charles Whedon, 1903.—pp. 32.
- The Place of Values.* By GEORGE R. MONTGOMERY. Bridgeport, Conn., G. R. Montgomery, 1903.—pp. 62.
- A Plea for Hedonism.* By JOHN C. PALMER. Wooster, Ohio, J. C. Palmer, 1903.—pp. 67.
- Kant's gesammelte Schriften.* Band IV. Berlin, Georg Reimer, 1903.—pp. viii, 652. M. 12.
- Grundzüge der physiologischen Psychologie.* Von WILHELM WUNDT. Funfte völlig umgearbeitete Auflage, Dritter Band. Leipzig, W. Engelmann, 1903.—pp. ix, 796.
- Friedrich Nietzsche: Sein Leben und sein Werk.* Von RAOUL RICHTER. Leipzig, Verlag der Dürr'schen Buchhandlung, 1903.—pp. 288.
- Die soziale Frage im Lichte der Philosophie.* Von LUDWIG STEIN. Zweite verbesserte Auflage. Stuttgart, F. Enke, 1903.—pp. xvi, 598.
- Grundriss der Religionsphilosophie.* Von A. DORNER. Leipzig, Verlag der Dürr'schen Buchhandlung, 1903.—pp. xviii, 448. M. 7.
- Philosophisches Lesebuch.* Herausgegeben von MAX DESOIR und PAUL MENZER. Stuttgart, F. Enke, 1903.—pp. viii, 258.
- Gesammelte Aufsätze zur Philosophie und Lebensanschauung.* Von RUDOLF EUCKEN. Leipzig, Verlag der Dürr'schen Buchhandlung, 1903.—pp. 242. M. 4.20.

- Gott, Religion.* Von A. ELEUTHEROPULOS. Berlin, E. Hofmann & Co., 1903.—pp. xi, 138.
- Gehirn und Seele.* Von PAUL SCHULTZ. Leipzig, J. A. Barth, 1903.—pp. viii, 55.
- Gefühl und Bewusstseinslage.* Von JOHANNES ORTH. Berlin, Reuther & Reichard, 1903.—pp. 131.
- Das Kausalproblem in Lotzes Philosophie.* Von ELSE WENTSCHER. Halle a S., Max Niemeyer, 1903.—pp. viii, 66.
- Der Agnostizismus Herbert Spencers mit Rücksicht auf August Comte und Friedr. Alb. Lange.* Von WILHELM GENZ. Breslau, H. Fleischmann, 1902.—pp. 57.
- Beiträge zur Geschichte und Kritik des Naturalismus.* Von A. R. SCHLISMANN. Kiel und Leipzig, Lipsius & Tischer, 1903.—pp. 199.
- Philosophie de l'effort.* Par A. SABATIER. Paris, Félix Alcan, 1903.—pp. 480.
- Études de psychologie physiologique et pathologique.* Par E. GLEY. Paris, Félix Alcan, 1903.—pp. viii, 335.
- Les phénomènes psychiques.* Par J. MAXWELL. Paris, Félix Alcan, 1903.—pp. xi, 317.
- Dieu et l'âme.* Par ADOLPHE COSTE. Paris, Félix Alcan, 1903.—pp. xvi, 184.
- Saggio di uno studio sui sentimenti morali.* Per GUGLIELMO SALVADORI. Firenze, F. Lumachi, 1903.—pp. viii, 138.
- Osservazioni sullo svolgimento della dottrina delle idee in Platone.* Per G. LOMBARDO-RADICE. Firenze, Tipografia Galileiana, 1903.—pp. 91.

NOTES.

McTAGGART'S INTERPRETATION OF HEGEL'S CATEGORY OF COGNITION.

The review of McTaggart's *Studies in Hegelian Cosmology*, printed in the PHILOSOPHICAL REVIEW of March, 1903, argues against McTaggart's view that Hegel conceives of God as "the deepest unity possible . . . of related persons," in other words, as a society or community. To the arguments which this review brings forward against McTaggart's interpretation of Hegel's teaching, at least one other may be added. It is gained by a consideration of the connection of Hegel's category of Cognition with the preceding category, Life, and with the following category, Absolute Idea.

Hegel evidently meant the divisions Life, Cognition, and Absolute Idea to form a triad. In the category of Life, though both the individual and the universal are recognized, the universal — the race or type — is emphasized. The logical antithesis of this category is one in which universal and individual are recognized, but in which the universal is made more prominent. Accordingly, Hegel opposes to Life the category of Cognition in which "the idea exists free for itself in so far as it has universality for the medium of its existence."¹ Finally, as reconciliation of the over-universality of Life and the over-individuality of Cognition, Hegel reaches the concluding category of Absolute Idea, "the unity of the idea of Life with the idea of Cognition."² "This unity," he says,³ "is consequently the Absolute and all truth, the Idea which thinks itself."

By the natural interpretation, not only of the specific expressions quoted, but of the entire movement of the dialectic in this last triad of the *Logic*, Hegel must be conceived as teaching that an Absolute which is conscious of itself is the reality underlying the subordinate realities of life, on the one hand, and conscious individuals (Cognition), on the other hand. McTaggart makes two distinct objections to this interpretation.

He urges, in the first place, that cognition is not, for Hegel, necessarily identical with consciousness, and that therefore, in attributing cognition to the Absolute Idea, Hegel does not necessarily attribute consciousness.⁴ The category of Cognition, according to McTaggart, means "a unity which is not only *in* the individuals but *for* the individuals."⁵ To be sure,

¹ *Encycl.*, § 223.

² *Ibid.*, § 236, note.

³ *Ibid.*, § 236.

⁴ *Studies in Hegelian Cosmology*, §§ 16-18. Cf. *Mind*, Vol. IX, N. S., pp. 149-151.

⁵ *Studies in Hegelian Cosmology*, § 14.

"there is only one example of such a category known to us in experience, and that is a system of conscious individuals," yet there may be some non-conscious example of this category beyond our knowledge or imagination.¹

This is certainly an ingenious argument for the theory that an Absolute which "unites the idea of life with the idea of cognition" is yet non-cognitive in the only sense which the word 'cognitive' has for us. The futility of such an argument is, however, recognized by McTaggart himself in another connection. In commenting on the abstract possibility (as he calls it) that the Absolute may "in some way utterly inexplicable to us be personal," he says: "This is the barest and most worthless abstraction of possibility. To say that something which is utterly unimaginable may be true . . . is, by itself, merely trivial." Judged by his own standard, therefore, McTaggart's theory that cognition, when attributed to the Absolute, means 'unconscious cognition' is entirely unconvincing.

In the second place, however, McTaggart argues even more boldly that the categories Life, Cognition, and Absolute Idea form a spurious triad, that Cognition is the completion, not the antithesis of Life, and that Cognition is virtually identical with Absolute Idea. "Is the transition," he says, "from Life to Cognition validly demonstrated? It will have been noticed, no doubt, that, although these two categories form the Thesis and Antithesis of a triad, the passage from one to the other has about it a great deal of the nature of a transition to a Synthesis. . . . This gradual subordination of the triadic form to a more direct movement is a characteristic to be found throughout the Logic, and one which by no means impairs its validity. The transition must therefore be judged as a transition to a Synthesis."² This synthesis, McTaggart teaches, is Cognition, in its highest form — a reality, in which, actually, "the Individual and the Unity may now be said to harmonize with one another."³ Such a reality is a self-differentiating unity in which the unity is for the individuals (that is, in which the individuals are conscious of their unity), but the individuals are not, in the same sense, for the unity (that is, the unity is not conscious of the individuals). This final stage of Cognition, as McTaggart conceives it, is, he believes, "the adequate expression of reality"⁴ and identical with the Absolute Idea.⁵

But whether this conception of the Absolute be right or wrong, it seems impossible to claim it as identical with that of Hegel. McTaggart, by his own showing, has not followed Hegel to the end. He has stopped short at Cognition, wherein, certainly, consciousness is that of the many individuals and the only unity is that of which the individuals are conscious. Hegel, however, goes beyond the category of Cognition to the

¹ *Op. cit.*, §§ 16 and 17.

² *Mind*, Vol. IX, N. S., pp. 151-152. Cf. *Studies in Hegelian Cosmology*, § 17.

³ *Ibid.*, p. 160.

⁴ *Ibid.*, p. 157.

⁵ *Ibid.*, pp. 166-170.

conception of the Absolute as conscious of its own differentiations, that is, as a person.

LOUISE WOODWARD ALLEN.

WELLESLEY COLLEGE.

We regret to announce the death of Professor Alexander Bain. Professor Bain was born in 1818. From 1860 to 1880 he was Professor of Logic and English Literature in the University of Aberdeen. He wrote many books, some of the best known of which are: *The Senses and Intellect*, *The Emotions and the Will*, *Logic*, *Inductive and Deductive*, and his volumes on James Mill and J. S. Mill.

Professor J. Mark Baldwin has been called to fill a newly established chair in Johns Hopkins University.

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

THE PSYCHOLOGICAL REVIEW, X, 5: *G. B. Cullen*, The case of John Kinsel; *J. P. Hylan*, The Distribution of Attention (II); *Max Meyer*, Some Points of Difference concerning the Theory of Music; Discussion: An Ill-considered Color-Theory, *C. Ladd Franklin*; Psychological Literature; New Books; Notes.

THE INTERNATIONAL QUARTERLY, VIII, 1: *John M. Robertson*, Black and White in Africa; *Nathaniel S. Shaler*, The Natural History of War; *Mme. Th. Bentzon*, Marriage in France; *Brander Matthews*, Greek and Roman Comedy; *Constant Coquelin*, The "Don Juan" of Molière; *Kuno Francke*, Emerson and German Personality; *René Puaux*, Finnish Literature; *L. Joubin*, Some Monsters of the Sea; *J. G. Brooks*, A Socialistic Contention; *Isaac A. Hourwich*, Religious Sects in Russia; *Edouard Bernstein*, Social Democracy in Germany; *W. P. Trent*, A History of English Literature; *J. B. Bishop*, Lynching.

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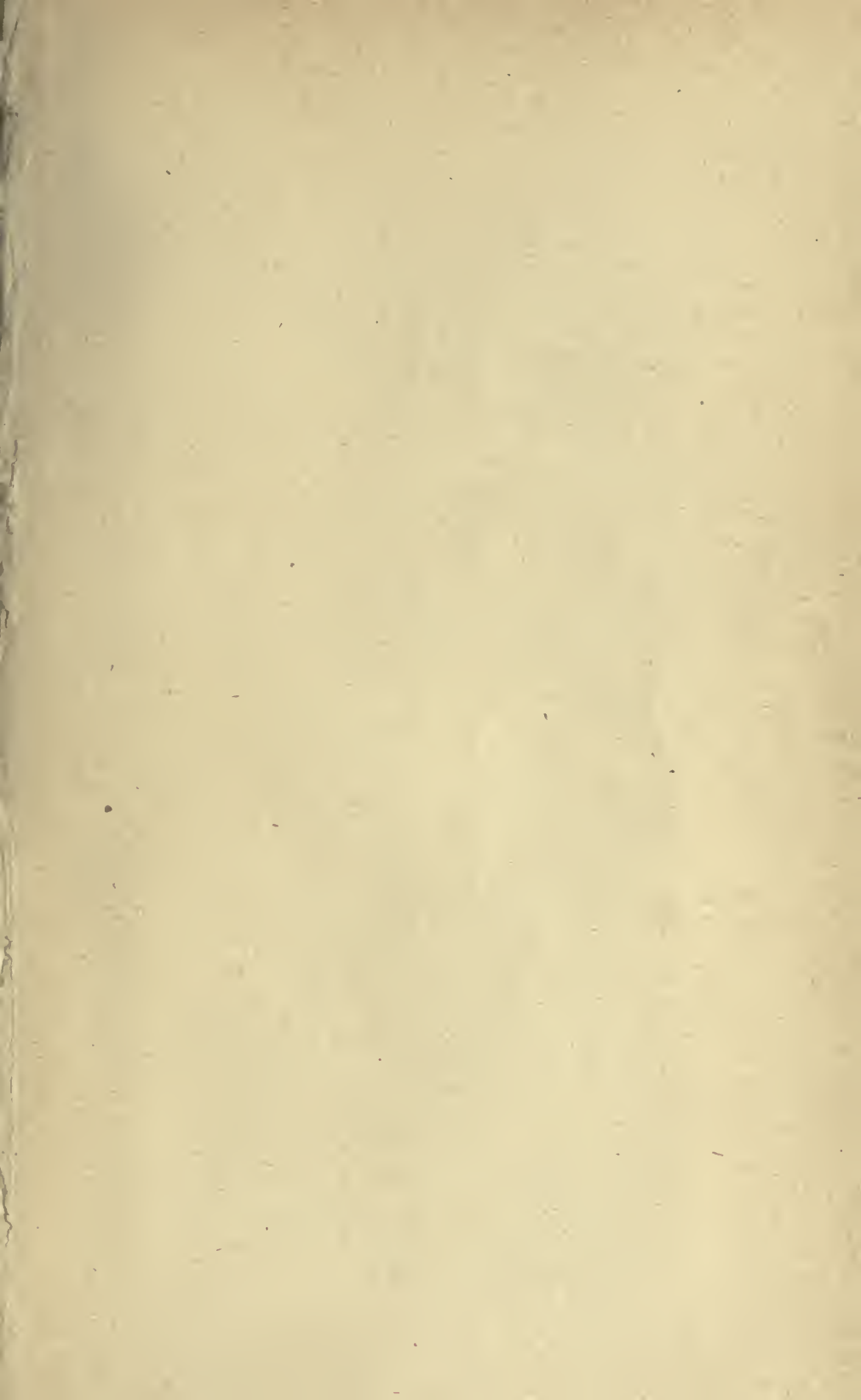
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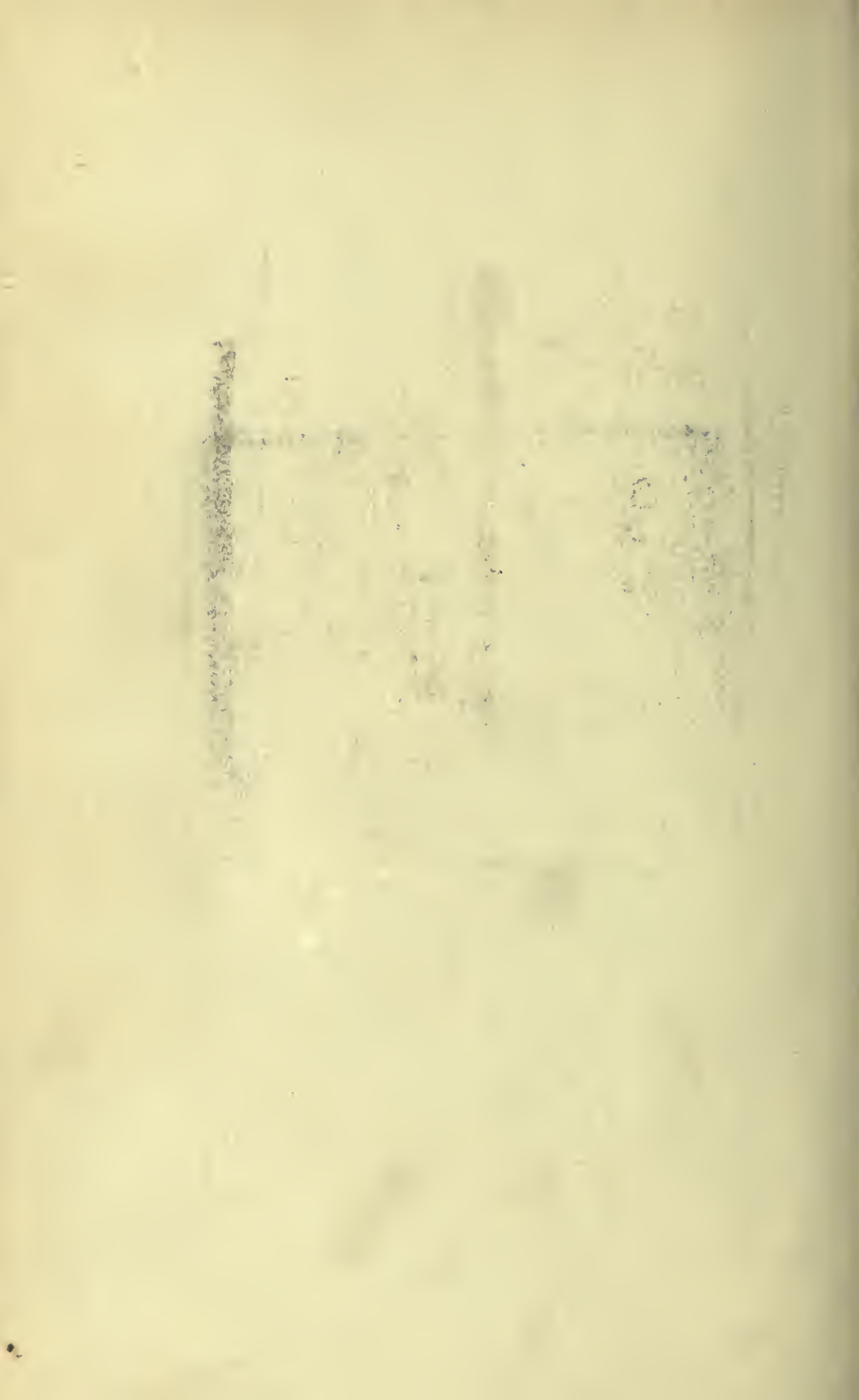
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