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PHILOSOPHICAL REVIEW

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THE PHILOSOPHICAL REVIEW.

THE PRINCIPLE OF INDIVIDUALITY IN THE METAPHYSICS OF BERNARD BOSANQUET.

THE task of philosophy, according to Dr. Bosanquet, is to characterize reality, to find out a vital idea or set of ideas wherewith to criticize and organize experience. Such an idea must have in some sense of the words universal application. It is important then to consider what is the type of universality which Dr. Bosanquet takes to be valid. The concrete universal is above all things a name for our most active and adequate, and therefore most normal way of looking at the world. For practical purposes, as for instance in the course of a strictly mechanical pursuit, such as tabulating the results of a statistical investigation, the mind may concern itself with mere generalizations, with repetitions as such. But Dr. Bosanquet has a well-founded doubt as to whether those who reduce all so-called rational processes to the handling of repetitions really have in mind what he himself would call rational experience. Bergson's view of logic,[1] and his consequent falling back upon intuitionalism, for instance, seem to Dr. Bosanquet to result from an unaccountable failure to consider conscious process as a whole, from an unwarranted abstraction of reflection out of the whole complex of experience which actually does keep it alive and effectual. Consciousness at work in the world of all our experience, the consciousness that takes us through a wide-awake day of tasks accomplished, beauties enjoyed, human relationships developed, though essentially rational, is not chiefly concerned with abstraction. We do not feel our way along experience with a measuring rod, nor on the

[1] See *Principle of Individuality and Value*, p. 54.

other hand do we transcend the guidance of reason in order to find our way, but live and grow as rational beings. Even in the course of what might be called habitual action, not guided by conscious reflection, as for instance the finger action of a trained pianist, there may be a precise and instantaneous adjustment to new and difficult situations. Thus we do not need to go to formal logic to discover the concrete universal. The term means the dominant form of any man's experience, "a system or habit of self-adjusting response or reaction, whether automatic or in thought, over a certain range of stimulation."[1]

Concreteness appears in the very unity of thought, which is asserted through diversity. All concrete thought, *i.e.*, thought about things, is immediate no less than mediate. We must then "admit thought to be in part intuitive,"[2] in so far as we are conscious not only of its function as analyzing, but also of its synthetic action. It is from this quality of thought that we get our use of words and of all symbols. If, as Mr. Bradley seems at times to imply, we could not rest at all in the unity of thought, there would be lacking the impulse to frame it up in communicable form.[3] We enter into a state approximating to this discursive hesitation when, for example, we are attempting to solve a problem in metaphysics and have not arrived at a point of synthesis in our thinking, so that we are still unable to communicate what we have, so to speak, partially framed up in our own mind. Thought is of course in part discursive, getting farther and farther beyond the given. On the other hand, it may return ever and again to a fuller unity than that from which it started. And

[1] *Op. cit.*, p. 40.

[2] *Ibid.*, p. 65.

[3] *Cf.* Mr. Bradley at his best: "Nothing is perfect, as such, and yet everything in some degree contains a vital function of Perfection." *Appearance and Reality*, Second Edition, p. 487. T. H. Green's theory, that reality can be resolved into a system of relations, if pressed home to its conclusion, amounts to a denial of this 'unity of thought' functioning in finite individuals, and cannot account for the satisfaction which finite consciousness finds in reality, or for the immediate aspect of any group of relations. A patch of color, say a rift of blue sky,—as we shall find Dr. Bosanquet maintaining,—cannot be described merely as a system of relations, nor even merely as a term, nor can it be adequately defined as the result of the action of certain physical laws. It is an unbroken effect.

although perfect unity can never be attained, still there remains present to thought a standard of wholeness or self-containedness "in which thought is at home with itself in reality, and assumes the attitude of an intuitive understanding."[1] One is apt to demur a little at this phraseology, as if it implied a subjective theory. But what we actually have here is a statement concerning the responsive universe. Thought finds *itself* in reality. By thought is meant not bare abstract reflection, but fully conscious experience, a complex in which feeling cannot be abstracted from rationality. If an object were thoroughly resolved into forms—that is, if all its qualities came to have their full meaning for us, not only as belonging to the object, but in their reference to the larger world of which every object must be a part, we should then find it inadequate to say that we were dealing with identity in difference.[2] Likenesses or identities would not disappear, because it is by virtue of them that experience is thinkable. But instead of the abstract consideration of likenesses and differences, we should have a thorough comprehension of the whole complex, the true universal, which Dr. Bosanquet calls 'a system of connected members.'[3] Ideally we should accomplish the construction of a 'world.'

From one point of view, then, the universal is the very synthesizing activity by which we get on in experience. But this activity cannot be divorced from the material in which it works. The universal is no more a movement of consciousness than it is the structure of reality physically existing, or having physical concomitants. If we did not abstract it as an aspect from the whole of experience, regarding it first from the point of view of the object, and then from that of consciousness, we should not dream of hypostatizing it.

Dr. Bosanquet has much to say of "the underlying solidarity

[1] *Op. cit.*, p. 57.

[2] Because our subject matter would be concrete experience and not abstract logical theory. As a matter of fact Dr. Bosanquet uses these terms so frequently and in so many applications as to give to the expression of his system an abstract or formal appearance which does injustice to his thought. Note his admission that he was once inclined to think logic 'the whole of philosophy.' See *Proceedings of the Aristotelian Society*, N.S., Vol. XV, pp. 7–8.

[3] *Principle*, p. xix.

of spirits, the medium in which all great things are done."[1] By this he means the connection set up between individuals on the basis of their identities. In the first place you and I live in the same world, so that in our experience taken separately there is an identical reference. But then each experiencing individual is a particular component of the whole. "It is true that my state of mind is mine, and yours is yours; but not only do I experience in mine what you experience in yours . . . but I experience it differently from you, in such a way that there is a systematic relation between the two contents experienced, and neither is intelligible or complete without the other."[2] So in human intercourse we have a means not only for 'identifying' ourselves, but, just as important, for discovering new aspects of experience in others, and then, by reflection back upon ourselves, for apprehending new points in common there. It is by grace of what in another place Dr. Bosanquet calls "the overlapping of human experience" that we have a spiritual world at all, and it is because our imaginations find room to grow in such a world that creative activity is possible.

In the *Philosophical Theory of the State,* where Dr. Bosanquet is treating specifically the institution and the individual, we have opportunity to examine more closely what he means by such a phrase as 'the underlying solidarity of spirits.' The central point of his theory here seems to be expressed in the following sentence: "In institutions . . . we have that meeting point of the individual minds which is the social mind."[3] Neither the institution nor the social mind, however, are regarded as self-subsistent entities, hypostatizations independent of the conscious individuals concerned. Such an institution as a school, for instance, with its outward manifestations in space and time of building, teachers, and pupils, is the occasion for "a set of corresponding mental systems in individual minds."[4] These individuals have enough of experience in common so that, in each one of them, a meeting point is set up, but the institution consists no more specifically in this their agreement, than in the different

[1] *Op. cit.*, p. 134.
[2] *Ibid.*, p. 315.
[3] See page 172.
[4] P. 170.

reaction which each individual makes to the situation as he individually conceives it. "In the dispositions of every mind the entire social structure is reflected in a unique form, and it is on this reflection in every mind, and on the uniqueness of the form in which it is reflected, that the working of the social whole, by means of differences which play into one another, depends."[1]

The social whole, then, consists of the individuals that compose it, and *as* a whole, or a 'system of connected members,' does not appear to be in any sense comprehended self-consciously except in the conscious experience of those individuals. Of course, the association of individuals does produce a whole which is over and above the individuals taken separately. But in the case of the school, for instance, we have given an existing ground of the unity, *i.e.*, its building and equipment, affording an identity, connection, or meeting-point present in some aspect to the experience of every individual concerned. The consciousness of the unity is yours and mine. "Every individual mind, is, so far as it goes, for good or evil, the true effective reality of the social whole."[2] The universal is "a connection within" particulars, "not another particular outside them."[3]

The concrete universal, then, is at least a name for a description of how experience comes to us, and in order to get at the true nature of the unity of the concrete universal, we must attempt to examine the content of consciousness as such. Dr. Bosanquet gives us a somewhat detailed description of 'a content of sense.' "What I see when I look at a blue thing has unity, and life. . . . What does a unity of this kind consist in? Identity of ethereal wave-lengths? Not at all. That may be presupposed, but it will not do the work by itself. Blue is a peculiar 'effect': effect, I mean, in the artistic sense of the word; and wave-lengths, received say on a photographic plate, are not the peculiar effect which we call blue. . . . How do the elements of the effect hold together? . . . There is no push or pull between them. They work on each other through their identity and dif-

[1] *Op. cit.*, p. 174.
[2] *Ibid.*, p. 175.
[3] *Ibid.*, p. 291.

ference. . . . What sort of medium does such a unity involve? Surely, that of consciousness and no other. Blue, then, while it retains the characters of blue, must have in it the life of mind."[1] This description of the 'effect' of blue may be taken to suggest a denial of the theory that sensation can be resolved into relations, as well as of the realistic theory against which it was actually directed. Blue has a definite unity, a character of its own, over and above the results of any analysis of its constituents.

In order to understand as thoroughly as possible 'the life of the mind,'[2] which is synonymous with the concrete universal in its dynamic aspect, it is necessary to consider Dr. Bosanquet's analysis of the unity of self-consciousness. In a chapter on "Personal Feeling"[3] he is at pains to clear away from the notion of the unity of the self certain misapprehensions which might confuse it. (1) It has been contended that the chief ground of this unity lies in the "*de facto* distinctness of immediate experience in different finite centres."[4] It is said that I can never possess "the directly experienced quality of your mind." Dr. Bosanquet gets rid of this contention by granting it. Of course there is no denying the incommunicableness of my feeling consciousness as such. "It has to be remembered that all the wealth of our world has an immediate aspect, and . . . must pass through the form of feeling."[5] Nevertheless, the important thing about *Hamlet* is not how Shakespeare felt when he was writing it. And the personality of a person who counts is great not because of a peculiar feeling which he is unable to communicate, but just in virtue of what he is able to get across to the rest of the world. "Thus the pure privacy and incommunica-

[1] *Mind and its Objects*, pp. 32–33.

[2] It is important to remember that Dr. Bosanquet means by the 'mind' here not a process of reflection, but a rational being experiencing. 'Experience,' 'consciousness,' 'the mind' are used more or less interchangeably, although 'mind' carries best the connotation of rationality which he is anxious to preserve. The distinctions, for instance, which he eventually discusses between the various 'worlds of reality,'—knowledge, art, life in society, are drawn inside the general term 'mind.'

[3] *Value and Destiny of the Individual*, p. 32 ff.

[4] *Ibid.*, p. 33.

[5] *Ibid.*, p. 37.

bility of feeling as such is superseded in all possible degrees by the self-transcendence and universality of the contents with which it is unified."

Dr. Bosanquet thinks it possible that an exaggeration of the importance of this distinctness of feeling may add strength to the theory that the unity of the self is maintained by opposition to a not-self. He reminds us, however, of the bad sense of the term 'self-consciousness,' used to describe a state of extreme shyness or self-preoccupation, and of how we are at our minimum of power when we are 'almost mere exclusiveness and antagonism.' After all, "our main point in conceiving Individuality is to maintain its freedom,"[1] and freedom we seem to achieve only when we forget ourselves and open the gates to receive the world. At great moments we have all our barriers down, and are not afraid of trespassers upon that arbitrary privacy of feeling which little souls cherish. But communicable feeling partakes necessarily of the universality which is admitted to be characteristic of cognition.

"No one would attempt to overthrow . . . the formal distinctness of selves or souls."[1] The distinctness of physical bodies in space is clearly insurmountable. Dr. Bosanquet stands firm on the basis of the laws of mechanics, and assumes "the rule . . . to be that one self cannot get to the experience of another self except by communication through the external world."[2] Admitting this rule, however, there is no given limit to the extent of communication possible. From the wireless telephone, and conjurer's tricks of 'mind-reading' which we may suppose dependent upon the transmission of infinitesimal physical signs, to the fine and thoroughgoing compatibility of close friends, we have all sorts and degrees of interpenetration of one self by another. But the important thing is that there shall be "stuff and material of unity, language, ideas, purposes," in short, "contents of communicable feeling," which is feeling *about* ideas.

There are however certain '*de facto* limitations on the material range' of experience, which condition the 'power' of finite individuals. In a sense it is true that our conception of indi-

[1] *Principle*, p. 285.
[2] *Value and Destiny*, p. 47.

viduality as finite must always take into consideration the actual powerlessness of finitude. Its 'measure of power' seems on examination to be the measure for us of a given personality. We seem justified in feeling that unity and power go together, and that "where power ceases, unity must also find its limit." The principle of unity lies nevertheless not in negation but in affirmation, not in what it cannot include, but in the conditions allowing positive inclusion of material. Our limitations are so constantly shifting. As we say, a great occasion makes us rise above them. Limitation, from the point of view of a self whose nature as rational is to include, is an imperfection rather than a characteristic.

Fortunately, even from a superficial observation of society, we are conscious of a certain amount of compensatory adjustment, so that particular limitations do not seem so hopeless after all. We attempt or are forced by circumstances to fill in where our particular capacities make us useful. Thus we piece out one another's imperfections. It is interesting to note that our capacities for usefulness in the community are not regulated strictly in relation to our bodily equipment, as is the case with ants and bees, for instance. We transcend the immediate givenness of our capacity as physical organism in countless incalculable degrees.[1]

Although we assume a specific function for each human being, there must be 'identity' between these beings as well as 'difference,' in order that coöperation and communication shall be possible. Not only must a man be conceivably ready to lay down his life, his formal diversity, for the sake of one of the greater wholes to which he gives his allegiance, but he must be ready also to live and to realize that he is by no means wholly irreplaceable in these wholes. He must be ready to hear his own ideas

[1] Dr. Bosanquet warns us again and again to avoid "our tendency to construe minds as similar things, repeating one another like human bodies." We are not to hypostatize them as things at all. The incalculable power of self-conscious beings must not be understood as available independent of body, nor as implying a capricious 'genius' not necessarily involved with the universe, but the ways of such beings, as self-conscious, cannot be adequately described by the 'push-and-pull' category of cause and effect. *Cf.* H. G. Townsend, *The Principle of Individuality in the Philosophy of Thomas Hill Green*, pp. 44, 53, 60.

spoken by another, to see the results of his research published the month before his own paper is ready for press. *De facto* evidence for the specific function, as such, of each formal finite centre, is lacking. On this point of the place and function of finite individuals as we know them, Dr. Bosanquet is not altogether definite, but the whole tendency of his thought is to stress the 'supra-individual' extent and importance of the ends to which such individuals devote themselves. We have already quoted him as saying that the entire social structure is reflected in the dispositions of every mind in a unique form.[1] Taken at its minimal significance, the uniqueness of particular finite beings as postulated by Dr. Bosanquet is of a formal logical character. "We may fail to observe the differences in or in spite of which a repetition takes place," he explains. "But it is certain that if they were not there, there could be no repetition: that the two cases or examples having nothing to hold them apart, could not be two but one."[2] On the other hand he is at pains to call attention to the fact that uniqueness, in the sense of exclusiveness, or even in the sense of specific and peculiar function, does not seem to be demonstrable in our experience of finite individuals, and that it becomes increasingly difficult to demonstrate, the deeper we go into the meaning of human life. The actual motivation of our conduct, both ordinarily and at our best moments, seems to be, notwithstanding certain modern theories to the contrary, not self-expression for its own sake, but some one of an untold variety of concrete ends. And these ends seem to belong to us not so much by some inalienable connection with our incommunicable personal feeling, nor even because they are commensurate with our personal 'powers,' but partly because they fall to our lot in a course of events over which we have no control, and partly also because we regard them as desirable ends, for many reasons more or less completely thought out, but in which others are likely to be at least as much considered as ourselves, in which as a matter of fact the distinction between self and other is not very clearly made, and the actual present object to be attained is the most

[1] *Philosophical Theory of the State*, p. 174.
[2] *Principle*, p. 117.

important consideration of all. In order to do justice to the significance of the present, as well as to the concrete unity of experience, it is necessary to construe individuality in terms of concrete meaning as a whole. We may say, then, that in so far as the mind is able to affirm a positive content, to resolve the contradictions in experience, *i.e.*, to organize experience into a whole, in so far real individuality is achieved.

Taken as we experience it in ourselves and others, at the varying levels of everyday living, the mind, or consciousness, of the so-called finite individual is obviously not a whole in the sense of a coherent whole. At any one moment we may find within it discordant ideas and motives, fragmentary sensations and impressions apparently irrelevant to what may be for the time being the main stream of thought. We may even find two more or less consistent and mutually contradictory 'systems,' each affording conceivable possibilities of action, included, so to speak, within the same mind. Dr. Bosanquet says, "A mind has its dominant nature, but is no single system equally organised throughout."[1] Again he says, "Though the mind must be an *actual* structure of systems, it is very far from being a *rational* structure of systems."[2]

Corresponding to these two sorts of whole, we have two meanings of the word 'include.' Dr. Bosanquet tells us in the course of a simple and comparatively non-technical description of conscious experience that the nature of mind is "to include," and that mind takes itself "as a world, not as an object in a world."[3] Thoughts about absent objects, for instance, are 'included' in this world. They are distinguished from present objects, but the whole complex holds together for the observer, and the distinction between presence and absence, as well as that between inwardness and externality, legitimate as these distinctions are, can be made only inside the whole.

So far, however, we have said hardly more than that experience is experience. But we are to remember that we are considering 'the life of the mind,' the experiencing individual consciousness, not merely as a passive receptacle, but as dynamic, as reacting

[1] *Philosophical Theory of the State*, p. 165.
[2] *Ibid.*, p. 173. Ital. mine.
[3] *Mind and its Objects*, p. 27.

functionally on experience. From this point of view we may still say that it is the nature of mind to include, but this time we mean to include *actively,* 'to resolve the contradictions in experience.' The normal life of a conscious being requires the continual adjustment of new experience to old, the gathering together and coördinating of ideas bearing upon experience, the trained response of the whole man to the continuously changing circumstances of his environment. This function of adjustment belongs to mind in the larger sense already noted, although it may be examined at close quarters, so to speak, in logic. "This, then, is the nerve of logical determination, viz., the removal of error or contradiction by means of a positive union in which data or premises destroy each other's defects, and give rise to a new totality which transcends its factors. This is the essential process of experience throughout, and in all its kinds, and when traced and analysed in proportional form it reveals itself as logic—the creative and originative nexus of mind as such."[1]

We find in many places in Dr. Bosanquet's works,—too many for specific quotation,—reference to the 'nisus and endeavor towards a whole' which is characteristic of the nature of mind. That is, although we may permit irreconcilables to exist together in our reflective consciousness, this is possible only because they dominate over the whole system of experience in alternation. The presence of irreconcilables which make an equal claim to domination means the dissolution of personality. The normal effort, even for practical purposes, is 'to make the world synthetic,' to find out rules which work universally, or, to speak in more technical terms, to make every difference fit into the system of the whole.

But it is clear that this is a process of inclusion in which something is destroyed. We do not carry around with us all our illusions and delusions of the past, like so many sticks in a basket. Correction, cancellation go on with us continually. Some phases of this process, the adjustments of vision, for instance, are automatic; others, like the acquirement of knowledge in any particular field, come by reflection. But the principle is the same. In

[1] *Principle,* p. 264.

view of the great significance to us of this type of experience of inclusion, the assumption of an 'Absolute' which should 'include' in the first sense all the fragments and scraps left over from our ineptitude would seem to be peculiarly unsatisfactory. There are passages in which Royce seems to suggest such an assumption.[1] Such passages may be interpreted in connection with what he has to say[2] about selective interest, and about purpose as adjustment,[3] but taken by themselves they represent a tendency to bring all experience to the same level of significance, a tendency certainly not justified by observation of human lives.

On the other hand, it is possible to carry too far the notion of an inclusion by which something is destroyed, until the plain distinctions, which give all its point and meaning to experience, are conceived as lost in 'the Absolute.' This tendency comes out in what Professor Pringle-Pattison calls 'the Spinozism' of Mr. Bradley.[4] For although he maintains that "there is but one Reality, and its being consists in experience,"[5] he declares on the other hand that the unity of the various aspects of experience is unknown,[6] and this because the coming together of its distinct or 'antagonistic' elements means that their distinctness is lost. The completion of truth would cease to be truth, because in such completion "all distinction . . . must be suppressed."[7] We have already noted Mr. Bradley's distrust of the 'discursive intellect,' or the finite faculty of judgment, and suggested Dr. Bosanquet's answering contention that the mind does in a manner continually come home to rest in reality, so that thought is hardly the incurable malady that Mr. Bradley represents it as being. It is when Mr. Bradley is emphasizing this 'dialectical difficulty' that he conceives of an 'Absolute Experience' in which all distinctions

[1] *Cf.*: "Our theory does indeed unite both your act and the idea that your act expresses, along with all other acts and ideas, in the single unity of the absolute consciousness." *World and the Individual*, p. 463 f. See also pp. 427, 469 ff.

[2] *Ibid.*, p. 449.

[3] *Ibid.*, p. 437.

[4] See *Man's Place in the Cosmos*, p. 156 f.

[5] *Appearance and Reality*, second edition, p. 455.

[6] See *ibid.*, p. 468.

[7] *Ibid.*, p. 462.

shall be 'lost.'[1] The logic of this conception leads irresistibly to a blank featureless Absolute, in which all determination is negation. But Dr. Bosanquet maintains that more knowledge, more systematic 'inclusion,' means more rather than less determination, so that there is nothing to indicate that a completely systematic reality would lack distinction. The knowledge, for instance, of a trained botanist becomes more rather than less definite, so that delicate differences of function and structure, fine interdependences, appear to him in an ever-increasing manifold. Where his knowledge is systematic rather than contradictory there is no tendency toward loss of distinctions.

We have already had occasion to note the limitation in power which characterizes the finite self. This limitation is realized most clearly when we have grasped 'the principle of individuality' as the tendency of the mind to function as 'a spirit of totality,' to include without contradiction more and more of experience so as to approximate a perfect whole. There would appear to be a hopeless discrepancy between the ideal of my finite mind and what it is able to accomplish, between the actual finite self with his vague and fragmentary character, and the perfectly rounded being which his best instincts suggest to him as ideal. It is in this contrast between the nature of ideal knowledge and its actual imperfection, between persons and the ideal of individuality inherent in them, that we have what Dr. Bosanquet calls "the fundamental inference" to the Absolute,[2] the inference *a contingentia mundi,* or the "inference from the imperfection of data and premisses" to "a rational reality transcending the given," "the passage from the contradictory and unstable in all experience alike to the stable and satisfactory."[3] It is the nature of finite mind, the impulse in it to unity, which leads us irresistibly to postulate ultimate unity in reality.

In order to answer more concretely the question: what is the nature of the unity in reality, or, in other words, what is the principle of inclusion by which individuality is achieved? we

[1] He appears at such times to lose sight of the doctrine of degrees of reality which he maintains at other times.

[2] *Principle,* p. 257.

[3] *Ibid.,* pp. 267, 268.

turn necessarily to what Dr. Bosanquet calls 'the higher levels of experience,' where the soul is at highest stretch,—*i.e.*, includes most, approximates most nearly to individuality,—and examine the process by which transition is made to these 'higher levels.' We have noted that 'the fundamental nature of the inference to the Absolute' consists in just such a transition, in "the passage from the contradictory and unstable in all experience alike to the stable and satisfactory."[1] So if we succeed in approaching a clear understanding of the nature of this transition, we may expect to have within our grasp a working principle of the whole, to arrive, that is, at one of the coveted 'vital ideas' which shall be above hypothesis.

Dr. Bosanquet sets this principle forth in summary terms: "The general formula of the Absolute . . . the transmutation and rearrangement of particular experiences, and also of the contents of particular finite minds, by inclusion in a completer whole of experience, is a matter of everyday verification."[2] We have already drawn a general distinction between two sorts of wholes, an *actual* structure, and a *rational* structure. We have now to consider (1) how we are to think these differing aspects of experience in relation to one another, and (2) what it is, more precisely, that takes place when transition is made from a lower level of experience to a higher.

In the first place, then, if we must take experience as implying one perfectly systematic whole, what is the meaning, in that whole, of the fragmentary, the apparently unsystematic aspects of experience? Hegel sometimes writes as if he were recognizing in the universe chance happenings, elements of contingency having no specific significance in the whole. He says, for instance, that the 'commencement' of certain positive sciences, such as jurisprudence, natural history, medicine, "though rational at bottom, yields to the influence of fortuitousness, when they have to bring their universal truth into contact with actual facts and the single phenomena of experience," . . . Such sciences "stumble upon descriptions of existence, upon kinds and distinctions, which are

[1] *Principle*, p. 268.
[2] *Ibid.*, p. 373.

not determined by reason, but by sport and adventitious incidents."[1] It is in terms of degree of inclusiveness that Dr. Bosanquet interprets those differences in experience which have given rise to the traditional distinction between necessary and contingent truth. The differences, as he conceives them, lie between 'levels of experience,' or between the relaxed perceptions of surface living and the most intense, most deep-going and inclusive experiences. In describing the latter experiences, he sometimes speaks of 'the full-grown nature of mind.' The figure of growth is not quite suited, however, to carry his meaning, in so far as it tends to over-emphasize the element of time. Dr. Bosanquet refuses, indeed, to take the course of history as such to be the type of reality. The mere succession and change of events in time does not give us any clue for interpreting them, although 'things temporal' remain the only ground for all our inference, metaphysical and otherwise. In a prevailing metaphor, life is compared to the flowing of a mighty stream. This metaphor is truly descriptive of the temporal aspect of life, and attempts to do justice to its integrity, but nevertheless is not adequate, because the movement of life is also analogous to the rising and falling of a tide.[2]

The tendency to stress in experience the aspect of continual change Dr. Bosanquet calls 'ignoring the concrete universal.' "This is the defect," he says, "which leads us to suppose that concreteness and contingency are inseparable, and makes us confound the apparent contingency of details within a cosmos, whose main members are necessary to the whole, with the contingency at the heart of a spatio-temporal world of incident, which has never been re-created by experience of the dullest type."[3] Here we have Dr. Bosanquet's view of accident in one rather difficult sentence. From what might be called the external viewpoint, there is such a thing as contingency. Details looked at casually, or life lived wrong-headedly, will appear in the guise of mere 'changes and chances,' included in experience actually but not rationally. Nevertheless the casual or wrong-headed judgment itself is knit into the structure of reality, and brings down upon

[1] *The Logic of Hegel*, tr. by William Wallace, second edition, p. 26.
[2] See *Principle*, p. 373.
[3] *Ibid.*, p. 79.

the devoted head of the judger inexorable consequences. By the 'contingency at the heart of a spatio-temporal world of incident' Dr. Bosanquet means then first of all the aspect of things as only partially understood by the conscious observer. "Take any minimum of experience," he says, "work out its implications; and it will bring you to a central or concrete view of things." This does not mean that the significance of the incident as it stands, or as it is at first conceived, has necessarily any final validity. We are not, in other words, logically headed for the 'basket' Absolute. A wraith of mist may look at first sight like a white-robed figure. This would be a partial meaning, capable, if taken in a context sufficiently large, of being transmuted into a complete and therefore necessary truth.

For in the second place Dr. Bosanquet means to admit and to stress the difference between the maximum and the minimum of content in experience. A drift of smoke in the air, a word spoken inattentively, are obviously, taken in abstraction, less inclusive, less significant, than a blazing forest or the plain expression of a profound faith. But the slighter manifestations are no less necessary, in the sense of fully conditioned, accountable, and productive of characteristic results, than are the more complex ones. Dr. Bosanquet is at greater pains than Hegel to protect his statements concerning the minimal aspects of experience, and seems at first sight to be committing himself to a mechanistic determinism. But both Hegel and Dr. Bosanquet are fundamentally agreed, first that the categories of mechanism, 'the laws of the world of time or space,' are not adequate to explain the worlds, infinitely more complex, of art or personality for instance, and second, that there is but one universal, one nature of reality, of which all 'existents' must in greater or less degree partake. There is no universal outside the particulars, and, conversely, there is no particular which has not a relevant meaning in the universal system.

So what we have in our experience as self-conscious beings is not 'determinism,' a nature applied by force from without, but 'determinateness," an inherent nature which we both *have* and *are*.[1] In this view of accident, Dr. Bosanquet turns on the one

[1] See *Principle*, p. 340 ff.

side from the theory of pan-psychism, which refers the happenings in this world, both on the level of demonstrable consciousness and below it, to the capricious impulses of partially irrational psychic beings, and on the other from materialistic or fatalistic determinism. With the results of the exact sciences in mind, Dr. Bosanquet cannot look upon the 'natural world' as chaotic, or think of nature as engaged in a bacchic orgy of contingency. Moreover—and here is the deep point at which we may drown in the vain attempt to save our 'uncriticized desires'—the laws of the spiritual world are just as inexorable as the so-called natural laws, nay more, they are, as we shall see, but aspects of the same universal law. At all levels of development the 'individual,' in so far as he achieves individuality, is on the one hand 'selected,' or struck out by his environment, gets all his differentiations from without. On the other hand, he is *within* the rational whole, the nature of it is explicitly active in him, so that in him lies not only the complementary capacity for responding to and suiting the very environment which forms him, but also for acting upon and moulding this environment. It is precisely by reason of our belonging in the nature of us to 'the rest' of the universe that we are able to be free, are able, that is, in so far as we understand the rest of the universe, to act effectively in it and on it. But we pay the price, not only as *de facto* selves but as members of a larger whole, when we act blindly or capriciously. Such a theory is far from presenting us with 'the benevolent straitwaistcoated institution,' which Mr. Russell imagines idealism to be, or with the 'marble temple shining on a hill' of William James's idealistic student. It requires renunciation, at this particular point, not only of unfounded faith in the independence of mind, or rather, of conscious will, but also of a sentimental despair over the inexorable course of natural law. It is a philosophy which accepts the world as it is, with the enormously exacting proviso that we do our best to find out *what* it is, and especially what is our place and function in it as self-conscious beings.

We have seen that there is no distinction, in point of necessity, to be drawn between the simpler and the more complex aspects of experience. Patience and imaginative insight brought to the

former would start the investigator on an inevitable approach to the higher levels of experience, and so to an understanding of the whole. If, however, an understanding of the whole is what as metaphysicians we are after, we shall best keep the rule of economy which is set for all investigators by giving our attention directly to the higher levels of experience, to 'the full-grown nature of mind,' where we have fullest content, greatest degree of rational inclusiveness, the truest individuality. It is in experience at this level that we must seek for the 'vital idea or set of ideas' wherewith to criticize and to interpret reality.

By application of this criterion of rational inclusiveness, Dr. Bosanquet is led to consider such experiences as the intellect at its full stretch, aesthetic appreciation, creative activity, various aspects of community and personal loyalty, the religious experience. He finds at work in all these experiences what he calls the principle of transmutation,—giving rise to *self-transcendence*, or the positive realization of self in other. This in brief answers the second question put by this chapter, as to what happens when we make the transition from a lower to a higher level of experience.

It is noteworthy that in a chapter entitled "Ourselves and the Absolute,"[1] we do not find a description of the relation of the finite self to an eternal consciousness somehow hypostatized and set above it. What we do have described and insisted on is our actual experience of self-transcendence. This amounts to a further insistence on the necessity for looking past the formal distinctness of selves in order to discover what it is to be a self. For in the first place, to say that 'self-transcendence' is the normal form of our experience, is another way of saying that the rational factor is always present in experience, whether or not it is *reflectively* present. "The moment we enter upon the reflective study of man," Dr. Bosanquet declares, "we learn that his individuality, his self-identity, lie outside him as he presents himself in time."[2] This does not mean that the real self of man is a *reduplication* of what is given in time, but simply a different,

[1] *Op. cit.*, p. 257 ff.
[2] *Ibid.*, p. 259.

deeper, and more consistent way of being than that which may be taken as immediately given within the compass of a certain moment.[1] There is a fearful human instinct urging us to hold on to some conception of the given, to maintain this definite self, as it goes and stands, against all encroachments from without, lest we be left with a mere abstraction or generalization, and find this definite self obliged to accept annihilation. Our love of the concrete, 'the little lighted room,' is as a matter of fact reasonable enough. In a very real sense we have no world but this, and no moment save the present. But the whole paradox of time and eternity lies just in such a sentence. For eternity is achieved in the complete meaning of this passing moment.

But 'the experience of self-transcendence' means more than this somewhat formal reiteration of the indissoluble connection between the rational factor and the rest of experience, between the self taken merely as passing in time and the *meaning* of this self in the eternal present. The experience of self involves an actual out-going and expansion of the self, and a displacement or destruction of some elements of experience in favor of others. It is not even necessary to go to the higher levels of experience to demonstrate so much of the working of the principle of transmutation. Something is displaced or subordinated in favor of something else in any sort of absorbed occupation, whether it be the enjoyment of a good meal or the promotion of a great cause.

The so-called higher levels of experience, however, exhibit most specifically the principle of rational inclusion. There is something more than the mere impulse toward inclusiveness of the other, than the mere 'transmutation and rearrangement of particular experiences' operative in the most vigorous and fruitful life. Just as there is something more than blind desire in our love for the dear details of daily life, so there is more involved than a mere bare activity or expansion of the self when we give some of them up for what we consciously regard as a greater thing. It is true that self-transcendence is the warp of all our experience. If we are living at all, we are living at least partially

[1] 'The given' is simply what we choose to take *as* given. It is always an abstraction cut out from a context indefinitely extended.

for and in another. But on the higher levels of experience, we are more or less consciously bent on escaping from "the contradictory and unstable in all experience alike to the stable and satisfactory."[1] In the higher experiences we are looking for stability, and arrive at satisfaction in so far as we secure it. If we were to stop with this statement, we should have just as abstract a theory as do these who declare that we are looking for activity. Stability is, as we shall see, one essential criterion for a satisfactory experience, but not a completely descriptive term for such an experience.

There is a theory in the air concerning the nature of satisfaction which Dr. Bosanquet is anxious to refute. It is put in various forms, popular and technical. The symbol of satisfaction for it is a road dipping up and over a hilltop,[2] or even the operator's seat in an aëroplane rushing out into uncharted space. Satisfaction, we are told, lies not in stable relationships, but in activity. From this point of view the permanency of the marriage bond, for instance, has no better reason than provision for the children, that they may have opportunity to go on with ceaseless activity in their generation. With complete satisfaction, we are told, would come satiety. There is no more joy to be had in singing hymns of the heavenly Jerusalem, for we know now that we do not want a heaven of fulfilled desires. Put more technically the theory tells us that reflective consciousness consists in solving concrete difficulties, in adjusting ourselves ever anew to concrete situations. Solved problems are shunted over to be taken care of by habit, and so are left behind by reflection.

Now, in so far as this theory leads to a realization that the significance of life lies in its present meaning and not in its outcome at some future time, Dr. Bosanquet grants its validity. He declares that "the great enemy of all sane idealism is the notion that the ideal belongs to the future."[3] This notion, and also the

[1] *Op. cit.*, p. 268.

[2] *Cf.* "But whereso'er the highways tend
Be sure there's nothing at the end."
R. L. S.

[3] *Pripciple*, p. 136.

theory just now under discussion, seem indeed to him but different expressions of the same fallacy,—an over-estimation of the significance of time. The conviction that heaven is achieved for the future by some ceremonial obedience in the present leads to the hypocrisy of the scribes and Pharisees, and to all the evils that go with an arrived aristocracy. It is true that one of the cardinal principles of the democratic idea was demonstrated by Hobbes when he declared all men to be equal on the ground of their universal and unquenchable desire for self-preservation, that desire so inevitably doomed to be brought low. It is the uncertainty, not only of life, but, as we should add today, of the tenure of excellence, which makes us equal. It is impossible to acquire merit, because each new acquisition of virtue demands new accomplishment.

It is but a development of the same idea to say that tension must be always present in satisfaction. The idea that joy lies in mere acquiescence or in bovine contentment is involved with the ancient confusion of 'well-being' and 'pleasure,' of *εὐδαιμονία* and *ἡδονή*, and leads to an erroneous pleasure psychology and beyond that to an inadequate philosophy which theory does right to dispute. It is true that we live in a concrete present and that we must stretch every nerve to meet its requirements. Dr. Bosanquet gives us an account of Aristotle's doctrine of the mean which is illuminating as interpretation, and at the same time significant in the present connection. "Only the true motive," he explains, "gives you the perfect act . . . how hard it is to be brave, and gentle, and modest, and calm, and wise. The brave and noble soul, and it alone, will ring true in every side and aspect of its act; time, place, manner, degree, behaviour to persons; all the characters which make up an act whose quality takes form in quantity, and is adapted to the situation with a beautiful adequateness, in every detail just right, neither too little nor yet too much, like the petals of a rose."[1] This extraordinary passage literally wakes up every nerve in the body, and at the same time inspires that still contemplation of full-rounded perfection which might be called mystic, but which is rather on the way to

[1] *Op. cit.*, pp. 397–8.

being completely intellectual, since it depends for its intensity on a concrete vision of details in their unified connection. In the same mood we have St. Bernard's solemn

> "O bona patria,
> Lumina sobria
> Te speculantur,"—

and all the following panoply of words in his immortal description of felicity.

On the other hand, the notion that true satisfaction brings satiety gives undue prominence to the mere succession of events in time, and fails to allow for the *meaning* of experience as rational. This meaning consists not only in the 'nisus of mind towards a whole,' but also in its rest, by a sort of anticipation of perfection, in reality. Are we not conscious of an element of stability, not only in the requirements of each moment, but in our response to them, in so far as we succeed in responding adequately? Who has not had at least a foretaste of stable satisfaction in the adjustment which results from and accompanies effort? Dr. Bosanquet is apt to urge the experience of singing in a chorus, when the self, all concentrated, body and mind, in that vocal expression, is freed from its barriers of mere personality and merged in the volume of sound until the chorus seems like one harmonious instrument, of which the individual singer is but a necessary part. More universal still is the experience of friendly intercourse,—exchange of ideas, coöperation in work, common enjoyment of a rapid walk in wind and sun. We are conscious of a desire to put this quality of perfect adjustment, maintained by an effort keen and altogether wide-awake, into the whole of life. So we mark the difference between our fragmentary good and perfection.

But this is not desire for desire's sake, activity for activity's sake, nor is it on the other hand an approach to an habitual and purely mechanical adjustment. It is rather an intense appreciation of present felicity accompanied by an imagination of its infinite extension. Experiences like these do not derive their value from being wanted. Only undue attention to abstract theory could ever make us think so. To say that we fulfill ourselves in

them is still to use the phraseology of private feeling which Dr. Bosanquet is anxious to avoid. They are concrete,—are singing, or discussion, or writing, or walking, and are *what we want,* ends for which we are willing to sacrifice mere self-indulgences.

The theory concerning satisfaction which Dr. Bosanquet is criticising has on the one hand the virtue of emphasizing the present situation, but on the other falls into the old fallacy of abstraction. It overlooks the significance of experience as a whole. Having missed the character of thought "as a system of functions adapted to the removal of contradiction throughout experience,"[1] it is in search of an explanation for the continuity of experiencing, and more than half believes that we go from one day to the next merely on the strength of the fact that every day brings forth new situations. But it is not newness-in-itself, or activity-in-itself, for which we live, but for our work, our family, our religion,—for concrete goods, in which there are normally aspects or tendencies which we would fain believe to be permanent. "There are some things . . . the best . . . which our activity does not make, but only reveals. They are not in time."

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[1] *Logic,* second edition, Vol. II, pp. 278 ff.

PRINCIPLES IN ETHICS.

II.

AS there seems to be no standard rule of subordination that can be applied to the elements of every life, so it is not easy to establish generally the claim, in connection with any interest in particular, that it is indispensable to the best life for every man. We may argue that if an impulse is given no exercise, it will persist as an unappeased craving to trouble life and stir up discontent; and in case some particular impulse actually acts in this way in a given man, that is indeed in so far a reason for him to take it into account. But it would be unsafe to generalize. In nearly every man there are interests naturally so weak that if left to themselves they tend to die out. A further point on which to argue that some cultivation of a potential interest is bound to be an addition to life, is the undoubted fact that, if it is potentially interesting, it represents a source of positive pleasure. But while the fact is so, the inference is doubtful, since the pleasure it adds may be far less than could have been secured from rival sources. The strongest ground on the whole for urging that no side of human nature should be left undeveloped,—though this is hardly equivalent to the more determinate statement that no interest should be neglected,—is that the various sides of life are so interrelated that all must suffer to some extent when other sides are atrophied. This is clearly so of such a thing as intellectual capacity; it appears equally, though less forcibly, in other expressions of human nature. But at best this leaves the 'principle' very vague and indefinite; it goes very little distance indeed toward telling us just how far we are to cultivate a given interest, or in what relation it should stand to other aspects of life.

But now while from the facts of positive desire there seems little direct guidance in principle, without a primary reliance on the process of experimentation, and the lead of personal demands,

the case is improved substantially when we turn to the negative and inhibitive emotional elements to which are to be traced the peculiar character of the moral ought. While it is only hesitatingly that I can say to a man, You must gratify this positive propensity if you are to hope for the most out of life,—since it depends a great deal upon the relative strength of the propensities in him, and the circumstances in which his life is set,—it is usually much safer to lay it down generally that, in living the varied life of desire, he needs to take account of negative and moralistic limitations, under penalty of a sense of self-condemnation which renders contentment improbable. It is, accordingly, in connection with such restraining feelings, normally ineradicable from human nature, that we must look for the sort of principle that ethics mainly is after to help determine the actual content of successful living. And it will be found that this has been largely implicated in the preceding remarks. Thus the case against an all-round culture as a specific ideal, rested mainly on the fact that, owing to its absorption in *self*-cultivation, it falls under the condemnation of the ethical judgment of triviality. But equally on the other hand we condemn for the same reason too ready an acquiescence in a one-sided interest, as not consistent with our sense of the significance and dignity of man and his life. Similarly of the claims upon us of any interest or capacity in particular. We may find difficulty in enforcing an interest simply on the basis of its positive addition to the satisfied content of experience; but add to this the need of avoiding certain negative sources of *dis*satisfaction, and usually it does not fail in the large to get some standing. Thus active benevolence in one's scheme of life has, as a universal principle, a somewhat precarious foundation in the pleasures of benevolence. These are real pleasures, and when they are felt as such become self-evidently a part of the good; but if a man does not happen to feel them acutely, you cannot easily argue with him that he is missing thereby the good life. He will tell you, and perhaps truly, that he gets greater pleasures in other and inconsistent ways. Nor is it argumentatively certain that the cultivation of benevolence is demanded by the claims of enlightened self-interest; on the whole, the careers

of the most successful men of affairs do not seem to bear this out. But it is also open to point out that a man is, too, a creature capable of being affected even against his will by sympathy or a sense of justice, and that to go ahead without any reference to this emotional capacity is to lay oneself open to unpleasant memories; or, again, that social good is too necessary an element in the significance of human standards to be left out of account if a man wants to retain his self respect and pleasure in his work. It is true that these feelings, also, differ in different men; and one cannot prophesy securely just how a given man's 'conscience' will work. But there is one significant point about them. The pleasures of desire depend upon the active working of desire; and this is temporary and fluctuating. But the moral emotions, just because they arise in a contemplative or reflective situation, are less dependent on circumstance. They are not exhausted by indulgence, but stand ready to work whenever we stop to think; and so they grow stronger as the more insistent and individualistic cravings become quiescent. And since for a rational mind satisfaction comes increasingly to lie, less in that which is simply pleasant while it lasts, and more in what also will 'remember well,' by their influence on the sense of approval they get an intimate relation to our judgments about ourselves, out of proportion to their own relatively weak character. After the tumult and the shouting is over, and a man settles back to count his gains, he can, if he has real intelligence, hardly fail in a quiet moment to note if his acts have violated persistent human sympathies, or if the ends he has aimed at fail to measure up to a satisfying human standard. And as this affects his permanent judgment, the feelings in question, even though they have less influence than might be thought desirable on immediate action, do come to be central to man's ethical ideals, and so in the long run influence conduct also.

My general conclusion is, then, that because the more positive and individualistic claims of the good are dependent on desire, which varies widely, and innocently, in various men, it is in the peculiarly moralistic field, constituted by those restraining elements of human nature which issue in the judgment of the moral

ought, that most of the constitutive principles of ethics capable of general application have to be looked for. I shall not attempt here to draw up a list of such principles; it is doubtful if they are not too dependent on the facts of experience in detail for this to be feasible. But it will be useful to give one illustration of them, and to suggest how this may be applied in a way actually in some measure to give guidance in the conduct of life; and I shall choose a case which brings us in contact again with considerations already discussed.

There are two ways in which we are able to estimate the relative rank of human ends. One is subjectively in terms of the degree of desire; and this each person has to settle for himself, the actual felt strength of the desire being the only final test. The other is an objective or rational standard, on the basis of the relative place a human activity occupies in the world, its bulk, and the range of its influence and results,—a standard which is not in itself moralistic, since it carries no necessary sense of duty. But to this latter judgment there also may be attached under certain conditions a feeling tone which leads us to look with disfavor upon that which occupies quantitatively a lower rank, and so to give it a qualitatively lower standing; this is one pervasive form of the moral feeling of constraint which issues in the sense of oughtness.

Now this quantitative judgment is, I have held, subordinate, in that it presupposes to begin with the positive and assertive side of man's nature, which is what fundamentally determines his end and ideal. But in its secondary place, as a requirement of satisfaction, it does suggest certain rational conditions that have to be met before we can safely acquiesce in what we take to be our wants, since otherwise these in the end are bound, in so far as we are reasonable beings, to occasion the discontent that comes from violating our reflective natures. And one condition is this, that an ideal of life should actually *have* consequences such as are capable of being measured by the objective quantitative test. In other words, while it is not so that the true end for any man can be fully stated on the basis of work done, no end is capable of justification to the reflective self which does not show itself in an

objective outcome of one sort or another. It is essential to any ideal that is not to call forth intellectual disapprobation on the ground of inherent lack of worth, that it should have something to offer as a contribution to the permanent structure of reality. And on this ground we can rule out at the start certain forms of life as never acceptable to the instructed moral judgment. Such is, *par excellence*, the life of mere pleasure getting. For the great defect of pleasure as an end is its inability to stand the test of the reflective quantitative judgment of value. The man who lives for pleasure lives for that which perishes at the moment of attainment. It passes, and leaves no trace; it does not build itself into the structure of things, or set up, through intention, a train of significant consequences. And accordingly there is nothing for the rational mind in its quest for reality to seize upon in order to justify in memory the momentary sense of significance that attended it. We sometimes, in a negative way, are led to justify an innocent life of pleasure, perhaps, on the ground that at the most it *is* innocent and harmless. If it does no particular good to the world, at least it keeps clear of a meddlesome interference with others such as is apt to attend even well-meaning ambition, while at the same time it escapes the banalities of pretentious moral aims. This is commonly the defence which the more amiable literary hedonist sets up. But the defence is never wholly satisfying; we have only to view again such an ideal in its perspective to find that invariably it offends our more virile taste.

When however we have made allowance for such unacceptable ideals, there still remain the greater number of human careers from which we have to choose. And here the principle does not tell me positively the rôle I ought to play in life; so long as the chance of permanent significance attaches to an ideal, it leaves it open as a possibility. Of course if I could find myself equally satisfied, approximately, in either of two careers, naturally I should be led to condemn myself were I to choose the less. But normally no question of quantitative results ought in reason to override the primary demand that I find some course of life in which it is possible for me to reap the reward of a mind content.

Where the principle now comes in is, rather, to warn me to use whatever career I do adopt in a way not to stir up my own capacity for intellectual disapproval. Any normal occupation has in it the possibilities of objective results; that one should keep one's eyes pretty steadily upon these, is the unequivocal teaching of experience. There is more genuine pleasure in work, to begin with, when interest attends upon the feeling of objective significance. A man loses in large degree the zest of the thing who does his task with an eye single to the effects upon his own pleasure, or ambition, or bank account. If he can see his business, for example, as a part of the machinery by which the world's economic needs are met, and not as a mere private money-making concern, it is hardly possible that there should not be an accession of satisfaction. It is not so much that we should do *big* things; if we are not of the calibre for these, the desire only means an uneasy and troubled mind. It is rather that, whatever we find that we particularly care to do, it should be done so that it will approve its own goodness by *lasting,* and so heightening in its degree the interest of an interesting world. Even a vocation which counts itself already disinterested, can add indefinitely to its own significance by a more conscious aiming at objective permanence in its product; philanthropy, for example, is constantly on the defensive until it turns from the mere amelioration of suffering as it arises, to an intelligent endeavor to reconstruct lastingly the world so as to make the continued exercise of charity less necessary.

The same conclusion is borne out by the accredited forms which moral education tends more and more to take. There is, indeed, a common and useful way of moral appeal, the machinery of which is primarily emotional. But in proportion as men grow intellectually, does the power of such an appeal over them tend to decrease, until they may even come to resent the attempt to stir them up through their feelings. More and more, to the rational man, incentives to conduct are found in an appeal to his own sense of intellectual self-respect, through the perception of relative values involved in an impartial survey of the world of experience. If one wishes to influence him, it is increasingly safe to

rely, not on the accredited emotional sentiments of the past, but on the persuasiveness of objective interests, as an offset to the narrow and selfish life which claims him by nature. And on the negative side, also, as a sharpener of the reluctant conscience, the same thing plays a part which has hardly been sufficiently recognized by ethical theory, though in practice its moral efficacy has never been overlooked. Of all the tools which may be used to open a man's eyes to his delinquencies, on the side of their unreason, and inexcusable meanness and pettiness, the most powerful in its possibilities, and on the whole perhaps the safest in its exercise, is the weapon of humor. For what humor does, as a 'criticism of life,' is to throw a sudden light of self-revelation on the insignificance of that which in our over-serious, or perverse, or unthinking moods, we are given to taking at its face value. And it is a safe tool, because it is exempt from some of the more serious dangers of the moralistic experience in general. A sense of humor helps to soften the asperities of the moral life, and keeps us from painting the world in too dark a hue; most of all does it prevent us from taking ourselves, and our private interests and opinions, too seriously. And I should wish to emphasize this in particular as another very necessary qualification of any doctrine of individualism such as I have professed; unless one can view these interests of his with a tolerant and humorous eye, and carry over even into his personal enthusiasm for them an impartial sense of their place—a very minor place—in the whole scheme of things, the individualist is much too apt in practice to turn into the egoist or the fanatic. To strike just the right note here is doubtless a matter of some difficulty, as are most important things in life. Anything whatsoever can be made ridiculous; and to see this side of it, and nothing more, is to become the mere jester, whose claim to be regarded as the ideal moralist is certainly very slight. But between a too solemn sense of high importance, and that conviction of the intrinsic smallness of everything in particular which some of our satirists have displayed, there is a middle ground. It is not against the importance of things that a spirit of humor sets itself, but their *over*-importance; and the habit of keeping an eye out for the readiness

of our interests to get out of proportion need have no tendency to discourage them, *provided* they rest on some basis more dependable than a mere intellectual judgment. In that case I do not have to be under the idealistic illusion to prevent my interests from losing their savor and going back on me. I may see my work clearsightedly at its true rating, and still, if naturally I like doing the thing, it will remain significant, even while I am at the same time ready to be amused at the pretentiousness of its claims when it can take me off my guard.

But now, in conclusion, it is important to notice that principles at best are only preliminary to the final work of the moral judgment, and that this last is an act individual and unique, for which no issue can be set down beforehand. Ethics as a science deals with the ethical judgments of the past. It is never a source of *new* moral truth; and what as moral beings we are practically most concerned with is the *growth* in moral wisdom which new situations demand. The source of this novel truth lies rather in intuition, or moral tact; and intuition presupposes a concrete, and not an abstract and scientific habit of mind. I may generalize moral truths already discovered; but I get *insight* only by envisaging actual moral situations. Accordingly in the field of casuistry the novelist has always been immensely more successful than the ethical philosopher. As accounts in particular of what is right or wrong in conduct, such general moral truths are only convenient formulations for helping us organize our experience, and bring the lessons of the past to bear upon the present. To say that lying is wrong, or that charity is a virtue, gives us no strict rule for governing conduct. A 'virtue' is never an ultimate principle of ethics; as a statement to the effect that certain kinds of motive and intention are good, it is a *result* of the more general and fundamental principles that have to be appealed to when we try to show *why* they are good, and necessary to the satisfying life. Any virtue in particular thus may look for its support to a confluence of several different principles; indeed every type of principle may be represented in a single case, as will easily appear if one sets to work actually to justify such a virtue as, for example, truth-telling. A virtue is thus a generalization rather

than a principle. It classifies certain kinds of action roughly by reference to their general tendencies; and in so far as new cases are really similar to the old, it enables us to have in a measure ready-made judgments on hand. But now just the moment the new case differs significantly from those with which we are familiar, we find ourselves compelled to pass a new judgment; and it makes no difference whether we say that it is always wrong to lie, but that this is a case which we refuse to call lying, or whether we say that even though this is a lie, yet the judgment about lying is only approximately universal, and the present case an exception. Either way, what we have to do is to scrutinize the novel situation, and allow it to call up its total response, in which our *feeling* reaction is constitutive and essential; and this response is a new and creative achievement, not to be come at by the mechanical process of fitting a new fact into familiar pigeon-holes. No man who meets a genuinely new set of circumstances that raise for him a case of 'conscience,' and who comes to see what his new duty in the matter is, can tell just *how* he came to the decision; still less is there any purely 'rational' way of going to work to form it in the first place. As in all thinking that is really original and firsthand, a man starts with facts, points of view, generalizations, representing what has been found hitherto to be the case; and he keeps his mind playing on the situation, half blindly, quite experimentally, until at last, he knows not how, the light breaks upon him, and whereas before things were obscure to him, now he *sees*. And a new *moral* truth differs from an intellectual one only by reason of the part that feeling, or value, plays in the solution. Instead of saying that he sees this to be the 'truth,'—sees the elements of the problem, that is, falling into a harmonious scheme of relationships,—he now more naturally says that he *feels* this to be 'right.' It is always, as I say, a concrete case which is capable of giving rise to this new insight; no man can tell with any certainty how he is going to solve a moral problem till the actual situation confronts him. And in the presence of the facts he can give no reason, in the last analysis, for his confidence, beyond the fact that it is in this way that his nature responds. It happens constantly in human experience

that at a certain point argument only confuses wisdom. All sorts of plausible reasons can be given for a refusal to accept a moral judgment, none of which may be capable of final refutation; in despair a man is driven to reply, Well, if you don't yourself *feel* that it is so, there is nothing more to be said. In *Androcles and the Lion,* there is a speech of Lavinia's which expresses something of this unreasoning and constitutive character of the moral judgment; it is when her intellectual uncertainties about religion are being used to induce her to save herself from martyrdom by a harmless sacrifice to Roman gods.

The most that can be done practically, then, in terms of the so-called virtues, is to draw up statements of what *tends* to be, on the average, men's duty in cases of a certain class. But now there is a special sort of situation in which the circumstances render it possible to approach much more nearly to definite and even universal guidance. If, as I have largely been assuming, the primary value of a study of ethics is to enable us to canvass the various ends of action *before* we are put under the pressure of the immediate call to act, this leaves a field of a somewhat different sort for the application of principles. It is the situation, namely, when we are choosing a career or ideal—a general *direction* of action. This is also a concrete practical choice, for which we need moral guidance; but it is a choice with a peculiar character of its own. By the fact that it is setting out to anticipate action, it is largely freed from the particular conditions—which cannot be anticipated—that make it so impossible to lay down rules of conduct ahead of performance; it can give heed primarily, not to what a definite set of circumstances calls for, but to what is desirable in itself, and good. After I have once committed myself to an end I am in a measure helpless; I have to act in view of such circumstances as happen to confront me. But in choosing the end itself I am, provided I am at all fortunately placed, free to let inclination and sense of worth determine my choice. And the choice brings me into direct contact with the results of ethical theory. The primary question of systematic ethics is, then, not, Is this particular act right? but, What kind of a life is a good and desirable life? And while any knowledge of

values can be indirectly applied to action, it can be directly applied to the choice of large and general lines of action, freed largely from the complications and compulsions that attend action in the concrete.

And I may add a few words to illustrate the nature of such guidance, from the standpoint of the general conception of the good which I have been adopting. The possibility of the good life lies first of all in the chance of finding work which will offer full scope to my capacities, without making it necessary to overstrain myself if success is to be won; which does not lead into a blind alley, therefore, but may in the nature of things be expected constantly to be opening up new and promising vistas and new avenues of effort; which excites my close interest and attention, and my lasting interest, so that I shall want to stick to it; and of whose real and substantial value to the world, as well as to myself, I can be fully persuaded in my own mind. This does not imply that life is to be all eager interest, free from drudgery, and the need at times for painful effort. No work is pleasant all of the time; there are bound to be spots or zones where only sheer will power will see us through. Indeed it is the only sure test that we have hit upon our real forte, and not been misled by unsteady flashes of interest, that we should find ourselves willing to perform the incidental drudgery. A mere liking for a task so long as it can be done without special trouble on our part, is very unsafe ground for settling a career. Nevertheless so long as our work on the whole appeals to us as drudgery, so long as it leaves us looking ahead, and counting the days till it is over, we can be confident that we are on the wrong track. The very first point of wisdom is to hunt for that which personally appeals to us. If a man, even, has settled down in a career, and wakes up to the fact that he is getting no personal enjoyment out of it, nothing but the most pressing responsibilities should prevent him from cutting loose at the earliest possible moment, and starting over again. The secondary and instrumental ends of life are important, but they have always to be subordinated to the intrinsic ones; and values *are* intrinsic only as they come home to us as personally felt values, accredited by the satisfaction they bring. A certain

type of mind may perhaps find its best chance for happiness in turning for its breadwinning to a life of unexciting routine, so long as this is not positively unpleasant, and so long as it leaves the time and energy for more personally appealing ends outside the hours of business. There are points in favor of a plan such as Charles Lamb adopted not unsuccessfully, earning a salary by a clerkship which still left him opportunity to live his real life with his books and friends. There is even a certain appeal in routine itself; so long as it is in the service of ends that can hold our respect, it means that we shall at least be making *some* definite addition to the fund of good, however small, whereas more ambitious ends are also more precarious, and face a greater risk that they may come to nothing. But it is clear, nevertheless, that for most men their staple happiness must, if anywhere, be found in close connection with those daily tasks which serve them as a means of livelihood; and it is therefore immeasurably important that the choice should be far-seeing and intelligently made. For some natures such a choice is fixed within very narrow limits; they are built to do this particular thing in the world, and without the chance to do it they miss their calling, and lay themselves open to inevitable discontent. Most people have a much less restricted range. There are various aptitudes potentially strong enough to hold them pleasantly; perhaps even they have no special aptitude at all, and merely ask for some useful occupation to keep them busy, engage a mild interest through familiarity and their personal identification with it, and supply them with the comforts of existence. But probably in no case is the choice absolutely indifferent, and certainly the greater number of human beings have a bias which affects materially their chances of a satisfied life.

And where our choice is not dictated by some particular character of the work, as when a man has an inborn compulsion to paint pictures, or fool with machinery, or explore new continents, there are usually more general conditions of contentment, of a personal sort, which one kind of occupation will satisfy rather than another, and which it pays a man therefore carefully to explore. Can I, for example, work best under pressure? or

for the best results do I need leisure and an unforced interest to lead me on? If the last, I should hardly be well advised to accept, say, a job on a daily newspaper, or become a teacher in the public schools. Do I like responsibility? or shall I be more satisfied to leave this to some one else, and do my appointed task? Men obviously differ; and a natural executive who has to take orders, or a less independent mind forced into a position of authority, are equally going to be actively unhappy. Do I crave physical exertion, an out-of-doors life, fresh air and open spaces? it would be silly for me to tie myself down in a bank or a broker's office, whatever the opportunity of making money. Do I enjoy taking chances, putting my fortune to the touch? or does uncertainty worry and unstring me, and a safe job attract my fancy rather? Do I like to commit myself to institutions and institutional forms of activity, to identify myself with the organized efforts of other men, hold official positions, and work through committees? or am I more individualistic by nature, with a preference for doing things on my own hook, and going my own way? If you really want to make your work significant, we are sometimes told, you *must* join these concerted activities, where vagaries are suppressed, and the multitude of small services, each almost negligible by itself, are conserved and nursed until in the aggregate they make the imposing show that constitutes civilization. And to many there will be an emotional enlargement in the sense of being an instrument in a large and going concern. But it is plain that one has thus to be institutionally minded himself if this is to be good advice for him; for a different sort of person such a life may only seem to crush spontaneity and to deaden zest. For while a certain weight and massiveness is given to our acts when these are backed by corporate authority, it also is true that their range may be limited, and their value sometimes threatened. We are forced to fight against the pressure of embodied tradition, and slacken our march toward the thing our own insight really approves. We have to adjust our step to that of many others, submitting to compromise in order to get coöperation, overlooking evils because to correct them would stir up internal dissension; and in consequence, while the results are there for all men

to see, substantial and outwardly impressive, we sometimes are led to wonder whether they might not about as well not have been, for all the impetus they give to the extension of genuine human good.

The first requisite, then, for the successful life, is that it should be organized along the lines of a concrete, growing, active interest, determined in so far as possible by the bias of one's individual nature, but engineered, as by using brains it can always be, to bring one into contact on as wide a front as possible with the real world, and to gain as great a significance as possible by the part it is given to play. And, in particular, this will mean that it shall have a 'social' value; not only does the world of social relationships supply the bulk of our human interests, but on its personal side the 'social' is the source of peculiarly intimate, pure, and satisfying intrinsic values. But now usually, though not perhaps in every case, this primary demand needs supplementing by a second point. The danger of the specialist is that always he tends, unless he exercises very great care indeed, to narrowness. It is true that many things, most things perhaps, can be utilized in a fashion to give effectiveness and significance to almost any vocation. Still the contribution is often small and indirect, and it is not always easy to justify its cultivation simply by its instrumental value. And even were it possible, there still would be a drawback. It is not in the interests of a wide and rich life that we should get in the habit of organizing experience too closely about our vocation. It breeds the professional type of mind, for which the whole furniture of earth and heaven lends itself to talk of shop; and a 'professional' of any sort falls in so far a little short of being human. At best, that aspect of things which shows an immediate bearing on a special interest must itself be a special aspect; and there is a gain therefore if we release the world at times from the necessity of joining in the retinue of a single personal end, and allow the mind to take an interest in things for their immediate and intrinsic interestingness. It is well, that is, to cultivate a variety of subordinate interests which do *not* have too close a relationship to our main work. This is needed, too, for the sake of health and sanity; the main service

which some of our interests have to render to the central life, is just to get us away from it, that we may then return with added vim and freshness.

To have 'many tastes and one hobby'—this sums up the two requirements of a normally good life. And in connection with the second point, we may note a significance that remains to the notion of pleasure as the end. It is fatal to translate our 'vocation' directly into hedonistic terms; the moment this is dominated by a conscious intention to get pleasure, and not by an interest in the work itself, and a sense of its value, we can be sure that the underlying conditions are already changed in a way to make wholehearted satisfaction in it impossible. And then, too, 'pleasure' offers no principle for the intelligent direction of work; it tends to be an intruder rather, interfering with efficiency of thought and action. But with our avocations the case is somewhat different. Here a certain amount of pleasure-seeking is not only harmless; for most men it is an important ingredient in the satisfying life. Only rarely can one expect from his routine work all the hedonistic sweetening that life normally demands. The average man needs also to have a more desultory and irresponsible contact with the good. He needs to be able to look forward regularly, and more or less often, to a succession of little pleasures which need mean nothing much individually,—indeed their peculiar service demands that they stop largely with themselves,—but which nevertheless lighten up and add significance to the whole day's outlook. A holiday, a pipe, a bit of light reading, a favorite dish at dinner, a rubber at whist—these are not things to indulge in hesitatingly with a vaguely disquieted conscience; they are legitimate aims in life, to be planned for intelligently, and savored wholeheartedly. Even the man of high and serious mood, who would have life always attired in its Sunday-best, with no relaxation permitted, perhaps would find his perspective broadened, as at least he would be on more sympathetic terms with his humbler neighbors, if he could consent to see the place in life of the irrelevant, the amusing, and the simply pleasant.

But if pleasures are thus not the whole of life, if they supply only the comic relief to its more strenuous and tragic theme, we have certain principles for their selection. We need to be continually on guard against their usurping a disproportionate share of our time and energy; and only such pleasures are rational as readily subordinate themselves and keep within bounds. This is the permanent value of Epicureanism and its modern successors. Epicureanism goes amiss in that it would have us dine on what properly is only a dessert; but its receipt for the dessert is excellent. No intelligent man can fail to recognize the superiority in the long run of natural pleasures over artificial ones, the modest over the extravagant, the mild over the passionate and headstrong, the intellectual and aesthetic and social over the crudely physical. It is not so clear that this balance would continue to hold were pleasure itself the main and comprehensive goal; but if pleasure is to subordinate itself to a 'career,' such claims are usually self-evident. The pleasures which morality agrees in condemning, whether or not they are bad in themselves, at least are out of proportion in a life organized with the idea of definite accomplishment. Either they are disrupting, and active trouble-breeders, like sensuality, dissipating bodily vigor, as well as claiming more and more our thoughts and diverting these from useful employment; or, though in themselves harmless, they consume a disproportionate amount of human energy. The artificial pleasures of a wealthy class are not only in point of fact not very amusing, but to everyone with a true sense of perspective, the laborious preparation for which they call is wholly out of harmony with their incidental function and value, and gives an impression of intellectual futility; it is as if a man should run a mile to get a start for jumping a ditch. The familiar receipt for happiness, of 'limiting our desires,' has an important part of its meaning here. It is not of course that we should moderate effort in the attainment of what we really want, or even revise our feeling of its value; though it is usually wise to indulge in very moderate expectation of personal reward. The man who counts on little need work none the less hard, and meanwhile will avoid

much inevitable disappointment; and what good does come will be to him clear gain. But in connection with the side issues of life, the principle has a direct and literal claim; a Storical element of moderation, of repression even, must enter into a well-advised Epicureanism, if pleasure is to keep its place in the organized life.

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DR. WHITEHEAD'S THEORY OF EVENTS.

DR. WHITEHEAD has rightly said: "It is a safe rule to apply that, when a mathematical or philosophical author writes with a misty profundity, he is talking nonsense."[1] Now much of his own writing is assuredly impervious to this criticism, being crystal-clear as well as genuinely profound. But does not his singular and noteworthy theory of events, as recently expounded in his *Enquiry concerning the Principles of Natural Knowledge,* supply suitable material for the application of this "safe rule"? If, as Dr. Whitehead claims, events are the ultimate facts of nature and the ultimate data of science, it is manifestly important that philosophers should have accurate and clear knowledge of what an event is. But a careful study of his account has convinced me that it is needlessly abstruse and nebulous, indeed, filled with what may well be called misty profundity. The attempt to substantiate this contention involves a somewhat minute examination of that part of his exposition setting forth his conception of an event.

I begin by quoting and interpreting what I take to be Dr. Whitehead's definitions. (*A*) "The ultimate facts of nature are events connected by their spatio-temporal relations. These relations are in the main reducible to the property of events that they can contain (or extend over) other events which are parts of them. . . . Every event extends over other events which are parts of itself, and every event is extended over by other events of which it is part."[2] The central idea in this definition is repeated in various wordings over and over again. (*B*) A preliminary statement of a more thorough-going definition is: "The ultimate fact for observational knowledge is perception through a duration. The content of a specious present, and not that of a durationless instant, is an ultimate datum for science."[3] This is

[1] *Introduction to Mathematics,* p. 227.
[2] Pp. 4 and 61.
[3] P. 8.

greatly elaborated and presented in considerable and intricate detail in Chapter VI. Here is an especially significant passage: "The constants of externality are those characteristics of a perceptual experience which it possesses when we assign to it the property of being an observation of the passage of external nature, namely when we apprehend it. A fact which possesses these characteristics, namely these constants of externality, is what we call an event."[1] Condensing these two sentences, in order to get a single statement of what an event is, we obtain this rather striking result: *An event is a perceptual experience, having six constants of externality, which we apprehend or to which we assign the property of being an observation of the passage of external nature.*

I wish to point out that I interpret this second definition to mean that *every* event is a perceptual experience. If this is a mistaken interpretation, it is incumbent upon Dr. Whitehead to make explicit the precise distinction between those events which are and those which are not perceptual experiences. For both of the passages just quoted are fairly open to the interpretation that all events are perceptual experiences, and I do not see how the following can possibly mean anything else: "Events are . . . the medium within which our physical experience develops, or, rather, they are themselves the development of that experience."[2] Hence I take it for granted that this is what Dr. Whitehead means.

To complete his second definition it is necessary to enumerate the six constants of externality. The first constant is the "basal assumption, essential for ratiocination relating to perceptual experience, that there are definite entities which are events."[3] The second constant is "the relation of extension which holds between events."[4] The third is "the fact that an event as apprehended is related to a complete whole of nature."[5] Is this latter statement to be taken to mean 'is apprehended as related to a complete whole of nature'? "The fourth constant of exter-

[1] Pp. 71 f.
[2] Pp. 63.
[3] P. 74.
[4] P. 74.
[5] P. 77.

nality is the reference of the apprehended event to the percipient event which has a definite station within the associated duration."[1] The fifth is "the fact of the definite station of a percipient event within its duration." And to this should be added the author's comment: "Thus the third, fourth and fifth constants of externality convey its very essence, and without them our perceptual experience appears as a disconnected dream."[2] The antecedent of *its* is evidently intended to be *externality,* but the meaning would be essentially the same if it were *'a perceptual experience'* or *'an event.'* The sixth constant is "the association of events with a community of nature," which is explained as follows: "The same nature and the same events are apprehended by diverse percipients; at least, what they apprehend is as though it were the same for all."[3] According to my interpretation of Dr. Whitehead's second definition, then, an event is a perceptual experience which is constituted out of, or, at least, essentially characterized by these six constants of externality. Note that the essence of his first definition is identical with the second constant of externality.

My chief interest in the first definition is in the idea which it expresses, be that regarded as a definition of an event or as one of the constants of externality. But used as a definition, and I think it is occasionally so used by Dr. Whitehead, it is quite obviously circular, and therefore inadequate and unsatisfactory. It amounts to saying that an event is that which extends over and is extended over by other events, and surely such a statement is so full of circularity as to be glaringly defective even as a short working formula.

Moreover, when Dr. Whitehead uses this conception to interpret the actual concrete world of nature he becomes involved in an open contradiction. For in any actual world such as our world of nature there would be one event which could not be extended over by any other, and one which could not extend over any other. To take the instance of the former, the total complex which constitutes (or is) this actual world could not be extended

[1] P. 77.
[2] P. 78.
[3] P. 78.

over by any other event. Dr. Whitehead denies this to be a pertinent objection to his view when he says that, for scientific purposes, "it is not necessary to assume that there is one event which is the system of all nature throughout all time."[1] Now this is ultimately a question of fact which has to be answered on its own merits, rather than in accordance with what may or may not fit into the purposes of science. But no attempt is made to deal with the question on its merits. And as no reason whatever is given in support of the assertion, this denial has to stand in its nakedness.

In the face of such a denial what becomes of Dr. Whitehead's "continuous ether" which he defines as "the whole complex of events?"[2] He definitely states that "events in their entirety are all that there is in nature;"[3] and in a philosophy which resolves everything into events what could the continuous ether or nature as a whole be, if not an event? But if it is an event it can not be extended over by any other, and the assertion of an ether of events would thus seem to be inconsitent with his first definition. The fact is that the 'whole complex of events,' call it the continuous ether or what not, is an indispensable part of that basal assumption which Dr. Whitehead calls the first constant of externality. And in an earlier work he explicitly admits this: "I do not wish to deny the world as a postulate. Speaking without prejudice, I do not see how in our present elementary state of philosophical advance we can get on without middle axioms, which, in fact, we habitually assume."[4] It seems to me that a consistent interpretation of this assumed world as a whole, in terms of the theory of events, would be in clear contradiction with the denial that there is an event not extended over by any other. That this denial is implicit in his first definition can hardly be doubted.

It might be thought that Dr. Whitehead could escape this difficulty by holding that the continuous ether or the whole structure of events, being a postulate or an intellectual construction, is an

[1] P. 71.
[2] P. 66.
[3] P. 32.
[4] *Organization of Thought*, p. 218.

object and not an event. But in his theory of objects he says: "We refer the object to some events as its situations, we connect it with other events as the *locus* from which it is being perceived, and we connect it with other events as conditions for such perception of it as in such situations from such a *locus* of percipience."[1] Now, if the whole ether of events is an object and not an event, what are the events which serve as the situations, the *locus* and the conditions for the perception of this object? It is difficult to see how the author could answer this question, since this object, being for him a postulate or an intellectual contruction, is a scientific object, and such an object can not be perceived. But then is it pertinent to ask who constructs this whole ether of events? Does the individual percipient manufacture the whole of nature? Moreover, according to the first constant every single event is a postulate, and therefore a scientific object, if all postulates are scientific objects. This would entirely destroy the distinction between events and objects which plays such a predominant rôle in the treatise.

But it is possible that Dr. Whitehead means by the structure or whole ether of events all the series of all events in the separate perceptual streams of all percipients. And he might argue that this total event-manifold is itself not an event but only the totality of event series, and hence a conceptual object rather than an actually existing event. "We can interpret the actual events of our lives as being our fragmentary knowledge of this conceived interrelated whole."[2] But this would raise the fundamental question of the nature of the relation which unites the series of events constituting the perceptual stream of one percipient with the series of events constituting the perceptual stream of another percipient. Dr. Whitehead does not tell us the nature of the relation which unites the various series into "an interrelated whole," but only the nature of the relation involved in constituting the different series. He writes of a continuous stream of external nature, which stream is evidently the whole ether of events, but *he nowhere explains how this continuous stream is connected with*

[1] P. 67.

[2] *Organization of Thought*, p. 109.

the separate perceptual streams. But if this continuous stream is sustained in its continuity by the relation of extension, it would have to be an event, and there could be no event extending over it.

It is difficult to understand how Dr. Whitehead would reconcile the denial of the proposition that there is one event which is the whole of nature, with the assertion of a continuity or structure of events called the "continuous stream of external nature" or the "whole ether of events." If he denies that there is an ether of events, his first constant of externality and his idea of a continuity of events fall to the ground. If he admits that the whole ether of events is itself an event, he contradicts his assertion that there is no one event which is the whole of nature. If he asserts that the ether of events is a postulate or an intellectual construction, he not only has to explain what mind constructs the postulate, but also why an event, being a postulate according to his first constant, is not to be treated exactly like the whole ether of events. If the continuous stream of external nature is taken to be the totality of all interrelated event series, then, since the fundamental relation between these series cannot be extension without making the whole complex a single event, it is necessary to define the nature of that relation. Dr. Whitehead uses the conception "the whole ether of events" throughout his discussion, but never explains what this whole is in terms of the theory of events. It is identified with "all events of all nature," and as such it is not a mere aggregate but a genuine whole, operating in the perception of every sense-object. "Space and time are merely expressive of the relations of extension among the whole ether of events. Thus this presupposition of space and time really calls in all events of all nature as passive conditions for that particular perception of the sense-object."[1]

The definition of an event as a perceptual experience, having the six constants of externality, raises the question as to what a perceptual experience is. We are told that we assign to the perceptual experiences which are events the property of being an observation of the passage of external nature. This clearly implies that there are some perceptual experiences to which this

[1] P. 86.

peculiar property is not assigned. Then there are some occurrences which are not events; and this is in contradiction with the author's main contention, namely, that all happenings are events. It would appear accordingly that there still remains a real ambiguity in his conception of an event.

In his second definition, as well as in the third and fourth constants of externality, Dr. Whitehead introduces the notion of the apprehension of that perceptual experience which is identified with an event. This gives an event a curious and baffling complexity. For, since the six constants are all considered to be essential to the perceptual experience which is an event, this apprehension is made a constituent of each event. Each event would then apparently be able to apprehend itself. And yet the apprehension seems to involve an act of a percipient, and not of the event itself. Undoubtedly there is much misty profundity here. Whence comes this apprehension and what is it? Suppose we admit an apprehension of an event "as related to a complete whole of nature." Call this event "an apprehended event." Refer this apprehended event to the percipient event, as demanded by the fourth constant. Then you have an act of reference brought in as an essential part of every event. The act of reference is an event, the act of apprehension is another event, the perceptual experience which is apprehended is another event, the whole of nature related to the apprehended event is an innumerable host of other events, and all these rolled together give you what Dr. Whitehead evidently means by an event. Thus it appears that an event can not be defined except by saying that it is constituted out of nobody knows how many events. This is circularity with a vengeance! It is utterly impossible to understand what is meant by an event until the act of apprehension, the act of reference, and the perceptual experience are all differentiated as to their functions and content. This differentiation is not even attempted. Apprehension and reference are asserted to be parts of every event without any explanation being given as to what they are, or how they can be reduced to a purely perceptual experience.

Apprehension of an event is called perceptual knowledge. Yet

apprehension is itself, so to speak, inside every event. What apprehension knows an event? That apprehension which is inside the event being known or another act of apprehension outside or external to the event being known? If the apprehension of an event is itself an event, whether inside or outside the event being known, how is perceptual knowledge possible? For the apprehension, being an event, would pass on in the creative advance of nature *before it could be knowledge.* There is a classic comment not altogether inapplicable to this theory: "Too many of our modern philosophers, in their search after the nature of things, are always getting dizzy from going round and round and moving in all directions; and this appearance, which arises out of their own internal condition, they suppose to be a reality of nature; they think that there is nothing stable or permanent, but only flux and motion, and that the world is always full of every sort of motion and change."[1] To be sure this passage was written long before Dr. Whitehead made the refined distinction between *change* and *passage,* which enables him to deny that events change and yet to speak of the flux of events. But they do pass by and are not permanent. Hence this classic criticism applies to Dr. Whitehead's theory. It is not necessary to deny that the event itself changes in order to make knowledge impossible. If it passes by and another is joined on to it, how can it be apprehended, especially when the one which is joined on is supposed to be the apprehension? Dr. Whitehead owes it to philosophers to explain in detail what he means by apprehension in terms of events. But this would be metaphysics, whereas his discussion concerns only natural knowledge! Let it be so, but what non-metaphysical physicist ever introduced the metaphysical monstrosity of a perceptual experience, with its six constants of externality, to which "we assign the property of being an observation of external nature," into a treatise on natural knowledge?

No percipient ever had or could ever have a perceptual experience which contained, even vaguely, all of the six constants, *plus* the assignment to it of the property of being an observation of the passage of external nature. Here are characteristics

[1] *Cratylus,* 411, Jowett, Vol. I, p. 355.

which would make it necessary for every event, not only to mirror the whole universe as the monads of Leibniz were supposed to do, but literally to be the whole universe. If all these constants of externality were rolled together into one perceptual experience, that experience would have to belong to an Absolute. Dr. Whitehead's event comes as near being the famous nutshell which contains everything as any metaphysical entity which I have encountered in my study of philosophy. This is hardly an exaggeration, for he definitely says, in a passage already quoted, that "all events of all nature are really called in as passive conditions for a particular perception." Such a perception being an event, every event would really be the whole ether of events or all events of all nature. This interpretation seems confirmed by the following sentence from an earlier work: "The present holds within itself the complete sum of existence, backwards and forwards, that whole amplitude of time, which is eternity."[1]

After the discovery of the obscurity and ambiguity in Dr. Whitehead's definitions, we have now to consider his principle of classification, in order to ascertain whether it throws any light on what an event is. We have already met with two different kinds of events, namely percipient events and durations. But he also mentions a third kind—external events. He says that the percipient event is the event here-present, and that it is "the definite connecting link between individual experienced knowledge and self-sufficient nature."[2] Self-sufficient nature is "a continuous stream of happening immediately present and partly dissected by our perceptual awareness into separated events with diverse qualities."[3] These separated events are external events; but there are other external events, because that part of nature which is not dissected by our perceptual awareness is also constituted out of external events. A duration is a unique type of event in that it always consists of a percipient event and an indefinite number of external events simultaneous with the percipient event. A duration is thus called a slab of nature. Strictly speaking it is limited temporally to a specious present, but it is unlim-

[1] *Organization of Thought*, p. 28.
[2] P. 70.
[3] P. 69.

ited spatially. Every duration is defined by a single percipient event. Yet it is possible to consider a series of durations as itself a single duration. Then the percipient event would be a whole perceptual stream. Here are some especially salient passages: "The awareness of external nature is an awareness of a duration, which is the being of nature throughout the specious present, and of a complex of events each being part of the present duration. These events fall into two sets. In one set is the percipient event and in the other are the external events."[1] "The complete event is the whole of nature simultaneous with the percipient event, which is itself part of that whole. Such a complete whole of nature is called a duration."[2] "As one percipient awakes daily to a fresh perceptual stream, he apprehends the same external nature which can be comprised in one large duration extending over all his days."[3] "When Dr. Johnson 'surveyed mankind from China to Peru,' he did it from Pump Court in London at a certain date. Even Pump Court was too wide for his peculiar *locus standi;* he was really merely conscious of the relations of his bodily events to the simultaneous events throughout the rest of the universe."[4]

This illustration supplies an interesting point of departure for a consideration of these kinds of events. Obviously the external events here are "the simultaneous events throughout the rest of the universe." But all of the bodily events which are not percipient events must also be external events, and, if more than one percipient event is intended, there are several durations. This is not clear; but let us suppose that one bodily event is the percipient event and that the rest are external events. That the percipient event is a bodily event is elsewhere asserted: "Perceptual awareness is derived from the bodily event 'now-present-here.'"[5] The duration would have to be this bodily event *plus* all the external events, namely, the other bodily events and the simultaneous events throughout the rest of the universe. This

[1] P. 83.
[2] P. 68.
[3] P. 78.
[4] P. 13.
[5] P. 79.

leaves a curious entity unaccounted for, namely, Dr. Johnson's consciousness of the relation between his bodily events and the simultaneous events throughout the rest of the universe. If the percipient event is the bodily event 'now-present,' and the duration is this percipient event, *plus* other bodily events, *plus* all simultaneous events in the universe (external events), then what is this consciousness? Being admittedly an actual occurrence, it is an event. But since it is clearly neither a percipient event, nor a duration, nor an external event, Dr. Whitehead's classification here is not complete. This leads to the same conclusion to which we were led in the discussion of apprehension. It should now be evident that Dr. Whitehead is unable clearly to define an event until he gives an account of consciousness in terms of events. Although he would not perhaps be willing to make this admission, consciousness for him would have to be that event which extends over a percipient event and all events in external nature which are discriminated, as distinct from external events which remain undiscriminated, including also the act of discrimination. It goes without saying that no sharp line of demarcation could be drawn. But if this is the author's meaning, consciousness must be a fourth kind of event.

However this may be, the distinction between a percipient event and an external event is entirely unwarranted in the light of his explicit statement: "Our perception of natural events is a perception from within nature, and is not an awareness contemplating all nature impartially from without."[1] Omit from external events the element of percipience attaching to the percipient event, and they are not perceptual experiences, and hence not events. According to Dr. Whitehead's own definition, the only real events are durations which he himself designates "complete events" in order to distinguish them from partial events. "The primary recognition of an object consists of the recognition of its permanence amid the *partial events of the duration which is present.*"[2] This distinction between the duration as a complete event and the other events which it extends over as partial events, can only

[1] P. 13.

[2] P. 64, italics mine.

mean that any entity which is less than a duration is not really an event. To make what is called an external event a real event, it is necessary to fall back on the extremely vague and circular idea of an event as that which extends over and is extended over by other events, leaving out the idea of perceptual experience or content of a specious present altogether.

It is true that externality is defined to mean separateness. "Two events are mutually external, or are 'separate' if there is no event which is part of both."[1] But this cannot be what Dr. Whitehead means by externality when he speaks of two sets of events—percipient and external events—because percipient events could be separate in this sense as well as external events. To be sure he says that external events have the peculiar property of being the situations of sense objects, but this only complicates the matter by bringing in another type of entity, namely, sense-object, to define an event. Moreover, it is not at all clear what is meant by an external event being the situation of a sense-object.

We are now prepared to deal with the summary which concludes the chapter on events. It is such an excellent example of misty profundity that I quote at length: "There is a structure of events and this structure provides the framework of the externality of nature within which objects are located. . . . Space and time are abstractions expressive of certain qualities of the structure. This space-time abstraction is not unique, so that many space-time abstractions are possible, each with its own specific relation to nature. The particular space-time abstraction proper to a particular observant mind depends on the character of the percipient event which is the medium relating that mind to the whole of nature. In a space-time abstraction, time expresses certain qualities of the passage of nature. This passage has also been called the creative advance of nature. But this passage is not adequately expressed by any one time-system. The whole set of time systems derived from the whole set of space-time abstractions expresses the totality of those properties of the creative advance which are capable of being rendered explicit in thought. Thus no single duration can be completely concrete in

[1] P. 61.

the sense of representing a possible whole of all nature without omission. For a duration is essentially related to one space-time system and thus omits those aspects of the passage which find expression in other space-time systems. Accordingly there can be no duration whose bounding moments are the first and last moments of creation."[1]

Dr. Whitehead here says that "many space-time abstractions are possible, each with its own specific relation to nature." But nature is evidently itself the totality of these space-time abstractions. Thus we have it here asserted that each space-time abstraction has its own specific relation to the totality of space-time abstractions. Now this totality must be what he calls "the structure of events" or "the whole ether of events." I can not make out what a single space-time abstraction is unless it is either a single duration or a series of durations. Now it is clear that the relation of extension constitutes a duration out of a percipient event and all external events simultaneous with it, and also constitutes a single duration out of a series of durations. I interpret this to mean that the relation of extension breeds a single space-time abstraction or event-manifold. But what is the relation which ties one space-time system or event-manifold to another and builds all space-time systems together into "the whole set of space-time abstractions?" This is not explained, although we are led to assume that the relation of extension holds here too. We are told only that each space-time abstraction has its own specific relation to nature, without further defining this specific relation. Now I maintain that this specific relation can not be the relation of extension. If the relation of extension operates in building up one space-time system, whether this be a single duration or a series of durations, another relation of a different sort must be involved when it comes to relating two or more space-time systems together, as well as when it comes to relating all such systems together into the whole set of space-time abstractions. For "a duration is essentially related to one space-time system," and this can only mean that the durations constituting one series is either not related at all to those constituting other

[1] Pp. 80 ff.

series, or else that they are non-essentially related. Now since the author admits that the separate series are related in that they form a complete set of space-time abstractions, he must admit that the durations in separate series are related. But the relation is non-essential and hence not the relation of extension. What is this non-essential relation which ties one series of durations to another? Or, to put it differently, how does that stream of durations which constitutes the passage of nature in the life of one organism connect up with that stream of durations which constitutes the passage of nature in another organism?

The idea of a community of nature runs all through Dr. Whitehead's discussion, and is definitely set down as one of the six constants of externality. But how is a community of nature possible if durations are essentially related to just one space-time system? The only way an event could be common to two separate perceptual streams would be for it to be at the intersection of two durations, one belonging to one stream and the other to the other. But then that event would be extended over by both durations, and that would make the two durations essentially related by the relation of extension. And that in turn would mean that neither duration was essentially related to just one space-time system, both being essentially related by the relation of extension to two separate space-time systems. On the basis of Dr. Whitehead's theory a community of nature is ultimately impossible. This is practically conceded when he qualifies his sixth constant with the words "at least . . . as though." He says: "The same nature and the same events are apprehended by diverse percipients; at least, what they apprehend is as though it were the same for both." To me this "at least . . . as though" means that a community of nature is not a reality for Dr. Whitehead but a make-believe. It is *as though* events were common to separate percipients—*die Philosophie des als Ob*. But if they are not actually or in reality common, what becomes of the structure of events which constitutes them an interrelated whole? Continuity would be limited to the separate space-time systems or the separate perceptual streams, and the notion of one whole set of space-time systems, or of one continuous stream of external nature would be

a mere fiction. He can not bring the separate streams together into a single stream unless he makes durations in the separate streams overlap, but if they overlap they are essentially related to more than one space-time system.

Whatever may be thought of the criticisms which I have offered, this discussion should at least make it clear that there are a number of exceedingly troublesome questions which Dr. Whitehead will have to answer before he can make his theory intelligible. Some of these questions are: What is meant by the community of nature to all? How is such a community possible, if durations are essentially related to just one space-time system? How is one perceptual stream of events or durations related to another, and how are all these streams fused together into the continuous stream of external nature? What is the act of reference, the act of discrimination, the act of apprehension, the consciousness of the relation between a percipient and an external event, that is, what are these in terms of events? Is apprehension a property of events, and, if so, is it a property of all or only of some? Does the apprehension in an event know itself as a separate event from the event in which it is, or know the event of which it is a property, or know other events? Precisely what is the entity defined as the continuous ether, the continuous stream of external nature, the interrelated whole which is the universe, the whole ether of events, that is, what is this entity in terms of events? Am I wrong in thinking that there are many to whom Dr. Whitehead's theory of events will not be intelligible until these significant questions are answered?

I simply can not understand how the author can refuse to face such questions. But especially with reference to the first he claims an answer is unnecessary. "It is unnecessary for the purposes of science to consider the difficult metaphysical question of this community of nature to all."[1] Indeed, it is hard to avoid thinking that it is not because it is unnecessary for the purposes of science that he refuses to attempt an answer to such questions, but rather because he thinks that it is impossible to answer them scientifically, and wants to rule out all metaphysics in favor of a

[1] P. 67.

strictly scientific philosophy. But I hope that I have shown how impossible it is to escape from the pricks of metaphysics by retiring within the castle of science.

After all, I wonder whether Dr. Whitehead does not recognize, not only that he has not succeeded in telling what an event is, but that such an entity is essentially indefinable? For he actually says, in two different contexts: "An event is just what it is and is just how it is related and it is nothing else."[1] Surely this can be said of any entity whatsoever, and is not the reiteration of such a saying about an event equivalent to the admission that you can not tell definitely what it is? If it is true that an event is just what it is, why, then, just what is it?

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[1] P. 61, the exact words being repeated on page 64.

THE OXFORD CONGRESS OF PHILOSOPHY.

ON September 24th–27th an Anglo-French-American Congress of Philosophy was held at Oxford. But for the war and its after-effects, a regular International Congress of Philosophy would have been held in England in 1915. The Oxford Congress may fitly be regarded as a first approach to the resumption of international meetings of philosophers, as the nucleus of coöperation which, we must hope, will grow by the participation, on future occasions, of philosophical societies and individual thinkers from other lands. On this occasion the Mind Association, the Aristotelian Society, and the British Psychological Society, in planning their usual joint meeting for the year, decided to offer hospitality to the French Philosophical Society, and to invite the American Philosophical Association to send delegates.[1]

To give anything like an exhaustive catalogue of the intellectual heroes who were present would tempt one into an Homeric mood. Conspicuous among the French visitors were Bergson, Xavier Léon, Elie Halévy, Marcel, Mauss, Théodore Ruyssen, A. Lalande, Denys Cochin, J. Chevalier, though the absence of Émile Boutroux, Lévy Bruhl, and de Wulf was much to be regretted. On the British side, if some of the giants of a generation now passing away, men like Bradley, Bosanquet, and James Ward, were missed, yet many others, like Sorley, Muirhead, and S. Alexander were present, along with most of the younger men now teaching philosophy and psychology in British universities. Present, too, were men distinguished in allied fields, like Sir James Frazier, of *Golden Bough* fame, Dr. Henry Head, the distinguished physiologist, Professor Gilbert Murray, and England's two philosopher-statesmen, Mr. A. J. Balfour and Lord Haldane. A big gap, however, was left by the non-appearance of Mr. Bertrand Russell who, barely returned from Russia, had set off again for China. The session devoted to a discussion of 'Meaning,'

[1] The three official delegates were: W. P. Montague, Columbia University, J. E. Boodin, Carleton College, and myself. Several other American professors and students of philosophy also attended the Congress, but it was a distinct loss that Professor Watson was unable to make the trip and defend himself in person against his critics in the session specially devoted to his behavioristic theory of thinking.

in which Mr. Russell had been cast by the other contributors for the rôle of villain, lost most of its dramatic interest by his absence, even though one of his French disciples, Jean Nicod, put up an able defence of his position.

The method of conducting the sessions of the Congress was that of the Aristotelian Society symposia. Leaders (usually four) are selected for each discussion, whose papers are printed and circulated in advance of the meetings. The audience is thus familiar with the views of the main speakers who open the oral discussion by entering at once upon close argument against each other. Members of the audience next take part in the debate, and the leaders briefly reply. Considering that the method was unfamiliar to most of the French visitors, and that most of the organizing had to be done by correspondence over long distances, the arrangements for the eight symposia were amazingly complete, and reflect the highest credit on the organizer, Professor H. Wildon Carr.

In my report of the proceedings I shall make no attempt to discriminate between the printed papers and the oral remarks of the leaders. To do so would require far more space that I have at my disposal. Those who wish for further details may be glad to know that practically all the papers are being published in easily accessible periodicals: The papers on "Relativity" and on "Meaning" in *Mind*, N.S., Vol. XXIX, No. 116; those on "Morals and Religion" in the *Hibbert Journal;* those on "Nationality" and "Platonic Universals" in the *Proceedings of the Aristotelian Society,* Vol. XX; those on "Mind and Medium in Art" and on "Is Thinking Merely the Action of Language Mechanisms?" in the *British Journal of Psychology,* Vol. XI, No. 1. A careful report of the session on "Disorders of Symbolic Thinking" (which was concerned with aphasia due to brain-lesions and not, as some might rashly opine, with the more startling extravagances of mathematical logicians) will be found in *Nature,* Vol. 106, No. 2658 (Oct. 7, 1920).

The Congress was opened, on the evening of Friday, 24th, by M. Bergson, whom Lord Haldane introduced by graceful references to his services to humanity as a philosopher and to his country during the war as a diplomat. Bergson devoted his address to a brilliant condensation of his whole philosophy, with a special application of it, at the end, to the interpretation of the difference between the 'possible' and the 'real.' Great stylist as Bergson is, his books do not distantly approach the amazing persuasiveness of his oral dis-

course, with its limpid sentences in finely-chiselled French, each turn of phrase, each image, helping to build up the total effect. Moreover, in two ways his speech was extraordinarily self-revealing. First, through his account of the genesis of his views: he told us how, as a young man, he had been fascinated by Herbert Spencer's synthetic philosophy, until it burst upon him with the shock of a discovery, that, in spite of all its talk of evolution, Spencer's system had no use for *time*. Time had no positive function in Spencer's world: it did nothing. And this linked itself up with the perception that *life* is, in its own nature, not understood or expressed through the 'mechanical' concepts of the 'intelligence' which slurs over the difference between the living and the non-living. Here was his original 'vision,' the expansion and crystallization of which in the doctrines of *durée, élan vital, évolution créatrice,* and *intuition* constituted his life-work. And, second, in leading up to his discussion of the 'possible' and the 'real,' Bergson gave an illuminating example of the dialectical experimenting by which he obtains some of his most characteristic theories. When we think of 'nothing,' of 'chaos,' of the 'possible,' he said, we imagine that we think of *less* than when we think of 'something,' of 'order,' of the 'real.' Nothing seems the mere absence of something, chaos is the lack of order. The possible is that to which reality can be, as it were, added. But this is an illusion which keener introspection of the dialectical movement of thought dispels. For all these apparently negative terms are really positive; in fact, in thinking them we think *more,* not *less,* than we think in the opposites. Nothing is something, but a something irrelevant to the moment's purpose. Chaos is a kind of order called 'disorder' because it is not the order we want. The possible is prevented from being real by something else which is real in its place. Failure to see through these illusions, Bergson concluded, has spoilt much modern metaphysics. On discussion being invited, a solitary question was put by Lutoslawski: Did Bergson apply his doctrine of the 'possible' to the belief in immortality? This provoked Bergson to the interesting declaration that a philosopher's task as he conceived it is not to devise a system providing an answer to every time-honored problem, but to select one or two fundamental problems and explore these. As for immortality, he preferred to form no opinion one way or the other; it was an empirical question for answering which we had as yet no adequate data.

On Saturday the Congress began with a symposium on "Rela-

tivity." Of all the symposia, with the possible exception of the one on "Morals and Religion," this one excited the keenest anticipations and drew the largest audience. But it can hardly be said that the discussion resulted in the great clearing-up of ideas for which we had hoped. In fact, those of us—and they were the majority—who came in a fog, departed in a fog, feeling at best that the clouds had been vigorously stirred, without the light breaking through. This was not the fault of the distinguished scientists who took part (Professor A. S. Eddington, of Cambridge University, and Professor F. A. Lindemann, of Oxford University) any more than of the philosophers (Mr. W. D. Ross, of Oriel College, Oxford, an Aristotelian scholar, and Professor C. D. Broad, of Bristol University). It was the fault of the inherent perplexities of the subject, and it only confirmed the experience which one can make in any gathering of scientists anywhere by starting the subject of relativity: most of them are frankly puzzled, and the dogmatic ones are all at sixes and sevens. So here: between interpreting Einstein and differing on that, and giving their own views and differing in these, the speakers sent the audience home with more theories of relativity than it had come with. Yet the papers, especially of Professors Eddington and Broad, were brilliant, and Professor A. N. Whitehead, the chairman, in his speech made most of us feel that he came nearest to understanding his own view and those of everybody else. Professor Eddington opened by arguing that the relativity-theory, after first destroying the 'absolute' world of traditional physics, is at the point of giving us a *new absolute world* of physics. Relativity means "that the knowledge contained in current physics is only a knowledge of the relations of Nature to particularly circumstanced observers." The relativity theory substitutes for particular observers, with their particular emotions, "a dummy whom we can change freely without altering anything in the description" as the percipient to whom Nature is related. And thus we get a new absolute world in which events are arranged in a form-dimensional space-time manifold. The common distinction between space and time arises because the observer himself is part of the world, and must be conceived as having the form of a *worm* (*sic*). "He distinguishes the order of events in the direction of his length as time, and his other three dimensions he regards as space." This may be very profound: at least it was received in respectful silence. Precisely what the "worm" means I cannot say. Professor Eddington returned to the absoluteness of the new physics

from another angle by arguing that among the infinite variety of "patterns," which the human mind traces arbitrarily among "the primitive events which make up the external world," the substance-pattern is the favorite one, and most of the exact laws of physics, as hitherto understood, seem to depend on it. But such mind-patterns are once more relative, and apparently, the new relativity theory is going to emancipate us from this sort of relativity, too. It will be generally agreed that Professor Eddington is not lacking in speculative courage.—Mr. Ross, in an argument which by its dialectical character seemed greatly to annoy Professor Lindemann, tried to show that, in working out his relativity theory, Einstein inconsistently presupposes absolute time throughout, and that Lorentz's theory will meet all the facts just as well as Einstein's. In this argument Mr. Ross confined himself explicitly to Einstein's "special" theory on the ground that if the case for this were demolished, the "general" theory would lapse as a corollary; Professor Broad defended Einstein against Mr. Ross, arguing that in Einstein's theory "absolute motion and the ether have dropped out altogether, and we are left with equations connecting the measurements of two observers who contemplate the same events." This seems to me a sound defence so far as it goes, but what Einstein does not appear to ask is how the observers know that it is the "same" events they contemplate.—Professor Lindemann began with a diatribe against metaphysicians, on the ground that the "physical habit of mind" is good and the "strictly logical habit of mind" bad. After this, we were not surprised to hear him declare that truth is the same thing as the survival-value of beliefs, and that our notions of time and space, and with them Einstein's relativity theory, are "metaphysical" and "merely a matter of convenience or taste." In the oral discussion, these views were deservedly rejected by scientists and philosophers alike. Otherwise, the discussion, in which Lord Haldane and several others participated, produced little, except Professor A. N. Whitehead's speech, who referred to his own conservative relativity-theory, and made the good point that we must distinguish between relativity to the observer's mind and relativity to the observer's body.

The chief event of the afternoon was the symposium on "Is Thinking Merely the Action of Language Mechanisms?" Of the five symposiasts, other than Professor John Watson, all were hostile to the behavioristic position, except Professor G. H. Thomson, of Armstrong College, Newcastle-on-Tyne, who gave it modified support.

Mr. and Mrs. F. C. Bartlett, of Cambridge University, insisted that thinking is a response, not merely to physical stimuli, but to universal qualities and relations, and that the response (*aliter* apprehension) must be distinguished from its expression in speech or other behavior.—Professor T. H. Pear, of Manchester University, in an excellent paper backed up by a no less able speech, defended images as essential to thinking against Professor Watson's denial of their very existence.—Professor Arthur Robinson, of Durham University, gave a clear summary of the behavioristic position preparatory to dissenting from it on the ground that we cannot thus cavalierly ignore the existence and evidence of consciousness.—Meanwhile, Professor Thomson had offered a definition of thought as "a procedure of trial and error in which substitute-signs [*i.e.*, words or gestures] are used instead of actual bodily trials being made." Going with Professor Watson on the point of this relation of language-behavior to behavior involving the larger musculature, he yet differed profoundly from him in retaining 'consciousness'—a mind as well as a body.—The paper in which Professor Watson replied to his critics seemed to me one of the best things he has written. Indeed I know of nothing, so brief in compass, which states so clearly the essentials of his theory and the way in which he gets at them. He denied explicitly that thinking is merely talking: "A whole man thinks with his whole body in each and in every part," and countered many criticisms by distinguishing, under the general formula that thinking is "subvocal behavior," three kinds of thinking, from automatic language habits to the solution of problems. In rejecting all "mystic self-knowledge" (*aliter* introspection); in tracing the resistance to behaviorism to "mysticism and early religious trends"; and in assimilating a man thinking out a problem to a rat solving a maze-puzzle, he illuminated the 'complexes' (as Freudians would say) which determine his behaviorism. He ended with a violent outburst against "the so-called problem of meaning." What an animal means is what it does. Any other view is verbiage.

The second afternoon-session, under the chairmanship of Dr. Rivers, listened to an extremely important communication by Dr. Henry Head on "Disorders of Symbolic Thinking due to Local Lesions of the Brain." Its conclusions were supported along somewhat different but complementary lines in a paper by Dr. R. Mourgue (who was not himself present), and they amply deserved the high praises paid to them, for their psychological and even metaphysical impor-

tance, by Monsieur Bergson, who, in a most interesting speech, reviewed the history of theories of aphasia in their bearing on the mind-body problem and on his own views, as developed in *Matière et Mémoire*. Dr. Head's paper was based on his own clinical and experimental researches, made during the war on patients with cerebral injuries. These, he claimed, showed that, with the destruction of brain-tissue, speech may be gravely disturbed and even lost without a corresponding loss of intellectual capacity. The brain-lesion, in short, affects, not so much the power to think, as the power to articulate. Images, especially auditory ones, are not destroyed, but only the physiological mechanisms necessary for the execution of speech-movements. Seeking to define the disturbance still more precisely, Dr. Head finally concluded that it affected the power to use symbols for the expression of thought in forming propositions. In detail the derangements of this power might take four forms: (1) verbal defects, (2) syntactical defects, (3) nominal defects, (4) semantic defects. It will be interesting to see how behaviorists like Watson will adjust themselves to this new situation. And no one can fail to perceive the close connection of this discussion, not only with the preceding one, but with the two later symposia on "Meaning" and on "Universals." A synthesis of the four discussions would yield a very comprehensive theory of thought in all its aspects.

The Saturday evening session was given over to us American delegates for a report on recent philosophical movements in the United States. Mr. Montague gave an admirably clear exposition of Neo-realism, of the philosophical motives underlying it and of the main theses with which it challenges idealism.—Mr. Boodin took pragmatism for his subject and spoke with infectious enthusiasm of the teaching of James and Dewey, and of their influence on contemporary thought.—To me fell the topic of idealism. The hour being late and the audience, after a strenuous day, near the limit of its endurance, I concentrated upon the influence of Royce, and tried to show how his interest in mathematical logic, in the methods and concepts of the natural sciences, in metaphysics, and in the philosophy of religion, had borne varied fruit in the work of his many pupils and of others who had come under his influence at Harvard. I illustrated my thesis by references to C. I. Lewis, J. L. Henderson, M. W. Calkins, W. H. Sheldon, G. P. Adams, and W. E. Hocking.

We were all three regretfully conscious that the time at our disposal had been too short to mention all the thinkers whose achieve-

ment, or promise of achievement, deserved to be commemorated on such an occasion. Hence it was doubly welcome and appropriate that Lord Haldane, in his concluding remarks as chairman, paid a special tribute of praise to the work of the Sage School of Philosophy, referring especially to the contributions of J. E. Creighton and his students.

For Sunday, the 26th, two sessions had been arranged. The first, in the afternoon, was devoted to "The Relation of Morals to Religion"—a topic made opportune by the decay of religion in its traditional, and especially in its institutional forms, and by the experiments, especially in France, to develop in the schools ethical instruction on a non-dogmatic basis. The first two speakers, Baron F. von Hügel, the well-known student of mysticism, and Professor J. Chevalier, of Grenoble, agreed in defending theism as essential to morality. The former rested his case on a most interesting attempt to show by an analysis of six common virtues that, except in a universe of which the belief in a loving and supremely lovable God is true, they can not attain their finest flower and perfection. Monsieur Chevalier pleaded that the demand of morality which is at once an imperative and an ideal, has binding force only when it is conceived, not as a subjective human illusion, but as issuing from a supra-sensible reality. To "moral positivism" he opposed a religious metaphysics as the sole adequate guarantee of the autonomy of morality. —These arguments, and especially the last, were promptly challenged by Mr. J. A. Smith, Professor of Moral and Metaphysical Philosophy at Oxford. If we suppose a world without religion but with morality, would human civilization fall to pieces? he asked. No. Would this catastrophe happen in a world with religion but without morality? Yes. It follows that morality is the one thing needful, and that it can stand alone, without the support of religion. What religion does is to make virtue beautiful, and dutifulness lovable. Religious people are not more virtuous or conscientious than their non-religious neighbours. But their religion adds a supervenient grace to their virtue, like the bloom of good health. (It should be said that in Oxford Mr. J. A. Smith has the reputation of being 'elusive,' and that even his best friends do not know when he really believes his own arguments, and when he doesn't. He certainly, on this occasion, simulated the manner of sincerity with such perfect grace that he must, on his own showing, be religious.)—The fourth speaker, Principal L. P. Jacks, approached the problem from the angle of moral power. Does reli-

gion increase moral power? And, if so, must it be theistic? On the first point he agreed with Baron von Hügel that without the assurance of "spiritual reciprocity," or love, there is no sufficient motive for morality. But for the belief in a personal loving God he proposed to substitute the pluralistic alternative of an "immortal society of loving souls." His references, in this context, to Royce's Beloved Community and to Dr. Felix Adler's *Ethical Philosophy of Life* were noteworthy.—In reply to Mr. Jack's pluralism, as well as to the transcendental element in Baron von Hügel's theism, Professor H. Wildon Carr next put the case for a monistic, non-personal, immanent God whom, with a daring fusion of Bergson and Croce, he identified at once with life and with spirit. "God is universal spirit, identical with and immanent in every form of life and consciousness." At this point Mr. Balfour made his contribution as chairman. Morality, he argued, arises from the collision of ultimate ends. The problem here is, how to make the higher end prevail? To use rewards or punishments is to enlist a lower motive to do the work which the higher should do. Better far to enlist a higher motive, such as love. Love always raises the level of morality. And love of God is the highest motive of all, and was never more needed than in the present crisis of civilization. Mr. Jack's immortal society has no moral utility. Mr. Carr's life-principle cannot inspire love. Only love of a personal God can give morality a winning advantage. On the conclusion of Mr. Balfour's speech, the lower motive of afternoon tea prevailed with most of the audience, including myself, and I regret not to be able to report what the two remaining speakers, whose papers had not been ready in time for printing, had to say.

The Sunday evening session, on "Mind and Medium in Art," was opened by Mr. Charles Marriott, the author of *When a Woman Woos* and other novels, with a cleverly argued variant of Semper's thesis that all aesthetic appreciation consists in the sense of a practical problem solved effectively, *i.e.*, consistently with the characteristic medium (stone, wood, colour, words, etc.) which the artist uses. More technically put: "art is the record of human gestures in the presence of the subject or idea and as conditioned by the nature of the medium in which they are made"—in short, it is good craftsmanship.—Mr. A. B. Walkley, the well-known critic, at once countered this thesis with Croce and the "expressionist" theory.—He reminded Mr. Marriott effectively that skill in expressing yourself through a medium is nothing unless you have something to express: "every

landscape is a state of the soul." He followed Croce in the sweeping affirmation that all men, in that they express themselves constantly, are artists.—From this point the discussion was continued by three experimental psychologists. The first was Henry J. Watt, of Glasgow University, who is rapidly making a good name for himself by his contributions to the psychology of sound. He was unfortunately present, not *in persona,* but only through his paper, in which he took Mr. Walkley to task for adopting the "nerveless abstractions of Croce," and then, turning to Mr. Marriott's thesis, transformed it, first, into the question, Are practical and technical reasons the same thing as aesthetic reasons? and, next, into the further question, Are there any limits in art to the range of perceptual and other adhesions to the sensory basis of the work? The transition was made by distinguishing "two aesthetic processes—aesthesis, or the act of enjoyment, and judgment thereon." Putting aside the latter as purely cognitive, Watt distinguished in aesthesis an objective factor, a subjective factor, and a harmony between these, and went on to argue that we cannot restrict the aesthesis to "the natural sensuous coherences themselves of colours, tones, forms, and motions"; we must take in the normal contents of mind and memory: "The field of art is the whole soul and its congruences—and its conflicts, too. . . ." It was refreshing to us philosophers, who are having no easy time in these days at the hands of our psychological and scientific brethren, to find this expert experimentalist end up with a protest against "biological cant" in aesthetic theory, and with the declaration that "art is one of the three supreme ends of the spirit, a delight in congruous (true, good) being." Clearly, we may pluck up courage to fetch our Goethe and Hegel down again out of the dust of the top-shelf!—Mr. Edward Bullough, of Cambridge University, came next with a long and interesting paper, which was, like Watts's paper, full of good training of taste and technique, from Art in its 'dynamic' aspect, *i.e.,* existing art-objects in collections, etc., and their influence on the training of taste and technique, from Art in its 'dynamic' aspects, *i.e.,* artistic creation and aesthetic appreciation. His treatment of technique as "the connecting link between the medium and the vision of the artist," and his reminder that unless the vision is conceived in terms of the medium, it is hardly a vision at all, seemed to come nearest to a synthesis of the elements of the problem. In this context, he made striking use of L'Arréat's theory of *"images d'interprétation ou de traduction,"* and of his own theory of "psychic dis-

tance."—Professor C. W. Valentine, of Birmingham University, criticized all his fellow-symposiasts for having each selected some one aspect of the complex aesthetic experience and generalized it into a theory of the essence of the whole experience; and he criticized Mr. Bullough especially for having laid excessive stress on the artist's creative activity. For Mr. Valentine appreciation is the central thing, and appreciation reduces essentially to being held entranced by the object through simultaneous stimulation and facilitation of attention. Thence he argued that the artist seeks to embody his vision in a medium in order "to make fuller and more intense his own aesthetic enjoyment." The oral discussion turned chiefly on this very point: Does the artist's creative activity or the spectator's enjoyment give the better clue to the aesthetic psychosis? Opinions remained divided, quite as if the debate had been between 'philosophers'!

We come to the last day of the Congress, Monday, 27th. The morning session was opened with a striking paper by Xavier Léon on "Fichte contre l'imperialisme," in which he succeeded in showing—against the prevailing conception of two mutually contradictory periods in Fichte's political thought, and of a later 'nationalist' Fichte as one of the spiritual factors of modern German imperialism—that Fichte was consistent throughout and drew all his leading ideas from the French Revolution, such as the expansion of a nation to its natural frontiers; the special mission of each people for civilization; hence its right to political autonomy; popular education; supremacy of the people. Fichte was, and remained a democrat, always admiring *"la revolution dirigée par les justes,"* setting his ideal of *"Allemagne libèrée et liberatrice"* against Napoleon's imperialism, just as, twenty years before, revolutionary France had fought in the name of liberty against her monarchical neighbours. The only true war for Fichte was the war against evil. He would have condemned now as then a war inspired merely by *"ivresse de la domination universelle."* It was a pity that Santayana was not present to listen to this *Ehrenrettung* of one of the German "egotists."

There followed a discussion on "Nationality" in which E. Halévy, Marcel Mauss (since Dürkheim's death the principal figure in that school of sociology), Théodore Ruyssen (President of the Association *"La Paix par le Droit"*), Gilbert Murray, and Mr. Balfour (as chairman) took part. R. Johannet and Sir Frederick Pollock were represented by printed papers only. The main problem was the bearing of the principle of Nationality on the League of Nations and World

Peace. Halévy urged that Nationality was far too simple a principle for unravelling the complex tangle of international relations, and too egoistic in its tendencies to be wholly pacific. Hence it must be supplemented and modified by the principles of natural frontiers and of a balance of equal forces.—Mauss, declaring that he drew the inspiration for his theory of nationality from the spectacle of seeing men go to their death for their country's sake, insisted upon the all-important distinctions between a true 'nation' and a mere 'state' or 'empire,' and between 'internationalism' and 'cosmopolitanism.' He expressed the firm faith that under the guidance of philosophers inspired by the right vision, nationalism and internationalism could develop hand in hand. Like the warm-hearted idealist that he is, he put himself on record as a believer in mandates, the duty of more advanced nations to help less developed groups to nation-status, the nationalization of a country's mineral resources, international labour-legislation, the limitation of national sovereignty for the sake of the League of Nations, and an effective international morality.—Ruyssen next pointed out the necessity of distinguishing between a nation in being, organized as a sovereign state, and a nation aspiring to be, but existing for the present much as an ethnic group within another state, or even, like the Jews, scattered through many states. He also dwelt on the difficulty of reconciling the tendency towards centralization in empires with the tendency towards the self-determination of small nations, but thought that, with good-will on both sides, the League of Nations might help to harmonize these tendencies.—Johannet was frankly pessimistic. Modern nationalism, resting on *"l'idéee de patrie nationale,"* has grown up historically as an effect of the political rivalries of the great modern empires. It is essentially imperialistic and aggressive in temper, and the immediate future of Europe will be *"très militariste,"* until Europe again achieves a unity like that of the Roman Empire and with it a *pax Romana*.—Gilbert Murray took a psychological line. Alluding to the way in which the spread of elementary education has assisted the development of the passion and pride of patriotism to the point of insanity, he put his hopes upon the League of Nations as demanding from nations in their dealings with each other a "way of behaviour" calculated to reduce friction and conflict and thus to promote peace.—Sir Frederick Pollock, writing as a constitutional lawyer, asked the pointed questions, How many nations are there to-day in what four years ago was Russia? Is there one nation in Ireland or two? Is India a nation? He

went on to discuss national-making factors, putting aside language, race, and religion in favour of common traditions, customs, institutions and laws as the chief factor. The only true remedy for war is "a general will for peace, a will that must be cosmopolitan without ceasing to be national."—When Balfour rose, we all came to attention, curious to hear what he might say after his participation in the Versailles experiments with the principle of nationality. We were not disappointed. He spoke as a statesman who has tried to work with that principle. Three points stood out in his speech. (1) Nationality is a principle which men have devised for helping them act in a corporate capacity. It is a relatively modern principle, and best suited to democratic institutions in racially homogeneous societies. It tends to break down in monarchical states which are racially heterogeneous. (2) Nationality cannot be made an absolute principle. Ethnic islands, surrounded by a sea of alien population, cannot expect national independence: they must be called on, in the interests of general peace, to lose themselves, at least abandon their dream of independence. It is a crime to work upon their national emotions and thus keep alive discussion. (3) The principle of natural frontiers does not help much: aerial navigation is fast making all the natural frontiers of geography useless. And what nation that held *more* than its natural frontiers ever desired to withdraw within them? As the audience was leaving the room, Lutoslawski proclaimed that nationality is a spiritual and cultural ideal—which everyone knows to be the Polish premise for incorporating in Poland a large slice of Russia, on the ground of the ignorance of the many, and the Polish culture of the few.

The first of the two afternon sessions debated "The Meaning of 'Meaning.'" Dr. F. C. S. Schiller, as a good pragmatist or 'humanist,' argued that nothing *has* meaning, except in so far as it is *used* to mean something by somebody. Thus meaning is essentially personal, and relative to time, place, occasion, context, purpose. It is connected with value, and both meaning and value can be understood only in terms of the meaning-giving *activity* of persons. Current psychology ignores activity, because, objectifying the mind by introspection, it appears to find, not acts, but objects (such as sensation, images, etc.). This was the main point of his attack on Mr. Russell's theory of meaning, in which the resemblance of images to sense-data played a central part. Mr. Russell, writing in reply, scored a debating-point (it was no more than that) by asking Dr. Schiller how he could

mention 'acts' without making 'objects' of them, or know that there are such things as acts without contemplating them as objects.—(In the subsequent discussion Mr. J. A. Smith effectively sided with Dr. Schiller on this point.) Further, he restated his theory so as to show clearly the situation in which, for him, the problem of meaning arises. Meaning is a property of signs, and signs are sense-data, or images, which cause actions appropriate, not to themselves, but to something else not now sensibly present, with which they are associated. In short, it is for him the problem of how we can think of objects which are perceptible, but not at the moment actually perceived. Throughout he based himself on the postulate that "meaning is an observable property of observable entities"—note how far this language is from Dr. Schiller's "acts"—and that, as such, it must be open to investigation by "scientific method" (which in this case means plain introspection). Incidentally, Mr. Russell defined 'intellect' to mean "certain habits in the use of words," and expressed the hope that thought, being a "natural process," may some day be explained "in terms of physics."—It was, *inter alia*, such statements as these which provoked Mr. H. H. Joachim, the new professor of Logic at Oxford, to the criticism that Mr. Russell could not possibly mean what he said about meaning. Mr. Joachim tried to make good this assertion by turning the fierce light of his dialectics upon the details of Russell's position. At times, it must be confessed, his merciless attack seemed to touch Mr. Russell's words rather than his meaning, and so far Monsieur Jean Nicod, in Mr. Russell's absence, was able to put up a defence. But on one fundamental point, Mr. Joachim's thrust came home with deadly effect, viz., on Mr. Russell's doctrine that generally "a word-proposition means an image-proposition." Apply this to "Antony loved Cleopatra"—do I really mean by these words that my mental Antony-image loves my mental Cleopatra-image? Much of Mr. Russell's language about images would undoubtedly give Mr. John Watson occasion for unholy joy.—In conclusion, Mr. H. W. B. Joseph turned similar dialectics upon Dr. Schiller's position, and had little difficulty in extracting at least five different meanings of 'meaning' from some of the exuberant metaphors in which Dr. Schiller had indulged. The performance may have been chastening for Dr. Schiller, but it had little value for philosophy.

The strenuous labors of the Congress came to an end with a symposium on the question, "Is the Existence of the Platonic Universal presupposed in the Analysis of Reality?" Mr. C. E. M. Joad, author

of *Essays in Commonsense Philosophy,* and Miss L. S. Stebbing, of Bedford College, London, upheld the affirmative, Mr. A. D. Lindsay, of Balliol College, Oxford, and I upheld the negative. The discussion was quite unprofitable—a case of the symposium-method failing, because the debaters started from angles so different that they never got together. Mr. Joad, proclaiming himself a 'realist,' argued as if the only possible alternative to the Platonic theory of universals were the psychological theory of universals as abstract ideas in the form of mental images. Neither Mr. Lindsay nor I was concerned to defend this theory. On the other hand, we could not bring Mr. Joad to grips with our criticisms of his view, or with our own counter-theories. The same was true of Miss Stebbing. *Plus royaliste que le roi,* she out-Russelled the Russell of ten years ago, and refused to learn from Mr. Russell's later views. In short, we were too far apart even for mutual understanding.

The Congress concluded on Monday night with a dinner in New College where the majority of the members had been housed. The old hall of the College, with its polished wainscotting, high raftered roof, and old portraits and coats of arms gleaming mysteriously from the walls, made an appropriate setting for an harmonious gathering. The Warden of the College expressed in graceful words the pleasure of the College at having harboured so many distinguished visitors, and Mr. Balfour no less gracefully uttered the thanks which we all felt. Lord Haldane spoke in honour of the visitors from France and America. Bergson and Xavier Léon replied for France, Montague for America. Suffice it to say that the speeches were worthy of the occasion.

One general reflection, in conclusion: Did the Congress achieve anything in particular? Or was it merely a pleasant social gathering, diversified by philosophical discussions "about it and about"? Mr. Balfour touched on this question in his speech of thanks, admitting that to the recording, at scientific congresses, of definite "additions to knowledge" there is no exact parallel at a philosophical congress, but claiming that the closer mutual understanding is of great and sufficient value. But there is surely more than this. Take, for example, the symposia on behaviorism, on morals and religion, on art: however divergent the views of the speakers, between them they bring to light the immense complexity of the subjects involved, as no single mind could do. There is a very genuine pooling of minds, and the various considerations and empirical facts adduced by each

exhibit the range and nature of the problem, freeing it from the limitations of any single thinker's experience or power of reflection. And when we take all the topics together which were debated during these three days—ranging, as they do, from physics to international politics, from art to religion—we can hardly fail to recognize that philosophy stands for the *unity of civilization.* It is the one discipline which explicitly attempts to keep in touch with each other all the different sides and activities of modern civilization, by focussing them all in itself. No doubt, to take so large a province is to court disaster. No doubt, the achievement falls far short of the aspiration. Still, the cultivation of such a synoptic interest, the endeavor after a comprehensive synthesis, is the more urgent and valuable in proportion as the growing complexity of civilization brings with it minuter and more exclusive specialization, and thus encourages all the disruptive and centrifugal tendencies from which we suffer. Moreover, the unity of civilization requires to be safeguarded not merely in theory, but also in practice. Its arena is not more the mind of the individual thinker, cross-secting his many-sided world, than it is the intercourse of classes and the policy of nations.

R. F. Alfred Hoernlé.

DISCUSSION.

The Basis of Significant Structures.

When, nearly two years ago, Mr. George P. Adams published a discussion of the thesis that reality is a significant, not a meaningless, structure,[1] and worked out this thesis by means of data not ordinarily considered by philosophers, he placed students of the subject under obligation. In addition to being intrinsically valuable, his contribution was timely, as is evidenced by frequent discussion of the thesis in current literature. Thus Mr. Norman Kemp Smith in an address on *The Present Situation in Philosophy* states that, apart from the response to scepticism, the gad-fly of philosophy, the interesting debate in metaphysics, is between naturalism, which asserts that the parts of reality are superior to the whole, and idealism, which holds that the universe is richer and more highly unified than any of its parts.[2] For idealism certain higher qualities, such as life and consciousness, are, while for naturalism they are not, characteristic of the wider reality which includes them. Naturalism finds in matter the ground-work of reality, whereas idealism takes its clue from spiritual values.[3] Mr. Adams's way of stating the problem differs more in form than in substance. For him, the question is whether value judgments are to be explained 'from below," in terms of 'matter-of-fact' processes such as impulse, interest, and desire, or 'from above,' in terms of 'significant, objective structures' which the mind contemplates and worships.

Mr. Adams holds that Plato's thesis must be incorporated in any philosophy which does justice to value. His case against those who overlook the meaningful structure of the real is, that such procedure entails the neglect of differences in worth. Only the factual or existential aspect of the real remains, in respect of which all events are on a level. Traditional subjective, and current naturalistic, philosophy illustrate this leveling tendency, the former by attributing to perceptions an unattached life of their own, the latter by viewing them as bound to matter-of-fact processes. Whether, with subjec-

[1] *Idealism and the Modern Age,* Yale University Press, 1919.

[2] *The Philosophical Review,* 1920, p. 18.

[3] *Ibid.,* p. 18.

tivism, we pronounce reality merely experienced content, or, with naturalism, identify knowledge entirely with motor discharges, the result is the same: the materials of our science are on a single plane. Thought, as a process of abstraction, can have no other conclusion. Interested to find in the material which it considers only a single strictly common aspect, such thought must necessarily turn further and further away from the individual nature of things. If there be subordination in the real, if its members form a hierarchy, or have any difference in rank whatever, such difference could never be exhibited under an abstract formula. With such a formula, reality becomes thinner and thinner, and a final account, if ever reached, would apply without any difference to all events. Hume has best set forth the outcome of this 'utterly democratic' process: "The mind can never exert itself in any action which we may not comprehend under the term *perception;* and consequently that term is no less applicable to those judgments by which we distinguish moral good and evil, than to every other operation of the mind. To approve of one character, to condemn another, are only different perceptions."[1]

Mr. Adams is at his best in exhibiting the sceptical conclusions of subjective and naturalistic philosophy. He is not equally convincing in attempting to prove the case for significant structure. Mr. Norman Kemp Smith has called attention to the curious inconsistency of most advocates of naturalism, who claim that the intellect functions with validity in distinguishing true from false, but with only relative validity in distinguishing right from wrong. Mr. Adams centers his argument more on 'moral' than on 'intellectual' values, though he maintains that the case of the two is the same. "We shall have in mind," he writes, "the criticism of the familiar and perhaps prevalent thesis that the value of anything depends entirely upon the fact that it is needed and desired by a living organism. We shall not assent to the statement that the basic situation in our value judgments is either *interest* or feeling. We shall urge that we discover values much as we discover truths, that the values do not depend upon . . . our matter-of-fact interests, but that they are objective. We wish, in a way, to assimilate our value judgments, the world of morality and of ethics, to our theoretical and our cognitive judgments. So far we shall be, if one chooses, perversely realistic and intellectualistic."[2]

[1] Adams, *op. cit.*, p. 130. See also pp. 108–109.

[2] *Ibid.*, p. 145.

Much impressed by the position of his sceptical opponents, Mr. Adams goes further with them than necessity demands, or safety permits. Instead of striking out a fresh trail to find a place for desire in the account of the desirable, he journeys for a considerable distance with the advocates of subjective and naturalistic philosophy, parting company with them at last when he asserts that, in some cases, there is more in the judgment of the desirable than craving. His object is to drive a wedge, if by only a few instances, between the factual and meaning sides of moral judgments. As the second aspect cannot be identified with the first, it must refer, in his opinion, to objective structure, of which we would otherwise have no knowledge. Mr. Adams's preliminary analysis comprises three stages: the proof (1) that even where worth seems most nearly identical with intensity of desire there is yet 'no exact correspondence'; (2) (*a*) that beautiful objects, unexpectedly viewed, have value though not previously desired, (*b*) that aesthetic contemplation involves the negation, or suspension, of desire; and (3) that loving and worshipping are disinterested attitudes—we lose ourselves in the object loved or worshipped.[1] It is unnecessary to dwell on the different senses in which the word 'desire' is here used, for this analysis is intended rather to suggest the conclusion, than to prove it. Before considering the "most convincing and most significant" proof,[2] we shall call attention to several phrases which seem to indicate the author's point of view: "The good has some residue of meaning;" "at least that residue of meaning is undefinable and unanalysable" in terms of desire; "the good is objective and lodged in the environment;" when beauty "bursts in upon us," "we literally discover an objective value."[3] The point to be especially noted is that the relation between mind and reality here indicated is an external one.

We come now to the analysis "of decisive importance."[4] It builds on a difference, the establishment of which is a solid accomplishment of recent psychology: the difference between mental states as apprehended content, and their objects. Compare, for example, a feeling of pain and the intention to go to Paris. "While the pain is an actual literal possession of the person, the going to Paris is *not* his present possession. . . . There is, in the case of the intention to go

[1] *Op. cit.*, pp. 146–149.
[2] *Ibid.*, p. 158.
[3] *Ibid.*, pp. 146–148.
[4] *Ibid.*, p. 154.

to Paris, a certain distance between the idea and that of which it is an idea, whereas the pain and the feeling coalesce together. The intention means something it does not possess; the feeling means the pain which it does possess. . . . There is a tension and a duality in the one case which is virtually lacking in the other case."[1] The feeling of pain is thus a modification of the stream of consciousness; the intended act is not. The egocentric perplexity applies to feeling in a literal sense; but not so to intended acts.[2] It is "unquestionably true" that the persistent confusion between stimulus and object, and between desire and the good, are the chief sources of subjectivism. "If it be asked by what right we insist upon distinguishing them, the answer, I conceive, might be somewhat as follows. There are certainly *some* instances of knowledge in which object and stimulus cannot possibly coincide. . . . It is demonstrable, I believe, that the object of knowledge is always something more complex and more ideal than any mere here-and-now item which is the stimulus either of our behavior or of our knowledge."[3] The same relation holds between feelings of approval, or disapproval, and the good. The feelings are the 'vehicles' and the 'illustrations' of the 'objects of our love, the realm of Ideas culminating in the Idea of the Good.'[4]

It cannot be denied that Mr. Adams intends to construct a very different basis for values and significant structures than the one just presented, and it is fair to acknowledge that many passages in his book reflect a radically different standpoint. But after all allowance is made, it is hardly questionable that his reasoning, so far as it is detailed and sustained to a conclusion, is the argument of traditional English dualism. Mind and reality are entities opposed to each other. Reality, as significant structure, exists; and mind, except for a residual reference, is an object at a distance from reality. It is maintained that hands meet across this gulf; that ideas reach out to significant structures, and that these, on occasion, 'burst in' upon the mind. Can we be so sure of this that doubt is really exorcised? Of different ideas that strive to reach the same structure, how can we know which grasps it? The claim that ideas explore and discover the real seems, in such a context, the assertion which started the entire argument.

In order to reveal more clearly the logic of Mr. Adams's theory, it

[1] *Op. cit.*, p. 126.
[2] *Cf. ibid.*, p. 129.
[3] *Ibid.*, pp. 156–157. The italics are mine.
[4] *Cf. ibid.*, p. 158.

will be found instructive to contrast it in certain respects with the finely-wrought, and highly consistent, speculations of Mr. Bernard Bosanquet. The two writers alike see the inability of a philosophy which is a mere 'art of affixing labels' to render a life-like and consistent account of the world. Such a philosophy aims to issue in a generalization which asserts identity as existing apart from difference, making it impossible to consider individuals, or a world of individuals. 'It takes all sorts to make a world, but a class is of one sort only.' The true universal has the form of a world, revealing the utmost diversity of content; whereas the false universal has the form of a class, omitting differences. The real test of true universality "is not the number of subjects which share a common predicate, but rather . . . the number of predicates that can be attached to a single subject. It is the degree in which a systematic identity subordinates diversity to itself, or, more truly, reveals itself as the spirit of communion and totality, within which identity and difference are distinguishable but inseparable points of view."[1]

But from this point on begin to appear divergent tendencies of the greatest importance. For Mr. Adams, objective structure is little more than a target for thought to hit if it can; but, for Mr. Bosanquet, to explore and discover significant reality is the whole life of thought. We find here a central concept of method, which may be described as the canon that philosophy is unchecked inquiry. "The arduousness of reality," Mr. Bosanquet calls this great central principle; and he adds that, though we all preach it, our preaching is frequently lip service only. The appeal to 'immediately evidenced' conclusions, 'given' entities, and 'facts,' violates this canon, in that such appeals aim to confine thought within given limits. Philosophy is thus the prey of forces extrinsic to truth, and may collapse into a mere mood, or into opinions resting upon the accident of instruction. But nowhere at the beginning of inquiry, or anywhere in its course, do we stand on safe and solid ground: on ground on which, if we chose, we could remain. "If we understand by immediate . . . the primary datum, the factual nucleus, the naïve apprehension, then it is the plain lesson of logic and of the world that the immediate cannot stand. You cannot anywhere, whether in life or in logic, find rest and salvation by withdrawing from the intercourse and implications of life. . . . Everywhere to possess reality is an arduous task; stability and solidity are not in the beginning, but, if anywhere, only in

[1] *The Principle of Individuality and Value*, pp. 39–40.

proportion as we enter upon the larger vistas of things."[1] "The solid fact or object of simple perception; the indeterminate living or duration which defies the notional grasp; the isolated personality, impervious to the mind of others, seem all of them to mark arbitrary refuges or timid withdrawals from the movement of the world."[2] The interdiction, 'thus far, but no farther,' is not, in philosophy, the expression of sound method, but sheer dogmatism. The special sciences aim, it is true, at conclusions which are frankly hypothetical, but philosophy endeavors to arrive at categorical statements. The mind could not rest in mathematics or physics, even if ideally complete, but a complete philosophy, were it attainable, would answer all questions.

Thought is commonly viewed as a separate faculty, but for Mr. Bosanquet it is the 'active form of totality,' the 'nisus towards the whole.'[3] Constitutive of all experience as real or worthful, thought may be described under the formula of consistency: 'the whole is the true.' This formula has the defect that it can be understood as denoting subjective consistency only, the harmony merely of 'ideas,' or rules. But in this, if in no fuller sense, the formula holds. Even doubt implies such a standard, for if we doubt seriously, we support the doubt by grounds which look to a system which shall include these grounds. Thought is true when so organized that if you push an objection against the system, you can be shown that your effort is anticipated, and takes you back into the system itself. "This," says Mr. Bosanquet, "is to appeal to the principle that truth or reality is the whole."[4]

At the present day there are perhaps many thinkers who, while not questioning this latter statement so far as it applies to 'ideas,' would object to the identification of the whole with reality. 'Consistency and stability are characteristics of truth,' it might be argued, 'but they are not necessarily marks of reality.' The objection rests on the assumption that what is a valid principle of mind is not necessarily also expressed or validated in the structure of reality, mind and reality being separate substances. How answer this objection? We may induce the objector to attempt to prove his position and point out to him that in so doing he has abandoned it; or we can ask him to state what reality precisely is, in which event he must establish

[1] *Op. cit.*, p. 7.
[2] *Ibid.*, p. 13.
[3] *Ibid.*, p. 98.
[4] *Ibid.*, p. 41.

that it has the determinate character that he assigns, and not some other. If the appeal is to logic, the objector can secure himself only by declining to answer. If he reasons, he necessarily implies that sound thought is not merely internally more consistent than unsound thought, but reveals more of reality. At this point, almost certainly, the old difficulty crops out again: truth, it will be agreed, 'refers' to, or 'corresponds' to, reality, but is not identical with it. It is well to note that this reasoning leads back to the doctrine of the thing-in-itself, and, further, that it proceeds deductively, spinning out the consequences of certain terms not themselves touched by investigation. We might designate this the Method of Assuming Primary Terms. In contrast with this, Mr. Bosanquet's method is truly Inductive, aiming to criticise all concepts, especially those not ordinarily questioned, and to give to each concept the value which analysis determines. Philosophical reflection is thus like climbing a hill; it does not matter at what point you start, if you keep ascending you must reach the top.[1] The top for philosophy is true thought that is real being. You cannot follow the clue either of thought or of reality without being led to the other.

Assert, for example, that reality 'is'—a designation as likely as any to leave being untouched by thought. Immediately you face the difficulty that all experience 'is,' in the sense of being presented. This formula for existence places dreams on a plane with solid reality, illustrating afresh the tendency of abstract thought. The formula merely means 'what is, is'—the solemn form of ignorance. The real problem is to distinguish what 'is' from what 'is not,' or rather to discern, in all that plays back and forth in experience, what significantly and stably 'is,' and what lacks this character. That it is necessary to argue that 'being' is 'significant being' indicates that a premise is present which is not commonly acknowledged, that of the thing-in-itself. But the plain meaning of all assertions, whether of common sense or of science, is that the coherent is the real, and the real the coherent. The statement, 'the earth is round: nothing else is thinkable,' illustrates the point. So dreams are unreal because they contradict the remainder of experience. Their logical defect is the defect in their being. If contradictory predicates are not the test of unreality, what is the test? "In so far as 'is' affirms a certain determinate self-maintenance and 'is not' affirms a different one, . . . so far to attach the two as predicates to the same point of being is to

[1] *Cf. op. cit.*, p. 39.

allege that . . . it fails to maintain itself. . . . In so far, then, as an experience presents an appearance of this kind, a combination of 'is' and 'is not' without any distinction in the subject of affirmations, it falls short of the character of being. We cannot hold that 'it is' in the strict sense of the term. . . . In so far, on the other hand, as the appearance of hostility to self is removed, by transforming the content of experience in question into what is relatively a system, such as to accept both this and the other as coöperative and no longer conflicting members, the experience *'is'* in a higher degree; its self-maintenance includes more of reality."[1] Logical determinations are thus determinations of being; but on the assumption that reality is a thing-in-itself, real being is unknowable.

The root of the difficulty is the assumption that reality is a particular, like the earth. Hence thought is regarded as a ghost that passes and repasses, leaving reality unchanged even by footprints. But the particular as real, and the self as isolated, are mile-stones which the philosophical pilgrim must quickly leave behind, if he would journey far. Thought is rather constitutive, and has an intuitive aspect; and reality is universal, and, for the individual, a matter of degree. To conceive thought as 'about' reality, is a primary logical blunder. The statesman's feeling of his country's life, or the artist's grasp of his subject's character, is an example in which the externality which frequently characterizes thought is overcome.[2] Such knowledge does not resemble the school-boy's verification of a formula; it is insight, living and inventive. And it is feeling as much as illumination. Where, as in the highest religious experience, a synthesis is attained which includes practically every element, life has an extraordinary intensity and depth. What the great philosophers have meant by thought is such feeling as this. The office of thought is thus to inspire with meaning, to build up, and to 'vivify.' The more methodically precise it is, the more vital, "just as the touch of a painter or a musician depends for its vital value on its extraordinary quantitative and qualitative accuracy, which it owes in turn to the dominating sense of the whole."[3] The word *theoria* had this meaning for the Greeks, expressing a synthesis every element of which is animated with the meaning, or lives with the life, of the whole.[4]

We have still to reckon with the view that feelings and desires

[1] *Op. cit.*, pp. 44–45.
[2] *Cf. ibid.*, p. 59.
[3] *Op. cit.*, p. 59.
[4] *Op. cit.*, pp. 57, 58.

depend on the body, not on thought. They are, it is said, mere matters of fact, about which there is no disputing. The life which Socrates prefers is intrinsically no better than the fool's. The preference of each being final, there is no objective better or worse. The coerciveness that obtains in morals is a function of majorities, and justice is the interest of the stronger. Escape from this devastating scepticism is found in revising our notion of feeling and of desire, substituting, for the account just given, one which recognizes their logical character. Logical structure is implicit in desires which look to the preservation of the organism and of the species, and is explicit in desire for deliberately chosen goods. It is admitted that between objects that we call good, and those our feelings crave, there is often a discrepancy. But this is because we do not believe what we say. Between genuine belief and deep feeling no discrepancy is possible. The case for feeling carries the case for value with it. We cannot admit that genuine thought and feeling are identical, and assert that 'preferences' are alogical. The feeling we have for an object, and the good we find in it, reflect the object's place in our synthesis. The greater its intimacy with other objects, the closer and firmer the connections, the greater its value. Great books and noble lives, because covering enormous areas of experience without internal discrepancy or contradiction, glow with a meaning which may be described indifferently as truth, happiness, or goodness. It is in the possession of such positive qualities that Socrates's life is more fortunate than the fool's. We have only to imagine the genuine fool—the selfish or cowardly man—unjustly condemned to death to perceive how desolate is a life without meaning; that such 'an uncriticized life is not worth living.'

All the faults of philosophy, according to Mr. Bosanquet, result either from the assumption that the particular is real, or from the related assumption that the universal is unreal. Both these assumptions preclude a unitary view. Parts of experience are preferred to the whole, and, being treated as absolutes, distort all remaining parts. Thought is opposed to reality and to feeling, law to individuality, and means to end: oppositions which can never be overcome on these assumptions. It is but natural that thought should distrust itself, and manifest an attitude of confidence toward perception. Happily the presuppositions of Mr. Bosanquet's philosophy are friendly to thinking. "We substitute," he writes, "the idea of perfection or the whole—a logical or metaphysical, non-temporal, and religious idea—

for . . . a psychological, temporal, and ethical idea."[1] This is the position, outlined above, that degrees of reality and worth are degrees of coherence; that rest and salvation are obtained only in 'the larger vistas of things.' Non-contradiction is not a subjective principle applicable only to 'ideas,' but is the nature of the whole, manifesting itself in finite experience. "Every instinct of what we call the lower creation, every feeling of joy, of energy, of love, even throughout the animal world, . . . is fitted to pass . . . into that complete experience which is the life of the whole." The life of the whole is the Absolute, and it manifests itself in finite experience in proportion as the experience stands. Between such finite experience and the Absolute there is the greatest difference in degree, but none in kind. Could a life be raised to its ideal limit, it would coalesce with the Absolute. Thus Mr. Bosanquet maintains that an analysis of the life of a typical human being for a single day would establish triumphantly all that is needed in principle for the affirmation of the Absolute. But we view this subject in a wrong perspective, and lose its value, if we convert the Absolute into a heaven in which we may rest. The conception of the Absolute points to striving rather than relaxation, and to sacrifice rather than ease. Simply stated, it is the doctrine of the expansive power of the self; of the genuine reality, and undoubted satisfactoriness, of the higher life. "It is not," writes Tagore, "an anthropomorphic hallucination. It is not seeing man reflected everywhere in grotesquely exaggerated images, and witnessing the human drama acted on a gigantic scale in nature's arena of flitting lights and shadows. On the contrary, it means crossing the limiting barriers of the individual."[2]

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[1] *Op. cit.*, p. 127.

[2] Sādhanā, p. 20. The tense has been changed.

REVIEWS OF BOOKS.

Implication and Linear Inference. By BERNARD BOSANQUET. Macmillan & Co., London, 1920.—pp. x, 180.

The short but pregnant treatise which Dr. Bosanquet has recently published under the above title, deserves to be ranked among the most important contributions to modern logical theory. It is not often that a great thinker takes the trouble to be his own interpreter. Yet this is what Dr. Bosanquet here is in respect of the main principles on which his large *Logic* had been built. These principles are now stated with a precision and lucidity which they hardly possessed in the earlier work, and which invite students to attempt a fresh estimate of their importance for present-day logic.

Inference is Dr. Bosanquet's term for "every operation by which knowledge extends itself" (p. 2), by which we attain truth transcending our premisses (p. 9, *n.*). It consists in "reading off" implications. Implication is what makes the operations of inference possible. It is that constitution or structure of any given topic or subject, and ultimately of the universe as a whole, which enables us, starting from certain data or elements (actual or supposed), to infer, *i.e.,* to determine other elements. Implication, in short, is the character of every genuine system or whole—of every complex of terms in relation, if we prefer that language—the elements of which vary concomitantly with each other, or depend mutually on one another in any way which justifies us in saying that *a* is so because *b* is so, and that *a* could not be what it is if *b* were other than it is. This functional correlation (as Mr. Bertrand Russell would no doubt call it) is summed up by Dr. Bosanquet in the aphorism that in a genuine whole "all is relevant to all." In the same sense he speaks of "the mutual responsiveness" of parts in a whole and even of the "life" of the whole in the parts. The central point is that a conjunction of elements becomes an intelligible correlation, *i.e.,* acquires the truly logical character of necessity only through "insight" into the system which supplies the law of mutual determination to the parts. Grasp the system and you have necessity: you understand why every detail is just what it is and cannot be otherwise. Miss the system and you have contingency: everything so far as you can see might be other

than it is, because you have found so far no reason why anything must be what it is actually found to be. Inference, then, is possible only where we have "a system with different features or properties, such that without being at all similar or repetitious of each other they present variations connected by law, and therefore the variation of one is an index to the variation of others" (p. 8). Such a system Dr. Bosanquet calls a "universal," and the purpose of his whole argument is to show that the universals which operate in inference and to which it owes its validity, are always concrete systems and not abstract general rules or formal axioms. Wherever there is insight into universals, there knowledge is self-evident and *a priori*. It follows that these characters are not the exclusive possessions of formal logic and mathematics, but are diffused, though with differences of degree, over the whole field of knowledge. They are present even in matters concrete and empirical, for they go with systematic connection wherever that is found. "The *a priori* is merely what comes clear and connected out of the mass of the *a posteriori*" (p. 127). On this basis Dr. Bosanquet challenges the fashionable doctrine which splits up the province of knowledge into a 'contingent' and a 'necessary' part. For him, the same principle of implication controls our inferences in both, and the recognition of this principle, in the different types of inference to which in different circumstances it gives rise, is the only road to "a unitary account of the apprehension of truth" (p. 19). Thus Dr. Bosanquet's theory seeks to embrace abstract axiom and concrete fact; reason and experience; deduction and induction; mathematics, empirical science, and philosophy, through the single principle that the extension of knowledge by reasoning depends everywhere "on the intrinsic necessity of a transparent system." A corollary of this doctrine is that "knowledge is, in principle, irrefragable" (p. 1); that it is "a contradiction in terms to repudiate knowledge as a whole." This presumption of the trustworthiness of knowledge Dr. Bosanquet crystallizes into the formula, "this or nothing." For we defend the truth of a proposition by appealing to the system in which it is implied, urging that the denial of the proposition would carry with it the denial of the system. For example, the only way to prove that $12 \times 12 = 144$ is to show that any other result upsets the multiplication table. If the system in turn is challenged, it must be defended by showing it to be implied in a wider system, and ultimately in the system of reality as a whole, such as we judge it to be in the light of our whole experience. Thus,

e.g., argument from facts of observation, here and now, implies the trustworthiness of perception, subject to certain tests, as guaranteed by our whole experience. But our whole experience contains much more than such facts and reasonings about them. In the daily conduct of civilized life, our inferences move, and move with systematic necessity, mainly within "the concrete worlds of religion, morality, truth, and beauty" (p. 94), and it is to these "great examples of complexes" that Dr. Bosanquet constantly looks as "the most central and exalted certainties of life, as well as the commonest and most practical" (p. 96). In thus appealing, in the very name of logic, to a wider area of certainty, he claims for his theory that it will "make logical certainty seem a more natural thing, and more in harmony with the experience of life" (p. 97).

Such, in outline, is the theory which Dr. Bosanquet opposes to the "linear" theory of inference, by which he means the traditional account of the syllogism as essentially subsumptive, and of inference as progressing by a chain of subsumptions hanging, in the last resort, on some self-evident, indemonstrable axiom. Of course, arguments *prima facie* subsumptive do occur. But they do not represent "the true type of progressive knowledge." They do not embody the ideal, still less the only logically valid, form of inference or of proof. His main criticisms of the syllogism are: (*a*) it relies on the mere conjunction of predicates in individual subjects, without insight into necessary connections; (*b*) its rules forbid recognition of system, by keeping its terms fixed and independent, so that they cannot through their correlation modify or throw light on each other; (*c*) it treats inference as if it depended exclusively on the subject-attribute relation; (*d*) its major premise is usually 'borrowed,' *i.e.*, accepted as true irrespective of the particular case which is subsumed under it, so that in turn it can get no corroboration from the case. Most of the current criticisms of the syllogism, and especially the attempts to substitute induction for it as the true account of reasoning, suffer, according to Dr. Bosanquet, from the fact that their authors have not emancipated themselves from the vices of the linear theory of inference. This applies particularly to all who conceive induction either as the transition by similarity from case to case, or as the subsumption of a fresh case under a generalization obtained by enumeration of previously experienced cases. In support of his own theory, Dr. Bosanquet urges especially the following considera-

tions: (*a*) Data of observation are corroborated[1] by the system in which inference assigns them a place. "Implication confirms their existence, and establishes the true character in which they exist. Observation establishes their bare existence as a something or other, but apart from insight into the complex gives us no security that we are apprehending the constituent members as they really are" (p. 77). (*b*) Where the data are ambiguous, *i.e.*, can be interpreted by alternative systems, we have the proper place for hypotheses to be verified by further observation and experiment. Even then, the selection of *relevant* hypotheses is guided by such knowledge as we have, which also guarantees any presumption there may be that among the hypotheses framed the true explanation must be found, *i.e.*, that the alternatives are exhaustive. In such relevance and exhaustiveness the influence of systematic knowledge is at work. (*c*) In this connection, Dr. Bosanquet has a critical bout with Mr. H. W. B. Joseph's theory of induction as the establishment of the surviving hypothesis by the 'elimination' of its rivals. His main points, and they seem to me good points, are that the rejection of *b* cannot establish *a* unless accompanied by fresh evidence which positively reënforces *a* on its merits; that in all this testing of rival hypotheses there is a constant *modelling* of the successful hypothesis going on; and that its final establishment as the true 'explanation' demands that we "so fuse the hypothesis with the data that the one cannot be affirmed without the other" (p. 100). (*d*) Moreover, the natural procedure in argument, *e.g.*, in a lawyer's presentation of his case, or in Darwin's presentation of the evidence for descent, does not follow the pattern of linear subsumption, but consists in so arranging the materials that direct insight into the system results. The illustration of this contention from Whitehead's *Introduction to Mathematics* (pp. 110 ff.) is especially interesting as bringing mathematical reasoning under Dr. Bosanquet's general principle.

Throughout, the argument abounds in interesting suggestions. Thus the concept of inference as the 'life' of a subject unfolding itself before the thinker's mind according to its own inner necessity, is applied, with obvious reference to Hegel, to philosophical dialectic (pp. 123 ff.). Again, whilst rejecting the literal restriction of reasoning to three terms and three propositions, Dr. Bosanquet insists on the recognition of three *phases* in all inference, *viz.*, the starting-

[1] I should be tempted to say 'hardened' with a play on Mr. Russell's concept of "hard" data.

point, the middle operation, and the resulting reinterpretation of the starting-point (Ch. VI). Lastly, he offers a successful defence against the criticisms which Mr. L. J. Russell, of Glasgow University, had urged in *Mind* (*N.S.*, No. 108) against his account of supposition (Ch. VIII).

But no summary of the argument can, by itself, give an adequate impression of its importance. This can be fully appreciated only by setting it, as I shall now attempt to do, in the context of contemporary discussion, towards most of the fundamental tendencies of which Dr. Bosanquet takes up a challenging attitude.

1. It may be said that Dr. Bosanquet's theory is purely descriptive of the way in which we reason, whereas logic ought to be normative and examine the validity of our reasonings. But the reply is that logic is a normative science only in the sense that it deals with a self-normative process, and that its business is not to prescribe how that process is to be carried on, but to describe the immanent norms which control it. Does Dr. Bosanquet, then, furnish a good description? The answer will depend on our attitude towards the time-honored distinction between matter and form. We reason, as Dr. Bosanquet reminds us, "geometrically, or musically, or artistically, or morally, or religiously" (p. 96). Is it quite obvious that the essence and excellence of reasoning in these different fields are reducible to the same abstractly formal relationships? Dr. Bosanquet urges, in effect, that the 'matter' is not indifferent, and that unless we base our theory on "actual acquaintance with reasoning as conducted by great writers and capable publicists" (p. v) we shall be in danger of standardizing, as the essence of reasoning, the special character of reasoning on such abstract relationships as are investigated by 'formal' logic.

2. Again, it is argued that logic can have no concern with any "operation by which knowledge is extended," because it has no concern with knowledge at all. Logic, we are told by these critics, is a purely objective science, as objective as physics. With the relation of objects to a knowing mind, or with the acts and states through which a mind knows, it has nothing to do. Theory of knowledge is a mere hybrid of logic and psychology, for mind and its activities in the cognitive relation belong to psychology, whereas logic studies the most general properties of all objects whatsoever. It is not restricted to this actual world of ours: it deals with what is true of all possible worlds. Postponing for the moment the concept of 'mind,' let us

keep to 'knowledge' and note, as fundamental, that Dr. Bosanquet does not accept the analysis of knowledge as a relation of which mind and object are the antithetic terms. This is how he speaks of a scientist reasoning out a new theory: "The whole conation of your mind is as nearly as possible identified with a comprehensive body of organised data and relations, and these of themselves dictate their further development" (p. 122). Reasoning, here, is clearly not conceived as a mind's arbitrary operation on an object standing over against it, but as the self-development of a subject, or problem, in or through the mind. The process, so far as it is logical, is controlled by what the object-complex is and implies. In contrast to the prevailing fashion of analytical thinking, it is surely worth while to see what a synoptic theory can do—a theory which genuinely takes knowledge as *sui generis,* by considering the world of objects as what it is 'known' to be, which means as what it is perceived, judged, inferred to be. Thus considered, the object-world is certainly undergoing a unique sort of transformation which we call the 'progress' of knowledge. The world as we know it is not the world as our forefathers knew it. What boots it to insist that this progress is a change 'in us,' not in the objective world? No asseveration of this point will relieve a realist from the fact that by the term 'object-world' he can mean only the world as he then and there thinks it to be. If he shares the common human fate of learning more and better, then the world as he now judges it to be will be by so much different from what it was for him before. Be we realists or be we idealists, this surely is the fact which we must both acknowledge. And if once we get *habituated* to not divorcing the object-world from what it is known to be and from the development of this knowledge, we must concede that an enquiry into the principles operative in this development is legitimate, and constitutes a philosophical discipline in its own right. But why, the critic may still insist, call it 'logic'? Why not? we might retort. But lest the argument at this point degenerate into a wrangle about words, let us plead that the justification for this use of the term 'logic' is historical, that it is derived by direct descent from Kant's concept of 'transcendental logic,' which, in turn, is connected with the central problem of Aristotelian logic, *viz.*, the problem of demonstration or proof, when that is given the specific form of asking how we can prove that this actual world of ours is really what we know, *i.e.*, perceive and think it to be.

3. Meanwhile, it is not irrelevant to observe that those who assign

to logic the study of the most general properties of 'all possible' objects, cannot, as philosophers, escape facing this problem of the truth of our knowledge of the actual world as we have it, *e.g.*, in the empirical sciences. Yet when the mathematical logician, with the resources of his logic, turns to this problem, what happens? So far as one can judge, one of three things. (*a*) He dodges the problem by falling back on the distinction between formal consistency and material truth. But if the matter of an argument is the purely suppositious filling of a form, and if the conclusiveness of the argument in no way depends on the concrete meaning of the terms employed, *i.e.*, on the actual data and connections of experience which are expressed through them, then all that is categorically asserted is the logical form itself. This means that all we really 'know,' or can prove beyond the shadow of a doubt, is the formal nexus itself, *e.g.*, M P, S M, ∴ S P. Whether in any actual argument the concrete terms are rightly treated as values for the variables M, P, S, *i.e.*, whether they really have the required formal properties and relations, this does not concern the formal logician. It is enough for him to say that *if* they have, then the conclusion necessarily follows. The effect is inevitably to shrink the area of genuine knowledge to the purely deductive and *a priori* sciences, *i.e.*, to pure logic and mathematics. But what becomes of what we usually call 'knowledge,' *e.g.*, the reasonings of the empirical sciences? The answer is that they possess neither necessity nor self-evidence. They are not, and cannot be, demonstrated. They might be otherwise. We may call them probable and good enough for practical use, if we please, but logically they are open to irremediable doubt. This explains the noticeable helplessness of formal logicians in the face of the problem of induction. As a rule, they see clearly enough that induction by simple enumeration, even eked out by the laws of probability, will not justify the procedure of the sciences. Hence they conclude that, as induction does not demonstrate and self-evidence is lacking, the natural sciences, and, *a fortiori*, all other beliefs concerning the real world of our experience, hang logically in the air. We have here one of the roots of the revival of the division of judgments into those which are necessary and those which are contingent, as well as of the affiliated distinction between the 'actual' and 'all possible' universes. (*b*) A very different line of treatment which, if successful, would annul these distinctions, is attempted in Russell and Whitehead's *Principia Mathematica*, the programme of which appears to be to

build up, by strictly deductive steps, the concepts of the whole body of sciences from a few ultimate logical entities. For all its volume, the argument has not yet begun to touch the bulk of the empirical sciences, and it is no surprise to learn that some competent mathematical logicians hold it to be doomed to failure on intrinsic grounds. In any case, it would seem that the deductive transition from abstract forms to actual sense-data involves a synthetic step the legitimacy of which is difficult to justify on purely formal grounds. It is noticeable that Mr. Russell himself elsewhere not only shows himself profoundly conscious of the gap between pure forms and sense-data, but swings back thence to the familiar antithesis between the certainties of logic and the incurable uncertainties of the world of sense. (*c*) Even when, in yet another mood, Mr. Russell makes the experiment of treating both sense-data and logical forms as 'hard,' *i.e.*, as possessing a certainty beyond the reach of doubt, and tries to construct the familiar things of perception purely out of such 'hard' elements, what is really significant is not the ingenuity of his constructs, but the underlying attitude of doubt towards the bulk of current scientific judgments, and, *a fortiori,* towards all reasoning on matters ethical, political, or religious. In the face of this deliberate revival of the Cartesian method of doubt, is there not an opening for a theory which, like Dr. Bosanquet's, attempts to bring all reasoning under a single principle, and to grade its certainty, not by the standard of the abstractly formal sciences, but by the degrees of 'insight' into the diverse systems and orders of phenomena which constitute our actual world?

4. This brings us straight to what is, in the context of present-day discussion, probably the crux of Dr. Bosanquet's whole position. "Insight," it may be said, "is a mystic term. It may bring to the individual a subjective certainty, immune to doubt or logical challenge. But for those who do not share his insight it is nothing, and if by knowledge we are to mean judgments or beliefs which can be logically justified, then no insight can be admitted which does not submit to logical tests." Now, Dr. Bosanquet's crucial doctrine is just the intimate connection of 'insight' or 'intuition' with logic, and hence with what it is necessary and rational to believe. "Intuition or insight means looking at an object intrinsically systematic and distinct, and discerning its constitutive terms and relations. So far from being illogical, it is the essential feature of the higher form of inference" (p. 94). This concept of insight which Dr. Bosanquet

himself allies with Husserl's account of the self-evidence of universal connections, has its historical roots, of course, in Aristotle's νοῦς, Hegel's reason, and Bradley's account of inference as a construction crowned by an intuition. It stands, in short, for the grasp of universals, for responsiveness to implications of any and every kind. Now, is there any good ground for denying that the empirical world is full of universals, *i.e.*, systems of terms in relations, the elements of which anyone thoroughly familiar with them can see to be necessarily implied by each other? The question for Dr. Bosanquet answers itself in the negative. And with this answer disappears the justification for the sharp antithesis of 'matter' and 'form.' Logic, as the theory of the 'forms' of reasoning, is a theory of the types of universals in the structure of the empirical world. It follows that 'material' differences are not irrelevant for it, for they are differences in the kind of universal, *i.e.*, in the concrete nature (the quality as experienced) of the terms and relations which are the subjects of our judgments. Dr. Bosanquet's whole position may not unfairly be paraphrased by saying that the attainment of knowledge depends everywhere on the discovery in the given facts of their implications with other facts, and thus of the system which enables us to see that the given is so because it must be so and could not in its actual context be otherwise. This is to 'know,' *i.e.*, logically to justify and understand the actual world we live in.

5. But what are we to say when insights conflict? As Dr. Bosanquet himself puts it, "my insight carries me to this conclusion and yours to that, and how are we to reason upon them?" (p. 125). Thus, *e.g.*, in this very dispute about necessary and contingent truths, logicians of acuteness and power are ranged on opposite sides. And, anyhow, if this distinction between necessity and contingence be denied in principle, how are we to deal with those differences in cognitive value—to avoid the phrase 'degrees of truth'—of which that distinction claims to supply the explanation? As regards the conflict between one man's insight and another's, two points need to be borne in mind. (*a*) The first is that no theory has been, or can be, offered which, by a test applied *ab extra*, can put the hall-mark of final truth upon this view or that. All that the critic can do is by first hand study of the whole subject to form his own judgment, and his conclusion, whatever it may be, will be determined by his grasp of the systematic interconnections of the subject and, if he is open-minded, by nothing else. The whole and sole problem is to understand the

source of the confidence with which each disputant affirms his own conclusion: no other, he claims, can he reach consistently with the evidence before him, and if his opponent could only see things in the same way, he would be bound to come to the same conclusion. (*b*) And here, at once, is the second point. There is no method known by which, over the whole range of human experience, we can infallibly secure this 'seeing things the same way.' Sometimes an appeal to perception is possible and suffices. More often differences of past experience, of training, of temperament, prevent any complete 'getting together,' though we may argue until patience gives out. We may each be convinced and yet be unable to convince the other. Thus we come back to this, that the point of logical interest is to note how everywhere a claim to truth can be supported in one way, and one way only, *viz.*, through the exhibition of all the evidence which necessarily implies the conclusion and which, once admitted, compels the acceptance of that conclusion. "But this makes knowledge relative and provisional," it may be said. Yes, it does. But can we in the face of common experience deny this relativity? "But what of mathematics with its self-evident coherence? What of the sciences with their large areas of methodically established theory, agreed to by all competent enquirers?" This leads to a further point. "There are two aspects, and not one only, in which an intimate logical dependence on the whole of experience may display itself" (p. 92). (*a*) In highly abstract matters, *e.g.*, in mathematics where, given an appropriate set of postulates and the general principles of logic, the system develops itself in a way which makes the implications directly obvious, necessity and self-evidence are more easily and completely apprehended than elsewhere. But—and this is one of Dr. Bosanquet's most suggestive points—we ought not to ignore that insight is here facilitated by the high degree of abstraction from the concrete actualities of experience. (*b*) Yet in the reasoning about these latter there is necessity and self-evidence, too, but harder to trace and appreciate because their implications ramify through the whole tissue of our experience. In this sense Dr. Bosanquet would vindicate "the substantially *a priori* character of judgments of value considered as the central example of propositions which sum up the implications of highly individual systems deeply interdependent with our whole experience" (p. 95). In this sense he urges that "if anyone were to deny that civilisation, or beauty, or religion, were inevitable components of human experience, and that their respective leading

implications belong to the most irrefragable class of truths, he would easily be shown to be in a self-contradiction by the test of 'this or nothing'" (p. 92). Not that we understand these systems sufficiently to be able to claim final truth anywhere, but we do have enough insight into them to be safe against the doubt that we possess no truth at all. In this way Dr. Bosanquet's "unitary theory of truth" tries to justify the trustworthiness of our knowledge in principle without making absolute claims in detail. "Truth I believe to be the degree in which the character of reality is present within a proposition or system of propositions; it is the life of knowledge, as various as beauty or goodness, and no less impossible to recognise by formal tests. That is why I have said that it is only to be verified by the self-criticism of the system to which it belongs" (p. 102).

6. So far we have kept to the term 'knowledge.' But what about 'mind'? In what sense can we reasonably hold, as Dr. Bosanquet does, that we must "study logic in the light of the mind"? This question cuts deep into the whole idealistic-realistic controversy. Dr. Bosanquet defines his position with special reference to Husserl's exhaustive discussion of "psychologismus" and "reine Logik." He concedes the whole case against psychologism. The 'laws of thought,' with which logic is commonly said to deal, cannot be merely empirical generalisations concerning the mental habits of men or any other species of animals. This would open the fatal possibility that what by the laws of our thought we must think, is quite other than what the world really is. But must we jump to the opposite extreme and make of logic a science of objects, regardless of any being's capacity to apprehend them? For all the pure logician can tell, it is a pure accident that his own mind apprehends the logical properties of objects at all and apprehends them as they really are. For Dr. Bosanquet the moral—witness Husserl's appeal to insight—is, that the divorce of mind and object must be rescinded; in other words, that for the antithesis of mind and object in the cognitive relation we must substitute a study of the object as what it is perceived and thought to be. For there, and there only, is its real character to be found, in proportion to the degree in which its details are seen to be necessary by their mutual implication in an actual system. This is the context in which Dr. Bosanquet's use of the terms 'reality,' 'knowledge,' and 'mind,' must be understood. In this sense he speaks of mind as a "focus" of objects, and of thinking, or reasoning, as the "life" or "self-development" of objects through their

mutual implications in such a focus. In this sense he declares that "truth is reality as it makes itself known through particular minds in the form of ideas.[1] Ideas are pronounced by discursive thought to belong to or express the nature of reality; and this character of thought, which claims the title of truth, is a mode in which reality, the nature of the universe, manifests itself, and is present and living" (p. 150). In this sense he claims for his view that it holds together, in an intelligible synthesis, aspects which we cannot deny, but which it is far easier to oppose to each other than to combine together in a single coherent view. "Certainly truth comes to be when we find it out; the very determinations in which it consists, the selection and connection of things and relations, have for all we know no emphasis, no distinguished place in the scheme of the universe before or apart from our mental operations. But no less certainly it was true before it was found out; if it was not true before it could not be true when it was found out. It is of no use to deny either of these paradoxes; they naturally affirm themselves if we insist on dismembering an essential unity" (pp. 148, 149).

On the whole situation thus created by the impact of Dr. Bosanquet's theory on current tendencies in logic and theory of knowledge, I would offer in conclusion three specific comments.

1. On the very lowest estimate (that is to say, quite apart from siding with, or against Dr. Bosanquet) I submit that our modern discussions of logic are enriched by the vigorous presentation and exploration of just such a view as this. If it is an experiment worth making to see what light can be thrown on knowledge, truth, and reality, by starting with a biological concept of mind, as the attribute of an animal species in its environment, and with a theory of knowledge as a relation between such a mind and the environment; or if it is worth while to give to this experiment the simpler form of distinguishing in every experience between a mental act and a non-mental object—then it is certainly also worth while to try out the experiment of a theory of mind and knowledge which is neither relational nor biological, but which regards a mind as a focus of objects, and this form of togetherness of objects as the condition of their entering into those logical processes in which, under the control of their own implications, their true nature comes to be fully revealed. All these experiments require to be carried through with an open mind,

[1] I could wish that Dr. Bosanquet had chosen some fresher term than 'idea' which raises the ghosts of many controversies, best forgotten.

which means a mind alive to every fact or consideration bearing upon them, and able to allow to each item of evidence its due weight and place. The true theory will come to be acknowledged as such by its stability, *i.e.*, by the fact that it sums up within itself, and is most consistent with, the whole of our experience, comprehensively and systematically surveyed. Again, if the experiment of the Cartesian method of doubt and of the analytic search for 'hard' data is worth reviving, so also is the experiment of a synthetic appreciation of the certainties and values of civilized life worth continuing. Critics have urged that Dr. Bosanquet's 'fundamental certainties,' as his own examples (beauty, morality, religion) show, are not purely intellectual, but weighted with feeling, of which the critics, implicitly or explicitly, assume that it is in principle non-rational and incapable, even when expressed through art and social organization, of throwing light on the nature of the real world. But the reply is to accept the criticism as unwilling praise. For it is of the essence of Dr. Bosanquet's experiment not to divorce *scientia intuitiva* from *amor intellectualis*. Who, once more, shall say that the experiment is not worth trying, or deny, because it fails in his own hands, that it may not succeed in those of another?

2. As regards the description of the subject matter of logic in terms of 'mind,' it is at least worth observing that, in spite of all their good intentions, realistically-minded thinkers find it exceedingly hard to keep mind consistently out of their theories. However explicitly they may at the outset of their argument bolt the door against the intrusion of mind, it will generally be found to have slipped in unnoticed through some crevice and to have occupied a position at a vital point in the argument. Let one conspicuous example suffice. If, with Mr. Bertrand Russell, we try the experiment of a correspondence theory of truth, it seems, *prima facie*, easy to say that truth consists in a certain relation between a fact-complex and a proposition-complex. So far there has been no mention of 'mind.' But when we analyze a proposition and ask how it comes to be, it appears at once that mind is vitally engaged. For we now learn that a proposition is a "belief," and that somebody's believing is the relating relation, and somebody's mind an indispensable term, in the proposition-complex. Or, again, we are told that from the perceived complex *aRb* the mind, by selective attention, develops the proposition 'that *a* stands in the relation *R* to *b*.'[1] Thus we move within the circle of what is perceived,

[1] This account may be verified by reference to the *Problems of Philosophy*, Ch. XIII, and to *Principia Mathematica*, p. 45.

and what by insight into the structure and implications of the perceived object is judged to be true. But to recognize that we move within this circle is to acknowledge the central position of mind. Nor is this an 'egocentric predicament.' For there is no limitation of the world to my ego as distinct from yours. On the other hand, to acknowledge, in the more general sense, that reality is an empty word except so far as it derives meaning from what we experience and think, is to acknowledge not a limitation or handicap, but an opportunity.

To this we may add the further observation that, if a fresh approach to the problem of truth and reality is to be attempted, the most promising line of advance would seem to be, not through the 'cognitive relation,' but through the problems of *meaning* and of *expression*. It is noteworthy that Mr. Bertrand Russell has recently turned his attention to the former. And it is the enthusiastic, if exaggerated, emphasis on the latter which gives to the neo-idealism of Croce's school in Italy its chief claim to our attention.

3. Finally it may be suggested that a mind steeped in mathematics and mathematical logic, and profoundly sensitive to the peculiar delight and satisfaction, both æsthetic and intellectual, which these studies can bring, is bound, when it turns to what James called "this Gothic and muddled" world of ours, to miss there the clarity, precision, and perspicuous order to which it had been accustomed. It will be strongly tempted to react with a sceptical and pessimistic estimate. It will certainly react very differently from a mind which comes to philosophy steeped in literature's 'criticism of life,' in the history of civilization and thought, in experience of politics and social reform. It is familiarity with the 'concrete' in this sense which is noticeably the background of all Dr. Bosanquet's philosophical work. I draw attention to this, not only as bearing on the right understanding of his views, but also because it seems to explain part at least of the difference between realism and idealism. At any rate, it is here that we have to look for the source of Dr. Bosanquet's attempt to work out a theory of logic which will endorse the concrete insights mediated by the experience of humanity.

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The Religious Consciousness. A Psychological Study. By JAMES BISSETT PRATT. New York, The Macmillan Company, 1920.—pp. viii, 488.

This is the most thorough and comprehensive study of the phenomena included within the new science of the psychology of religion that has yet appeared. While addressed primarily to technical students, most of the chapters are suited to the needs of undergraduate classes and will also be found interesting and profitable by general readers. The style is lucid, and concrete illustrations are numerous. The topics discussed include: a definition of religion and a statement of the methodology of the psychology of religion; the rôle of the subconscious in religious phenomena; the religious experiences of childhood and of adolescence; conversion; revivals; the causes and contents of the beliefs in God and immortality; the causes and functions of the cult; objective and subjective worship; and mysticism.

Philosophical readers should not be deterred from reading further by an unfortunately worded statement in the second paragraph of the Preface, in which the author says: "My purpose is easily stated. It is, namely, to *describe the religious consciousness,* and to do so without having any point of view . . . save that of the unprejudiced observer who has no thesis to prove. My aim, in short, has been purely descriptive, and my method purely empirical" (p. vii). Professor Pratt is not so naïve as to fancy that he has been able to write a treatise without advancing any theories or hypotheses. His book is full of them, as he no doubt would readily admit. What he means is explained in his second chapter, where he states the methods and point of view of the psychology of religion. He proposes in this book to maintain the attitude of an empirical science, and not to bring upon the plane of existence on which such a science moves any metaphysical theories that do not properly belong there. Psychological phenomena must not be confused with philosophical evaluations; one's convictions of what Religion ought to be must not color one's account of what the various religions actually have been and are. Professor Pratt believes in combining the critical study of data furnished by (1) the reports of individual experiences in autobiographical literature; (2) the questionnaire, properly safeguarded; and (3) the relatively objective expression furnished by history, anthropology, and sacred literatures. These data should be compared for general relations; and the latter, if possible, should be subsumed under the laws of general psychology. The phenomena should be

described without introducing theological and metaphysical hypotheses like the Supernatural and the Unconscious, which cannot be tested by the technique of an empirical science. The psychology of religion cannot become the basis for theology, the philosophy of religion or metaphysics in any sense in which other sciences, like physics or chemistry, might not.

Professor Pratt defines religion tentatively as "the serious and social attitude of individuals or communities toward the power or powers which they conceive as having ultimate control over their interests and destinies" (p. 2). He claims that this definition is workable in psychological analysis, and that it is broad enough to include all the phenomena in both primitive and civilized life usually thought to be religious, and yet narrow enough to differentiate religion from morality, theology, philosophy, and science. Being an 'attitude' (the term is borrowed from Professor Judd) religion is not confined to 'knowing,' 'feeling' or 'willing,' but involves them all. It is a relatively active state of consciousness. It is subjective, in contrast to the attitude of natural science, and so theology cannot become an empirical science (as *versus* Professor Macintosh). Yet religion is an attitude toward an object which the self firmly believes to exist in an ontological sense (and so the fallacies of *Psychologismus* and Pragmatism are avoided). In some cases religion is merely 'social' in the incipient way "which we feel in our relations toward anything that can make response to us" (p. 3). Religion "differs from theology and philosophy and science in that it consciously cares for the ultimate cosmic problems not on their own account but from practical and personal considerations." Doctrines play a relatively subordinate place in religion. It is "essentially a human thing, a biological product and instrument," better understood "by observing its functions than by analyzing any of its particular doctrines," and "to be judged by the way it works rather than as an intellectual system. Religion is not so much theology as life; it is to be *lived* rather than reasoned about." It is "not a theory about reality; it *is* a reality" (pp. 6, 7).

Professor Pratt adds another typical aspect of religion to the three which he gave in his *Psychology of Religious Belief* some years ago. The four now are: the 'traditional,' taking its attitude from the authority of the past; the 'rational,' seeking to base itself purely on reason and verifiable experience; the 'mystical,' which appeals to a particular kind of experience peculiarly subjective and not scientific-

ally verifiable; and the 'practical' or 'moral,' emphasizing conduct rather than belief or emotion. All are found in every genuinely religious person in varying degree according to age and other circumstances (pp. 14–21). The four types are illustrated in the analysis of the reasons why people now believe in God and immortality. While not disposed to attach significance to these percentages except as indicative of the existence of the four types and possibly of their relative frequency, Professor Pratt has found that the belief in God is apparently habitual or authoritative in 25 per cent. of the persons from whom he has collected reports, and who believe in God; that this belief is apparently based on some form of reasoning in 30 per cent.; that it is due to some form of affective consciousness in 37 per cent.; and to 'the will to believe' in 8 per cent. The highest and healthiest type of belief would draw strength from all four (pp. 209–223). I suppose that Professor Pratt means that each case he reports is predominantly rather than exclusively of the type in which he puts it. People who believe in personal immortality also fall into these four types; but here rational arguments have less influence than feeling and volition. This is also true of those who reject personal immortality; antipathy to the authority claimed by traditional religion and an enthusiastic 'will to believe' in natural science and awe of its authority have more influence in leading to disbelief in immortality than purely rational arguments (p. 241). The nature of the belief in God does not appear to fall so clearly under these four rubrics. In many persons to-day the belief in God seems to center about imagery (suggestive of Hume's view of belief); in others the belief is more conceptual; while for many both images and concepts are thought to be symbolical of some deeper reality for whose expression they are inadequate. While pragmatic motives are often strong, believers in God seldom think of Him in the manner of Pragmatism as nothing but a projection of human longing, ideals and values; for them He is usually a symbol of an ultimate and independently existing Reality (pp. 195–209).

One of the best chapters in the book is that dealing with the Subconscious. It does much to clarify this puzzling conception for the requirements of the psychology of religion. The term 'subconscious' is used in four ways in contemporary psychological literature: (1) as the 'fringe' or background of the mind; (2) as purely physiological neural processes; (3) as 'co-conscious'—*i.e.*, genuinely mental processes not felt by the personal center of consciousness;

(4) as "some kind of psychic stuff that is yet unconscious"—a vague conception sometimes found in the writings of Bergson and the Freudians, which must be rejected so far as it cannot be identified with the 'co-conscious.' Professor Pratt attaches most importance to the first two of these conceptions. "If we interpret the subconscious as meaning both the fringe and the nervous system we may say that it is largely this that makes us what we are" (p. 60). The great source of the 'subconscious' is accordingly the previous conscious experiences of the individual and the race (p. 63). It is doubtful whether 'co-conscious' personalities ever exist in normal persons; certainly no great religious value can be attached to them in the case of ordinary people, although they have been characteristic of some great religious leaders. However, "the highest type of man, in the religious life as well as elsewhere, is the unified and rational self" (p. 67).

The chief contribution in the three chapters dealing with Conversion is a correction of certain details in the interpretations of James and Starbuck, who, misled by Protestant theologians of the 'evangelical' type, have exaggerated the frequency and normality of conversions of the violent type. "With most religious people conversion (of the genuine moral sort) is a gradual and almost imperceptible process, with an occasional intensification of emotion now and then during adolescence. Many, perhaps most, religious adolescents have a number of these emotional experiences which may last for a few months only or for days and weeks" (p. 153). Though valuable to the technical reader, and a justified corrective of James and Starbuck, these chapters hardly would afford a good perspective for a beginner. On the contrary, the latter can be referred to the chapter on "Crowd Psychology and Revivals" as probably the best statement of the psychological principles involved that has ever been compressed within the limits of a single chapter. The faults of the old-fashioned semi-hypnotic revival are tellingly exposed, while allowance is made for the normal place of rhythm in all phases of life.

The religious cult (*i.e.*, public worship) and belief in superhuman powers of some kind probably originated in close connection; and belief and ritual remained in close interaction. While social causes had much to do with the origin of *mana* and other early religious conceptions, they cannot be regarded as a complete explanation (Chap. XII.). The chief function of cult is "to reinforce religion, and thus to realize and conserve the values which religion mediates."

These values "consist chiefly in the moral control of life and in the production of a kind of peace, joy and hope for which no other surety can be found" (p. 271). A careful psychological analysis is made of the various ways in which the employment of sensuous imagery and the recitation of creeds and other devices of public worship assist in achieving this function (Chap. XIII). 'Objective worship' "aims at making some kind of effect upon the Deity, or in some way communicating with him"; while 'subjective worship' "seeks only to induce some desired mood or belief or attitude in the mind of the worshiper" (p. 290). The leading purpose of the Roman Catholic mass is 'objective worship,' while that of the Protestant service is "the subjective impression upon the minds and hearts of the worshipers." The Chinese official cult of Heaven and Hindu *puja* are other instances of objective worship; while in theory, at least, Jainism and primitive Buddhism carry subjectivity to the extreme. Asserted as an absolute difference this distinction appears more ingenious than convincing; however, Professor Pratt has called attention to what must be conceded to be a striking difference in emphasis; and possibly this is all that he intends. Professor Pratt thinks that "the most obvious and probable explanation of the rise of prayer" is that, "granted that out of the original feeling for the impersonal *mana* the belief in personal powers arose, direct appeal to them was surely the most natural thing in the world" (p. 312). The chief reasons why people pray to-day are habits formed in childhood, and the feeling of communion with God. Adolescents most often abandon prayer from scepticism and the 'sense of sin'; and adults from ill health and discouragement. Prayers for changes in the weather and other modifications of the natural order, though on the decline, are still common. Although occasionally a person continues to pray who has ceased to believe in the objective existence of God, probably fifty times as many persons abandon prayer under such conditions.

Five chapters are devoted to Mysticism. It will be impossible to summarize them here. The most helpful distinction, as it seems to me, is that between the 'milder' type of mysticism, and the 'more extreme' types. The former is fairly common among perfectly normal persons. Such people are able to live as if God were always present with them; and they have an inner assurance that this is the case, which, to them, is comforting and morally sustaining. This feeling can often be attained by devout persons in whose mental constitution the fringe region of consciousness is prominent, if they pray persist-

ently and otherwise cultivate it. The 'extreme' types, often, if not always, are more or less pathological. The analysis of ecstacy is well done. Professor Pratt refuses to introduce the God or Absolute of mysticism into the psychology of religion as a scientific explanation of mystical states. In metaphysics it is of course possible to attribute mystical and other religious phenomena to God, but not in an empirical science. "The laws which science knows may be only the Absolute's thoughts, or God's ways of doing things. But supernatural interference cannot be introduced into the chain of natural law and substituted for one or more of its links to account for phenomena. The Absolute may explain *everything;* it cannot explain anything in particular" (p. 446).

The fact that Professor Pratt believes that the claims of religion to ultimate truth cannot either be established or refuted by the psychology of religion gives the volume a dispassionate and objective attitude that will do much to strengthen the claim of the psychology of religion to be an empirical science. It should be added that Professor Pratt is personally convinced that religion is supremely worth cultivating as a valuable human possession (p. 42). Though a candid critic, he is always sympathetic. He frequently suggests practical applications that should prove helpful to those interested in the cultivation of personal and social religion. To those who do not have time to read the book as a whole, it may be said that the general standpoint is fairly well indicated in the first four chapters, which every one who wishes to become acquainted with the work should first read, after which he can with reasonable safety proceed at once to any of the other chapters whose titles appeal to him.

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Les problèmes de la philosophie et leur enchaînement scientifique: le donné et l'objectif. Par Paul Dupont. Paris, Librairie Félix Alcan, 1920.—pp. vi, 386.

The author of this book is of the opinion, shared by many philosophers at the present time, that the study of philosophy would profit greatly by the use of the scientific method. He does not wish to be understood to deny that other methods of philosophical inquiry are possible; but he does insist that the scientific method is at least one method which may be applied in philosophy, and that knowledge gained through this method is fundamental and is "alone accessible

to all humanity." It is the method on which the majority have to rely. In order to introduce this method into philosophical inquiry, he thinks, the first step necessary is to suggest "un ordre d'enchaînement des problèmes philosophiques;" and his aim in the present study is to outline such an order.

The starting-point in this enterprise is the pure 'given' of the individual thinker. This 'given' is a very complex affair, consisting of objects within space which have various qualities and relations, classes of objects and the relations of classes, other beings like myself possessing psychical states similar to those which I possess when I am aware of all this content, and the 'je' which is thus aware of this complex datum. Within the 'given' are implicit many sciences. Among them is a logic, *la logique du donné,* which upon analysis reduces itself to some four postulates and which serves as an outlet from the pure 'given' with its 'phenomenally' objective content to the 'really' objective order of which existence is predicable. The transition here is made on the basis of the assumption that the principles of the 'logic of the given' hold also of the 'real'—an assumption whose justification apparently rests on the further assumption, which cannot be proved, that "the given is a function of the objective." The 'real,' as opposed to the 'phenomenal' objectivity of selves other than the lonely 'je' is guaranteed by an elaborate calculus of probabilities, which is supposed to justify the individual's belief that he is not alone in a universe of mere matter. The problem of *Le Transcendant,* which is said to be logically involved in the intellectual itinerary here entered upon, is omitted for lack of space from the present book. But we are assured that nothing is lost by this omission, since the first part of the study is independent of this latter part as the earlier books of geometry are independent of those which follow.

There is much in this book that is interesting and suggestive. But as I read the discussion, it is vitiated by two assumptions each of which seems to me illusory.

With the author's general insistence that the scientific method should be consciously made use of in philosophical inquiry and that, unless this is done, the necessary universality of philosophical knowledge remains an idle dream or a fortunate accident—with this general insistence of the author, I am in whole-hearted sympathy. But when one has urged that philosophy should employ the scientific method one has not so far said anything very specific. The main

question is: What precisely is meant by the scientific method, and how may one set about the application of it to philosophical problems? The present book, by implication at least, assumes that the method of science is primarily, if not exclusively, deductive in aim, and that the first step in the application of it in any field of inquiry is a clear-cut formulation of a scheme of problems to the end that their interrelations may be determined and their presuppositions and implications delimited. Now it is precisely this assumption which seems to me false: so far as I can see it is justified neither by theory nor by the actual procedure of the sciences. Were it not for the fact that the contrary is so frequently insisted upon, I should say that it is fairly obvious that the method of science cannot in theory be wholly deductive, unless it is so narrowly defined as to make it inapplicable in many fields of scientific research. But however that may be, it is beyond question that no science proceeds in accordance with a formal *a priori* scheme of problems. If the outlining of some 'ordre d'enchaînement' of problems is a prerequisite to the use of the scientific method, then I know not where to point among the sciences for an example of one in which the scientific method is employed. Indeed, one may with warrant urge that, if the use of the scientific method presupposes any such scheme, by the very nature of the case the scientific method is futile, or largely so, in any field of inquiry; for the method as thus conceived could not be applied until the problems in question should have been considerably clarified, and to no small extent solved, in some other way, and thus the 'method' would arrive on the scene rather late for service. It is, I presume, a logical commonplace that even the clear formulation of a single problem, to say nothing of an '*ordre d'enchaînement*' of problems, marks a rather advanced stage in the intellectual enterprise: for such formulation some sort of 'method' is certainly necessary. The plain truth of the matter, however, is that the scientific method presupposes no such scheme of problems; the scheme, if scheme there be, emerges through, and as a result of, the application of the method to the problems in hand. And, it seems hardly necessary to add, even should no such scheme emerge, the scientific method may still have completely done its work; though the result could so far hardly be called an 'exact' science, perhaps, not as exact as, say, mathematics, still it must be borne in mind that most of our scientific knowledge, properly so called, is not exact in this sense.

Furthermore, I do not find that the author is particularly successful

in his attempt to work out "un ordre d'enchaînement des problèmes philosophiques" in the present study. So far as I have been able to discover, there is no great compulsion in the order of problems which he suggests, either as regards the problems he chooses to consider or as regards their several positions within the scheme. Why, for example, some of the problems usually connected with ethics should have been omitted from the scheme entirely remains to my mind a puzzling question. Nor is it easy to see why in the nature of the case practically all of the sciences usually called inductive together with the mathematical sciences, including rational mechanics, should fall within the scheme under the heading of 'sciences of the pure given,' while psychology, sociology, and certain phases of the logical problem should have to wait upon the 'deduction' of the objective, the 'really' objective, order before they find a place in the scheme. And there is reason to believe that the 'I think,' which accompanies every phase of the pure given, does not receive the consideration it deserves.

The second assumption, false as I must believe, and to my mind the source in the author's study of many doubtful queries, is that it is the chief business of philosophy to extricate the philosopher from a solipsistic marsh. I am conscious of the fact that it is sometimes supposed that precisely this is the task of 'epistemology.' Nevertheless, this assumption seems to me to reduce philosophy to zero as an intellectual pursuit; for I cannot see why it is not a fruitless undertaking to prove that what he necessarily must believe and know with as much certainty as human frailty seems capable of is probably true in spite of the possibility that it is an illusion. And the present study would have been as good an example of the futility of it as is Hume's *Inquiry*, had the author been as faithful to the argument as was the Scotsman. The reason why M. Dupont supposes that he has made the leap—as he recognizes it to be—from the merely subjective to the genuinely objective by a literal 'deduction' of the latter from the former through the mechanism of a formal logic, is because he secretly introduces into the 'given' the notion of real objectivity, apart from which much of his discussion of the 'given,' especially his lengthy consideration of the sciences of the 'given,' is without intelligible foundation. He pulls out of the hat precisely what he puts into it. He does not 'deduce' the objective; like everyone else, he assumes it.

There is no justification for the view that what I know most inti-

mately is my own subjective, isolated self with its experiences, and that I must *infer* the existence of other selves with their experiences through some hocus-pocus of analogical reasoning or justify my belief in their existence by some intricate calculus of probabilities. And there is as little justification for the view that the 'real' existence of a genuinely objective order of facts is only an inference from subjective data. The plain truth seems to be that there is no logical bridge between the hypothetical solitary consciousness, encased in its subjectivity, and the objective order of real things and other real persons. No method short of an arbitrary will to believe—for the existence of which in the self-engulfed consciousness no possible explanation can be given—can ever deliver us from the solipsistic trance. If we were born in this trance we should most certainly die in it—unconscious to the last that we had only dreamed. The simple fact that we make such desperate efforts to transcend the 'subjective' and place our feet solidly on the 'objective' is, or should be, sufficient proof that the two are in some sense one. If there is any one lesson taught by the history of epistemological theories from Locke to Hegel, I should hold it to be: either we are doomed to solipsism, impenetrably dark, or we must frankly assume that there is an objective order independent of us, that we know this order as it really is, or may know it, and that through it we learn more or less haltingly to know ourselves. For it is the 'reality' and we the 'appearance.'

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La filosofia contemporanea: Germania-Francia-Inghilterra-America-Italia. By GUIDO DE RUGGIERO. Second edition. Two volumes. Bari, Gius. Laterza & Figli, 1920.—pp. 271, 292.

The first edition of this work, in one volume, appeared in 1912. It is now republished with an Appendix containing an examination of neo-scholastic philosophy in Louvain and in Italy, the progress of historical and sociological studies, and the most recent orientation in Italian philosophy (Varisco, Aliotta, Croce, Gentile).

Ruggiero's method is one of construction through critical exposition. In the thought of our time he sees one fundamental issue: between naturalism and idealism; and his task is the disclosure of this issue and the manner in which it is met in contemporary philosophy.

The briefest summary reveals the comprehensiveness of the survey. In Part I, on German philosophy, the author indicates the fail-

ure of Germany to master Kant's real thought, the consequent rise of naturalism and its futile career. In religious thought (the school of Tübingen) it gradually leads to lyricism; in interpreting history materialistically (Marx, Engels), it is involved in insuperable ambiguities; in Fechner and Hartmann it ends in extravagances. Schuppe's and Rehmke's immanentism, the empiriocriticism of Avenarius, Mach, and Cornelius, the illusionism of Spir, all disclose the need of more Kant. But German Neo-Kantianism itself is involved in grave misconceptions of Kant's thought: in Lange, in Liebmann and Riehl, in Hermann Cohen and his school. Cohen's Kantianism is mathematical-Platonic and concerns itself with the eternal product of thought, failing to realize its nature as concrete activity. The same failure to understand adequately the profound significance of Kant's synthesis *a priori,* according to Ruggiero, is disclosed in Windelband's and Rickert's philosophies of value, in German psychologism and vitalism, in philosophy of history and in theology, with consequent insuperable dualisms and confusions. This German poverty of real thought, often in spite of the most imposing display of erudition, discloses itself in the efforts of empiricism to construct a metaphysic (Wundt, Paulsen, Haeckel, Ostwald). Needless to say, German philosophy manifests a lurking sense of the inadequacy of its position: Lotze's equivocation between idealism and naturalism is an apt illustration, as well as Eucken's ever-renewed demand for an advance beyond Kant, and Nietzsche's apparent revolt against naturalism.

If in German philosophy our author finds mostly futility, the French commands his respect and admiration. More varied and richer in content, more concrete and original, possessing superior insight and greater vitality, it impresses him as in the vanguard of modern thought. He surveys the development of positivism, especially its later revival in sociological and historical studies (Tarde, Durkheim, Lacombe, Xénopol), the spiritualism of Ravaisson, Janet, and Sécretan, and the philosophy of contingency (Boutroux, Milhaud). He notes the revolt against intellectualism and the mysticism of intuition in Bergson, the criticism of science (Hannequin, Poincaré, Duhem), Fouillée's philosophy of the *idées-forces,* and Guyau's ethical dilettantism. But what gives Ruggiero's survey of French thought particular interest is his disclosure of a fundamental drift in French philosophy towards Hegelian idealism. While Renouvier and his school of phenomenalists (Gourd, Boirac) would rest on Kant, their

advance beyond Leibniz is not apparent. But Kantian and Post-Kantian studies (Noël, Liard, Vacherot, Evellin, Brunschvicg) indicate a growing mastery of the Critical philosophy and its implications. The philosophy of Lachelier in particular,—Ruggiero regards him as the most profound speculative mind in contemporary French thought,—shows how much more deeply the *Critique of Pure Reason* has been understood in France than in Germany. The concrete idea of Post-Kantian idealism, attained by Lachelier, is still further developed by Louis Weber, whose absolute positivism is regarded by Ruggiero as the farthest point of advance reached by French speculation in the mastery of the concrete idea and the absolute concreteness of science. This Hegelian tendency is manifest in Blondel's philosophy of action, and the immanentism of the modernists (Loisy) reveals the same origin.

The first part of the second volume is devoted to Anglo-American philosophy. Ruggiero finds that it follows two lines of development: the one, proceeding from old British premises, reaches its furthest advance in the empiricism of J. S. Mill and the naturalism of Spencer, and is thereafter dissipated. The other, resting on a thorough mastery of Hegelianism, reinterprets and develops it, and, away in advance of German philosophy, brings Anglo-American philosophy close to the French.

Following the first of these two lines, after a brief discussion of Hamilton and Mansel, the author turns to J. S. Mill. Unlike the older empiricism, which recognized no reality outside experience, Mill's conception of reality as the permanent possibility of sensation (his only original doctrine) is a return to scholasticism in its distinction of actuality and potentiality. Mill's logic is anti-scientific and anti-experimental: its methods of mechanical generalization completely ignore the concrete nature and activity of thought. The ethics of empiricism (Bentham, Mill, Bain, Sidgwick) Ruggiero calls simply monstrous and frivolous, lacking the very conception of man as a moral being. The metaphysics of empiricism is represented by Spencer; in spite of its scientific pretensions, it also is anti-scientific in spirit, and is not a development of the old British empiricism, but rather a reflection of the shallow naturalism of the day. Pragmatism is regarded as the *reductio ad absurdum* of empiricism. James is described as a "curiosa personalità, che è un impasto di buono e di cattivo, di serio e di stravagante" (Vol. II, p. 40); the influence of Lotze on the thought of Dewey is recognized; and Schiller's humanism is called a caricature of idealism.

In complete opposition to this empiricism and naturalism rises and develops British idealism. It begins with a series of thorough studies of Hegel. Stirling's disclosure that the secret of Hegel is Kant reveals his own understanding of Hegel; but beyond Hegel Stirling cannot go. Later development of British Neo-Hegelianism follows two main lines. The first, inspired by Kantian (Green) and Platonic (McTaggart, here called Taggart) motives, while insisting on the central position of consciousness and personality, fails to attain the synthesis of the Idea and the empirical reality, of the Absolute and the contingent. The scepticism implied in this type of philosophy is revealed in the metaphysics of Bradley, with its two abstractions of a mere appearance and a mere Absolute. A second line of development, called by the author the Hegelian left, is followed by Baillie and Royce, the latter of whom is called the strongest representative of Anglo-American philosophy. Baillie would conceive of absolute experience as eliminating the transcendence of the object, and Royce strives after absolute immanence. But the demand for recognition of the individuality of the self gives both systems a certain pluralistic trend which is resisted unsuccessfully, and to which Ward openly yields, seeking a subsequent final unity in terms of theism. The author recognizes in British idealism a marked tendency to study religion in a historical spirit, a tendency which he considers a philosophical *rapprochement* of Anglicanism to the spirit of Catholic modernism, with Newman as its spiritual father.

Ruggiero recalls Spaventa's saying that at all times the Italian genius has been a precursor, with only a presentiment of the new truth. So in Macchiavelli, Bruno, Campanella, and Vico the great thoughts of modern philosophy are dimly anticipated, but are not developed. So in Rosmini and especially in Gioberti lurk the later treasures of idealistic speculation. But Gioberti's genius is wasted on a generation of mediocrity which understands and prizes only its own spokesmen, men like Mamiani and Ferri. Italian thought wanders from the nineteenth into the twentieth century along diverse paths: positivism engages it (Cattaneo, Villari, Ardigò); it pursues Kantian studies (Masci, Martinetti); it would advance from dualism to monism (Bonatelli, Cantoni, Acri, Varisco). The herald of the really significant Italian philosophy of the present day, however, is Bertrando Spaventa. A Hegelian like Vera, he was unlike Vera in that Hegelianism to him was not a doctrine to be worshipped but a starting point for further advance. From Gioberti, whose philosophy

he resurrected and transfigured, he learned to reinterpret Hegelianism: there is no mere Absolute and there is no mere contingent, but reality is the absolute process of the contingent, the eternal problem which is the eternal solution. The same process of dissolution of Hegelianism is manifest in Francesco de Sanctis' theory of art and in the historical materialism of Labriola. But the philosophical movement thus initiated, finds its best expression in Croce's philosophy of spirit and Gentile's absolute idealism. These two receive more of Ruggiero's attention than any other contemporary philosophies, and the author's fundamental agreement with the latter is plainly indicated.

Ruggiero's critical discussion of Croce and Gentile may be suggested by the final considerations to which his studies have led him. "Hegel, the proscribed, has returned and occupies the place of honor in the new philosophy. In France, in England, in Italy, Neo-Hegelian culture represents the highest expression of national culture. . . . The actuality of the Hegelian problem consists in immanence, in the negation of all dualism, in the concrete view of the real" (Vol. II, p. 188). Thus it is revealed in Lachelier, in Weber, in Blondel, in Royce, in Baillie. So Croce, in his conception of history would negate the double abstraction of a process *ad infinitum* and a finite process of the real; so Gentile gives the *coup de grâce* to the Aristotelian dualism of potentiality and actuality by transcending all mere potentiality in the act of thought, our thought. The Hegel thus honored, however, is not the Hegel who once spoke the final word in philosophy, but simply he who, by giving a new meaning to Kant's synthesis *a priori*, opened new vistas to philosophy. Thus we now have the true Copernican conception of the world which in Kant was still mixed with the Ptolemaic, and Hegel's dialectic enables us to pass beyond Hegel (Vol. II, pp. 188 ff.).

This work leaves one with a lively sense of the vitality of contemporary thought, and one can think of no better sort of introduction to the philosophy of our time. Ruggiero's firm belief in the fundamental identity of philosophy and the history of philosophy is well proved in his history, which is itself a vigorous exposition of a philosophy. One can pick holes in his work, to be sure. To mention only one instance, his lumping of Bosanquet's *Logic* with Mill's is, to say the least, puzzling. But the chief defect or merit of the book is that of its method and point of view. While not narrowly partisan, it is distinctly critical throughout and no mere recital of doctrines

in a non-committal 'historical' manner. One in fundamental agreement with the author's estimate of present philosophical tendencies would find in this work the activity of a mind sane and penetrating, erudite, keen, and to the point, and truly catholic in his view, in spite, or perhaps because, of his own philosophical attitude. On the other hand one to whom idealism, absolute or relative, Hegelian or other, is invariably anathema, would be sure to meet in Ruggiero's survey of contemporary philosophy more relevant and knotty problems than he is likely to be confronted with in almost any other work of similar compass.

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NOTICES OF NEW BOOKS.

The Development of British Thought from 1820 to 1890, with Special Reference to German Influences. By M. M. WADDINGTON. Toronto, J. M. Dent & Sons, 1919.—pp. vii, 194.

In his 'Foreword' the author says: "The difficulty which a reader who knew no philosophy might experience, in reading such material as Coleridgian prose, suggested the need of a work like the following. . . . The result was the preparation of the following study. It is an attempt to relate Coleridge, and others to whom he is more or less akin, to that body of thought which formed for them a common source." A book of the character indicated would probably appeal to a good many readers, but it is difficult to see that the author has accomplished the task that he set himself. The ground to be covered is considerable at best; but, instead of keeping to the main topic, *i.e.*, the 'development' of British thought for the period indicated, Mr. Waddington has given us highly condensed summaries of the views of a large number of authors, not all of whom seem exactly relevant to the present purpose. The result is too much like a note-book, made for his own use, by an intelligent student of the thought of the period. Little attempt is made to avoid technical phraseology; in fact, technical terms peculiar to the authors considered are not always explained. Otherwise this little book—which is somewhat longer than the number of pages would indicate, as it is rather closely printed—is clearly enough, though not carefully, written.

There are three Sections: I, "Introductory"; II, "The Earlier German Influence"; and III, "The Scientific Movement and Later German Influence." The 'introductory' Section, dealing with "Pre-Revolution Thought in England and France," "The Critical Philosophy in Germany," and "The British Line from Bentham to J. S. Mill," is so condensed as to be practically useless. Moreover, there is a great deal of carelessness in statement. For example, we are told: "There was a continuous effort on the part of different writers to carry out Locke's plan of making ethics a demonstrative science. To his definition of self-love as the sole motive of human action, Hume added the sense of sympathy with mankind. Adam Smith developed this idea," etc. (p. 5). Of course "Locke's plan of making ethics a demonstrative science" (after the manner of geometry) was a suggestion made by Locke the rationalist, not by Locke the empiricist. An idea of this sort would have had no meaning for Hume or Smith; if any British moralist tried to carry out this ultra-rationalistic ideal, it was Clarke. In the same paragraph, the author says: "Tucker and Paley gave the first account of the relation between

personal happiness as the motive, and the general happiness as the criterion, of virtuous action." A statement like this speaks for itself; the author must really know better, but an unphilosophical reader might be seriously misled. In Chapter III, Bentham is referred to as "placing benevolence at the head of the list of human motives" (p. 33); this wild remark seems to be tacitly corrected later, where the otherwise hardly accurate statement is made that James Mill "made the transition from Bentham's psychological egoism to ethical altruism" (p. 37). (For Mill's actual views, see *e.g., Analysis,* Vol. II, Chap. XXI, sect. ii, par. 2.) Chapter II, "The Critical Philosophy in Germany," dealing, not only with Kant, but with Fichte, Schelling, and Hegel, is much too brief (19 pp.) to be helpful. And why should German titles be given in a popular book of this kind?

The much longer Section II, dealing with Coleridge, Newman and the Tractarians, Carlyle, Emerson, Ruskin, Sir William Hamilton, Ferrier, and J. S. Mill, is rather unhappily named "The Earlier German Influence." Why give a general label at all? Certainly this one does not apply to Newman and the Tractarians nor properly to Mill. Hamilton and Ferrier would have been unworthy of the university chairs that they adorned, if they had wholly neglected German philosophy, but they were by no means mere adapters of German ideas; this is perhaps even more obviously true of Ferrier than of Hamilton. In short, it practically simmers down to Coleridge and Carlyle, who were directly influenced by German thought, and to Emerson and Ruskin who were influenced by Carlyle. Chapter IV of this Section is almost wholly devoted to Coleridge, and this relatively generous treatment is plainly justified. It is difficult enough at best to be definite and conclusive in dealing with Coleridge's philosophy, but some of the statements in this chapter are hard to accept, *e.g.,* "The great value of the speculative reason in Coleridge's scheme is a negative one" (p. 55). Mr. Waddington habitually quotes from a cheap popular reprint of the *Biographia Literaria;* if he had read, or read with more care, Mr. J. Shawcross's admirable introduction to his edition of this important work, he could easily have avoided certain careless slips like the above. (See Shawcross, p. lxxi.) Chapter V deals with Newman and the Tractarians, Carlyle, Emerson, and Ruskin. As usual, the German influence is over-emphasized. This is true even of the author's treatment of Carlyle, in the case of whom this influence was doubtless very considerable. The same carelessness in general statements is evident here; referring to Carlyle and Ruskin, the author says: "There is in both . . . the same hatred of war," etc. (p. 81). Does he really mean that Carlyle's attitude toward war is at all the same as Ruskin's? For the moment, he seems to be thinking only of the famous passage in *Sartor Resartus.* Chapter VI is on Sir William Hamilton and Ferrier, and Chapter VII, the last of this Section, on John

Stuart Mill. In both of these chapters the German influence is certainly over-emphasized. For example, we are told: "In ethics as well as in psychology and metaphysics, Mill was immensely influenced by German thought" (p. 105). Of course it would have been nothing against Mill, if this had been true; but do the facts at all justify such a statement? Certainly the author does not succeed in proving his point in the text. The vaguest similarities between Kant and Mill are taken as evidences of the influence of the former upon the latter; for example, speaking of Mill's insistence upon qualitative distinctions between pleasures, Mr. Waddington says: "Mill's emphasis upon this element . . . marks him a pupil of Kant" (p. 107). Has he by any chance read Hutcheson; and was Hutcheson also "a pupil of Kant"? But such comparisons are trivial at best. So far from this position being traceable to any particular philosophical school or schools, it is, for better or for worse, the attitude of common sense.

Section III is on "The Scientific Movement and Later German Influence." Chapter VIII deals with "The Scientific Movement," with somewhat undue emphasis upon Lewes at the expense of Spencer. Chapter IX is on "Hegelian Thought in J. Hutcheson Stirling and T. H. Green." Twice as much space is given to Stirling as to Green. Perhaps as a result, the treatment of Green is hardly intelligible. And how did the author come to name Nettleship as the editor of the *Prolegomena to Ethics?* Chapter X, the concluding one (except the very slight "Conclusion" of less than three pages) treats of the Cairds, Bradley, and Bosanquet. It is unfortunate that this chapter is not more satisfactory, considering that the author is rather unduly preoccupied with the 'German influence' throughout this little volume. He fails to show the familiarity which he should have with the writers whom he undertakes to criticise. For instance, he says: "It has been refreshingly said that there is one more difficult modern work than Kant's *Critique of Pure Reason*—and that is Caird's exposition of Kant" (p. 167). Can this remark have been made on the basis of an actual acquaintance with that monumental commentary? If one sympathizes with the present ungracious tendency to mildly depreciate this splendid work, is not the obvious criticism rather that Caird sometimes allows himself to make Kant too easy by interpreting some of the fundamental difficulties of his system in terms of the later and more logical development of idealism? (*Cf.* the rather rigid textual criticism of the same passages in Professor Norman Kemp Smith's valuable recent *Commentary to Kant's Critique of Pure Reason.*) In fact, the present writer would be inclined to call Edward Caird the clearest writer of the distinguished group to which he belongs. This does not mean, of course, that he has always dealt with easy or popular subjects. As the chapter proceeds, the influence of Lotze upon Bradley and Bosanquet seems to be exaggerated.

The exposition of Bradley is singularly inadequate and only two pages and a half are given to Bosanquet. Perhaps it is as well, however, since Mr. Waddington seems to have no first-hand acquaintance with his author. For example, he says: "Bosanquet is inclined with Hegel to sell all he has and follow spirit, though he never formally commits himself to an Absolute" (p. 181).

In conclusion, it may be said that a book of the sort evidently intended by the author would probably appeal to a fairly large class of readers; that the present book is much too hastily put together to be satisfactory; but that the author shows, in spite of all his shortcomings, that he could write a much better book, if he would take the necessary time and trouble,

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The Psychology of Nationality and Internationalism. By W. B. PILLSBURY, Professor of Psychology, Director of the Psychological Laboratory, University of Michigan. D. Appleton and Company, New York, 1919.—pp. ix, 314.

As the title of his book indicates, Professor Pillsbury presents a study of a social phenomenon that has been much discussed, during and since the great war, by specialists of every kind and from many different points of view. The theories advanced in explanation have been as diverse as the standpoints of the writers, even when these have approached the subject from the same angle,—biological, psychological, sociological, or what you please. We discover in nearly all of them a tendency to oversimplification, an attempt to account for seemingly complex phenomena by means of a single abstract element contained or imagined in them,—for example, to emphasize the instincts or some particular instinct, to the neglect of other factors, without which the phenomenon in question cannot be properly understood. Although Professor Pillsbury lays chief stress upon instinct in his analysis of the national mind, he avoids such one-sidedness. He recognizes the importance of ideals; and if he seems to conceive instinct rather abstractly as something separate, to which the other phases of consciousness are mechanically added, this may be laid at the door of the analytic method in psychology which breaks the mind into pieces and finds it difficult to put them together again, just as they were. We may perhaps avoid misunderstanding here if we resist the tendency, referred to in the Preface, "to forget that a process when analyzed is the same process as that with which one started."

The author sees in nationality fundamentally an expression of the social instincts, modified and elaborated by habit and learning, which, in turn, come to constitute tradition and custom" (p. 90). Under the social instincts he embraces, besides the gregarious instinct, sympathy and fear or respect for the group as a whole or its members, and even

hate. It is upon the basis of these instincts, which may be called the immutable laws of human nature, that ideals and standards develop and come to have the force of laws. The ideals have developed and may change. They arise through the chance suggestion of some thinker; they are the ideals that have been stated by some one man, accepted by many others, and now pass practically unquestioned. They are tested by experience and are transmitted by tradition (pp. 91, 211, 225, 278). The fundamentals are prescribed by instincts, the refinements must be added by learning. In essentials, ideals have been seen to furnish rules of conduct based upon a determination of what is most satisfactory in the light, not of crude instinct, but of instinct guided and controlled by experience, which has been summed up in what we call intelligence or reason. As opposed to instincts, this means action on rational grounds, doing what is right as opposed to doing what one pleases (pp. 252 ff.).

"What we call intelligence or reason" seems to be the most important element in this entire process; and instinct that has come under the sway of "what we call intelligence or reason" is instinct only in name. Professor Pillsbury subscribes to the belief "that nations are held together by mental rather than by physical or hereditary bonds. It is something in the spirit, not anything in the physical constitution or common ancestry that makes them one" (p. 164). Instinct appears to be mastered by reason. "The consciousness of nationality is awareness of belonging to a group with pride in the ideal notion of that group as a separate entity, a willingness to be controlled by the ideals of that group and to serve its ends" (p. 246). "The laws are formulated ideals. When tested they give the individual an approved standard of conduct that represents the experience of the community, even of civilized society everywhere, rather than his own instincts" (p. 274).

There is evidently a great deal more in the consciousness of nationality than instinct; indeed, the so-called instincts of sympathy and respect, as they operate in the human being, are already shot through with thought, touched by the spark of the universal. The same may be said of the awareness of belonging to a group, of the pride in the ideal notion of that group, and of the willingness to be controlled by its ideals. Experience itself is impossible without intelligence or reason; we cannot tear it from this factor without destroying both it and its inseparable mate. We cannot understand the consciousness of nationality without remembering that it is of the spirit, and that the spirit is a whole,—not a combination of elements, like instincts, pure and simple, to which other elements are mechanically added.

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Values Immediate and Contributory and their Interrelation. By MAURICE PICARD. New York University Press, 1920.—pp. x, 197.

Dr. Picard's book on values contains a large amount of sober and strenuous thought succinctly expressed. He deals with the distinction of immediate and contributory values. He regards contributory values as objective in a limited sense, but one of the aims of the book is to show that, so far as empirical methods can determine, all immediate values are subjective. The author argues that contributory values (which belong to the realm of cognition) are not dependent on immediate values (which belong to the realm of feeling). This leads him to attack Rickert's doctrine of truth as determined by a transcendental "ought," which would make contributory value dependent on immediate value, since it makes the whole realm of cognition thus dependent.

He then undertakes to determine the biological and psychological situations under which each kind of value arises. He reaches the unexpected conclusion that contributory values are the stuff out of which immediate values arise. The next problem is the relation of judgment to value. Both the judgments of value and the values of judgment are treated. In dealing with the relation of value and environment, he reaches the conclusion that everything with which conscious activity comes in contact has both contributory and immediate value, although in varying degrees.

The last third of the book is a critique of Windelband's theory of norms. That theory would make certain immediate valuations objective. Dr. Picard concludes that the psychological data do not require such objective norms, although they might conceivably be legitimate in a frankly speculative metaphysics. Especially acute are the strictures upon Windelband's introduction of the norms as factors in natural process.

There is much to commend in the book, but after the fashion of reviewers I shall isolate for comment a point on which I dissent from the author's conclusion. This point is the doctrine that contributory values are objective while immediate values are subjective.

It is to be noted that the sense in which contributory values are called objective is a strictly limited sense. They are generalized—"If my umbrella is good for keeping off the rain it is good for that purpose when next it rains" (p. 13); they are verifiable—"I may find out what my umbrella is good for" (p. 13); they are communicable by speech. "In this way contributory values are made independent not only of any special moment in the life of the individual, but also of any particular individual" (p. 13). "If such values pass as coin among the members of the community, they must cling to the object rather than to the persons who employ them. This is not to say, however, that they would be values at all apart from the relation of the objects to individuals who value them, but they may be called 'objective' in deference to the fact

that they do not depend for their existence upon any *particular* member of the community" (p. 14).

Dr. Picard's account of the origin of values, especially pp. 38–42, indicates that contributory value is conduciveness to something in which an organism takes an interest. This emerges still more clearly in his article entitled "The Psychological Basis of Values" in the *Journal of Philosophy*, Vol. XVII, No. 1, January 1, 1920. There he speaks of "contributory values, demanding only the presence of a living interest in a means to an end." But if an organism's utilization of an object as a means to an end constitutes the contributory value of the means, surely it likewise constitutes the intrinsic value of the end—unless there is a regress to some further end. If this requires the correlation of immediate values with interest as well as with feeling, we need not shrink from the consequence.

Is it not clear that contributory value has two aspects? Its genus is causal efficiency, which is objective in whatever sense Nature is objective. Its differentia is its conduciveness to something immediately valued, and has whatever degree of subjectivity inheres in the immediate values concerned. Let us take one of Dr. Picard's own illustrations—the contributory value of a soap. He regards this as objective because its cleansing power can be verified. But this is only its causal efficiency. Value enters in only because cleanliness is conducive to health and beauty which in turn involve immediate values. In a community of ascetics who despised health and beauty, but prized filthiness as a badge of sanctity, soap would have no contributory value, since the requisite immediate values would be lacking.

In spite of Dr. Picard's exposition it still seems to me that contributory values, *as values*, are not a bit more objective than the immediate values with which they are correlated. If we are to have any degree of value-objectivity, just that degree of it must adhere to some intrinsic values. If this is not possible for the intrinsic values we must abandon it for the contributory values.

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The following books also have been received:

The Principles of Aesthetics. By DEWITT H. PARKER. New York, Silver, Burdett and Co., 1920.—pp. 374.

Philosophic Thought and Religion. By D. AMBROSE JONES. London, Society for Promoting Christian Knowledge, 1919.—pp. 60.

The General Principle of Relativity. By H. WILDON CARR. London, Macmillan and Co., 1920.—pp. x, 166.

Philosophy and the Christian Religion. By CLEMENT C. J. WEBB. Oxford, The Clarendon Press.—pp. 24.

Mind-Energy, Lectures and Essays. By HENRI BERGSON. Translated by H. Wildon Carr. London, Macmillan and Co., 1920.—pp. x, 212.

Proceedings of the Aristotelian Society, 1919–20. London, Williams and Norgate, 1920.—pp. 314.

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La Psychologie Francaise Contemporaine. Par GEORGES DWELSHAUVERS. Paris, Félix Alcan, 1920.—pp. xii, 260.

Erkenntnistheorie: Zweite auflage der Einführung in die Erkenntnistheorie. Von GUSTAV STÖRRING. Leipzig, Wilhelm Engelmann, 1920. —pp. viii, 356.

Principii di Etica. Per LELLO VIVANTE. Rome, Maglione and Strini, 1920.—pp. vii, 314.

Educazione e Religione in Maurice Blondel. Per ENRICA CARPITA. Firenze, Vallecchi, 1920.—pp. 82.

I Primi Scritti di Kant (1746–1760). Per AUGUSTO GUZZO. Naples, Barca, 1920.—pp. vii, 128.

La Filosofia di G. Locke. Voluma Prima. Per ARMANDO CARLINI. Firenze, Vallecchi, 1920.—pp. xcvi, 288.

SUMMARIES OF ARTICLES.

[ABBREVIATIONS.—*Am. J. Ps.* = *The American Journal of Psychology; Ar. de Ps.* = *Archives de Psychologie; Ar. f. G. Ph.* = *Archiv für Geschichte der Philosophie; Ar. f. sys. Ph.* = *Archiv für systematische Philosophie; Br. J. Ps.* = *The British Journal of Psychology; Int. J. E.* = *International Journal of Ethics; J. of Ph., Psy., and Sci. Meth.* = *The Journal of Philosophy, Psychology, and Scientific Methods; J. de Psych.* = *Journal de Psychologie; Psych. Bul.* = *Psychological Bulletin; Psych. Rev.* = *Psychological Review; Rev. de Mét.* = *Revue de Métaphysique et de Morale; Rev. Néo-Sc.* = *Revue Néo-Scolastique; Rev. Ph.* = *Revue Philosophique; Rev. de Ph.* = *Revue de Philosophie; R. d. Fil.* = *Rivista di Filosofia; V. f. w. Ph.* = *Vierteljahrsschrift für wissenschaftliche Philosophie; Z. f. Ph. u. ph. Kr.* = *Zeitschrift für Philosophie und philosophische Kritik; Z. f. Psych.* = *Zeitschrift für Psychologie und Physiologie der Sinnesorgane, I. Abtl. Zeitschrift für Psychologie.* — Other titles are self-explanatory.]

La Théorie de la Relativité et sa Signification. E. GUILLAUME. Rev. de Mét., XXVII, 4, pp. 423–469.

Every physical description, according to Einstein, resolves itself into a certain number of propositions expressing the concordance of four quantities, X_1, X_2, X_3, X_4, having no empirical significance. It is at that price that we can—one dares no longer say 'know'—hope to have some grasp of physical phenomena. The equations representing the phenomena include no longer any empirical constant (such as time) but simply mathematical ones. To know the world reduces to knowing the calculus of variations and the theory of invariants. We cannot be too astonished, therefore, if the results do not give us complete satisfaction; possessing a remarkable theory of gravitation, we experience only an alloyed pleasure; it represents nothing to our eyes; it doesn't 'talk' to us; it procures for us only a rarefied intellectual satisfaction. In classical physics time is introduced analytically as a unique parameter, T, which plays the part of an independent variable— a *monoparametrical* representation. One may say that this parameter is the mother-clock, independent of physical phenomena, which establishes the psychological liaison between nature and our brain. In the Theory of Relativity, on the other hand, is introduced a temporal parameter, t, peculiar to each system of reference, S, and since the number of possible systems is infinite, time is expressed by as many variables. The fact that this is a purely Einsteinian convention must not be overlooked. The confusion—for it can be shown to be one—in Einstein's Theory consists in confounding a formula related to an exactly determined duration with one referring to a relation between periods of duration. One can speak either of *monoparametrical*

or *polyparametrical* representations of time. In general they form two equivalent conventions and lead to the same interpretations of physical formulae. It is for us to choose the most convenient; instead of speaking of the 'relativity of time' we would do better to speak of the 'relativity of clocks.' What then, is the significance of the Special Theory of Relativity? It has not been useless, for it has forced us to formulate our ideas relating to the physical universe more precisely. We finally arrive at a conclusion derived from a study of the mathematics of the theory having the following paradoxical form: The Special Theory of Relativity and its expression by means of *homogeneous derivatives* (space-time) leads to *non-Euclidean movements of Euclidean systems* (S_1, S_2, . . . S_n). But a discontinuity is bound to appear in the process; and the question arises whether an Euclidean space can coëxist with a non-Euclidean one. For Physicists this problem becomes that of finding out why radial energy, which propagates itself according to the continuous laws of the Relativity Theory, nevertheless presents itself to us under the form of discontinuous parcels called 'quanta' of energy. According to Relativity we can announce a new principle of *physical equivalence of energy and matter.* The Special Theory here leaves a serious gap. Admitting that radiant energy follows laws quite other than those of matter, so that light attains instantaneously its greatest velocity, it also teaches that the mass of a moving body increases with its velocity and would become infinite if the body could attain the velocity of light; that is to say, the velocity of light constitutes a limit inaccessible to matter. To close this gap Einstein developed a General Theory based on the Special Theory but assuming in addition that an electromagnetic field or a field of light rays partakes of the nature of matter—is material —and therefore subject to gravitation. But the substitutions necessary in transferring from the equations of the Special Theory to those of the General, or Gravitational-field Theory are not in general exact differentials. In other words the type of space of the one theory is not 'applicable' to that of the latter conception; the two spaces do not have the same 'curvature'—are not 'isometrical.' How solve this difficulty? Let us assume that the variables (x, y, z) are not the curvilinear coördinates of a fictive fourth dimension, but the familiar rectangular ones of three dimensional space. We can now divide the Einsteinian equations by the time differentials (dt, dt^2)—T being the classical independent variable—and the equations in question now refer to velocities, instead of representing linear elements of the fourth dimension. Further, in every gravitational field the elementary wave produced by a light signal is no longer a sphere but a *'quadric.'* The substitutions thus have a sense completely determined, and when Einstein affirms that the Special Theory is valid only in the region of the infinitely small, he simply means, according to our conception, that the equation of a 'quadric' can be given

in the form of a sum of squares. For a Lilliputian observer the light wave would appear spherical. Complete knowledge of the light 'quadric' would determine the temporal and spatial scales (units of measure) of the rectangular (x, y, z) system. In the case of the solar field, the 'quadric' is an ellipsoid of revolution in each point of space; the axis of revolution is the perpendicular joining the point considered to the attractive center; these ellipsoids differ very little from spheres. This interpretation of the General Theory is as simple as satisfactory. Contrary to the statements of the present German school, it in no wise obliges us to abandon our Euclidean geometry, which is the simplest instrument for analyzing space into its elements.

H. R. SMART.

Pragmatism as Interactionism. ARTHUR O. LOVEJOY. J. of Ph., Psy., and Sci. Meth., XVII, 22, pp. 589–596; 23, pp. 622–632.

Pragmatism has shifted its emphasis from what thinking is to what thinking does, from epistemological problems to a theory of intelligence as the control of the future, which shifts its significance from logic to metaphysics. It should, and does, quarrel with mechanism and all forms of parallelism and epiphenomenalism, in consequence of which one would expect a thorough-going discussion of interaction and other doctrines of psychophysical relations, with an explanation of the relation of intelligence to, and its function in, the material world. The nearest approach to such a discussion is Professor Bode's essay in *Creative Intelligence,* in which he contends, quite properly, that according to the parallelistic scheme, foresight, the sense of obligation, and even truth and error become mere neural indicators. In the same essay, however, Professor Bode objects also to interactionism as merely putting mental links in the mechanistic chain. Possible pragmatic grounds for this objection are the demand for innovation and the aversion to any kind of psychophysical dualism. Confining the discussion to the latter, one must ask if the pragmatists can consistently have, what they insistently demand, an antimechanistic materialism, an efficacious intelligence, irreducible to mechanical laws yet non-psychical, a unique, conscious behavior of objects, without a psychophysical dualism? Is not the pragmatic dualism of causal processes more catastrophic in its implication than the dualism of existence implied by 'representation,' which at least has no power to upset the natural world? The answer may come with a further examination of intelligence. In his essay, Professor Bode gives three distinguishing peculiarities of 'conscious' responses which he defines as (1) progressive organization of (2) a selective character in which (3) future results act as present stimuli—a good description of intelligence, if one could omit Professor Bode's further modification which makes it possible for the future reference to be an *unconscious* one, thereby leaving intel-

ligence undifferentiated from certain automatic activity. In any case the pragmatic future and past as present-as-absent undermine the pragmatic platform of non-psychophysical dualism, for past and future are certainly not physically present. Pragmatists have only been able to avoid psychical interpretations by failing to recognize that a plan is a psychic existence. If they admit mental elements in this sense and also contend for a causally efficacious intelligence, then pragmatism must mean interactionism. It must either reject the controlling power of the "end in view" or it must "interpolate mental links into the causal chain"! Its immediate task must then be to examine more thoroughly the psychophysical problem, and to formulate a philosophy of nature in keeping with the idea of man as a real agent through the imaginative recovery of a physically non-existent past and prevision of the physically non-existent future.

EVE T. KNOWER.

Do We Know Other Minds Mediately or Immediately? JOSHUA C. GREGORY. Mind, N. S., XXIX, No. 116, pp. 446–457.

In an article which appeared in the *Proceedings of the Aristotelian Society*, for 1918–19, on "Our Knowledge of Other Minds," Mrs. Duddington infers from neo-realistic principles that we know one another's minds as directly and immediately as we know physical things. On the contrary, the usual psychological doctrine is that our knowledge of other minds is gained through the medium of the material world. The communication between minds is effected by bodily movements, such as gestures, language—spoken and written, facial expressions, etc. We also infer the contents of other minds from the outward bodily expressions which we ourselves manifest on occasion of certain emotions. That we are dependent upon physical media is evidenced by the fact that human beings often fail to understand each other. Moreover, Mrs. Duddington, besides misrepresenting the nature of inference, ignores some potent facts of experience in arguing that children explicitly infer the presence of other minds before they drop into the unconscious, habitual, inferential method characteristic of adults. Implicit, unconscious inference genetically precedes explicit, conscious inference. Mrs. Duddington is correct in affirming that the *idea* of the *other* self comes first; but she is not correct in supposing that the priority of this explicit affirmation intimates a priority of implicit apprehension. Furthermore, it is gratuitous for Mrs. Duddington to suppose that because the child knows the difference between the living and the inanimate, it can apprehend directly both the physical and mental aspects of a complex reality. The totality of our experience coöperates in and facilitates the apprehension of other minds. While recognizing the difficulty of knowing the contents of the mind that 'withdraws into itself,' Mrs. Duddington gives no adequate

reason for such difficulty, since on her theory the mind is originally endowed with the capacity to directly apprehend other minds. But the mind has no apparent organs of its own for immediately knowing other minds. Its media of communication are physical. "Criticism cannot discover an incompetency in consciousness to realize from the association between its own processes and its own bodily actions that behind other bodily actions there are consciousnesses like unto itself."

J. H. Griffiths.

Theology and Romanticism. Herbert L. Stewart. *The Harvard Theological Review,* XIII, 4, pp. 362–388.

At the beginning of the nineteenth century the Romantic movement represented three distinct, new ideas: first, the prevalent distrust of human reason, typified by Wordsworth, Coleridge, and Byron in England; second, the awakening of historical interest, as shown in the works of Byron and Scott in England, and De Vigny and Hugo in France; third, the assertion of the trustworthiness of feeling, of instinct, and of the impulses of the heart as against dialectic, or intellectual 'proof' and 'disproof.' In France return to authority meant return to Rome. Such men as De Maistre and Vicomte de Bonald did much to imbue the people with the idea that ignorance is the mother of faith. Although less general, the reaction in England and Germany is quite as startling in a few instances—such as Newman, W. G. Ward, Schlegel, and Tieck. The Reformation was denounced indirectly in politics by such men as Cobbett, Disraeli, and Carlyle, who in decrying the evils of the present harkened back to 'ye good old days' of the supposed blessing of monastic rule. Very different is the Romanticism which glorifies impulse as against reason, the individual as opposed to authority, and self-expression as against self-restraint. Germany boasted of this *Freigeisterei* in the highest degree. Goethe, Schiller, Jean Paul, and Wieland embodied the doctrine of exalting nature above convention. Perhaps the most characteristic aspect of Romanticism is the return to nature, as exemplified by Rousseau, for whom convention becomes an object of contempt, and by Wordsworth, who finds nature the one instructress in virtue. The common element of all the Romanticists, the distrust of reason, has left its traces for both good and evil on every branch of Christendom. While its tendency to rest the Church's authority upon the failure of unassisted intelligence, to imply ignorance as the mother of devotion, is absurd, yet it also advanced both Catholicism and Protestantism, in this century, beyond the hardness of the old intellectualistic apologetic to the realization that the basis of religion is no mere assent to the formula of a creed, and that value judgments of the heart, rather than the cogency of the syllogism, are the sources of faith.

Margaret R. Nysewander.

The Philosophical Aspect of the Theory of Relativity. A Symposium by A. S. EDDINGTON, W. D. ROSS, C. D. BROAD, and F. A. LINDEMANN. Mind, N. S., No. 116, pp. 415–444.

[EDDINGTON:] The theory of relativity of space and time is essentially a physical theory. Its philosophical import is that it recognizes the current physics as simply a knowledge of the relations of Nature to particularly circumstanced observers, and not knowledge of things objective and independent of us. If physics is to deal with the absolute world it must attain to the conception of the absolute world as a four-dimensional order compounded of space and time; and this carries with it the conclusion that the exact laws of gravitation, mechanics and electromagnetism are not the genuine laws governing the external world, but laws automatically imposed by the mind; and "our claim to have grasped the type of law, or even the meaning of law, prevailing in the world outside us, is reduced to very modest proportions." [ROSS:] There are difficulties in the arguments of the supporters of relativity. A real disbeliever in absolute motion and in the ether does not need either the Lorentz or the Einstein theory to dispose of the difficulties of the Michelson-Morley experiments. It is only by assuming absolute motion that the relativity theory is required, and in that case the conclusions of relativists contradict their original assumptions. In particular the Einstein argument for the relativity of simultaneity has as its basis an unacknowledged belief in absolute space, time and motion. On the other hand, some explanation like that of Lorentz, while surprising, is not beyond belief, and will do all the work that Einstein's 'special theory' will do. [BROAD:] The difficulties found by Mr. Ross rest mainly on misunderstandings. The alternatives to the relativity explanation of the Michelson-Morley experiments involve *a priori* objections and great physical difficulties. Relativists do not use the absolute theory as a premise to prove the theory of relativity; the evidence for the equations is solely that they account for the facts, and if there be absolute motion it must have such physical effects as will lead to these relations. At the same time the general theory has an even stronger position than the special theory, in that it unifies Newton's laws of motion and the law of gravitation, making possible a single statement of the laws of nature entirely in terms of relative motions and positions. Prof. Eddington seems to stress too much the function of mind and so makes his theory needlessly subjective. [LINDEMANN:] The theory of relativity is a more convenient and simpler, though not intrinsically truer, method of describing phenomena than the absolutist. It assumes that events take place in a four-dimensional space-time manifold, that there is no unique way of separating the space and time coördinates, but that observers moving relatively to one another will separate them in different ways. By giving up the assumption that

space is everywhere Euclidean, and assuming that the curvature of space is proportional to the mass and inversely proportional to the distance, we secure the same result with but three assumptions, whereas the absolutist system introduces a mysterious entity called force and requires five assumptions at least. The acceptance of the relativity theory is dependent upon one's mental elasticity and one's ability to discard traditional 'self-evident' assumptions.

GLENN R. MORROW.

NOTES.

Geheimrath Dr. Richard Falckenberg, professor at Erlangen since 1888, died suddenly on September 28, 1920. Professor Falckenberg's best-known work is his *Geschichte der neueren Philosophie,* now in its eighth edition; the final chapters of this edition are printing under the charge of his son, Dr. Robert Falckenberg, himself a graduate in philosophy. Professor Falckenberg was also the editor of the series, *Frommanns Klassiker der Philosophie,* to which he contributed the volume on the life and works of Lotze, 1901, and co-editor of the *Zeitschrift für Philosophie und philosophische Kritik.*

Commencing with the January, 1921 number, *Psychobiology* and *The Journal of Animal Behavior* will be merged under the new name of *The Journal of Comparative Psychology.* The *Journal* will be edited by Knight Dunlap and Robert M. Yerkes jointly, and published by the Williams and Wilkins Company in Baltimore. Studies contributing to the knowledge of mental function and behavior in any organism will be accepted for publication.

We have received the first copy of the magazine entitled *The Pilgrim,* published quarterly by Messrs. Longmans, Green and Co., in London, and described as a review of Christian politics and religion. Among the articles we note one by the Dean of St. Paul's entitled "Mysticism in Relation to Philosophy and Religion," and one by Dr. A. W. Pollard on "The Spiritual Basis of Civilization."

Professor John M. Warbeke, of the Department of Philosophy and Psychology of Mount Holyoke College, is abroad on leave of absence for the year. His courses are being given by Dr. Arthur Mitchell, formerly Assistant Professor of Philosophy in the University of Kansas.

Professor Stout has resigned the editorship of *Mind* which he has held since 1892, when the late Professor Croom Robertson ceased to be editor after sixteen years in office. The successor of Professor Stout is Dr. George Edward Moore, Lecturer at Trinity College, Cambridge, and author of the well-known *Principia Ethica.*

We give below a list of articles in current philosophical magazines:

The Journal of Philosophy, Psychology and Scientific Methods, XVII, 21: *Sterling P. Lamprecht,* The Need for a Pluralistic Emphasis in

Ethics; *Sherwin Cody,* Enlarging the Scope of Mental Measurement; *H. Wildon Carr,* "Dr. Wildon Carr's Theory of the Relation of Mind and Body."

XVII, 22: *Arthur O. Lovejoy,* Pragmatism as Interactionism (I); *Helen Huss Parkhurst,* The Obsolescence of Consciousness; *J. E. Turner,* Relativity, Nature and Matter.

XVII, 23: *H. B. Alexander,* Philosophy in Deliquescence; *Arthur O. Lovejoy,* Pragmatism as Interactionism (II); *Albert R. Chandler,* The Nature of Esthetic Objectivity.

XVII, 24; *Daniel Sommer Robinson,* Reality as a Transient Now; *A. A. Roback,* The Scope and Genesis of Comparative Psychology; *Pearl Hunter Weber,* Behaviorism and Indirect Responses.

THE PSYCHOLOGICAL REVIEW, XXVII, 5: *Leonard Thompson Troland,* The Physical Basis of Nerve Functions; *Raymond H. Wheeler,* Theories of the Will and Kinaesthetic Sensations; *Walter R. Miles,* A Pursuit Pendulum; *C. E. Ferree,* and *Gertrude Rand,* The Limits of Color Sensitivity.

THE JOURNAL OF EXPERIMENTAL PSYCHOLOGY, III, 4: *C. E. Ferree* and *Gertrude Rand,* The Use of the Illumination Scale for the Detection of Small Errors in Refraction and in their Correction; *Joseph Peterson,* The Backward Elimination of Errors in Mental Maze Learning; *June E. Downey,* Some Volitional Patterns Revealed by the Will-Profile; *R. T. Holland,* On the 'After-Sensation' of Pressure.

THE INTERNATIONAL JOURNAL OF ETHICS, XXXI, 1: *M. C. Otto,* Morality as Coercion or Persuasion; *T. H. Proctor,* The Motives of the Soldier; *Rupert C. Lodge,* Plato and the Judge of Conduct; *Ruth M. Gordon,* Has Mysticism a Moral Value? *Henry T. Secrist,* Morale and Morals; *Eugene W. Lyman,* The Ethics of the Wages and Profit System.

THE MONIST, XXX, 4: *James Westfall Thompson,* The Ethical Significance of Time; *Joshua C. Gregory,* The Conception of Thought as a Cyclic Process; *James Lindsay,* The Logic and Metaphysics of Occam; *W. O. Brigstocke,* Logical Fictions (continued); *R. W. Sellars,* Evolutionary Naturalism and the Mind-Body Problem; *J. M. Thorburn,* Mysticism and Art.

THE HARVARD THEOLOGICAL REVIEW, XIII, 4: *Champlin Burrage,* The Earliest Minor Accounts of Plymouth Plantation; *Lincoln N. Kinnicutt,* Plymouth's Debt to the Indians; *Herbert L. Stewart,* Theology and

Romanticism; *Robert Pierce Casey,* A Neglected Piece of Liturgical Revision.

Mind, N. S., 116: *F. C. S. Schiller, Bertrand Russell, H. H. Joachim,* Meaning of Meaning; *A. S. Eddington, W. D. Ross, C. D. Broad,* and *F. A. Lindemann,* The Philosophical Aspect of the Theory of Relativity; *Joshua C. Gregory,* Do We Know Other Minds Mediately or Immediately? *H. R. Marshall,* Some Modern Aestheticians.

The British Journal of Psychology, XI, 1: *Charles Marriott, A. B. Walkley, Henry J. Watt, Edward Bullough,* and *C. W. Valentine,* Mind and Medium in Art; *F. C. Bartlett, E. M. Smith, Godfrey H. Thompson, T. H. Pear, Arthur Robinson,* and *John B. Watson,* Is Thinking Merely the Action of Language Mechanisms? *J. C. Flügel,* On Local Fatigue in the Auditory System; *Daniel J. Collar,* A Statistical Survey of Arithmetical Ability; *W. T. Waugh,* The Causes of the War in Current Tradition; *Henry J. Watt,* A Theory of Binaural Hearing.

Revue des Sciences Philosophiques et Theologiques, IX, 4: *M. J. Bliguet,* L'unité de l'acte de foi; *R.-M. Martin,* Quelques premiers Maîtres dominicains de Paris et d'Oxford et la soi-disant dominicaine augustinienne (1229–1279); *A. Lemonnyer,* La Deesse Anath d'Eléphantine.

Revue de Métaphysique et de Morale, XXVII, 4: *O. Hamelin,* La volonté, la liberté et la certitude d'après Renouvier (suite et fin); *E. Guillaume,* La Théorie de la relativité et sa signification; *J. Wilbois,* Introduction a la sociologie; *G. Simeon,* La Naissance et la mort.

Zeitschrift für Psychologie und Physiologie der Sinnesorgane, LXXX, 1–4: *Joseph Frobes,* Aus der Vorgeschichte der psychologischen Optik; *E. R. Jaensch,* Zur Methodik experimentaller Untersuchung an optischen Anschauungsbildern; *David Katz,* Psychologische Versuche mit Amputierten; *Oswald Kroh,* Eidetiker unter deutschen Dichter; *Geza Revesz,* Prüfung der Musikalität; *Edgar Rubin,* Vorteile der Zweckbetrachtung für die Erkenntnis; *F. Schumann,* Untersuchungen über die psychologischen Grundprobleme der Tiefenwahrnehmung; *Walter Baade,* Zur Lehre von den psychischen Eigenschaften.

Rivista di Filosofia, XII, 2: *G. A. Colozza,* Lo sforzo collettivo; *F. Orestano,* Verso Nuovi Principi; *G. Capone-Braga,* La Critica rivolta al Criticismo dagl'Ideologi francesi e italiani.

Rivista di Filosofia Neo-Scolastica, XII, 3–4: *Guido Rossi,* Terenzio Mamiani e la provo ontologica della esistenza di Dio; *Umberto A. Padovani,* Il problema fondamentale nella filosofia di Spinoza (continuazione e

fine); *Angiol Maria D'Anghiari,* La filosofia di Leonardo da Vinci; *Amato Masnovo,* L'importanza e l'urgenza attuale del problema della esistenza di Dio; *Luigi Stefanini,* Arte e vita nel pensiero di G. V. Gravina (continuazione); *Martino Grabmann,* La nuova edizione secondo l'autografo della Summa contra Gentes di S. Tomaso d'Aquino.

Rivista Trimestrale di Studi Filosofici e Religiosi, I, 3: *E. Buonaiuti,* Le grandi crisi del Cristianesimo antico; *B. Varisco,* Per comprendere la realtà; *F. A. Ferrari,* Gesù e l'apostolato mondiale; *E. Buonaiuti,* Religio irreligiosa; *A. Bonucci,* La teoria di Einstein nel suo significato idealistico.

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THE PHILOSOPHICAL REVIEW.

THE APPEAL TO REASON.[1]

THE commanding problem of the day is the problem of human nature. Within this problem lies the central problem of the *control* of human action; and within this lies the innermost problem of the relation between the intellectual part of man and his impelling interests. Modern occidental thought seems so to have shaped itself that the profoundest issues hinge upon the solution of these concentric problems.

In the field of the practical arts we have learned to regard *man* both as the material with which we build and the force with which we work. What is the texture and plasticity of this material, and how shall this force be applied and regulated? Industry is seen to be, like politics and education, an art of management, a skilful adjustment of conscious life. New vocations, new forms of expertness, have come into being, dealing with welfare, morale, conciliation, publicity and propaganda. And the knowledge which is the prerequisite to skill in these forms of activity is the knowledge of human nature. We are said to stand at the beginning of an age in which the applications of psychology shall eclipse even the spectacular applications of physics and chemistry.

If we turn from the practical arts to our standards of criticism, here again, despite ancient and persistent doctrinal differences, the appeal is to human nature. A priori and authoritarian standards do not suit the spirit of the age. The teachings of religion are proved in the human religious experience. Beauty

[1] Read as the president's address at the annual meeting of the American Philosophical Association [Eastern Division] at Columbia University, December 29, 1920.

is traced from the object of art to the consciousness of the observer. What a man ought to be is deduced from what he is, and what he ought to have from what he wants. This is most evidently true of those moralists who follow the hedonists in deriving standards from the existing interests and claims of men. But it is in fact not less true of those who in the name of 'self-realization' speak of an 'ought-to-be' that is irreducible to what 'is.' For that which will realize a self cannot but be prescribed by the self's natural structure and capacity for growth. So that we find such moralists objecting that the hedonists have neglected the intellectual part of man, and exaggerated his affective or sensuous part. But this objection invites attention to the structure of human nature and virtually submits the dispute to psychology.[1]

Or consider those who oppose the naturalistic and hedonistic tendencies in the field of values by invoking an over-individual will or purpose which is rightly authoritative over all private inclination. Such a philosophy makes no impression upon contemporary thinkers save in so far as it justifies itself by an appeal to the facts. If the will of the State, or of the Whole, is to be acknowledged as having superior or supreme claims, then it must first be shown that there is such a 'common will.' But that depends upon the facts regarding will, and the facts regarding community. The exponent of such a view, has in short, submitted his case to the jurisdiction of psychology.[2] He has so constructed his hypothesis that its proof or verification depends on certain data regarding human nature.

Thus in the present age the standards of preference and obligation, by which a man justifies his ideals and acknowledges his duty, appear to depend for their support upon what can be known about the natural man, his parts, his proportions, his aptitudes and his impulses.

[1] Or the self-realizationist may rest his case on the doctrine that all voluntary acts are governed by an idea of the self. This, also, is a question of psychological fact. *Cf.* F. H. Bradley, *Ethical Studies.*

[2] The moralist may and usually will in such cases be his own psychologist. *Cf.* B. Bosanquet's *Social and International Ideals*, and W. E. Hocking's *Human Nature and its Remaking.*

Finally, this question of human nature is not less crucial in its bearing on the problems of metaphysics and religion. Since the Eighteenth Century, the spiritualistic and hopeful metaphysics has relied more and more upon the anomalousness of man. The belief that there is a deeper and more auspicious reality than physical nature now rests mainly upon the irreducible human prerogatives. It is the appeal to man against nature. Whereas nature is material, mechanical, blind and determined, man is conscious, purposive, rational and free. These distinctive and inalienable attributes of man are then bestowed upon the world at large and given authority over the categories of nature. Now the proper evidence in this case is such evidence as can be obtained regarding the so-called 'higher' processes of the mental life. Assuming that man is conscious, that he is governed by purposes, that he sees reasons and acts on them, that he is in some sense free, *in what do these things consist?* How do these things interweave with the 'physical' aspects of human nature? Or are they wholly incommensurable, lying in another plane? If psychology has neglected these matters through preferring what can be more readily translated into the terms of existing physics or physiology, then psychology must either rise to its larger opportunities or forfeit its exclusive title to the field. In any case the appeal is to the facts. We shall know whether these metaphysical arguments are well grounded when we shall have made more accurate and more complete observations of human nature.

It is clear that the solution of these great practical and spiritual problems must depend upon a better understanding of the *center* of human nature. If psychology is to serve it must in some sense again become the science of the soul or of the personality. The accumulation of observations of sensory discrimination, reflexes, habit-formation and reaction-time must be regarded as preliminary to the understanding of reason and will, or as affording data from which to formulate a comprehensive hypothesis that shall define the essential man. The time has come, in other words, to examine the ancient problem in the light of the new facts.

This implies that science shall enter into the reserved apartments of human nature, and examine quite disrespectfully those parts that have hitherto been curtained off. There is, and will continue to be, some difficulty in this. Science is suspected in many circles of wearing hobnailed boots and of having rough manners more suited to the kitchen than to the parlor. And while it is to be hoped that new surroundings will exert a refining influence, it is well known that science is essentially incorrigible. It will carry its peculiar manners with it wherever it goes, and will open corridors between the places it visits so that their privacy will be forever destroyed.

Science, in other words, is fatal to aloofness, to rigid barriers, to sharp antitheses. Sentiment, on the other hand, creates and emphasizes them; and our ideas of human nature have hitherto been largely dictated by sentiment—by the human pride of race. Man has had an obvious interest in accentuating his difference from the brute whom he preys upon and uses; desiring to relieve himself from obligations which he only reluctantly acknowledges towards his own species. He has an interest, too, in separating himself at some point from physical nature as a whole. In this seems to lie his only hope of escaping death and of converting his hour of doom into his hour of triumph. He must somehow divide himself into a corruptible and an incorruptible, the one to be thrown to the devouring worms while the other escapes into a permanent refuge of safety. So it has come about that the more complex levels of human behavior are regarded as prerogatives rather than as processes, and are known by honorific titles rather than by descriptive phrases. We have antitheses such as Soul *vs.* Body, Purpose *vs.* Mechanism, Intelligence *vs.* Instinct, Will *vs.* Impulse, and Reason *vs.* Sense,—antitheses that are as much the offspring of pride and prejudice as are those of Jew and Gentile, or Greek and Barbarian.

Such antitheses are in part based on differences of character. But, in so far as the partisan motive has affected the distinction, a mere difference has been elevated into an antagonism, or irreconcilable opposition. In matters of sentiment "he that is not with me is against me"—there is no middle-ground. The differ-

ence between one and three is a commensurable and reducible difference; not so the difference between the Unitarian and the Trinitarian. There is undoubtedly a real difference between Purpose and Mechanism, or between any two processes to which this pair of terms may appropriately be applied. But while science would so far as possible view such processes as commensurable, as having common factors and a common context, the effect of sentiment is to identify human pride and human hope with Purpose, while Mechanism becomes tinged with shame and fear. The result is that the objects acquire the diametrical opposition which properly belongs only to the divergent attitudes that are directed to them.

This tendency to conceive the complex levels of the mental life as prerogatives, and to save their purity of caste by forbidding commerce with the baser levels, has led to a sort of just but blind retaliation on the part of the scientist. He has allowed the exponent of sentiment to interpret Reason, Purpose, and Will, and to project them upon a supernatural plane. Then, limiting his own investigations to the causal nexus of nature, he has affirmed that these 'higher' or 'spiritual' processes of man are inefficacious. From his point of view they do not enter into the explanation of any physical event. But, since all historical events are in some degree or in some sense physical, this is equivalent to denying that these processes play any part in determining the course of human life. They are nowhere in mesh with the driving wheels, but simply fan the air. Consciousness is an epiphenomenon, thought is purely contemplative, purpose and freedom are illusory, reason is a pretence. The physical and the mechanical *defined so as to oppose and exclude* these 'higher' processes are awarded the victory over them and enter into possession of the field.

Now there is a certain justice in this. Philosophy and religion have had the first opportunity of framing our traditional conceptions of the essential human nature, and yielding to the pressure of sentiment they have so framed them as to remove them from the plane of natural fact. They have so constituted their meaning that the scientist is bound to dismiss them from his calcu-

lations as he is bound to dismiss miracles. But though this retaliation is just it is none the less blind. For it has led the scientist himself to disregard what is novel in the more complex aspects of human life. He has weakened his case by over-simplifying his problem, by claiming too much for his categories, by affecting to despise what he cannot explain in ready-made terms, and by earning the reputation of one who would disparage man by denying or reducing his distinguishing characteristics. Meanwhile the opposing party has suffered an equal loss. Through insisting too much on human superiority this party has withdrawn the essential man altogether from affairs. Man, in order that he may be qualified for admission to another world, has allowed himself to be reduced to impotence in this.

It would appear, then, that the great philosophical enterprise of the immediate future is the naturalistic study of the more complex levels of human life. This does not imply the levelling of human nature, or the mere extension of existing physical laws; but the study of man as a part of nature, interchangeable and interactive with his environment. That such a study of man should lead to new conceptions and new laws not included in the existing encyclopedia of science, is inevitable.

The intellectual forces of the world have for some time been mobilizing for this campaign, and important preliminary skirmishes have already been fought. These forces are varied in color, speech and costume like the forces of an empire, and many have come a long distance. The descendants of Kant have journeyed all the way from the antipodes, and owing to the exigences of the campaign have violated *Anti-Psychologismus*, their most ancient taboo. Biologists, and even chemists are discussing teleology with open and receptive minds. Behaviorism is translating psychology into the language of physical science at the same time that the demand for medical, industrial, educational and social applications is forcing psychology to direct its attention to the more complex and distinctively human processes of mind. Sociology, which ever since the time of Comte has been devoting itself to this cause, is allying itself more intimately with psychology, anthropology and biology; and in this way

both improving its weapons and covering its flanks. The most characteristic and auspicious leaders of contemporary thought, such as James, Bergson, Dewey and Russell, are distinguished by the utter lawlessness with which they introduce philosophy into their psychology and psychology into their philosophy. Perhaps they do not know the difference; in any case they ignore it. Scorning schematic barriers and scientific etiquette they bluntly assume that the facts about human nature are all to be found in one place, and that it is not significant by what door you enter.

The general problem of human nature centers in the problem of control. As in every other case of natural fact the causes are multiple and the event results from a sum of conditions. To understand man it is necessary to know where among these conditions is to be found the lever by which the result may be regulated. It is assumed in practise that in proportion as an event is a human deed it is to be controlled by an appeal to reason. This does not imply that a man may not be governed by passion, but that when he is so governed he has in some sense abdicated. Reason is, as the ancients said, man's 'ruling part'; so that, judged by the standard of normal personal organization, an act controlled by passion is an *uncontrolled* act or a symptom of the absence of self-control. A man in full possession of his faculties is supposed to govern himself by deliberation and judgment; and to be governed by others through such agencies as present evidence to his deliberation and judgment, in other words, through persuasion. 'Purpose' is only another way of conceiving the same thing. James says that "the pursuance of future ends and the choice of means for their attainment are thus the mark and criterion of the presence of mentality in a phenomenon."[1] But this is the same as to say that what a man does is determined by his belief regarding its consequences, whether he reaches that belief through deliberation or through persuasion.

The central question of control thus becomes the question of the functional or dynamic connections of the intellectual act. What begets it, and how does it take effect? In particular, how is it related to passion? How does the one engage the other, so

[1] *Principles of Psychology*, 1, p. 8.

that what a man wants is influenced by what he thinks, or what he thinks by what he wants; and in what ways and in what proportions is what a man does, governed both by what he thinks and by what he wants?

This essential problem has been obscured and its solution greatly retarded by the aforesaid habit of regarding reason as a prerogative, leading a purely 'logical' life of its own. Reason being thus by definition withdrawn and perched on a mountain-top, the scientist who moves about on the plane below naturally fails to find it. Accordingly he announces from time to time that human conduct is not governed by reason, but by feeling, or instinct, or emotion, or imitation, or 'complexes.' He is scarcely to be blamed. He has simply taken his conception of reason from those whom he supposed to be its friends; and reason in that honorific sense he has quite honestly failed to find among the determining causes of human action. He has therefore assigned it the rôle of an ornamental false-front, which is perhaps as much as it deserves.

But what a hocus-pocus it all is! This thing which is rejected from among the realities of life is nothing less than the whole of the *knowing* mind; or of *evidentially attested belief*. We are in effect told that the intellectual faculties of man, his judgments and the reasons for his judgments, his conceptions, his affirmations and denials, his inferences and proofs, his theories, his articulate purposes, his discussions and arguments, his deliberations and professions, do not control his conduct! Such a view of human life is both absurd and scandalous. It is contradicted during all his waking hours by every individual of the species. It is contradicted by all the rules and methods of human procedure whether personal or social. It is contradicted on every page of recorded history. Applied science with all its vast ramifications, contradicts it. He who asserts it as his conviction contradicts it. To act on it is impossible and unthinkable. It would make a perpetual lie of human intercourse, and hypocrisy of every profession of faith or allegiance to ideas. It would discredit most of education and all institutions founded on discussion. Though it has no foundation in fact and is a grotesque

error springing from sentiment, ambiguity and misunderstanding, it is not to be lightly regarded. For it lends aid and comfort to obscurantism, bigotry and cynicism,—to every man who finds it painful to entertain ideas or pursue ideals, and is glad to be told that what he lacks is of no account.

This scandalous absurdity has arisen from a failure to construe the reason and will of man in terms of observable fact and as they exist amidst the context of nature. It requires not so much to be refuted as to be superseded by a revision of terms and a fresh approach to the whole subject. We should not ask ourselves whether reason and purpose control human conduct, but *how* they control it; which is the same as to use these terms in the future for certain parts of the living man—parts which he is known to have and to exercise in close interaction with the rest, but parts which are only slowly and tardily being illuminated by scientific observation.

Owing to the invigorating influence of a psychological tendency known as 'functionalism,' or 'behaviorism,' it is already possible to trace the outlines of a new dynamic view of the human mind.[1] The 'instinct' of social and animal psychology, and the 'complex' of psychiatry are evidently different versions of the same thing,—of a unified reaction-system which when it is in force will control both the internal adjustments of the organism and its dealings with the external environment. Such a general set, or 'determining tendency,' will when impeded lead to 'trial and error'; that is, to tentative efforts which will continue until there occurs a reaction by which the impediment is removed. The object exciting the successful response will thereafter be charged with a meaning, or will partially reawaken that same successful or completing response. This will render it eligible whenever the same determining tendency is again in force. When a response occurs on that account, that is, *when an act is performed because in its*

[1] The present writer has attempted to elaborate this view in greater detail in a series of articles: "Docility and Purpose," *Psychol. Rev.*, 1918, *25*, 1–20; "A Behavioristic View of Purpose," "The Independent Variability of Purpose and Belief," " The Cognitive Interest and Its Refinements," *Jour. of Phil.*, 1921, *18*. The writer is much indebted to a similar treatment of the subject by E. C. Tolman, "Instinct and Purpose," *Psychol. Rev.*, 1920, *27*, 217–233.

implicit form it coincides with the unfulfilled phase of a determining tendency, we may say that it is performed purposively. It is a means subordinated to an end, and a present subordinated to a future, as is required of any conception of purpose deserving of the name.

The same notion of implicit response provides a dynamic interpretation of belief. A belief is an implicit response unreservedly set for a specific occasion, as when believing that my train leaves the station at three o'clock I correlate my readiness to depart, or my train-taking activities, with a place and time in my field of action. If when I reach the appointed place at the appointed hour there is no train to see or to enter, my belief is proved erroneous. Truth and error, in other words, depend on the presence or absence of the complementary object on the occasion when the belief prepares me for it. This is quite independent of any attitudes of favor or disfavor with which I may view the presence of such an object. It is wholly a question of whether I have my attitude of favor or disfavor (whichever it be) in readiness when its complementary object appears. It is a question of whether my plans (be they inspired by hope or by despair) are scheduled in accordance with the facts. A resourceful mind will have devoted some pains to the building up of a system of such plans. Such a mind will have tried its suppositions before committing itself to them, and in so doing will have used the art and technique which have been developed for the purpose.

It is in such terms as these, wholly commensurable with the terms of existing science, and awaiting translation into the terms of a more developed science of the near future, that the case of reason should be argued.

It has been customary, for example, to deny the *disinterestedness* of reason, or so to interpret it that it removes man from his relations with his existent environment. With the classical rationalists, disinterested reason is an organ of contemplation which, being focussed on a realm of Platonic ideas, is blinding rather than illuminating to an organism endeavoring to find its way in the midst of nature. With Bergson disinterestedness is a lapse of 'attention to life,' in which the mind is flooded with a

muddy torrent of repressed memories.[1] It is promiscuous and undirected consciousness. It has thus been widely believed that reason must be either an instrument or an ornament. To be useful it must sacrifice its autonomy; to be independent it must become irrelevant. The facts, if we have not mistaken them, point to a very much more satisfactory view. The intellect *is* associated with the position and the problems of the physical organism. It has to earn its passage. But even in its most rudimentary beginnings it does its own work in its own way. It is enabled to serve because it has something to give. It provides the organism with stable and reliable beliefs, which the organism both uses and enjoys. And it is by precisely the same quality of truth that these beliefs both directly satisfy the thirst for knowledge and indirectly satisfy all other interests.

The intellectual act itself is neutral. It regards its object neither with favor nor with disfavor. It consists in a posture of readiness for contingencies, be they welcome or unwelcome. This essential intellectual act may be embedded in a setting of interest, but this need in no way interfere with its specific functioning. If I choose an act because of what I expect of it, and if the sequel is in accord with my expectation, then the same event both verifies my belief and fulfils my interest. But these two aspects of the situation are distinguishable and even independent. The truth of my belief lies in the complementary relation of the event to that response with which I am prepared to meet it. The fulfilment of my interest lies in the fact that the response which the event consummates is a step toward the completion of my determining tendency.

It is true that in cases of purposive action an interest and a belief are so related that if the interest is fulfilled the belief is verified, and if the belief is verified the interest is fulfilled; so that the verification is evidence of the fulfilment, and the fulfilment of the verification. The situation is similar to that which obtains when the same event fulfils two interests. The fall of Antwerp defeated the hopes of the French and fulfilled the aspirations of the Germans. Human interests were so linked

[1] *Cf. Mind-Energy*, 95, 116; *Matter and Memory*, 220–232.

with this event that the joy of the Germans was evidence of the sorrow of the French. It would not, however, occur to anyone to go further, and to define the sorrow of the French as the joy of the Germans. Nor, similarly, is there any propriety in saying that the truth of a belief *is* its utility. There is no harm in being guided by symptoms provided one does not treat the symptoms instead of the disease. True belief and successful interest are symptomatic of one another. But it is fatal to identify the two because it leads to *treating* them interchangeably, to attempting the one by the method which is proper to the other.

As a matter of fact, then, logic will not bring success nor will effort and enthusiasm bring truth—unless, it should at once be added, effort and enthusiasm happen to be directed to the specific end of acquiring true beliefs. But in that case the independent nature of truth is implied. That there is an interest in truth, or a specifically theoretical activity, which may assume a dominant rôle in an individual life, is a brute fact of human behavior.[1] In so far as such an interest develops, the peculiar characteristics of true belief tend to be isolated and heightened. To discover the rôle of reason in life, one must see it at work; but to discover just what reason is and therefore just what distinctive and additional factor it contributes to life, one should see it at leisure. It is in the technique of science, and above all in the moment of verification when this is the culminating phase in the theoretical activity itself, that the idiosyncrasies of reason can best be understood.

In short, belief is belief and interest is interest; and truth is to the one what success is to the other. In purposive activity an interest and a belief are so related that the same contingent event conditions the success of the one and the truth of the other. In a special case of purposive activity, where the purpose is to obtain a true belief, a belief and an interest are so related that the truth of the former is itself the contingent event that determines the success of the latter. But this very interest in true beliefs has led to the selection and use of modes of response, such

[1] For a fuller statement of this matter, *cf.* the writer's article entitled, "The Integrity of the Intellect," *Harvard Theol. Rev.*, 1920, *13*, 220–235.

as words, sensations and physical records, which may be uniquely correlated with objects, and thus provide a means by which these objects may be referred to disinterestedly, that is, without fear or favor.[1]

Or, let us consider the question of the *efficacy* of reason. In purposive behavior an act is performed because its meaning coincides with the unfulfilled phases of a determining tendency. This is the same as to say that the act is performed because of its promise or its projected sequel, that is, *because of what is believed of it.* A belief of some sort, an act of the intellect which is either true or erroneous, is thus invariably one of the factors in a complete human act. Intelligent performance requires the coöperation of a belief and a determining tendency. These two factors unite to constitute purposive action and each brings to the resultant something which the other could not supply. Under the circumstances it is meaningless to say that either component is prior to the other, or more important, or more truly the cause of action. Both are conditions of purposive action; neither is a sufficient condition.

The recent emphasis on instincts and complexes has begotten a habit among the augurs of alluding to these as the only causes of action, reason being a fictitious and sentimental factor by which only the naïve will propose to explain anything. It has already been admitted that the friends of reason are largely responsible for this absurdity, because of having so conceived of reason that to an observer of nature it cannot be other than fictitious. But reason being conceived in some such terms as have here been used, is without doubt a contributing factor in action; and once it is admitted that it makes *some* difference, it must be admitted that in any given case it may make "*all* the difference."

[1] Dr. E. C. Tolman, who interprets cognition as an "internal neurological placing," has developed an interesting hypothesis which would provide for each known object a specific association-path systematically correlated with other such paths. These paths will originate as the "common paths" (427) from sensory centres, and will "lose special connection with particular motor centers" (429). They will function, in short, as a sort of constant factor in all responses to a certain object. Such neurological mechanisms might serve as a neutral response to a given object, as that common and unique component in my behavior to a given object, which is equally present whether I love or hate it, and however I use it. ("Nerve Process and Cognition," *Psychol. Rev.*, 1918, *25*.)

It is not here denied that other factors than reason, factors not formerly understood or even suspected, have in recent years been brought to light. And the discovery of instincts and complexes, in so far as it is a discovery, will undoubtedly have the effect of introducing new modes of control. Speaking broadly, a known cause is a controllable cause. If instincts and complexes condition action, the better knowledge of them will result in a new methodical art by which they are excited and directed.

But let us consider for a moment what this means. There seems to be a popular impression that men have become less rational in the last fifty years than they were during the eighteenth and early nineteenth centuries. Then a man was governed by reason, now he is governed by imitation, impulse, reflex, instinct, sentiment, emotion, 'affective' and 'mystic logic,' complexes, *libido*,—in short by anything and everything *except* reason. The fact is, however, that whereas man once *believed* that he was governed by reason, he now *believes* that he is governed by unreason. It follows that in proportion as his present belief is true he is in fact more and not less rational than formerly. Forces like imitation and instinct which were once ignored may now, in so far as they are understood, be directed and regulated. In other words, whereas formerly they operated only of themselves, it is now possible that *true beliefs about them* may operate.

This at once raises the question of *whose* true belief shall be operative. If I am governed, for example, by the instinct of fear, shall I know it myself? Or shall this knowledge be possessed only by my parents, or employers, or superior officers, or rulers? If the knowledge is possessed only by others, then the knowledge of my instinct subordinates my action to *their* rational purpose, leaving *me* as much unguided by reason as formerly. But that such knowledge or any knowledge should be the exclusive possession of experts is inconceivable. The effect in the long run is therefore a better understanding on the part of each individual of the causes of his own action. Knowing my own fear, for example, I shall now in some measure govern it or use it according to my purposes. My true beliefs regarding it will guide my action, and instinct will thus come to operate more and

more in the form of reason. The man who goes to a psychiatrist to cure his fear, or declines an appointment because he believes his timidity unfits him for it, or hunts big game because he enjoys fear, or for the sake of self-discipline chooses a leader who will intimidate him, acts from reason. The knowledge of instinct does not eliminate the causal operation of instinct, but brings this operation to an increased extent under review and regulation. In other words, the effect of the doctrine of unreason, in so far as true, is to promote the ascendancy of reason.

When, therefore, contemporary psychologists cast doubts on the efficacy of reason, declaring that something else such as an instinct or complex is the real cause of behavior, and that reasons are "evolved subsequently,"[1] or when they contrast reason with the 'genuine causes,' the 'efficient causes' and the 'real springs' of action, they can scarcely mean to refer to their own reasons. Nor can they mean to deny that in every purposive act there is *some* reason which is one of the determining conditions of the act.[2] What they do appear to mean is: (1) that some reasons are *ex post facto;* (2) that some reasons are unsound; or (3) that some professed reasons are mendacious. This misbehavior of reason is commonly grouped together under the name of 'rationalization'; although the three modes of misbehavior are quite independent of one another, and although the use of the term 'rationalization' inevitably leads to the wholly false conclusion that reason never behaves at all except when it misbehaves. Nothing could be more dramatic and more ironical than this decline of the word reason from the vocabulary of eulogy to the vocabulary of disparagement!

It is not important, at any rate in this context, to discuss mendacious professions. There is, no doubt, a peculiar temptation to tell this kind of a lie; and it has the further advantage of being a lie difficult to prove. But as a lie it has precisely the same meaning and the same corrupting effects as any other lie.

[1] *Cf.* B. Hart: *Psychology of Insanity*, 1919, 62, 67, 68, 75.

[2] Otherwise there would be no explanation of a statement such as Dr. Hart's, that the very repression which induces such subsequently evolved reasoning may be due to the fact that a complex "prompts to actions which are incompatible with the individual's general views and principles" (*ibid.*, 78).

At all events we are not led to a denial of reason by investigating mendacious professions, because the very existence of such things presupposes a 'real reason' which the liar finds it expedient to conceal. We shall turn, therefore, to (1) the *ex post facto* reason, and (2) the unsound reason.

(1) To understand the *ex post facto* reason it is desirable to consider it in the light of the *apologetic* function of reason. Suppose, for example, that an author is writing a book for profit. His determining tendency is money-getting, and his belief that money will accrue is the effective reason that conditions his performance. But suppose that other interests solicit his time and attention, and that he finds it impossible to do his work with conviction. He may then reflect and believe that his book will do good. His act is now supported by another and more 'fundamental' reason. This reason disarms the hostility of his rival interests because they too are subordinated to the same fundamental humanitarian impulse. He puts his activity on common ground and obtains augmented support for it. This supplementary belief is then as genuinely a condition of his work as was the initial belief in its remunerativeness. He has deepened the reason for his act, in advance of its performance. In any given case he might have obtained the necessary support by putting it on other ground, and in that case it would mean something to say that the specific ulterior motive which he used was not indispensable. It was a necessary but not an indispensable condition. It is also true that the initial and immediate motive was the sordid motive. The fact remains, none the less, that he did perform the act because (among other things) of its anticipated social effect. This deeper reason is neither ineffectual, nor mendacious nor unsound. But it may properly be regarded as apologetic: as a reason summoned to the support of an act already selected for another reason.

Now let us suppose that the act is performed for the sordid reason alone, no further reflection having intervened. The act may then be followed by regret or by disquieting doubts. Reflection may then occur after the act which views the act in a new light. The completed act is being attacked from within the

agent's own personality; and reasons may now be brought to light which did not condition the act's performance, but which now serve to counteract impulses to undo it, and increase the likelihood of similar performances in the future. Again the ulterior reasons are neither ineffectual, mendacious nor unsound; but they *are* apologetic and supplementary.

It is evident that this type of behavior will be characteristic of highly integrated personalities. A personality such as McDougall describes in terms of the 'self-regarding sentiment,' in which all determining tendencies are subordinated to the tendency to promote an ideal self, will be a personality in which action will to a relatively large extent be attended and conditioned by a supposition of its effect upon that self. It will be relatively necessary for such a person to have ulterior reasons if he is to act at all.

Now let us turn to the social aspects of this same apologetic reason. Men want reasons for their action which will appeal also to their fellows. They need help or fear interference, or they may merely be sensitive to social approval and disapproval. Such being the case, a man hesitates to act unless he possesses a belief about his action which when professed will dispose others favorably towards the action. A manufacturer produces a commodity and sells it for money, or pays money to a laborer and secures his services. He may sell for the profit and hire for the services. These would be sufficient reasons if he were in no degree affected by the attitude of others. But being so affected he requires other reasons. He sells for the reason that his commodity is useful, and he hires for the reason that he gives the laborer the means of livelihood; and such are his professions. He does not advertise for customers by urging them to come and make him rich, nor for laborers by urging them to come and do his work. In his statements about his business he explains it by reasons which others in terms of their own interests may also find convincing. But these reasons are real reasons; and they need not be less sound and truthful because of being socially efficacious.

But suppose, as in the former case, that these ulterior reasons do

not condition the performance of the act. They do not occur to the agent until his act is challenged. Being asked for his reasons, he thereupon formulates them for the first time. The reasons are clearly *ex post facto*. Is he on that account to be condemned for giving them? This evidently depends on the sense of the question. As a matter of fact the question, "Why did you sell me this land at twice its real value?" is commonly understood to mean, "*What reasons can you now find for doing it?*" It is a question of the defensibility of the act, and refers not to its original performance but to present culpability, to possible retraction, or to future repetition. If a man now finds and states reasons for his act which did not condition its performance, he is mendacious only provided he is understood to be accounting for the past, which is usually not regarded as significant by either party. It is absurd to suppose that when challenged to 'explain' one's action one is supposed to give an historical account of its conditions. The point of the question is to render the action susceptible to the influence of opinion and discussion. The agent is called upon to give 'reasons' for his action, because these are the conditions of performance by which it is subject to control by persuasion. It is only in so far as such control is possible that concerted action is consistent with the voluntary consent of individuals. To demand that an individual *give* reasons, even in cases where the act has been determined without them, is to require that he amend his disposition to such performance so as to subject it to such control. It is a well-known fact that we describe as *the* cause of an event that particular condition by which we hope to control it. The chemist will explain human action in terms of drugs, the eugenicist in terms of heredity, and the psychiatrist in terms of complexes. In the ordinary human relations one man is not permitted to control another except by persuasion. To seek out other conditions of action would be an invasion of privacy. He will therefore explain human action in terms of belief, which is the point at which he may legitimately influence it. An *ex post facto* reason given in response to such a demand, and understood as the introduction of a new condition by which one's present or subsequent action is subjected to persuasion, may, again, be effectual, truthful and sound.

We have now to consider the more complicated case of group professions, such as party-platforms, or statements of national policy. In order to avoid confusion we have first to distinguish between a pledge and a creed. A party-platform may conceivably contain in it no common beliefs whatsoever. A group of men may pledge themselves as a group that if elected to office they will abolish the tariff and introduce universal military service. There may not be a man in the party who believes that either policy is right or expedient. To find a discrepancy between the party-professions and the convictions of individuals is under that interpretation entirely meaningless, since the profession is not a matter of conviction at all—unless it be the conviction that by making promises of a certain sort the party's success will be assured. It would appear that this is as a rule the correct interpretation of political platforms. A party is a collective will, and not a collective opinion. It is united by a common resolve, which makes it possible for public opinion to choose it for the sake of its prospective deeds.

But it is clear that group-professions do have another function, the function namely of basing united action on common fundamental convictions. When a modern nation goes to war it needs something more than a common resolve. It needs to have that resolve sustained by a creed. It needs to justify its resolve to itself and to the world. We have here again a case of the apologetic function of reason.

The case is comparable, though not wholly similar, to the case of the integrated personality. In both cases action must be put on fundamental ground so as to avoid internal conflict. But while in the case of personal life a subordinate tendency may inaugurate, and even complete, the act before the dominant tendency is invoked, in the case of the nation at war there must be united action from the outset. The 'higher' reason has to be proclaimed in order that there shall be any war. Now what is it that happens? *A* would go to war for loot, *B* for love of excitement, and *D* for vengeance; whereas *E*, *F*, and *G* are not moved in the least by these or any like promises. All are, it is true, moved by fear and anger; but as instinctive and emotional

reactions these are aroused only in the presence of the enemy. They may unite a combatant-unit in action, but they cannot unite a nation in preparation, support and prolonged perseverance. There must be a purpose. There must be some interpretation of the war, some meaning or belief that will render it acceptable to the entire nation in its moment of deliberate action. This interpretation must recommend it, not only to all men in certain moods, as when goaded to fury by reports of atrocities, but to all men in their more reflective moods. It must represent the war in an aspect that makes it congruent with those 'higher' determining tendencies by which each man's personality is integrated. Even if a war is waged defensively in one's own territory, where instinctive and emotional reactions are constantly aroused even among the civilian population, a man needs to conceive his action as the protection of his country and his home, in order that he may reconcile his violence with his ideal self and avoid internal conflict and remorse. Where the enemy is distant and the danger remote, where the war is offensive rather than defensive, he must represent the enemy as evil and transform anger into righteous indignation. In so far as the war inflicts suffering upon enemies who are personally innocent, it is necessary for a conscientious man to conceive it as a war for a cause, or for that cause which he acknowledges as supreme.

There is, of course, another aspect of the matter. With nations as with individuals there is need of agreement and confirmation. In waging war a nation solicits the support of neutral opinion and the approving judgment of posterity. It will therefore endeavor to find reasons for its action which will also weigh as reasons in the minds of others not sharing the narrower national interest. It will translate its cause into general principles, such as 'self-determination,' or peace, or the security of small nations. But here, as in the cases cited above, the motive which instigates the *finding* of such reasons does not in the least prevent their *being* reasons when they are found.

It is not an accident that these creeds which sustain united effort are moral creeds. For this is precisely what a moral creed is. What all men in their sober moments agree to serve,

is *ipso facto* a moral cause. It is a moral cause because it has fortified itself against external protest by including all interests, and against internal conflict by reconciling all interests. The national morale is insecure in so far as the nation develops a bad conscience, either through the violated ideals of its own members, or through a sense of guilt in the accusing presence of mankind. It is to avoid the weakness arising from such a lack of moral integrity that nations profess the best that is in them when they go to war.[1]

Enough has been said to make it clear that such professions are real and effective causes of action. What of their honesty? That is as it may be. A statesman's lie is not different from any other lie. If a nation's policy is officially misrepresented in order to deceive another nation or its own members, then such a profession is mendacious. But to suppose that this is a usual or even a common course of procedure is to lose sight altogether of the real bearing of political action. A national profession of faith is not primarily intended as a means of deceit, but as a means of solidifying the nation itself on grounds that are at the same time acceptable to the deliberate judgment of mankind. The effect which it is primarily intended to secure is an effect which a lie cannot secure.

That there will remain a wide discrepancy between such a national profession and the convictions of individuals is to be taken for granted. The national profession includes only that element of individual conviction by which individuals are united. This element may have relatively great or relatively little weight with any given individual. The man who would fight anyway from hope of gain or from love of fighting does not need this higher moral motivation. With him the effect of the war upon the security of his country, or upon the cause of international peace, is an unobjectionable but superfluous consideration. For the man of pacific disposition, or the man who fears pecuniary loss, there may be no inducement to war save such an

[1] Under the circumstances it is not strange that the professions of warring nations should be similar, nor does this in itself suggest that such professions are, as LeBon terms them, a "paroxysm of collective madness" (*Psychology of the Great War*, English translation, 1916, 268).

ulterior end. Such a man has in effect to be moralized before he can be made a willing soldier. The scrupulous man is already so constituted that he can be appealed to only on fundamental grounds. The result is that the man who would fight anyway for more immediate or sordid reasons, is credited with the same high motivation that is necessary to induce the services of the scrupulous man. Since the services of the entire nation are required, the national profession of faith does not describe the grouping or balancing of motives in any individual, but expresses the moral inducement which is necessary to bring the services of all to market. It is leveled at the marginal man, and the warlike man enjoys a sort of producer's surplus. He acquires a moral status which is no fair measure of the actual cost to him. The same thing is true of the partisan who hopes for office. The expectation of personal gain might have been a sufficient inducement for him, but he is credited with loyalty to the principles of the party.

If the national profession is not to be identified with the whole complex of an individual citizen's beliefs, still less is it to be identified with the personal convictions of the statesman. It is the statesman's function to formulate a creed to which all within the nation will assent, which will give to all a reason for prosecuting the war, and which will afford neutral observers a reason for favoring the nation's victory. He will not simply formulate his own creed. It may be that the creed which is effective for the purpose is one which he invents, but to which he himself never gives more than a half-hearted assent. He is not speaking for himself, but for the nation. Whether incidentally he misrepresents himself is a matter of little account. But if he misrepresents the nation, if his statements do not express the common conviction, they will be empty and wasted words.

The beliefs which divide men are in their turn not less important than the beliefs which unite them. What we call the moral 'reaction' of the present day is to be explained largely as the survival of pre-war motives. During the war human action was interpreted in terms of the national professions, even though these were in most individuals factors of minor importance.

Every man was conceived, and was encouraged to conceive himself, in the rôle of a patriot and crusader. The emergency having passed, and this common purpose being eliminated, the residual motives are again disclosed in their variety and comparative selfishness. We see men once more as individuals, classes, groups, and factions, instead of merely as Americans. When men act as a nation their common convictions are emphasized; when they cease to act as a nation the emphasis shifts to those convictions which divide them. Had this been remembered and discounted, much painful disillusionment might have been avoided. This proves the importance of understanding the setting of the national professions in the minds of individuals; or to know of an individual not only what professions he may at any given time have in common with others, but their relative weight among his own professions. For that which temporarily unites a man with others may in the long run be the least part of him.

The national creed, like that of the individual, may be *ex post facto*. It is possible in the one case as in the other that one should find reasons for what one *has* done, which will now serve to reinforce it against attack, or sustain it through prolonged effort, even though they did not condition its original performance. And there is neither deceit nor intent to deceive unless one is understood to be writing history.

When, then, we interpret *ex post facto* reasons as a special case of apologetic reasoning, we come upon a much more fundamental and significant thing that cannot be dismissed either as gratuitious or as necessarily mendacious. The root of this thing is not to be discovered in what Dr. Hart has called "an overwhelming need to believe that we are acting rationally,"[1] or in any other queer little human idiosyncrasy. The function of such apologetic reasoning is to enable a man or a nation or mankind, despite the wide variety of opinions and interests that must divide them, to find some common ground for united action. If apologetic reasoning when so interpreted is to be called by the name of 'rationalization,' then that name must acquire new

[1] *Psychology of Insanity*, 1919, 66.

associations and come to mean the use rather than the abuse. For the thing itself is a normal and effective condition of all personal and collective action, and in the exercise of its true function is as much bound to honesty and truth as is any other mode of reasoning.

(2) Let us now turn to the *unsound* reason. While recent developments in psychology have obscured the rôle of the apologetic reason through the undiscriminating disparagement of it, these same developments, if correctly construed, testify most eloquently to the vital importance of reason in general, and virtually establish canons for its preservation and development. Philosopers do not need to be told that *critics* of knowledge such as Socrates are in the very nature of the case also exponents of the *art* of knowledge. The same standards serve as grounds of condemnation and as ideals of reconstruction. The physician is at the same time the enemy of sickness and the friend of health. In defining one he defines both, and in opposing one he espouses the other. The modern psychologist in exposing the unreason of men is in spite of himself an apostle of the cult of reason. Here again there is much confusion owing to the careless use of terms. LeBon applies the term 'logic' to any "immaterial force" by which human nature is controlled, and speaks of "biological logic," "affective logic," "collective logic" and "mystic logic." But all these logics are distinguished from and opposed to "rational logic" or "intellectual logic,"[1] which serves throughout his discussion as the norm by which the other logics are criticised. The fundamental defect in LeBon's work is that he does not clarify this norm, or state in positive terms precisely how human conduct may be regulated by it. His interest being primarily pathological, he studies the disease without a sufficient understanding of the function.

Similarly, the psychiatrist evolving his own views of human nature under the influence of his pathological interest, has studied the so-called functional *disorders* of the mind with no definite conception of the *orderly* functions of the mind. It is as though neuro-pathology should develop independently of neurology;

[1] *Op. cit.*, 26, 27.

or the study of organic disease independently of physiology. It is the study of the abnormal in the light of the normal, or the understanding of the abnormal as an *irregularity*, that chiefly distinguishes medical science from the lore of the medicine man. Psychiatry is not much to be blamed for having neglected psychology, because the psychologist has himself so largely neglected human nature; and when the two pool their resources it may well turn out that the psychiatrist has more to give. But the fact remains that while psychiatry has much to say about multiple personality, delusion and lunacy, it speaks with no clear conviction of integral personality, perception, truth and sound reason. Lunacy is by definition a pathological derangement or irregularity of reason. Recent psychiatry is moving rapidly to the conclusion that many of its types are exaggerations of defects that are as common as imperfect feet or teeth. The tendency in psychiatry is to regard the sort of thing that Freud talks about as the extreme manifestation in the individual of the sort of thing that LeBon talks about. In both cases reason has gone wrong, more or less. Then the converse of both cases is sound reason; that is, reason doing its own work in its own way.

Whether the canons of sound reason in the implied psychiatric sense shall be called 'logical,' is only a verbal question, provided that having once adopted a terminology one adheres to it. If by logic is meant the study of the *objects* of reason, such, for example, as relations, then the study of sound reason is not logic, any more than the study of sound vision is the same as the physics of light. Granting that cognition is a human function like vision, then there is in the ideal scheme of human knowledge a subject related to cognition as ophthalmology is related to vision. What man knows about the structures and activities in which the function of knowing consists, and what man knows about promoting the health of this function, will constitute a sort of physiology and hygiene of cognition.

In any case, when in such a context we desire to speak of an *unsound* condition of the cognitive faculties, we should not use a term like 'logical' which is saturated with a laudatory meaning. Nor should we say, as does Dr. Hart, that the lunatic's "reasoning

powers" are intact and normal, or that he is only "apparently" irrational.[1] There is no way of reconciling such a generalization with the very facts on which it purports to be based, such as "imperviousness" to reason, to argument, and to contradiction, "gross incompatibility" with experience, or the dissociation of "logic-tight" compartments of the mind.[2] When Dr. Hart says that the lunatic's reasoning powers are "in themselves" like those of normal men, he means perhaps *as far as they go;* as the ambulatory powers of a one-legged man are 'in themselves' like those of a two-legged men. In other words, walking is walking and reasoning is reasoning; and just as a one-legged man might walk more than the average man, so the lunatic might reason more than the normal man. But the fact would remain that the one is irrational in the same sense that the other is lame.

It has further to be noted that when we conceive reason or cognition as a specific function that may be in order or out of order, we imply that it may be judged *on its own grounds.* To judge the work of the intellect, as has been proposed in a certain school of philosophy, by the general success or failure of the personal life to which it belongs, is a sort of revival of the obsolete idea of tribal or family guilt. It has proved better in the interest of justice to trace the offence to the individual offender. Similarly, instead of imputing error vaguely to the whole personality, it is much better in the interest of truth to fix the responsibility upon the particular organ which is charged with the matter. Error, in other words, is the fault of those particular agencies whose business it is to find truth. The proper diagnosis of error will trace it to their malfunctioning or maladjustment. Happiness and success are evidence of a sound mind, as they are of a sound digestion or a sound heart. But unhappiness and failure are not evidence of an unsound mind, because the fault may lie in the digestion or the heart. The organism succeeds as a whole, but fails in parts. Unsound reason cannot be discovered until it is located, and the place where it is located is also the seat of knowledge.

[1] *Op. cit.*, 127–144.

[2] *Ibid.*, 26, 55, 56, 66, 86, 142.

The function of reason or the intellect is the acquisition, testing and application of true beliefs. A belief is an anticipatory response set for a specific occasion, and its truth lies in the complementary relation between the response and the occasion. A belief is tested by trying the response on the occasion, or by trying it conjointly with other responses whose truth is assumed, or by comparing it with the responses of others.

An unsound mind is not the same thing as an erroneous belief, but is a chronic tendency to the formation of erroneous belief; or a relative incapacity for true belief, and a constitutional insusceptibility of error to the salutary influences of experience. Unsoundness of mind has a positive cause and a negative cause. Like a bodily disease it may be attributed in part to infection, and in part to lowered resistance. The unsound mind is biased and incorrigible. On the one hand its beliefs are contaminated from extra-intellectual sources; and, on the other hand, the 'logical' correctives by which such contamination is checked are relatively weak. Since the effect is due to a ratio of the positive and negative factors it is not always possible to divide the responsibility. Doubtless these two factors themselves are functionally interdependent.

If we turn first to the positive factor it turns out to be an old friend that has varied the form of its first name. It is now known as '*Libido* is father to the thought,' or 'The complex is father to the thought.' This means that belief has over and above an evidential source, that is selective with reference to truth and error, also a non-evidential source that is indifferent to truth and error. The evidential source is, of course, experience. If my expectation originates in associative memory it tends to be true. Most of the beliefs that guide the normal man in his daily routine, in his direct dealings with the persons and things of his immediate environment, do so originate and are true. They are perpetually being reinforced or modified by fresh experience. Beliefs for which such evidence is not easily and constantly accessible have to be checked by a methodical technique. But this also, as we have seen, depends indirectly on an appeal to experience. The other and non-evidential source of belief, the positive agent

in the unsound mind, is interest. Perhaps 'imitation' and habit should be included as well. But the former term has now become so ambiguous that it cannot be used without a long explanation. Some of the manifestations of imitation belong clearly to interest, others to that social confirmation which will be discussed presently among the correctives. Other possible varieties of imitation, as well as habit, are omitted here without prejudice, and only in order to focus attention on what appears to be a matter of larger importance.

Beliefs commonly arise, as we have seen, in connection with the operation of a determining tendency. It is their practical function to facilitate the completion of such a determining tendency. They do this by virtue of congruence between the implicit phases of the belief and the implicit phases of the tendency. The supposition that there is a pool of water beside a distant desert-rock is congruent with thirst. The supposition consists in a train of incipient acts the latter phases of which are those same acts of drinking which constitute the suspended portion of the appetite. The supposition as a totality is possible regardless of the facts, because it is possible for words or other 'ideas' to be combined tentatively by the internal play of free association. But in this case the rock has been visited in the past and has been the scene of a fruitless search for water. A situation is thus created in which two forces compete for the control of belief. There is a supposition regarding the rock that reflects one's past dealings with it, and there is a contrary supposition which is congruent with the determining tendency. If the individual commits himself to the latter supposition rather than to the former, and proceeds to carry it into effect to the total exclusion of the former, he is said to be the victim of a mirage. Interest has overruled evidence. The hallucinatory mirage occurs only under extraordinary circumstances, where the determining tendency is abnormally strong, and where the absence of any promising alternatives brings the individual to the verge of despair. Otherwise such an hallucination does not occur because one's dealings with water are too familiar and unambiguous.

There are other types of interests which very commonly lead to

a disregard of evidence, because the lessons of experience are not sufficiently sharp and frequent. Most men, perhaps all men, are moved by the love of power. There are characteristic modes of expression and characteristic situations in which these can be carried out. The love of power expresses itself in speaking authoritatively, in effecting changes in the affairs of other persons regardless of their will, in securing obedience, and in receiving homage. These are compatible with certain objective situations in which other persons play their complementary parts. An individual governed by this tendency will try to find or create such situations. But he may *suppose* them, and such suppositions will acquire credibility from their congruence with his love of power. Where such situations do not in fact exist he will experience the impossibility of carrying out his response; and where this experience then leads to the rejection of the favorable supposition, and to acts calculated to remedy the situation, there is soundness of mind. But where in the absence of such situations the individual adopts the favorable supposition because it is favorable, the evidence not having its 'due' effect, there is in some degree unsoundness of mind. Such deluded ambition may take the form of repeated failures to exert power, failures repeated because they do not have the normal effect of modifying belief. Or it may take the form of a retreat into those forms of the response which are ambiguous, forms whose complementary objective component is not completely determined. An individual cannot secure obedience without the compliance of another person, any more than he can eat the inedible or drink the impotable; but he can continue to speak authoritatively even though nobody obeys him, or to assume postures of grandeur even though no one does him homage. As regards the failure of others to do their part and so to permit the complete display of his power, he can form favorable hypotheses such as conspiracy or jealousy; and these can assume the form of auxiliary beliefs, provided he does not carry them too far into effect.

In short, beliefs are always subject to non-evidential influence from the associated interest. In a sound mind this influence will be over-ruled by experience. In such a mind experience has a

prepotence over other conditions of belief that makes it almost incommensurable. The habitual opinion of a life-time is effaced by a single perception; or a belief is accepted on the basis of a single fact, even when it is antagonistic to the whole current of the individual's interests and can only drive him to despair. But, even in a sound mind, interest may freely determine belief *in default of* decisive experience. Unverifiable interested belief is comparatively innocuous because, since it is not completely carried out or is carried out only once, it does not lead to repeated and unnecessary failures. Such is the case with the belief in God, or in immortality or in the future happiness of mankind. Unsoundness of mind begins only at the point where interest leads to the disregard or neglect of experience. This is most likely to occur in connection with such beliefs as may assume the form of fixed attitudes rather than overt action, the former being largely immune from the corrective effect of experience. Most individuals being men of action, these attitudes usually assume a subordinate place. The politician for example is biased as regards his partisan creed; but in his field of action, which is politics and not policy, his beliefs are close to experience and largely true. On the other hand the man whose biased attitude is all in all to him, lives in a world of error and is isolated from his fellows who meet in the common world of fact.

We may now understand why beliefs that originate in the apologetic exercise of reason have a peculiar liability to error. Being selected as a means of covering or harmonizing other beliefs, rather than as a means of dealing with specific facts, they are correspondingly less answerable to fact. Professions may be loose and slovenly because their day of judgment is remote. Their subjective value is more imperative, and their falsity less fatal, than is the case with other beliefs.

It has become clear that unsoundness of mind, or the undue influence of interest in inducing belief, signifies not only strength of interest but low corrigibility, owing to the isolation of belief from experience. To use the terms familiar in recent psychiatry, unsoundness of mind is a function, on the one hand of complexes, and on the other hand of dissociation. We turn now to this

second or negative condition of an unsound mind, the relative absence of the counteragent by which the disturbing effect of interest is offset.[1]

The evidential tests and correctives of belief are well-known and need only a brief re-statement here.[2] The commonest type of evidence is that which is supplied incidentally to the original acquiring of the belief. An empirical belief is formed and proved in one and the same process. The most rigorous evidence of this type is that which is sought under the influence of the theoretical interest, when a tentative exploration is made by means of uniquely determined responses, such as the act of observation, the experiment, or the verbal testimony of the veracious eye-witness. The development of such methodical technique has been largely inspired by fear of the illicit influence of interest. Secondly, there is the evidence of consistency, obtained by thinking over one belief in terms of another. Finally, there is the evidence of social confirmation. Let us briefly consider each of these in turn.

The unsound mind must be assumed, in the first place, to lack the normal receptivity and modifiability. Such a mind is said to be "impervious to experience."[3] This must mean that such a mind is relatively restricted in the range of its casual experiences; or relatively indisposed to carry its beliefs to the point at which the facts become decisive; or relatively deficient in associative memory. We must assume that beliefs normally reflect experience, and are automatically self-corrective in so far as they are actually given a crucial trial. In the unsound mind the capacities involved in docility must be assumed to be constitutionally defective.

There is, for example, the kind of mind which sees only what it wants to see. Here the mood or determining tendency so controls the individual's movements, accommodatory responses

[1] Thus a delusion, according to Dr. Hart, "is a false belief which is impervious to the most complete logical proof of its impossibility, and unshaken by the presence of incompatible or obviously contradictory facts" (*op. cit.*, 55).

[2] For a fuller statement, *cf.* my article, "The Cognitive Interest and its Refinements," *Jour. of Philos., Psychol., and Sc. Methods*, 1921, *18*.

[3] See above, pp. 157 ff.

and attention, that his casual experiences and empirical beliefs tend to be of one type. Such an individual does not encounter facts widely and variously, his experience is excessively selective and unrepresentative. There is little or no desultory curiosity. His beliefs are confirmed by his experiences, and are true in a limited application. But he is adapted to his environment only in so far as he lives in-doors in an artificial world of his own, where he is protected from the 'cosmic weather.'

The phenomena of repression reveal a variant of this condition of imperviousness to experience. Certain facts are 'intolerable.' In their original occurrence they aroused extreme disgust or terror. But these responses of disgust and terror are negative responses, in the sense of tending to their own termination by the withdrawal of the organism. The belief in such occurrences consists in a partial renewal of the same self-terminating responses. The belief recoils from the very facts to which it addresses itself. Being repeatedly driven back it may become habitually dormant, and cease to interact with experience, or even with other beliefs except in so far as its absence may lead to the formation of compensating or covering beliefs. The process is fundamentally similar to that in which intolerable objects or persons are repeatedly avoided and at length habitually ignored, one's fragmentary world being then pieced out by the more agreeable works of the imagination.

It is evidently a factor of primary importance in such cases that the only response to the facts in question should be a passionate response. The facts would become tolerable if they could be responded to disinterestedly, if, for example, they could be merely named or described. Where an individual has only one way of acknowledging a certain fact; and that way is an act of avoidance or an attitude of aversion, then the individual will experience difficulty in establishing true cognitive relations with that fact. The difficulty will be proportional to the intensity of the repugnance, and only in extreme cases does it reach the pathological forms with which the psychiatrist has made us familiar. But it is the same evil in a lesser degree that leads all relatively emotional or 'sensitive' persons to lose the lessons of experience

and to live in a world of illusions. Such a mind does not face the facts; or, if it faces them, does not assimilate them.

The practical effect of such incorrigibility is the repetition of failures. It is quite true, as Ehrenfels remarks, that the end (*Ziel* or *Zweck*) and the consequence (*Erfolg*) of striving need not coincide.[1] But in a sound mind they are intimately related. The end, when it is being actively pursued, is the believed consequence of the act; and in so far as the consequence turns out to be other than as believed, the act is amended so that what is expected of it may agree with experience. In a corrigible mind the end and the consequence tend to coincide. But in an incorrigible mind, in which the experience of consequences does not have its normal modifying effect, the discrepancy will remain as wide as ever. The individual will continue to aim at one thing and to hit another.

A belief may also, as we have seen, be corrected by 'thinking it over' in terms of other beliefs. The failure of the abnormal mind to think its beliefs over, its failure to effect a general intercourse among its beliefs, is doubtless mainly traceable to the repression or dissociation of interests. The interests having broken off relations, the breach extends to the associated beliefs. When bias is said to be more incorrigible in proportion as it is 'unconscious,' this means in proportion as the deflecting interest is not itself the object of a belief incidental to some other interest. Thus I may be led by my scholarly aspirations to recognize that I am biased in favor of America. The result is that my patriotic and my methodical convictions are brought into contact, the former being corrected, or 'indulged,' or discounted. Corrigibility is thus conditioned by the habit of taking each interest in turn as a ground for judging the rest, or by the integration of the personality. At the same time it must be noted that this very process may lead to false modes of reconciliation unless it is checked by the corrective of experience. The virtue of this second test of mutual consistency is relative to the virtue of the primary test of empirical verification; and the habitual substitution of the second for the first leads to the speculative or

[1] *System der Werttheorie*, 1, 226.

doctrinaire type of mind, which is less apt to acquire true beliefs than is an empirical mind of much narrower range. The mind which simply resets its beliefs by one another may be entirely and systematically mistaken. It is this tendency in abnormal minds which has led observers to remark the peculiar 'logical' subtlety of the paranoiac. The unsound mind does not reason less, perhaps reasons more, in the sense of the time and energy consumed and the inventiveness displayed in interadjusting its own beliefs; but such a mind does not establish enough fixed points by which the whole system may be anchored to fact.

When defect of incoherence is more fully analyzed it will probably appear that while the reasoning powers are active and ingenious they are not thorough. In particular they fail to link up the favored beliefs with that remnant of empirically founded beliefs by which the individual is still enabled to deal with his actual environment. His favored beliefs, in short, form one closed system and his empirical beliefs another. If he tried to reconcile the former with the latter they would inevitably be shaken. Their incorrigibility lies in their dissociation from just those beliefs which would bring them into decisive relations with fact.

There remains one further corrective of undue bias in which the unsound mind is relatively deficient. This is social confirmation. The unambiguous use of words makes it possible to check one's own response by the responses of others, or to treat another's response as a sign of the presence or absence of a specific object. It is a well-known fact that this method of acquiring or modifying belief is fallible, and that it may, as in credulity, or hyper-suggestibility, lead away from the evidence rather than towards it. In its rigorous uses this method has to be refined into the collaboration of trained, independent and disinterested observers. But in its common form this method does have the effect of preventing the undue influence upon an individual's belief of his *private* interests or complexes. It consolidates what is called *common* sense, be this true or erroneous. It tends to be true in that class of beliefs which deal directly and decisively with persons and things, because here social confirmation sig-

nifies any increase of experience. But error is readily fixed and spread by social confirmation in the field of speculative beliefs and emotional attitudes.

It is clear that an unsound mind in the usual psychiatric sense is an individual anomaly,[1] implying that the social confirmation of belief is a less potent factor than in the sound mind. Here, at least, there appears to be a point in common between deficiency and delinquency. The defective mind is lacking in social responsiveness as regards opinions, while the delinquent is lacking in social responsiveness as regards sentiment. In both cases there is a relative insensitiveness to the standardized social mind. The individual who is abnormal, whether intellectually or morally, is exceptional in his opinion, his feeling and his conduct, because he is exceptionally lacking in receptiveness to those influences which tend to uniformity in opinion, feeling and conduct.

The converse of the unsound mind in the three aspects here considered, is the sound or healthy mind.[2] If we have correctly characterized the unsound mind, it will follow that the healthy mind will cultivate facts. It will live its beliefs out in the presence and under the correcting influence of facts. It will multiply its contacts with fact by promoting reciprocal intercourse among its component systems of belief and interest; and by cultivating a responsiveness to other minds, especially where these other minds are in contact with fact. The healthy mind will be, as James used to say, a *well-ventilated* mind. It will prevent the encysting and stagnation of its beliefs by clearing passages among them and opening windows to the outer air. As a prime condition of this corrigibility or receptivity to fact, a healthy mind will acquire an autonomous theoretical interest, and something of the method if

[1] This may perhaps serve to distinguish abnormal from primitive mentality.

[2] It is to be hoped that the principles of mental hygiene or the principles converse to those of mental pathology will receive greater development in the near future. There is perhaps a similar need that educational theory should develop *its* converse principles such as those which determine the nature and causes of ignorance. The best positive or preventive application of the Freudian principles with which I am acquainted is to be found in E. B. Holt's *Freudian Wish* (1915), Ch. III.

not of the technique of science. It will possess a capacity for disinterested and unambiguous dealings with fact; if for no other reason, then at any rate because only by such discipline can the cognitive faculties provide those verified beliefs which all interests require for their fulfilment.

It is difficult to insist upon a neglected truth without exaggeration, or without creating the impression of excluding other truths. This paper has been devoted to the justification of reason. But this must not be taken to imply that a man can live by reason alone. Special emphasis has been laid on the corruption of reason by interest, but this must not be taken to imply that interest may not be corrupted by reason. It is perfectly clear to any observer that socially undesirable action cannot be explained in terms of unreason alone; and that socially desirable action cannot be induced by reason alone. The cast of a man's interests is certainly not less important for society and for himself than the cast of his intellect; nor is the cultivation of sentiment less important than the discipline of thought.

There is at least one serious human defect that arises from the excessive development of the theoretical interest.[1] This defect is known as fatalism. It consists in the substitution of belief for interested action. It may take two forms, passivity and neutrality. In passivity, beliefs may retain their passionate coloring, but they are not acted out. I may, for example, hate injustice. This is my response to it. I may then set this response for a wide variety of occasions, or believe that hateful injustice abounds. But I seek none of these occasions, and never enact my hate, because I am preoccupied with preparing new anticipatory adjustments for other occasions. I am a mere collector of beliefs.

Neutrality consists in the substitution of indifferent for passionate responses. It is an excessive addiction to scientific method. Instead of loving and hating things, I name them, observe them and record them. I do react to them, but my reaction is such as to leave them undisturbed. My life is no

[1] Scepticism, or the morbid fear of committing oneself prematurely, may perhaps be regarded as a second defect of this type.

more than a running comment, a pointing to facts, or a taking of things as they are.

It is evident that if one is to judge in terms of the hope of the world, if one is to apply moral standards or any save intellectual standards, then fatalism is a form of delinquency. It is a fault if not of commission then at any rate of omission. The fatalist is a pacifist and conscientious objector on every issue. He is allowed at large because he is not dangerous to life or property, but he is a public charge in that he adds to the burden of society without bearing his share of it. He does not carry his own weight.

We have now to note, however, a very important qualification which applies to the entire topic of human imperfection. Owing to the division of labor, a one-sided or unbalanced individual, provided his defect is not too extreme, may render the greatest service to society. His talents may be of priceless social value while his defects injure no one but himself. A man may thus serve mankind up to the very verge of insanity or crime. He may be addicted to error, the victim of delusion, and a mass of prejudice, and yet perform some deed, express some emotion, create some work of the imagination, or embody some act of will, for which he will be gratefully remembered to the end of time. On the other hand, a man may be feeble in will, irresponsible and apathetic, a burden to his friends and a parasite upon society, and yet discover truth that shall immortalize him. This does not mean that genius necessarily violates the laws of mental hygiene, but that it may. Nor does it mean that the laws of mental hygiene should therefore be abandoned in the interest of the cult of genius, that morals should be loosened or intellectual discipline relaxed in order to break the ground for seeds of genius. This has been proposed. But it would be a mistake: because, in the first place geniuses are exceptional; and because, in the second place, when they do occur they break the ground for themselves. Indeed the breaking of ground appears to be the school of genius.

The conflict between those principles, on the one hand, that govern personal and social integrity, and which must guide the

course of education and legislation, and those breaches of principle, on the other hand, by which fragmentary or recalcitrant individuals achieve miracles, is one of the deeper tragic conflicts for which, in this paper at least, there is no resolution. Whatever is said here must be taken to apply to the individual who would have all the parts of a man,—who on his own scale would be an epitome of human nature. Such a man will expect to think for himself, and to participate himself in the battle of life—to be both strategist and combatant. It has been the object of this paper to justify the place of reason, or evidentially attested belief, in an *entire individual;* to exhibit the indispensableness and genuine efficacy of the function of reason, and answer on grounds that would be acceptable to science that modern denial of reason with which science has allowed its name to become associated.

If anything could justify a discussion so thin and schematic as that to which you have so patiently given your attention, it is the importance of this subject. So important is it to obtain light on this subject that it may be important even to fail in the attempt. If there is any one service which the economist, the political scientist, the psychiatrist, the teacher and the layman may reasonably demand of the philosopher it is a clarification of the status and functions of reason in human affairs. In the opinion of many judges the case against the intellect has been proved by the great calamity which has overtaken European civilization during the last six years. That such a war could have occurred, and that its wounds should be so deep and so septic, has convinced them that the fortunes of mankind are the work of insidious and catastrophic forces which reason at its best can only witness and helplessly deplore. To such observers of the times the first condition of a revival of constructive effort is a restoration of faith in the power of thinking. Before there can be any question of this program or that, there must be a conviction that *any* program, thoughtfully formulated and deliberately adopted, can have remedial efficacy.

It is not too much to say, therefore, that the assumptions of all practical idealism are at stake. The cult of civilization, of

which we are professed devotees, assumes the possibility of rigorous knowledge, that is, the capacity of the intellect to pursue its own end and refine its own method. It assumes, secondly, the possibility of wisdom and skill, that is, the reason's capacity to enlighten interest without compromising its own standards. Given these assumptions, the achievement of civilization depends not less absolutely on initiative, enthusiasm and resolution, that is, upon the capacity of interest to utilize knowledge without resigning its own claims to the future.

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PSYCHOLOGY AND IDEALISTIC PHILOSOPHY.

FOR present purposes we are taking Idealism to be a sufficiently recognisable phenomenon of philosophical culture, —namely that stream of interpretation which originating in Kant was elaborated in his idealistic successors, and has filtered down through many channels into the thought of the present time. The essential achievement of it might perhaps permissibly be expressed thus. It frankly inserted the mind of man in the broad current of things and taught it not to be afraid. The human spirit had grown timorous. It had grown timorous over a threatened community of fate between it and the mere things amid which its lot had been cast. Idealism taught something which was calculated to dispel the fear. It taught, briefly, that the mind itself was not a thing, but was at the Source of things. Caught in the current of nature, as on scientific grounds the mind of man must necessarily seem to be, its real position was nevertheless quite different. Maugre all contrary appearances, it was verily living in the life of God, and would achieve its own fullness as it appropriated His purposes. In this rôle Idealism, so far as it was successful, acted as a liberator of the human soul.

But this Philosophy has always had its suppressed quarrel with Psychology; and from some points of view there would seem to be this curious fate possibly now awaiting it, that it may be compelled to witness the very liberation which it had sought to effect being effected by the hand of the enemy.

It seems worth while to draw attention to the possibility, even in the interests of coöperation and good feeling among the devotees of the various branches of the higher thought among us. There is inevitably a certain competition between Psychology and Philosophy. We would emphasize this, then:—that even if, in the particular connexion which we are here considering, Psychology be fated to do what Idealism had contemplated doing and was found unfit for, it still remains an interesting circumstance to the idealist that the task should have been the same.

The community of task between these two very different lines of cultural work is the subject of the present paper. There is a point where recent practical developments in Psychology impinge upon idealistic Philosophy. To the idealistic philosopher who has entered into the inwardness of his own aims there is even a suggestion at times as though some of the new departures might yet be found able to point the way to a goal for which idealistic Philosophy has indeed striven, but at which it has not been able, so far, to arrive. Not that the new psychological departures actually take us there; to say so would at least be rash; but the suggestion that they may yet teach some fresh philosophy to recover a path which Idealism had missed is one not without its reasons and not without its thrill.

Let us first try to state quite simply what we speak of as that which Idealism has missed. The problem which we have in mind as having baffled Idealism practically ever since it fell into the hands of Schelling, is that of the conservation of values; the difficulty of preserving values; the difficulty, that is, of preserving the values of the dialectical process within the finished dialectical result. This difficulty is conspicuously present to the minds of the first great promulgators of Idealism. It constantly presses upon Hegel, and his enunciation of the need for confronting it, is tirelessly repeated in all his references to his own teaching. Hegel is for ever emphasizing the Absolute's *Sichselbstwerden*, its process of becoming itself. In abstraction from the process, the result is nothing to him. It is at best the object of an abstract mysticism; it is the mere night in which all cows are black; and nothing in that kind will ever serve him for the ultimate reality. He will have preserved, and preserved in all their concrete pungency, the entire array of subordinate values through transcending which the absolute is reached in the dialectical movement of the spirit. The subordinate values are not to be lost. The negative moment in the nature of the mind is to be an indispensable and surviving moment. Even evil is to have been worth while. Hegel stakes his whole Idealism on that. It is a case of that or nothing.

The vigor of Hegel's sense of the need for such a thing would

seem to indicate that the conception of an absolute experience within which the subordinate values are conserved and not destroyed, is one which has been determinedly fought for by Idealism. He would be bold who ventured to say that it has been won. By Hegel it certainly was not. Those protestations of his against the empty night did not avail in persuading the world that he did or could do justice to the 'many.' They did not for long keep Hegelian Idealism contenting the scientists, for example, or furnishing cosmological introductions to scientific text books, as for a little while they did. Nor have the most eloquent of Hegel's declarations of a contrary intention had any effect in preventing a subsequent generation from summing up his whole system as the all-togetherness of everything.

Many would go farther and say that it is not in the power of any sort of Idealism to take us beyond this. Its very genius is in the way. Its very genius is to express itself in a certain logic. Its logic is dialectical. It is a story of the march of categories. The crucial issue concerns the survival of the lower category in the concatenation of the categories after it has done its work. It might be said it is impossible for a transcended category to be otherwise than buried in the category which transcends it, at least for those who admit or succumb to the principle of the system. It is useless to talk picturesquely and say that the 'tang' of the lower survives in the higher. This, once one is really inside the system, is precisely what does not happen. The lower category simply won't survive—refuses to do it 'for more than a few minutes,' as it has been quaintly put.

These considerations made it clear that the failure of Idealism to conserve values is capable of being read as a failure to realize its own ideals. It would be hazardous to say, therefore, that, as a view of the world and as a way of life, it must part with its identity in the day of its success. Be this as it may, there is plainly a certain definite success or desired consummation which Idealism has only contemplated, not achieved. This granted, we believe that there is a case for saying that one interest—nay, the interest—of recent pathological and therapeutic psychology to an idealistic philosopher lies in the lead it appears to be giving,

when viewed broadly and sanely, towards the unattained goal of this specific success. The new psychology does not say anything about the ultimate reality's being an 'all inclusive experience,' containing its own articulations; it does not deal with the Absolute at all; it is not a metaphysic. But it does by all indications seem to say at least that the salvation of the soul lies somehow in that kind of thing.[1]

The new psychology must be viewed broadly and sanely if any interesting point of contact with Idealism is to be found in it. We do not think, however, that this admission is any very damaging one. The essential proposition of therapeutic psychology is probably not such an insane thing as to most minds it is apt to seem when they are first brought athwart it. And this is the first point to which we must give our attention.

News of novel departures in practical psychology—authentic news at the best and vague rumors at the worst—have reached all quarters; and in consequence more than even the usual amount of suspicion has been raised. What is it exactly, let us ask, that has happened? Plainly, there has been some kind of scientific focussing of a fresh field of facts. Plainly too, to all except the hopelessly incredulous, there has come out of it a considerable new practical power of catering for certain human ailments. Can we at all locate the region of our general modern experience where these facts were met; and can we at all define the new power that has been acquired?

[1] It may not be out of place to enter a word of defence against the criticism which should consist in asking here 'what the salvation of the soul has to do with philosophy?' I wonder whether those to whom this sort of criticism appeals would be prepared to ask Socrates to resign his place as one of the philosophers. There is little hope, I am afraid, of getting past the contentions of Professor Burnet as to his care for the soul. Nor, it would appear, is that view of his essential work and influence confined to recent scholarship. It seems to have been a very natural view of him even so far back as in the days of the emperor Julian. In a letter to the philosopher Themistius, quoted by Burnet in a recent lecture, that emperor says:—"The achievements of Alexander the Great are outdone in my eyes by Socrates, son of Sophroniscus. It is to him I ascribe the wisdom of Plato, the fortitude of Antisthenes, the generalship of Xenophon, the Eretriac and Megaric philosophies, with Cebes, Simmias, Phaedo and countless others. To him too we owe the colonies that they planted, the Lyceum, the Stoa and the Academies. Who ever found salvation in the victories of Alexander? . . . Whereas it is thanks to Socrates that all who find salvation in philosophy are being saved even now."

To locate the facts, in the sense of roughly indicating the place, within the general extent of the field of modern human acquaintance from which they hail, is not really difficult. We are familiar enough with the phrase in picturesque histories of civilization, that the 'advance' of science has coincided with the 'retreat' of superstition. The phrase is not misleading. Such has really been its story. Science has been preëminently the winner of ground for human use: and it has won it from the forces of ignorance and superstition.

Around the area of the conquered land, however, there has always remained the fringe of unconquered territory. The faith has been strong, especially in the nineteenth century, that the still unconquered ground had no other destiny than simply to be conquered when its turn came, 'according to plan.' There have never been awanting, however, suggestions that possibly it might not be so. There have been reminders from time to time in the scientific domain, reminders breaking in from without and erupting from beneath, that possibly some things beyond its beat were really wholly unlike anything within its borders. These incursions were not unknown even to the most confident periods of the nineteenth century itself; as witness the founding of the Society for Psychical Research in 1882 to confront the whole mass of the enemy. Perhaps no body of scientific people ever set out to make a study of things so strange in an age so unsympathetic towards their enterprise. Respect for the enigmatic facts themselves, however, has not decreased since those people began their labors. The perplexing incursions have not become fewer. In the last decades they have been rather thickening upon us. This general region, then, is roughly the place within the whole extent of the field of modern human acquaintance, to which we would draw attention in an effort to orientate the new psychological ventures. True, we hereby indicate a field much wider than we are interested in, one containing much more than the facts to which we refer as having begun to show themselves tractable to the scientific manner of approach. But this is the general sphere whence they all come.

Now we are far from saying that any coterie of psychologists

has got to the ultimate bottom of any of the facts drawn from this general region, even of a circumscribed area of them. It would be puerile to assert such a thing. But it would seem that a certain tentative focussing or localization—we put it no higher—of a considerable area of at any rate the less enigmatic of these facts has been accomplished, or has begun to get itself accomplished, at the hands of psychological research.

It will be noted that in saying so we are only venturing to take a reading of the general whereabouts of the field which the psychologists have been in. It is plainly possible to be in a general field without being interested in the geography of the surrounding country. There is therefore no presumption implied. We are not presuming to know something which only the workers themselves can know. We are merely taking a reading which they need not necessarily themselves have been interested in taking at all. It is perfectly possible too that the psychologists themselves may have taken a different reading without thereby necessarily invalidating our presentation of the case. What appears to have happened then,—to repeat it—is a certain successful scientific focussing of a considerable area of at any rate the less enigmatic of those facts which normally would have fallen outside the sphere of interest of, say, a typical 19th century natural scientist, and with which our own time is almost oppressively familiar.

The next step, namely to draw a ring round that area and define it further, is not easy. But it is not impossible if it be remembered that within 'facts' fall, always, allegations of fact. An allegation of fact is a fact. A testimony is a fact. Now there exists, within the whole field of modern human acquaintance, an enormous field of facts of the general nature of testimonies—borne by great numbers of people, many reliable and very many not—to the existence (and the availability) of various *recipes for meeting the difficulties of life*, recipes said to be efficacious, recipes of such nature as in many cases to suggest the ultra-natural, but shading down by all degrees towards the natural.

These recipes are sufficiently notorious. Even if most people, as yet, are not experimentally acquainted with any of them, an impressive number of us are acquainted with those who have

had acquaintance with them. Nothing is more familiar, *e.g.*, than to meet with people who have given up doctors and derived mysterious benefit from quite other sources. To go to quite another quarter, secrets have been found whereby, for the payment of a certain sum people can be psychologically helped to learn languages, to get on with their employers, to succeed in drawing-rooms and generally to rise in the world. And while all such things—in a wide sense, *recipes for meeting the difficulties of life*—may provoke a smile at times, the fact remains that they continue to be sought and followed after. We only need to turn from the familiar traders in psychological secrets to the coteries and cults in every metropolis who claim to have (and who really have) released people from nameless bondage and enabled them to live. It hardly needs that we instance them, Christian Scientists, Faith Healers, devotees of New Thought, visitors to saint's shrines, Theosophists, Spiritualists or what you will. The very fact of their being so extensively sought and followed, tells seriously against the hypothesis that these enterprises are simply shams. In fact the hypothesis is not to be tolerated. Even if they are not all that is claimed for them, the impression left on the scientific mind is that there are facts in this region, there must be facts behind these testimonies, which have not so far been adequately reckoned with.

Now this is the field which the investigators would seem to have found themselves in. This, in other words, is the most general way we know of stating the kind of thing which they are beginning a little to understand. The field excludes much of the broad category of facts which we began by pointing out. It excludes many of the facts which as a whole fell within the purview of the Society for Psychical Research and without the sphere of interest of the typical nineteenth century scientific mind. The whole sphere of spiritism, *e.g.*, is probably excluded. But a wide sphere still, is this of the professed tapping of new sources of what I have called the power to live. And success has attended the enterprise of the psychologists who have broached it. In many typical cases they seem to have succeeded, in effect, in so handling the mentally afflicted human being as to open to

him some of the resources whence have come, in all ages, to the cults who had learned how to tap them, fresh accessions of what we are here calling, vaguely as is in the nature of the case, the powers to live. It is now possible, it is fast becoming a recognised department of scientific practice, to take a person afflicted in certain familiar ways with infirmities both mental and physical, and, by making a direct psychological attack upon his mind, enable him to become again normal in both respects.

What is of interest to philosophy in all this, being as philosophy is, the science which seeks to read the world of mind, is to study the nature of the alleged success. How is it obtained? What are the essential lines along which the person works, who secures the profoundest successes in this kind? I hope in a future article to analyze the powers of these methods, to show what appears to me to be their exact point of incidence upon the human mind so far as they are saving methods; and thereby to bring out their bearing upon the version which philosophy has given of the nature of 'Mind.'

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THE NATURE OF THE ABSOLUTE IN THE METAPHYSICS OF BERNARD BOSANQUET.

DR. BOSANQUET'S method in his metaphysics has been to anticipate what he regards as the inevitable tendency of a rational being to organize experience into a whole. The monistic presupposition of a responsive reality with which he started is in other words the presupposition of an intelligible nature of reality. The nature of reality as a whole, in its full significance, is what Dr. Bosanquet means by the Absolute, and it is the task of metaphysics to become more and more conversant with this nature. The one positive characteristic of this nature, aside from the general 'responsiveness' of reality, which Dr. Bosanquet attempts to demonstrate on all levels of experience, is the principle of self-transcendence. Wherever organization is demonstrable—and it is not possible except by a deliberate process of abstraction to find elements in isolation—there we find adjustment of one element to another, with modification as a result of the combination. We have applied to this principle of self-transcendence, on account of its universality of application and its consequent virtues as an instrument for organizing our notion of reality, one of Dr. Bosanquet's most suggestive epithets; we have called it a 'vital idea.'[1] In the course of the following more definite consideration of reality as a whole, or of the Absolute, we shall see in what sense the principle of self-transcendence can be said to characterize the Absolute.

We are made to pause at the outset of such an investigation because Dr. Bosanquet himself has never attempted to treat the conception of the Absolute apart from the whole formulation of his system. Except for the use of certain logical terms, such as 'identity and difference,' 'principle of contradiction,' he seems to have left in the background the technicalities of logic and metaphysics, and to have clothed his speculations with a humanly intelligible expression. An elaborate and meticulous dialectic is

[1] See this REVIEW, Vol. XXX, pp. 14 ff.

indeed necessarily left behind in the work of interpretation which Dr. Bosanquet takes to be the duty of philosophy. He himself puts the case clearly: "Simply to be right, as the greatest men are right, means to have traversed hundreds and thousands of ingenuities, to have rejected them as inadequate, and come back to the center enriched by their negative results."[1] The intent to keep close to the center of human experience turns his attention from technical demonstrations to the rich and varied fields of concrete experience. So it is natural that he should have more to say, throughout his metaphysical writings, of our experience of the Absolute than of the nature of the Absolute as such.

There is a clue to what appears at first sight a lack of definiteness in Dr. Bosanquet's treatment of the Absolute. In commenting on Hegel's Dialectic, he says: "The nature both of this harmony [of the individual and the universe] and of the ultimate unity which includes the individual systems is left, as I understand, an open question by the *Dialectic*."[2] Both Hegel and Dr. Bosanquet have as the ultimate end of their thinking a profound consideration of both these questions. They have much to say, for instance, about the ultimate all-inclusive unity, but in Dr. Bosanquet's attitude especially there is what must be interpreted as a fundamental disinclination to dogmatize concerning it. There is along with the metaphysical boldness of his thinking a kind of courageous modesty, a willingness to admit the inevitable limitations of any one finite mind, in power and so in grasp. He does not expect, that is, to be put in possession "of an ultimate experience which is *ex hypothesi* incompatible with our limited being."[3] The very fact that these limitations are fluctuating, that they are constantly being transcended in their given form, makes it all the more necessary to avoid the sort of dogmatism which fills the mind with one idea, and so closes it against the possibility of expansion or change of content. When we have trouble in finding out just what is Dr. Bosanquet's

[1] *Principle of Individuality and Value*, p. 7.
[2] *Mind*, N.S., Vol. XX, p. 87.
[3] *Principle*, p. 268.

conception of the Absolute, we may be tempted at first to suppose that he himself is vague on the most important points, that he allows himself for instance to speak of 'the individuality of the universe as a conscious being,' and then to fail to demonstrate this being as if he were, so to speak, thoroughly acquainted with it and its whereabouts. We finally conclude that although there is much definiteness on these and many other points in connection with an adequate way of thinking in respect to the Absolute, there is no such thing as a dogma which could be called 'Bosanquet's definition of the Absolute.'

His attitude, however tentative it may be, is essentially positive rather than agnostic. It allows a spirit of positive appreciation to take the place of destructive criticism. Instead of repudiating, for instance, as childishly narrow-minded and uncritical, the dogmas of popular religion, Dr. Bosanquet makes us see the inferior importance of their dogmatic form, and asks us to observe what they mean as an interpretation of life. "Utterances of popular religion," he explains, "which appear to identify it with very material hopes and fears, are largely due to mere inarticulateness, and fail to express the spiritual meaning which really underlies them." Like all just and discriminating attitudes, this one is plainly dangerous to maintain, since there is always a question as to just how much more than he expresses it is possible for a man to mean. It is by such a method of interpretation, however, that we are able in practical life to get as far as we do in our understanding of people. In commenting upon the metaphysical principles which he develops, Dr. Bosanquet exclaims: "Platitudes, it may be said, from some old book of hymns or sermons! . . . But the odd thing is that so much philosophy should be built not merely on the denial of them, but on disregard of the common and recognised human experience which they represent."[1] It may be regarded, however, as the fitting work of a journeyman, to gather up, in a somewhat connected form, the fundamental conclusions in regard to the nature of the Absolute, to which Dr. Bosanquet can commit himself without pretending omniscience or committing the sin of dogmatism.

[1] *Op. cit.*, p. 9.

In the first place, we are told in no uncertain terms that 'this is all the world we have,' that 'the Absolute is one with its world,' and that there is not only no sort of justification, logical or otherwise, for going outside this world, but actually no possibility of finding anything outside, in the strict sense of the term.[1] We may abstract a factor or aspect from the 'organism of experience,' and then set this factor over against what remains, or we may start with what we have regarded as an immediate given, say a physical object, a flower or a human face, and go on from that to develop the ideal implications of the object, but always we must remember that we are checked and controlled by the 'organism of experience,' in which all these factors and implications have their place. The Hegelian justification and start for all metaphysics is simply the category of Being, expressed by the declaration that 'something is.' And this dictum is not intended to apply to an ineffable and other-worldly reality, but to any and all of our everyday concrete experiences. The time-honored distinction between appearance and reality, which is supposed to be characteristic of the idealistic position, must certainly be viewed as Hegel viewed it, not as a final distinction, setting 'this world' on one side and 'the Absolute' on the other, but as requiring further interpretation by reference to living experience as a whole. 'Appearance,' in so far as we mean by the term what is included of sights and sounds, ideas, etc., in our daily experience, belongs quite truly to the nature of the Absolute. Even when we make the mistake of taking in abstraction a certain given effect to be ultimate, nevertheless not only the effect but also our mistaken thought about it belong to the Absolute. "Ultimately, of course, an absolute must be all-inclusive, and even impotence must find a place in it."[2] We have attempted an analysis of the meanings of 'inclusion' and have seen how everything must be relevant to the nature of reality as a whole, and yet how all things are subject, in our finite experience, to transmutation, so that their character 'seems to be absorbed and to disappear in their fuller realization,' when we

[1] See *Logic*, Second Edition, Vol. II, p. 301.

[2] *Principle*, p. 260.

cease to view them as given in abstraction, and take them, so far as may be, with reference to the whole.[1] Thus, as over against the whole, and whenever they are taken in abstraction to be ultimate, these immediate aspects of experience *are* mere appearance in the sense of being different, when taken so in abstraction, from what they are in reality. Nevertheless there is but one reality, in which we live and move and have our being.

The logical outcome of this position is that, although we may not expect to experience the whole as such, nevertheless we must guard against postulating any characteristic of the nature of the whole which cannot be somehow demonstrated in our experience. Dr. Bosanquet declares that "there is no fusion or union which we can conceive ourselves bound to ascribe to the Absolute which has not something to represent it in the world of time and space."[2] He refers also approvingly to a passage in which Green shows the necessity of making it more clear "that the nature of that thought, which Hegel declares to be the reality of things, is to be ascertained, if at all, from analysis of the objective world."[3] The Absolute is indeed the *nature* of this world of ours, and all of our conclusions concerning this nature, whether for good or ill, must be drawn from this world, with the all-important proviso that our analysis be just as thorough and deep-going as our capacity allows.

Critics of idealism have sometimes supposed that the notion of the Absolute was a sort of myth, or hypostatization, very intricately and beautifully conceived, but not really grounded on experience. But Dr. Bosanquet points continually to the course of a common day as surely giving us definite instance of the nature of the Absolute. "It seems well within the mark to say that a careful analysis of a single day's life of any fairly typical human being would establish triumphantly all that is needed in principle for the affirmation of the Absolute." This does not mean that we must attempt, from our observation of life, to preach optimism or to justify the ways of God.[4] The dictum that this is the best

[1] See this REVIEW, Vol. XXX, pp. 10 ff.

[2] *Principle*, p. 384.

[3] T. H. Green, *Works*, Vol. III, p. 144. Referred to in *Principle*, p. 55, note 1. See also Bosanquet, *Proceedings of the Aristotelian Society*, N.S., Vol. II, pp. 47 ff.

[4] See *Principle*, p. 377.

of possible worlds has no meaning for metaphysics. Ultimate questions as to the value of *this* universe are obviously meaningless, since this universe as a whole is the final value and standard of values. What we have to do is to find out in what the best of this universe, taking account of the worst, consists. Our task is 'humble and critical' rather than transcendent.

Let us turn then to the question of the nature of the Absolute as expressed in finite consciousness. Guided by the presupposition of a responsive or intelligible universe, we have indeed turned again and again to an examination of finite mind, in its various phases, in order to develop our knowledge of reality. Finite consciousness may be regarded as the meaning or revelation of nature coming on top of a long process of organization in nature. From one point of view, then, finite minds may be said to 'exist only through nature.'[1] On the other hand, it is by way of this focussing of external conditions in the so-called centers of finite consciousness that these conditions achieve their greatest significance and so their greatest reality and value. But consciousness is more than mere 'meaning.' It is the 'active principle' of the universe come to itself. "Every focus of consciousness is an *effort*, whose success is subject to constant and enormous fluctuations, to seize and make its own the value and significance of a world."[2] The establishment of continuity between the manifestations of activity below consciousness in the natural world, and our thinking wills as finite beings, gives us a notion of just how much activity is 'expected' from us at our best. How often in the course of our lives do we think or act with some approach to the intense concentration which we should conceive as necessary to maintain 'the fearful symmetry' of a tiger's body or the grace of an anenome? As soon as activity has come to itself in finite consciousness, it enters the 'external world' as a consciously moulding agency. Focussed in finite beings, the various manifestations of it act and react on one another through nature and form a 'solidarity of spirits,' in which is developed those aspects of 'this world' which may, as Dr.

[1] *Op. cit.*, p. 371.

[2] *Ibid.*, p. 372. Italics mine.

Bosanquet puts it, be conceived as the only true 'other world,' *i.e.*, the vast spiritual structures of civilization.

Judged by the test of experience, "finite selves . . . reveal themselves as the copula, the living tension, by which the full experience affirms itself in and through externality."[1] That is, the 'nature' of reality, manifested both below and above them, comes to itself in finite consciousness. The implication for the nature of the whole, according to Dr. Bosanquet, is that "the souls or centers are the energies or elements of self-expression in which the Absolute consists."[2] No declaration could cause to be laid more heavily upon the shoulders of finite beings the responsibility of freedom, or could dispose more effectively of the 'myth' of the Absolute as an hypostatization. Dr. Bosanquet has another relevant pronouncement, phrased in 'theological' terms, but perhaps for that reason all the more clearly demonstrating his notion of finite conscious beings as the *self-expression* of the nature of the whole. It is worth reproducing at length. He starts with a quotation from Hegel. "'Revelation is the only true knowledge of God and ground of religion,' says Hegel, 'because *revelation consists in the realization of God in man's intelligent nature.*'" Dr. Bosanquet goes on to say: "We are, however, not unaccustomed to such phrases, and our imagination is equal to its habitual task of evading their meaning. We take them to be a strong metaphor, meaning that God, who is a sort of ghostly being a long way off, is, notwithstanding, more or less within the knowledge of our minds, and so is 'in' them, as a book which is actually in London may be in my memory when I am in Scotland. Now, right or wrong, this is not what Hegel means. He means what he says; that God is spirit or mind [*Geist*], and exists in the medium of mind, *which is actual as intelligence, for us at any rate, only in the human self-consciousness.*"[3] The qualification expressed in the phrase 'for us at any rate' marks the disinclination to infinite pretensions or to dogmatism which we noted at the beginning of this article.

[1] *Op. cit.*, p. 382.

[2] *Value and Destiny of the Individual*, p. 67.

[3] *Introduction to Hegel's Philosophy of Fine Art*, p. xxix–xxx. The author's italics.

There is no doubt that Dr. Bosanquet's own theory coincides with this his interpretation of Hegel. The self-expression of the nature of the Absolute is to be found in finite self-consciousness, and becomes increasingly explicit in proportion to the degree of tension and 'grasp' achieved by the finite individual.

But Dr. Bosanquet regards the 'principle of self-transcendence,' or the realization of self in other, as the very law of conscious finite experience, the very process, indeed, whereby that experience expands and at the same time gains in intensity. In what respect shall we regard self-transcendence as characteristic of the nature of the Absolute? Here the finite-infinite paradox comes to its full significance. The nature of the Absolute, which comes to self-expression in us, is a tension, in which the fragmentary nature of any finite being as such, is the 'other' for the principle of the whole inherent in it; not in the sense of an *opposed* not-self, which Dr. Bosanquet has declared to be, as such, non-essential to the development of individuality, but as a *reconciled* other, in which the principle of the whole finds completion. This is only another and more concrete way of saying that the whole is no whole without its parts, or that our world consists of 'members.' Dr. Bosanquet calls to witness Edward Caird's criticism of Aristotle's 'Theoretic Life.' . . . "It is not an imperfection in the supreme being, but an essential of his completeness, that his nature, summing up that of all Reality, should go out into its other to seek the completion which in this case alone is absolutely found."[1] "The 'other' in question," Dr. Bosanquet adds, "can only be finite experience."

This means—and this is after all the crux of Dr. Bosanquet's Absolutism, involving the essential principle of his epistemology, logic, and ethics—that "the general form of self-sacrifice—the fundamental logical structure of Reality—is to be found here also, [*i.e.*, in the nature of the Absolute] as everywhere. Not, of course, that the infinite being can lose and regain its perfection, but that the burden of the finite is inherently a part or rather an instrument of the self-completion of the infinite."[2] But this

[1] *Principle*, p. 243. See *Evolution of Theology in Greek Philosophy*, Vol. I, p. 382; Vol. II, pp. 25 ff.

[2] *Ibid.*, pp. 243–4.

means also that whenever we go beyond the immediately given, which we must to a certain degree do, as we have seen, in every moment of our experience, then we are, in principle, experiencing the working law of the Absolute. We most nearly approximate toward the perfectly inclusive experience which we must take the Absolute to be when we are able to make the greatest sacrifice for the greatest, that is, for the most inclusive and most explicitly understood object.

As the organization of human institutions grows ever more extended and more complex, the assertion of a self, whether of an individual or of a nation, *in opposition* to the not-self which is 'the rest of the world,' becomes more and more illogical, and more fundamentally destructive. We have no outstanding evidence for progress or change in the nature of the world as a whole, but much evidence for the transmutation of quality in the experience of finite beings as a result of the more and more elaborate connections which are actually being set up between its parts.[1] Telephones, transatlantic cables, international railroads, and the esperantists might be said to be part of the machinery by means of which the nature of the whole works by reconciling its members to itself. The mechanical system both induces and is coördinate with a spiritual system. In speaking of the growth of a state, Dr. Bosanquet says: "The particular members begin to be adapted as members of an individuality transcending their own. . . . Their qualities begin to be reinforced by others, their deficiencies supplied, in a word, their immanent contradictions removed by readjustment and supplementation, so that the body of particularized centers begins to take on a distinct resemblance to what we know must be the character of the Absolute." But adjustment of this sort involves continual sacrifice on the part of every member. If our mechanical coördination is not continually supplemented by spiritual coördination, the necessary sacrifice may be forced upon us by some enormous calamity.

Dr. Bosanquet concludes that "among single conceptions it is

[1] *Cf.* Abelard's *rationally concrete* vision of perfection: "O quanta qualia sunt illa sabbata!"

Religion that must come nearest to indicating a state of consciousness that can exemplify the Absolute Idea."[1] It exemplifies this idea in so far as it is complete self-recognition, "recognition of the nature of the finite and of an underlying reality which inseparably belongs to it."[2] A qualification of this conclusion, which he does not always state, and which apparently does not always occur to him as necessary, does nevertheless help to bring out more clearly his idea of the self-recognition which is the Absolute, or the self-expression of the Absolute. In so far, that is, as religion "takes definite shape through adoration of an object and community of will with its will," it "tends to become engaged in the specific conflict between good and evil, and though it transcends this, yet remains determined by this particular transcendence."[3] But "our sense of wholeness is aware of something that does not precisely fit into such a *cadre*. . . . The universe is the magnificent theatre of all the wealth of life, and good and evil are within it. This I think we are aware of when at our best." It is this consciousness, more inclusive than the religious consciousness at its more usual levels, which sometimes accompanies our understanding of a great tragedy, in which the ordinary rules of justice, poetic or otherwise, are disregarded, but which cleanses and uplifts the heart by reason of the magnitude of its action. The Absolute then is "a vast unitary vision . . . constituting a single spiritual world"[4] in which the necessity for 'self-sacrifice' is recognized, and the tension, involved in self-sacrifice, is maintained.

What has been said up to this point in regard to the nature of the Absolute, suggests several questions. In the first place, we have already seen that 'the level and fulness of mind' attained is what on the whole counts, is what we value, and not finite selves as such. That is, the uniqueness of finite selves, although essential to their separate existence, seems to be far less significant, from the point of view of concrete experience, than their functions and purposes regarded as 'universal.' In what sense

[1] *Mind*, N.S., Vol. XX, p. 87.
[2] *Value, and Destiny*, p. 255.
[3] *Ibid* p. 311.
[4] *Principle*, p. 385.

can the Absolute be said to express itself in these many overlapping and often virtually repeating finite centers? For we cannot escape from the fact that we have in reality a whole of some sort. And the more deeply we penetrate the meaning of experience, the more clearly, according to Dr. Bosanquet, do we recognize this whole as 'responsive.' If it has within it this principle of responsiveness, the inference from all its fragmentary aspects is, as we have seen, to a perfect system, or a true 'individual.' Now mind, Dr. Bosanquet infers, is the culmination of organization in finite beings. What is the culmination of the complete organization which the universe would necessarily be if we thoroughly understood it? In this connection we remind ourselves that it is evident not only from the nature of finite beings themselves, but also from 'the arrangements below them' and from 'the fuller forms of totality above them,' that "Finite Consciousnesses cannot be the ultimate directors or constituents of the universe."[1] In what terms, then, if at all, can we conceive the full experience, or the 'ultimate director' of the universe?

Instead of answering these questions serially we may begin with the last one. It is just in terms of a 'principle' or a 'nature' that we are to conceive the 'ultimate director' of the universe. If finite mind cannot be adequately conceived in terms of space and time (although it must be remembered that both space and time are conditions of its being, aspects of its existence), then by so much the more the 'principle of totality,' of which finite mind is the self-conscious manifestation, and which in a figure we conceive as continually active in framing up partial wholes, 'after its own image,' at all levels of organization, cannot be conceived under these terms. When we say, 'It is this man's *nature* to act thus and so,' we mean that with all his various 'capacities,' both physical and mental, taken together, he is this particular sort of being. By some such way of thinking we can best conceive the 'nature' which is the 'ultimate director' of the universe. We must, in short, conceive *immanence*, an idea which becomes proportionately more difficult to express as we approach a positive grasp of it. Sometimes, indeed, an external metaphor, such as

[1] *Op. cit.*, p. 221.

we get in Francis Thompson's *Hound of Heaven*, brings us closer to the true conception of immanence than the phraseology of an easy pantheism which asserts flatly and unreflectively the omnipresence of God.

'The full experience' is another term for what we have called 'the responsive universe.' It is when we realize the meaning of 'the responsive universe' as one supremely organized individual that our more specific question as to the nature of the Absolute arises. Is it as a whole a self-conscious nature? We have already noted Dr. Bosanquet's suggestion that 'spirit or mind' is 'actual as intelligence for us at any rate' only in the human self-consciousness. If we take but one step beyond *de facto* finite centers of consciousness, to any sort of social whole, for instance, we have abundant evidence of the mutual interpenetration and interaction of these so-called centers, but no evidence at all of an extra or supra-personal consciousness. It may well be in view of this fact that Dr. Bosanquet's references to the 'consciousness' of reality as a whole are either hypothetical, or, more often, merely by way of analogy. He hopes, for instance, that he will have "opened the path to a deeper conception of reality, framed at least *on the analogy* of self-consciousness."[1] The Absolute, he says, is perhaps only 'analogous to' self-consciousness.[2] To call this Absolute, or reality, 'a person' is, he thinks, 'dangerous.'[3] Again, he speaks of the Absolute as "what we call, *by an imperfect analogy*, a greater mind and will."[4]

Furthermore, Dr. Bosanquet points out that in our own experience we can find some justification for assuming experiences in the highest individuality that would rightly supersede the experience of selfhood. It is at this very important point that he is especially careful not to go off into abstract speculation, into the void where things-in-themselves are supposed, by abstract necessity, to dwell. He points to the fact, "that we experience ourself most completely" just when we are least aware of its "finite selfness."[5] Dr. Bosanquet does not intend to dismiss

[1] *Op. cit.*, p. 222. Italics mine.
[2] See *ibid.*, p. 250.
[3] See *ibid.*, p. 309.
[4] *Ibid.*, p. 159. Italics mine.
[5] *Ibid.*, p. 250.

finite self-consciousness as a mere 'regrettable deviation from the Perfect.' On the contrary, we have just seen that he regards it as the 'self-expression' of the Absolute. But he maintains that "the absolute or infinite should present itself to us as more of the finite, or the finite at its best."[1] And he reminds us that "the *awareness* of selfhood disappears in proportion as the self expands in excellence and success."[2] It is then in terms of an indivisible unity of experience analogous to our own when we are absorbed in a great 'object,' that he urges us to think when we are considering, from our own point of view as imperfectly organized individuals, what must be the type of 'the full experience which is the Absolute.'

We come finally then to the question of 'ourselves and the Absolute.' If the self-consciousness or 'self-expression' of the nature of the whole is after all a partial aspect or a stage in the process to the integrity of the full experience, we can see more clearly why at this stage of self-consciousness there should be 'fluctuation' and 'overlapping.' We have also to consider that what we have on our hands is a system with detail and differentiation, in which perfection is present in degrees. Dr. Bosanquet suggests that "our imperfection enables us better to stand for something which is to have its due stress and emphasis in the whole, but no more than its due."[3] But there is no reason, either from actual experience or from the reflection on that which is theory, to suppose that the most important task of each person is to 'stand for' something unique and specific. Unique or different in some respect he must be, else he could not stand as separate at all. Observation of life would lead us to suppose, however, that the task for most of us, having once got our formally separate footing in experience, is to *reiterate* from our slightly differing points of view, aspects of the whole which have been maintained by our uncounted and forgotten predecessors through generations of time.[4] Holding together the degrees of perfection, the total

[1] *Op. cit.*, p. 255.

[2] *Ibid.*, p. 249. Italics mine.

[3] *Value*, p. 61.

[4] Repetition 'in itself' is repugnant, 'unspiritual' (See *ibid.*, p. 182), and as we have seen, not the 'form' of our activity as conscious beings. But this does not say that the fundamental 'meanings' of life will not bear re-emphasis.

variety of experience, is the spiritual unity, the identity, which depends, as we have seen, on the 'overlapping of intelligences.' But it is not even in terms of this 'identity,' abstractly considered, that we are to conceive the nature of the Absolute, but rather in terms of positive principles, or 'vital ideas,' in their concrete activity, such as for instance the 'principle of self-transcendence,' to which we have given special attention in this study. The quality of life may change with the fresh and more extensive combinations of circumstances which come with changing years. Tomorrow the principle of self-transcendence may be called by another name, and its specific nature in certain situations may be transmuted. But in so far as it is truly alive, truly characteristic of reality concretely taken, it will be continually redemonstrated and understood afresh. The 'immortality' of such an idea may be compared to the deathless appeal of one of the great creations of literature, like the *Antigone* or *King Lear*, in which we find so profound an interpretation of life that the uniqueness of the contemporary setting is made secondary to the universal appeal of the action.

MARION CRANE CARROLL.

ITHACA, N. Y.

PROCEEDINGS OF THE EASTERN DIVISION OF THE AMERICAN PHILOSOPHICAL ASSOCIATION; THE ANNUAL MEETING, COLUMBIA UNIVERSITY, DECEMBER 28, 29, AND 30, 1920.

REPORT OF THE SECRETARY.

THE annual meeting of the Association (the twentieth annual meeting of the American Philosophical Association) was held at Columbia University, New York City, on December 28, 29 and 30, 1920.

The business meeting was called to order at 2 o'clock on December 30, with President Perry in the chair. Professor A. L. Jones reported for the auditors that the Treasurer's statement of accounts is correct. It was moved and voted that the Treasurer's report be adopted without reading. The report follows:

A. H. JONES, TREASURER. IN ACCOUNT WITH THE EASTERN DIVISION OF THE AMERICAN PHILOSOPHICAL ASSOCIATION.

Time Account.

Balance on hand, January 1, 1919	$120.51
Interest to January 1, 1920	3.63
Balance on hand, January 1, 1920	$124.14

Two One-Hundred Dollar Registered Bonds of the 4¼% Third Liberty Loan, Nos. 513173, 513174 in the keeping of the Treasurer.

Check Account.

Deposits.

Balance, January 1, 1920	$176.69
Dues to H. A. Overstreet	6.00
March 22 (dues)	79.00
April 6 (dues)	45.00
April 7 (interest on bonds)	4.25
April 15 (dues)	22.00
April 28 (dues)	15.00
May 18 (dues)	20.00
July 8 (dues)	14.00
Nov. 13 (dues)	11.00
Dec. 9 (dues)	1.93
Dec. 21 (refund on postcards)	6.00
Dec. 21 (interest on bonds)	4.25
Dec. 21 (dues)	48.00

Dec. 21 (dues)	52.00
Dec. 21 (dues)	13.00
Total	518.12

Withdrawals.

Jan. 20, Expenses, Ithaca meeting	27.25
Jan. 20, Secretary's expenses	21.17
Jan. 29, Miss Follett's expenses	31.60
March 1, Postage, etc.	2.53
March 1, Proceedings for 1918	25.03
March 3, Clerical	4.50
March 3, 1000 bills	4.00
March 4, 500 stamped envelopes	10.72
March 12, Clerical	3.68
March 31, Clerical	1.49
April 8, Stamps	4.00
April 17, Membership blanks and Bulletin	13.25
April 17, Rubber stamp	.95
April 26, Stamps	6.00
April 28, Taxi to mail Proceedings	.75
May 3, Clerical	3.68
May 4, Envelopes and Record Book	5.05
July 15, Proceedings for 1919 & Postage	37.70
Oct. 27, 500 stamped envelopes	11.10
Nov. 13, 300 return post-cards	12.00
Nov. 13, Printing post-cards	5.00
Nov. 13, Clerical	2.50
Dec. 9, Printing programs	17.50
Dec. 21, Clerical	2.93
Total	254.38

Total deposits	518.12
Total withdrawals	254.38
Balance on hand	263.74

Examined and found correct. C. G. SPAULDING, ADAM LEROY JONES, *Auditors.*

On the day previous, the Committee on Organization and Attendance, to which was referred the matter of closer association between the Western, Eastern, and Southern Associations, reported as follows: (1) The Committee brings to the attention of the Eastern Division the action of the Western Philosophical Association at its meeting in Madison, April 16th and 17th, as reported in the Journal of Philosophy, Psychology, and Scientific Methods for June 3rd. (2) Acting upon the suggestion made in Par. C. of the action of the Western Division, the two Committees agreed that if the joint meet-

ing should be arranged, they would favor inviting Professor John Dewey to give the lectures. (3) In order to proceed further, the Committee would ask for an expression of opinion from the members of the Eastern Division here present, (*a*) as to the possibility of a joint meeting to be held either in September or at some other time, (*b*) as to whether in case such a meeting is held, it would be preferable to hold it on the campus of an urban or a rural university or college. (4) It recommends, in case the opinion of the Association is favorable to further action, that the Association authorize a Committee to proceed in coöperation with the Committee of the Western Division.

After discussion and expression of opinion it was moved and carried that, subject to the expression of opinion of this meeting, final arrangements for a joint meeting with the Western Division be left to the Executive Committee together with the Committee on Organization and Attendance, and in consultation with the Committee from the Western Division.

The committee appointed to investigate on the organization of the American Council of Learned Societies Devoted to Humanistic Studies next reported, recommending that the Association join the Council. It was moved and carried that the Association join the Council, and that Professors Creighton and Woodbridge be appointed delegates. It was decided by lot that the short term, two years, should fall to Professor Creighton, and the long term, four years, to Professor Woodbridge. It was moved and voted that the traveling expenses of the delegates be paid by the Association.

The report of the Committee on International Coöperation was read and adopted. It was then moved that the Committee on International Coöperation be continued, and that the Committee be instructed to draw up, in conjunction with the Executive Committee, and to publish, a statement of the faith of this Association that the time has come to resume international coöperation in science and philosophy. After debate it was moved and voted that the motion be laid on the table.

The business meeting was now adjourned, subject to the call of the chairman, who reconvened the meeting at 5:20 o'clock.

It was moved and carried that the following persons recommended by the Executive Committee be declared active members of the Association: George Johnson, Charles O. Bennett, William G. Chanter, Harold Chidsey, Wallace Craig, J. J. Coss, Raphaël Demos, Ralph M. Eaton, George M. Forbes, Philip L. Given, Raymond P. Hawes, Sterling P. Lamprecht, Daniel B. Leary, H. D. Marsh, David W.

Prall, Thomas H. Proctor, Herbert W. Schneider, Robert D. Williams, Walter Veazie.

It was moved and voted that the Executive Committee consider whether the Association should elect corresponding members; and, if favorable to such a proposal, that the committee present at the next meeting a plan for their election.

The Executive Committee presented the following nominations: for *President*, W. H. Sheldon, *Vice-President*, R. W. Sellars, *New Member of the Executive Committee*, Durant Drake. It was moved and carried that these nominations be confirmed. It was also moved and voted that the Executive Committee be instructed to bring before the Association at its next meeting—if possible in form to be voted on—a plan for nominating and electing officers by mail.

The following topics for discussion at the next meeting were presented for consideration: The Place of Feeling in the Life of Reason; The Philosophical Basis of Aesthetic Criticism; Critical Realism; The Relation of Logic (1) to Philosophy and (2) to Psychology; Types of Idealism; The Logic of Philosophy, or what Form of Comprehensibility should Philosophy Aim At? The Executive Committee recommended that the program for the next meeting be selected by the incoming Executive Committee on the basis of such expression of opinion as may be offered at the present meeting of the Association, or subsequently obtained by the Committee. This recommendation was amended to read further: The Association suggests that the Executive Committee consider holding meetings of longer duration with a view to allowing longer and freer discussion of papers, and freer arrangements. It was moved and voted that the recommendation, as amended, be adopted.

The amendment to Art. III, Section 2 of the Constitution, proposed at the last annual meeting, was carried. The section now reads: "There shall be an Executive Committee composed of ten members, and the retiring president shall be *ex officio* member for one year."

The meeting adjourned with a vote of thanks to the President and Department of Philosophy of Columbia University.

A. H. JONES,
Secretary.

Officers of the Association: President, W. H. Sheldon; Vice-President, R. W. Sellars; Secretary-Treasurer, A. H. Jones; Executive Committee, in addition to the officers just mentioned: E. C. Wilm, (1921), W. G. Everett (1921), A. W. Moore (1921), Anna A. Cutler (1922), H. W. Wright (1922), Durant Drake (1923), and R. B. Perry, *ex*

officio. Special Committees:—Early American Philosophers, I. Woodbridge Riley, Chairman; International Coöperation, A. C. Armstrong, Chairman; Organization and Attendance, J. H. Tufts, Chairman.

LIST OF MEMBERS.

Adams, Professor George P., Univ. of California, Berkeley, Cal.
Adler, Professor Felix, Columbia Univ., New York.
Aikins, Professor H. A., Western Reserve Univ., Cleveland, Ohio.
Albee, Professor Ernest, Cornell Univ., Ithaca, N. Y.
Alexander, Professor H. B., Univ. of Nebraska, Lincoln, Neb.
Ames, Professor E. S., Univ. of Chicago, Chicago, Ill.
Angier, Dr. R. P., Yale Univ., New Haven, Conn.
Apple, President Henry H., Franklin & Marshall College, Lancaster, Pa.
Armstrong, Professor A. C., Wesleyan Univ., Middletown, Conn.
Avey, Dr. Albert E., Ohio State Univ., Columbus, Ohio.
Ayres, Dr. C. E., Amherst College, Amherst, Mass.
Bakewell, Professor C. M., Yale Univ., New Haven, Conn.
Baldwin, Professor J. M., Care Harris Forbes & Co., New York.
Balz, Professor Albert, Univ. of Virginia, Charlottesville, Va.
van Becelaere, Rev. E. L., Convent of the Visitation, Georgetown, Ky.
Bennett, Professor C. O., Yale Univ., New Haven, Conn.
Black, Dr. G. A., 156 Park St., Gardner, Mass.
Blake, Dr. Ralph M., Harvard Univ., Cambridge, Mass.
Bode, Professor B. H., Univ. of Illinois, Urbana, Ill.
Boodin, Professor J. E., Carleton College, Northfield, Minn.
Bowman, Professor A. A., Princeton Univ., Princeton, N. J.
Brandt, Professor Francis B., Philadelphia School of Pedagogy, Phila., Pa.
Brett, Professor G. A., Toronto Univ., Toronto, Canada.
Brightman, Professor Edgar S., Boston Univ., Boston, Mass.
Britan, Professor Halbert H., Bates College, Lewiston, Me.
Brogan, Dr. A. P., Univ. of Texas, Austin, Texas.
Brown, Dr. H. C., Leland Stanford Univ., Palo Alto, Cal.
Brown, Professor Wm. A. Union Theol. Seminary, New York.
Bryan, President W. L., Indiana Univ., Bloomington, Indiana.
Buchner, Professor E. F., Johns Hopkins Univ., Baltimore, Md.
Bush, Professor Wendell T., Columbia Univ., New York.
Bussey, Professor Gertrude C., Goucher College, Baltimore, Md.
Butler, President N. M., Columbia Univ., New York.
Calkins, Professor Mary W., 22 Bellevue St., Newton, Mass.

Campbell, Professor Gabriel, Dartmouth College, Hanover, N. H.
Campbell, Professor Ivy G., Wells College, Aurora, New York.
Case, Professor Mary S., Wellesley College, Wellesley, Mass.
Castro, Dr. Matilde, Bryn Mawr College, Bryn Mawr, Pa.
Cattell, Professor J. McKeen, Garrison-on-Hudson, New York.
Chandler, Dr. Albert R., Ohio State Univ., Columbus, Ohio.
Chanter, Professor William G., Wesleyan Univ., Middletown, Conn.
Chao, Dr. Yuen Ren, 2 Suel An Bus Hutung, Peking, China.
Chidsey, Professor Harold, Union College, Schenectady, New York.
Coe, Professor George A., 606 W. 122 St., New York.
Cohen, Professor M. R., College of the City of New York, N. Y.
Cooke, Dr. R. B., Cornell Univ., Ithaca, New York.
Coss, Professor J. J., Columbia Univ., New York.
Costello, Professor H. T., Trinity College, Hartford, Conn.
Cox, Professor George C., 128 North Mountain Ave., Montclair, N. J.
Craig, Professor Wallace, Univ. of Maine, Orono, Maine.
Crane, Professor E., Wilson College, Chambersburg, Pa.
Crawford, Professor J. F., Beloit College, Beloit, Wisconsin.
Creighton, Professor J. E., Cornell Univ., Ithaca, New York.
Crooks, Professor Ezra B., Randolph-Macon Woman's College, Lynchburg, Va.
Cross, Professor George, Rochester Theol. Seminary, Rochester, N. Y.
Cunningham, Professor G. W., Univ. of Texas, Austin, Texas.
Curtis, Professor M. M., Western Reserve Univ., Cleveland, Ohio.
Cutler, Professor Anna A., Smith College, Northampton, Mass.
Daniels, Professor Arthur H., Univ. of Illinois, Urbana, Illinois.
Dashiell, Professor J. F., Univ. of North Carolina, Chapel Hill, N. C.
Dearborn, Professor G. V. N., Cambridge 38, Mass.
Demos, Dr. Raphael, Harvard Univ., Cambridge, Mass.
Dewey, Professor John, Columbia Univ., New York.
Doan, Professor F. C., Summit, New Jersey.
Dodge, Professor Raymond, Wesleyan Univ., Middletown, Conn.
Dolson, Dr. Grace N., St. Mary's Convent, Peekskill, N. Y.
Doxsee, Professor Carll W., Grove City College, Grove City, Pa.
Drake, Professor Durant, Vassar College, Poughkeepsie, N. Y.
Duncan, Professor George M., Yale Univ., New Haven, Conn.
Dunham, Dr. James H., The Temple Univ., Philadelphia, Pa.
Dunlap, Professor Knight, Johns Hopkins Univ., Baltimore, Md.
Eaton, Dr. R. M., Harvard Univ., Cambridge, Mass.
Edman, Dr. Irwin, Columbia Univ., New York.
Elkus, Professor Savilla A., 24 West 96th St., New York.

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Formalism in Logic. ARTHUR MITCHELL.

The *sui generis* categorical relationships possible between categories x and y are (1) coincidence, (2), (3) the mutually converse senses of subalternative (or asymmetrical) inclusion, (4), (5) two forms of intersection, that in which $x + y$ is interior to the universe $x + y + \bar{x} + \bar{y}$, and that in which $x + y$ coincides with $x + y + \bar{x} + \bar{y}$; and (6), (7) two forms of externality analogous to those of intersection. Each *sui generis* categorical relationship is an aspect of one of three relation structures, variously: of (α) Adequate Definition, or Definition by Equivalence, or (β) Definition by Subalternation, or (γ) Subcontrariety. Each is also the product of *generic* categorical relationships, the propositions, which are not thus factorable, but are 'prime' to each other and to the categorical system in a sense analogous to primeness in numerical factors; and order the system. Propositional transformation is deduced from transformations of the *sui generis* categorical relationships by summation. Opposition between propositions is categorical relationship between their loci of application. The categorical system is thus developed independently of and prior to relationships among judgments, by mere analysis of the concept Categorical Relation. And syllogism, or Syncategorization, is an equally formal principle of calculation among terms of a common locus, and depends only on the two axioms that

(1) if y includes m and m includes x, y includes x (the 'mood' AAA); and

(2) if y includes m and m includes a locus in common with x, y includes a locus in common with x (AII);

to which all moods are reducible, by transformation.

Conclusions: The categorical system is susceptible of all the exactness and deductive fertility of a mathematical system.

Inasmuch as it is independent of determinations of numerical ratio, it is a non-mathematical system.

It is implied by any logic, or science of reasoning, that is true.

The Structure of Logic and Its Relation to Other Systems. C. I. LEWIS.

It is an important consequence of modern mathematical logic that the attempt to establish incontrovertible truths by deductive procedures is nugatory. Necessary connections between propositions are established, but the traditional conception that metaphysical first principles can be shown to be logically inescapable, or that what is logically prior is more certain or necessary, is one to which the actual

structure of logical systems lends no support. The notion that truths not already assumed can be proved by the fact that their denial leads to their reaffirmation, is a mistaken one. Within logic itself, such proof is always circular; it takes the laws to be established for granted in supplying their demonstration. Bad systems of logic may provide proof of their own false principles by the same method. Outside logic, the idea of 'necessary presupposition' is inevitably fallacious. Presuppositions are general principles while the facts which presuppose them are particular, or less general. They are necessary conditions of these facts only if the particular can imply the general. The verification afforded by the deductive system extends quite as frequently and as simply to its original assumptions as to their consequences. Such verification lies in the internal consistency of the system and its *general* conformity to fact, and is always inductive and partial.

From this point of view, the deductive system is primarily an instrument not of proof but of analysis. By the orderly connection of facts in a given field, and by their common derivation from a few simple ideas and assumptions, it provides, not their demonstration, but an explanation of their nature. The same set of facts may admit of various such derivations or explanations. This method of deductive analysis is a valuable instrument of philosophic investigation, but it is more applicable to subordinate questions than to the more general problems of metaphysics. For such problems, the traditional attempt at unique solution by deductive procedures is out of place and futile.

Some Philosophic Aspects of Physical Relativity. M. R. COHEN.

(No Summary furnished.)

Epistemological Dualism versus Metaphysical Dualism. R. W. SELLARS.

Epistemological dualism has suffered in the main from three things: (1) its association with Cartesian metaphysical dualism, (2) the false bias toward subjectivism assigned to it, and (3) the belief that it cannot escape an indefensible form of the copy view. Against all three counts of this indictment the modern epistemological dualist wishes to enter a plea of not-guilty. Professor Dewey argues that all epistemology is guilty of metaphysical dualism. There seems to be no warrant for such an extreme assertion. Assuredly, the epistemological dualist of to-day has no thought of a ghost-like knower who

watches the world but is not of it. The subjective is for him a particular kind of objective connected with the organism. Historically, epistemological dualism was shipwrecked on the puzzle of the status of ideas in knowledge. Attention swung to the ideas, and the query arose, Is it not possible that in all cognition only the *given* is known? The knowledge-situation was insufficiently analyzed and the *function* of an idea in knowledge was confused with its presence in the mind. The result was radical empiricism.

The critical realist believes that he can give a solution of the traditional problems of epistemology in terms of two things: (1) a more complete analysis of perception, and (2) a reinterpretation of knowledge. The first point enables him better to appreciate the realistic side of perception and leads him to distinguish between the content of perception and the object of perception. His reinterpretation of knowledge consists in the discovery that the sense-data can mediate much knowledge of physical things, such as their structure order, behavior, and composition, and that this knowledge does not involve the literal objectification of any sense-quality. It is the order, or structure, of reality which is reproducible and copied. Locke's scholastic metaphysics of unknown substance and inherent sensible qualities must be discarded. It is the physical object which we know in science. Although epistemological dualism admits the category of the subjective, it does not assert metaphysical dualism. The admission of a problem is not the confession that it is insoluble. There is no logical connection between epistemological dualism and metaphysical dualism.

Education as Criticism. H. S. TOWNSEND.

There are two typical movements of thought; one is outward toward activity, the other is inward toward consistency. Education may be defined in two fundamentally divergent ways depending upon which of these thought processes it is chiefly engaged in promoting. The school may seek the instrumental intelligence or the critical intelligence. Schools have usually been devoted to the former but there are isolated attempts to realize education as criticism. One such attempt was made in Athens during the time of Pericles. The Athenian experiment was notably successful in developing critical judgment in a few great individuals, but utterly failed to establish reason as a general guide of conduct or as a basis of social order. When the church took control of the school it frankly adopted the instrumental theory of education and proposed to bring reason to the support of the faith.

Modern philosophy and science revived the pagan theory that the true aim of education is criticism. Our public schools inherited this aim and under the influence of Rousseau added to it the hope of making critical judgment universal. In practice, however, our schools have become instrumental in the Mediaeval sense. Have we failed to develop critical judgment because it cannot be developed or because it cannot be universalized? In either case education fails as a program of social reform. If all knowledge is instrumental we are at one with the ecclesiastical pragmatism of the Mediaeval Church. If critical knowledge may be developed, but only by the few, education is at most a process of personal salvation by which the philosopher may escape from a world in which might makes right. He must, however, escape alone. He may know the world but he cannot reform it.

On a Supposed Instance of Dualism in Plato. A. S. FERGUSON.

The similes of the Sun, Line, and Cave do not reveal a metaphysical dualism. The first simile is a pure analogy, intended to show the transcendence of the Good and the dependence of knowledge and reality upon it. The Line completes the analogy by exhibiting through a proportion the relation of the propaedeutic disciplines to the dialectic. Εἰκασία and πίστις are simply the attitudes of '*specular* or aenigmatical vision' through natural images and '*clear* or immediate vision' of originals, and illustrate by analogy διάνοια (which is self-limited by its immovable hypotheses and is to that extent 'speculative') and νόησις, which makes sure because it can 'give an account of' its objects and acknowledges a single unshakable ἀρχή. The supposed dualism is the break between symbols and antitypes.

The figure of the Cave should not be applied to the Line: Plato directs that the allegory should be attached to the previous account, and that the new imagery of the firelight should be compared to the 'power of the sun' (517 b). This means that the symbolism of natural shadows, originals and sun outside the cave, is reintegrated from the *two* previous similes and is contrasted with an inferior system in the cave. The one system is education, the other the want of it (ἀπαιδευσία). These two systems, oriented in opposite directions, cannot signify a process of gradual education. They represent two 'lives,' one seeking honor and pleasure, the other satisfied with nothing less than the Good; and it requires a conflict to convert a man from the life of the cave. The fire and the puppets are machinery to create the shadow-play, a human θεωρία, which leads to nothing beyond itself, and the prisoners become warped and corrupted by the degrad-

ing standards of public opinion—for this ἀπαίδευσία is unnatural. Once a prisoner is free of the cave, his eye is carried naturally through all the stages of the divine θεωρία to the sun. Thus the apparent dualism is seen to be a conflict between two 'lives' or systems of ends. The similes must be interpreted in close connection with Plato's question whether it is possible in the actual city-state to make philosophers kings.

The Reference to Reality in Modern Logic. R. C. LODGE.

Instrumental logic studies the general conditions which govern success and failure in the realm of action, and is especially interested in the methodical anticipation of consequences of proposed actions. It is radically empirical, and finds itself unable to appreciate the position taken by idealistic logic, with its Subject, Object, and Reality, regarding these terms as essentially non-empirical and medieval in character.—For Critical Idealism, all experience whatever is real. Idealistic logic attempts to standardize experience, to raise it to the conceptual level, at which strict proof and disproof are possible. For this logic, Reality (as an ideal) is thought of as a single consistent system of standardized experience, *i.e.*, as a system of concepts. The Subject of experience is thought of as an ideal Knower, in the sense in which freedom from moods, from irrelevant associations, from misleading accidents, etc., is an ideal. So also the Object of experience (as an ideal) is thought of as a system of concepts. These ideals derive their value wholly from the experience which their use helps us to organize, and their empirical status and pragmatic value are sufficiently obvious.

Thus understood, Critical Idealism and Instrumentalism have much in common. Both have the same aim, viz., the amelioration of human life and the more adequate development of human potentialities. Both believe in the methodical study of the conditions which lead to success in this aim. But there is a certain difference of emphasis, in that Instrumentalism stresses rather more the reference to future consequences, while Idealism lays weight upon the standardization and concentration of the whole of available experience. Apart from this difference of emphasis, Instrumentalism and *Critical* Idealism appear to be two phases of one and the same theory. It is admitted that both differ from *Absolute* Idealism.

The Philosophical Basis of Mr. Fite's Individualism. N. J. SYMONS.

In his theory of individualism Mr. Warner Fite seeks to show (1) that the individual is an independent force and not merely a function

of society or of the Absolute, (2) that while there can be no other obligation for such individuals than the pursuit of their own personal ends, yet this egoistically-motived conduct is fully compatible with the realization of social harmony and coöperation. This conclusion is supported by a comparison of the natures of mechanism and consciousness, in which it is argued, (3) that while mechanical bodies are self-contained and mutually exclusive and therefore a source of obstruction to each other's movements, *conscious* individuals, on the other hand are mutually implicative in their meaning and reality. Consciousness being a one-in-many, in seeking his own ends the conscious individual seeks therefore by implication the ends of other individuals also—the social harmony which results involving no departure from the egoistic standards of conduct referred to above.

The following criticisms are advanced against this argument: (1) The pluralistic conception of individuals with which Mr. Fite starts is tacitly contradicted by his later assertion that, viewed as conscious meanings or purposes, all finite selves are essentially mutually implicative. (2) The dualism of consciousness and mechanism which is asserted in order to strengthen the claims made for conscious individuals is untenable. The mechanical world is a one-in-many in the same way, though in a less degree, than mind or consciousness. (3) While consciousness is a one-in-many in the sense that its partial constituents are mutually implicative in their meaning and reality, this abstract principle of identity-in-difference does not afford an adequate basis for the assertion of a real social harmony of egoistic individuals *qua* conscious. (4) The ideal of a social harmony of self-seeking individuals is realizable (if at all) only upon the assumption that all finite selves are functions of a higher Absolute Self. Without this monistic conception which Mr. Fite rejects, the achievement of any system of social harmony is unattainable.

Abstracts of the papers read by the leaders of the Discussion may be found in the *Journal of Philosophy, Psychology, and Scientific Method*, issue of December 2.

NOTICES OF NEW BOOKS

Activism. By HENRY LANE ENO. Princeton, N. J., Princeton University Press, 1920.—pp. 208.

This book presents a metaphysics of the realist type, in the sense that it pictures the world as a manifold of reals,—entities, relations, and processes. It derives its name, however, from the fact that each real is said to be an "activity," and an activity is defined as "a 'that' by reason of which difference is made." The latter proposition is interpreted to mean "that by reason of which change exists." Apparently these two propositions are taken to be identical in meaning, though it does not appear to be evident that they must be so taken. In fact, the first would usually, I suppose, be regarded as having a more inclusive meaning. The number series "makes a difference," but it is not clear that the differences are changes. If there were a world in which there were no number series, such a world would doubtless be changed by the introduction of a number series, but it certainly does not follow that the reality of the number series consists in making changes in a world where it has always existed. The author's explanation tends to confound the question rather than to clarify it. He says that if there were no number series, classification would be impossible (p. 6), which seems to suggest the startling conclusion that if no one had ever made a classification, the number series would not have been active and therefore would not have been real. In fact, the grounds for the author's insistence on activism are obscure. The proposition that reals make a difference, or are the grounds of change, does not connote a theory of knowledge for him, as it did for James, who used the phrase to indicate that the *meaning* of a real is determined by the difference it makes to human behavior. Mr. Eno certainly does not intend to say that a real must have a meaning, and still less that its reality depends upon its affecting behavior. It seems that he has taken a phrase from James with part of its connotation and has injected it into a different sort of philosophy with which it has no affinities.

Activity in general becomes specific because of differences in what Mr. Eno calls the "intensity" of the activity. Intensity has three moments or elements: the amount of the activity, its range, which is defined by the number of other activities with respect to which it is effective, and its persistence or duration in time. A fourth moment, derivative from the other three, is the exclusiveness of the activity, its independence of other activities. The purpose of this explanatory apparatus is to avoid assuming the ultimateness of any merely qualitative distinctions. But the purpose is really accomplished by giving "intensity" such a latitude that it can be made to cover any difference whatever. Range, for example, means, among other things, extent of physical or causal influence, logical inclusiveness, and organizing capacity.

The "minimum entity" of the existential world is called the psychon, which is defined as the unit of awareness, having the characteristic activity of psychokinesis. The psychon is the constituent element of the electron, the electron of the atom, the atom of the molecule, and so on. This successive combination passes through critical phases, with the result that the world is stratified in well-defined levels or planes. The three most important levels are the meta-psychic plane, or plane of relations and values, which is super-existential and not composed of psychons, and the psychokinetic and physical planes.

The test of such an accumulation of analytical instruments lies in the use of it. When the physicist analyses atoms into electrons, the analysis serves a definite explanatory purpose; he can verify his hypothesis by reference to the observed behavior of radio-active substances or other phenomena. But what observations verify the hypothesis that electrons may be analysed into unit awarenesses? Assuming that electrons can be analysed at all, why into awareness rather than something else? In other words, does the proposition that an electric charge is a complex of awarenesses really mean anything?

Apparently the purpose is partly, or perhaps mainly, to explain the relation of mind and body. Thus on the side of consciousness Mr. Eno asserts that a sensation, a blue light, for example, *is* subjectively a periodicity (p. 108). Sense differences, as between the blue light and a tone, are differences of periodicity (p. 115). The argument seems to be that if the physicist will concede that electrons are awarenesses, and if the psychologist will concede that sensations are periodicities, there is no difficulty in supposing that the one is the other, or in fact anything else you please. As Mr. Eno remarks, "The only condition that it is necessary to posit . . . is that the psychokinetic field in question should be coterminous spacially with some portion of the line of flow of the nervous impulse" (p. 101). But again the question is whether it really means anything to say that a sensation is a periodicity and is spacially coterminous with a nerve impulse.

GEORGE H. SABINE.

THE UNIVERSITY OF MISSOURI.

Thought, Existence, and Reality, as viewed by F. H. Bradley and Bernard Bosanquet. By WALTER S. GAMERTSFELDER, Geneva, New York, W. F. Humphrey, 1920.—pp. 107.

This essay contains a careful and thoroughgoing analysis of the doctrines of Mr. Bradley and Dr. Bosanquet concerning thought, existence, and reality. Of the five chapters of the book, the first is devoted to a discussion of the nature of thought and of its relation to other aspects of experience; the second is concerned with the question of the relation between thought and its objects; the third deals with the problem of the nature and structure of knowledge and of its relation to existence and reality; the fourth is more critical than the preceding, and attempts to show the implications of the above theory of knowledge for the theory of reality; and the fifth sums up and criticizes the

views of the authors studied in regard to the ultimate nature of the Absolute and its relation to finite experience.

The position of both these writers is described as "speculative philosophy." Both hold that mind is in contact with its objects from the beginning, and thus avoid dualism and subjectivism (pp. 28–33). Both affirm that judgment which is involved in all thinking consists in "the reference of ideal content to reality," and is the means of the mind's constructing and sustaining reality (pp. 42–43). The conclusions of both concerning the nature of reality are summarized in the following four statements: (1) Reality is one; (2) Reality is an harmonious system, a unity above (and so without) relations; (3) Reality is experience; (4) Reality is one Experience, individual and perfect (pp. 81 and 83).

According to the author, the main differences in the positions of the two eminent English thinkers are found in their views of the Immediate and of its relation to thought. For Mr. Bradley the Immediate gives a clue to the nature of reality. It is an experience of a felt whole, of a "unity, complex but without relations," lying below the level of consciousness (pp. 43 ff). "It is not a stage which shows itself at the beginning and then disappears, but it remains at the bottom throughout as fundamental" (p. 44). For Dr. Bosanquet, on the contrary, the Immediate offers no hint of the nature of reality. It is a "phase not a stratum" and is "merely a form which any content can take and which is peculiar to none" (p. 44). It is "continuous with its extension through thought," and therefore there is no reason for drawing a hard and fast line between "feeling" and "thought" (pp. 13 ff, 23). This difference concerning the significance of the Immediate is closely connected with a difference in the two writers' views in regard to the nature of thought. Mr. Bradley is inclined to regard thought as essentially discursive and abstract, akin to Kant's *Verstand*, while Dr. Bosanquet finds in thought the fundamental principle of concreteness present in all forms of experience, in feeling, sensation, and will, as well as in cognition proper (pp. 15, 66). Thus the latter comes closer to Hegel than does Mr. Bradley. Both however ultimately reach a pessimistic conclusion in regard to the power of thought to grasp reality. For Mr. Bradley, thought is condemned from the beginning by its relational character. It can neither reach down to the whole found in feeling, nor can it attain to the supra-relational experience of the Absolute. For Dr. Bosanquet, thought is more successful—it builds up a whole which gives us our best clue to reality, but it fails in the end to maintain itself since its relational character makes it incapable of giving us reality which is "at once solid and immediate as well as perfectly individual and non-contradictory" (pp. 60 ff., 65). The cause of this pessimism lies ultimately in a fallacious interpretation of judgment. Both insist that the subject of every judgment is reality, and that all predication involves contradiction. In working out this view, they tend to separate identity and difference, and to make them contradictory instead of complementary to each other (pp. 68 ff.).

Dr. Gamertsfelder's criticisms of Absolutism proceed for the most part along familiar lines. The New Realists' attack upon the theory of internal

relations is, he maintains, a valid reaction against Mr. Bradley's assumption that "Reality must be whole like that given in immediate experience" (p. 37). The former, however, go too far in their assertion that relations are external. The true view of the nature of relations lies in a mediating position, based on a study of relations as present in finite experience. "A doctrine of relations thus interpreted with reference to purpose is really a doctrine of relevant relations, and implies that where they exist relations are internal in character, but some relations are so irrelevant (to purpose) that they make no difference and are so far external" (p. 38). From this doctrine of relations some form of pluralism rather than of monism follows.

While not wholly accepting the Pragmatist's position, the author quotes with approval Dewey's criticism of the Absolutist's doctrine on the ground that it ignores the importance of the rôle of the problem in finite thinking, and deals with thinking *überhaupt*, rather than with our concrete human thinking (p. 74). He also agrees with Professor Ward that Dr. Bosanquet's system fails to do justice to contingency, and to the unique and individual aspects of experience, holding that Dr. Bosanquet's reply to the criticism of his views by the former only "places in clearer light the inherent weakness of his position" (p. 78). The conclusions of Absolutism are based, it is asserted, on a "fallacious doctrine of relations, and a one-sided view of the fundamental postulates of knowledge (pp. 101, 38, 46–48, 68, 72), and are therefore not established. The system itself, furthermore, contains insoluble difficulties and contradictions. Both writers "play fast and loose with the category of relations" (pp. 69 ff., 85 ff.) and give no consistent account of the relation between Reality and Appearances. Although admitting that the ultimate Reality is never adequately experienced, they use it as a criterion to measure Appearances. They thus "assume alternately two standpoints without establishing the right to do so," and so fall into a fallacy similar in principle to that of Kant in his doctrine of phenomena and noumena (p. 102). Both also maintain that all analogies must fail to give an adequate idea of the supra-relational nature of the Absolute. Dr. Gamertsfelder maintains that not only is this the case, but that the idea of such a whole is essentially unmeaning. If relations are denied to the Absolute, we are left only with the Eleatic One. Moreover, if the Absolute as described by these writers is granted to be real, all finite categories become unreal and illusory. "Energy and life, time and change, spontaneity and creativeness in nature, evolution and growth, freedom and progress, truth and beauty, purpose and goodness, the striving and aspiration of the Self with all its privacy and uniqueness,—these, and any other contents of the finite mind, have only relative validity, and do not hold in ultimate Reality." In opposition to this conclusion, he sketches what he believes to be the true doctrine. "Reality must be interpreted in terms of finite experience, not the experience of the Absolute; the categories of human thought must be respected, simply because the finite mind is inherently incapable of employing any others. Moreover, reality must be taken for what it is found to be in the progressive organization of experience." (pp. 104, 106).

In general Dr. Gamertsfelder's criticisms add nothing to criticisms that have frequently been made; but he works out in detailed and careful fashion some of the crucial difficulties in the system. Nevertheless he leaves himself open to the reply which Dr. Bosanquet makes to his critics in his discussion concerning "Appearances and the Absolute" in the November number of this REVIEW. For, as the preceding quotations at least suggest, he constantly tends to take finite appearances at their face value. Moreover, the careful reader will not fail to note that the disjunction between the finite and infinite experience implied in the above quotations, and many other of the author's critical assumptions, are contrary to the fundamental principle of Dr. Bosanquet's whole philosophy.

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Les maladies de l'esprit et les Asthenics. Par ALBERT DESCHAMPS. Paris, Alcan, 1919.—pp. xv, 740.

In this voluminous work Dr. Deschamps develops the conception, akin to that of Janet but much more thoroughly elaborated and widely applied, that the fundamental problem in all mental troubles is insufficiency and incompleteness. The mentally sick person is an asthenic: he never finishes the constructive psychic work necessary for complete adaptation to reality. The cases most amenable to psychic treatment are those where the incompleteness is on the logical plane and is due to an emotional shock (an emotion is defined as a momentary psychic incapacity to suit the reaction to the stimulus): here the patient can be reasoned with and enlightened as to the causes and mechanisms of his insufficient adaptations to reality. Freud's doctrines are, Dr. Deschamps thinks, more novel in words than in ideas, psychoanalysis having been widely practiced before his time; on the exaggeration of the sexual motive in the Freudian theory the author comments that in the Latin societies suppressions of this type are perhaps less common than in Protestant countries.

Psychic treatment has its limitations, however; where the lack of energy is manifested on a lower plane than the logical, physical means must be sought, and in all cases the most exhaustive physical diagnosis must be made. Thus the author ranges himself against such psychotherapists as Dubois. Asthenia is at bottom a defect in biological energy: the asthenic person is one who, whether the cause is accessible by physical or psychic means, has become a poor transformer of the chemical energy of his nourishment into the kinetic energy of his movements.

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Relativity. The Special and General Theory. By ALBERT EINSTEIN. Translated by ROBERT W. LAWSON. New York, Henry Holt and Co., 1920.—pp. xiii, 168.

This little book is a translation of a late edition of Einstein's popular account of his "special" theory of relativity, and of the later and more highly

developed "general" theory. The text is intended for attentive readers without special training in physics or mathematics, and its aim is "to present the main ideas in the simplest and most intelligible form, and on the whole in the sequence and connection in which they actually originated." Einstein goes about this task in the right way. He does not talk about the theory, he actually develops its characteristic features. The exposition gains in clearness by the use of well chosen concrete illustrations, and each distinct step of the argument is presented in a separate short section with its own caption. This is exactly the sort of thing that the serious general reader wants. Two brief appendices describe the Lorentz transformation and Minkowski's four-dimensional space, for readers who have a little mathematics; and the author has provided a new appendix on the experimental confirmations of the theory. The translator has added a portrait, a biographical note, a short bibliography, and an index. The translation is clear, and the book is well printed.

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The following books also have been received:

The Meaning and the Problem of Philosophy. By G. R. MALKANI. Amalner, Indian Institute of Philosophy.—pp. 26.

Some Modern Conceptions of Natural Law. By MARIE T. COLLINS. Cornell Studies in Philosophy, No. 12. New York., Longmans Green and Co., 1920.—pp. 104.

Instinct and the Unconscious. By W. H. R. RIVERS. Cambridge, The University Press, 1920.—pp. viii, 252.

The Secrets of the Self. By SHEIKH MUHAMMED IQBAL. Translated from the Persian with Introduction and Notes by Reynold A. Nicholson. London, Macmillan and Co., 1920.—pp. xxxii, 148.

Bergson and His Philosophy. By J. ALEXANDER GUNN. With an Introduction by Alexander Mair. New York, E. P. Dutton.—pp. xxii, 190.

The Philosophy of Don Hasdai Crescas. By MEYER WAXMAN. New York, Columbia University Press, 1920.—pp. xii, 162.

The Secret of Happiness, or Salvation Through Growth. By EDMOND HOLMES. New York, E. P. Dutton.—pp. x, 360.

Fugitive Essays. By JOSIAH ROYCE. With an Introduction by J. Loewenberg. Cambridge, Harvard University Press, 1920.—pp. 430.

Collected Essays and Reviews. By WILLIAM JAMES. New York, Longmans, Green and Co., 1920.—pp. x, 560.

The Gateway Out of Time and Space. By VICTOR A. ENDERSBY. Denver, The Infant Press.—pp. 64.

Oeuvres de Maine de Biran. Accompagnées de Notes et d'Appendices par PIERRE TISSERAND. Tome I, Le Premier Journal. Paris, Félix Alcan, 1920.—pp. lxxvi, 312.

Essai de Philosophie Générale Elémentaire. Par HENRI GUILLOU. Paris, Félix Alcan, 1921.—pp. 192.

Volonté et Conscience. Par PERCEVAL FRUTIGER. Paris, Félix Alcan, 1920. —pp. vi, 472.

Essai sur le Sentiment Esthétique. Par A. DE GRAMONT-LESPARRE. Paris, Félix Alcan.—pp. 298.

Autorité et Discipline en Matière d'Education. Par ALBERT AUTIN. Paris, Félix Alcan, 1920.—pp. vii, 136.

Memoire sur les Perceptions Obscures. Par MAINE DE BIRAN. (Classiques de la Philosophie). Paris, Armand Colin, 1920.—pp. xii, 68.

La Siris. Par GEORGE BERKELEY. Traduction par Georges Beaulavon et Dominique Parodi. (Classiques de la Philosophie). Paris, Armand Colin, 1920.—pp. viii, 160.

Les Principes de la Connaissance Humaine. Par GEORGE BERKELEY. Traduction de Charles Renouvier. (Classiques de la Philosophie). Paris, Armand Colin, 1920.—pp. xii, 112.

Introduzione alla Pedagogia. Per M. CASOTTI. Firenze, Vallecchi, 1921.—pp. 108.

Il Metodo di Insegnamento nelle Scuole Elementari d'Italia. Per ARISTIDE GABELLI. Firenze, Vallecchi, 1921.—pp. 64.

Der Kategorische Imperativ: eine gemeinverständliche Einführung in Kants Sittenlehre. Von Ernst MARCUS. Zweite verbesserte Auflage. München, Reinhardt, 1921.—pp. 258.

Das Absolute: Methode und Versuch einer Sinnklärung des "Transcendentalen Ideals." Von JOSEF HEILER. München, Reinhardt, 1921.—pp. 80.

Die Deutsche Philosophie der Gegenwart in Selbstdarstellungen. Mit einer Einführung herausgegeben von RAYMOND SCHMIDT. Erster Band. Leipzig, Felix Meiner, 1921.—pp. viii, 22, 28, 20, 60, 26, 24, 28.

NOTES.

An Undesigned Coincidence.

To the Editor of the Review:

I do not know if you will think this little note worth publishing:

I had just been reading in your November issue Mr. Tsanoff's very sane and appreciative paper on "Pessimism and Immortality." I deeply felt the interest of his argument and the difficulty of the problem, 'Does the conservation of Value imply the conservation of Personality—of this or that Personality or of any?' And I felt, and feel, that I look forward to its continuation with a great expectancy of pleasure and instruction.

And then, as it chanced, I picked up the December number of the *Studio* which came in by this morning's post. And at once I found myself in a world of supreme values, wholly beyond any doubt. 'What is the use of talking?' I found myself saying to myself. 'Why do we not look?' Here are just some pages of paper with pictures on them. But they are symbols and values which at once make life—given life—a thing transcending all current estimates of loveliness and force and delight. The gladness of childhood in the vision of summer is here, recorded by its own hand in the simplest of media: the marvellous revelations from China and Japan; the strength, austerity, and character of the Basque country; and dozens of things more; any one of them fit to bring heaven into our time and place.

A philosopher is not made by looking; no doubt he must think. Nevertheless, if he knows how and where to look, it seems to me that the inexhaustibleness in values, of human experience, is altogether beyond the need of reasoning. To use a schoolboy phrase, 'There are plenty more where these came from.' And the revelation they bring leaves me, I confess, a little indifferent to the precise remoter inferences which we may draw from it, and a little impatient of any discussion which implies that we are not constantly in presence of supreme realities and immeasurable values.

Bernard Bosanquet.

Oxshott, Dec. 16, 1920.

Extensive Abstraction: a Suggestion.

The method of extensive abstraction, employed by Mr. Whitehead in his *Principles of Natural Knowledge* and in his *Concept of Nature*, can be greatly simplified and strengthened, if, instead of the indefinable relation of whole and part, or 'extending over,' we assume the relation of 'containing'—in the sense of not only including as a part but completely enveloping. In this sense, one geometric solid would contain another solid, when the second was a part of the first, and no solid external to the first could touch the second.

Using 'containing' as an indefinable, we can at once define the expression, "The event A extends over the event B," as meaning: "There is no event which is contained by B and not contained by A; and there is an event contained by A and not contained by B." Thus the defining-power of 'containing' is at least as great as that of 'extending over.'

Readers of the above-mentioned works of Mr. Whitehead will recall that it is one of his first aims to define 'event-particles' as a class of 'abstractive elements.' In this connection he writes: "The required character of the abstractive sets which form event-particles would be secured if we could define them as having the property of being covered by any abstractive set which they cover. . . . This is the definition which I originally proposed at a congress in Paris in 1914. There is however a difficulty involved in this definition if adopted without some further addition, and I am now not satisfied with the way in which I attempted to get over that difficulty in the paper referred to. The difficulty is this: When event-particles have been defined it is easy to define the aggregate of event-particles forming the boundary of an event; and to define the point-contact at their boundaries possible for a pair of events of which one is part of the other. We can then conceive all the intricacies of tangency. In particular we can conceive an abstractive set of which all the members have point-contact at the same event-particle. It is then easy to prove that there will be no abstractive set with the property of being covered by every abstractive set which it covers" (*Concept of Nature*, pp. 86 ff). The present writer made an analogous mistake, but in a more inexcusable form, in a review of Mr. Whitehead's *Principles of Natural Knowledge*.

The consequence of this discovery is that Mr. Whitehead has given up the attempt to define the event-particle in a direct fashion. He does it by means of the 'punct'; and this involves a multiplicity of time-systems. For a punct is the intersection, generally speaking, of four moments, and moments of the same time-system do not intersect. The further consequence is that the whole theory of spatial order is made dependent on the assumption of a non-Newtonian theory of the relation between space and time; and though there may well be compensations for this state of affairs, it is evidently, from the methodological standpoint, a defect. It seems a curious inversion of the order of experience, that we should have to wait for Michelson in order to find the way to the conception of the point.

The whole difficulty in the matter appears to be removed, if we start with the notion of 'containing,' as it was explained at the beginning of this note. We may define a 'vanishing set' as a set of events having the two properties, (1) that of any two of its members one contains the other, and (2) that there is no event that is contained by all the members. One vanishing set may be said to 'cover' another, when every member of the former contains some members of the latter. If two vanishing sets cover each other, they may be said to be 'equal.' A 'vanishing element' may be defined as a whole class of equal vanishing sets. All this is in close imitation of Mr. Whitehead's pro-

cedure. But now we may do what Mr. Whitehead found himself unable to do, that is to say, proceed directly to the definition of the event-particle; for the difficulties arising from tangency do not affect us. An event-particle is the class of events which are members of the vanishing sets—or, if you please, the class of the vanishing sets themselves—equal to a vanishing set that is covered by every vanishing set which it covers.

The same method can, of course, be employed in geometry, in order to define a point as a class of solids. A 'vanishing set' of solids is first defined; then the covering of one set by another; then the equality of two sets. And finally the point is defined as the class of solids which are members of the vanishing sets equal to a vanishing set that is covered by every vanishing set which it covers.

THEODORE DE LAGUNA.

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The *Biblical World* and the *American Journal of Theology* have been combined in a new journal, entitled *The Journal of Religion*. The first number of this new journal was issued in January, 1921. It is edited by Gerald Binney Smith of the Divinity School of the University of Chicago, and is issued by the University of Chicago Press.

We give below a list of articles in current philosophical periodicals:

THE JOURNAL OF PHILOSOPHY, PSYCHOLOGY AND SCIENTIFIC METHODS, XVII, 25: *Laurence Buermeyer*, Professor Dewey's Analysis of Thought; *Mary Whiton Calkins*, The Metaphysical Monist as a Sociological Pluralist; *Hartley Alexander*, "A Lover of the Chair." XVII, 26: *Ethel E. Sabin*, Giving Up the Ghost; *Lucinda Pearl Boggs*, A Glimpse into Mysticism and the Faith State. XVIII, 1: *George P. Conger*, Santayana and Modern Liberal Protestantism; *B. H. Bode*, Intelligence and Behavior. XVIII, 2: *Sarah Unna*, A Conception of Philosophy; *Rupert Clendon Lodge*, Modern Logic and the Elementary Judgment; *E. E. Slosson*, Eddington on Einstein.

THE PSYCHOLOGICAL REVIEW, XXVII, 6; *Arthur S. Otis*, Do We Think in Words? *Charles H. Woolbert*, A Behavioristic Account of Sleep; *Edward S. Robinson*, The Compensatory Function of Make-Believe Play; *Edwin G. Boring*, The Control of Attitude in Psychophysical Experiments; *Loyd A. Jones* and *Prentice Reeves*, The Physical Measurement and Specification of Color.

THE AMERICAN JOURNAL OF PSYCHOLOGY, XXXI, 4; *F. L. Dimmick*, An Experimental Study of Visual Movement and the Phi Phenomenon; *Harry Elmer Barnes*, A Psychological Interpretation of Modern Social Problems and of Contemporary History; a Study of the Contributions of Gustave LeBon to Social Psychology; *Lorine Pruette*, A Psychoanalytical Study of Edgar Allan Poe; *C. C. Pratt*, Highest Audible Tones from Steel Cylinders.

THE JOURNAL OF NERVOUS AND MENTAL DISEASE, LII, 6: *Frederick P. Moersch*, Cerebellar Agenesis with Report of Two Cases; *Lawson G. Lowry*, An Analysis of Suicidal Attempts; *Alfred Gordon*, Contralateral Plantar Reflex and its Clinical Interpretation; *C. B. Pearson*, Is There an Ideal Treatment of Morphinism? LIII, 1: *Luis Morquio*, Acute Meningitis and Tuberculous Meningitis; *Burton Peter Thom*, Syphilis and Degeneration; *Henry Viets*, Three Types of Spinal Cord Injuries in Warfare.

THE INTERNATIONAL JOURNAL OF ETHICS, XXXI, 2: *Frank Chapman Sharp*, Some Problems of Fair Competition; *Victor S. Yarros*, Is There a Law of Human Progress? *J. E. Turner*, The Genesis and Differentiation of the Moral Absolute; *I. W. Howerth*, The Labor Problem from the Social Viewpoint; *J. D. Stoops*, The Instinct of Workmanship and the Will to Work; *Henry S. Curtis*, The Mother's Confessional; *Allan L. Carter*, Schiller and Shaftesbury.

THE JOURNAL OF RELIGION, I, 1: *Shirley Jackson Case*, The Historical Study of Religion; *George A. Coe*, The Religious Breakdown of the Ministry; *James Bissett Pratt*, Why Do Religions Die?; *Allen C. Thomas*, Present Tendencies in the Society of Friends in America; *Charles Henry Dicksinon*, The Significance of Jesus' Hope; *Angus Stewart Woodburne*, The Indianization of Christianity; *Frank C. Porter*, Crucial Problems in Biblical Theology; *Alfred E. Garvie*, The Religious Outlook in Great Britain.

THE MONIST, XXXI, 1: *L. L. Bernard*, Herbert Spencer's Work in the Light of His Life; *W. O. Brigstocke*, Logical Fictions (continued); *Sanford A. Moss*, A Mechanic on the "Mechanism of the Brain"; *C. Delisle Burns*, A Defect in Current Political Philosophy; *Wesley Raymond Wells*, Natural Checks on Human Progress.

REVUE PHILOSOPHIQUE, XLV, 11–12: *A. Denjoy*, Un Savant Francais: Henri Poincaré; *R. Lenoir*, Lamarck; *M. Pradines*, La Vraie Signification de la Loi de Weber; *E. Gilson*, Descartes et Harvey, I.

RIVISTA DI FILOSOFIA, XII, 3; *B. Varisco*, Cultura e Filosofia; *C. Ranzoli*, Il tempo e l'eternità nella filosofia di Plotino; *G. Marchesini*, La redenzione degli istinti.

RIVISTA DI FILOSOFIA NEO-SCOLASTICA, XII, 5: *G. Zamboni*, Il pensiero filosofico del prof. Giulio Canelia; *M. L. Cervini*, Note critiche alla teoria gnoseologica e aleotologica di R. Ardigò; *A. Copelli*, Il giudizio teleologico in Emanuele Kant e il concetto aristotelico di fine.

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THE PHILOSOPHICAL REVIEW.

ON A SUPPOSED INSTANCE OF DUALISM IN PLATO.

I.

THIS paper proposes to examine a much disputed place in the *Republic,* where the 'two-world' theory appears to raise its head, if current interpretation is right. The inconsistencies and incoherences involved in the similes of the Sun, the Line, and the Cave are well-known, and I do not intend to touch upon them here, except incidentally. Plato, like other philosophers, is liable to self-contradiction; but when interpreters disagree so radically among themselves, it is legitimate to ask whether they may not have started from a common erroneous presupposition. I believe that this may be found in the attempt to apply the Cave to the Line, an attempt which is closely bound up with the assumption that Plato desired to show the dependence of Becoming upon Being. To those who hold some form of this view the breaks between the upper and the lower line and between the cave and the region outside, appear to reveal a metaphysical dualism, or at least to conceal it imperfectly. But should the Cave be applied to the Line, and do the breaks signify one and the same thing? The allegory of the Cave has a purpose distinct from the Line, and neither is primarily concerned with the relation of the world of Becoming to that of Being.

It is an attractive but misleading plea in favour of a certain looseness or laxity of interpretation to say that analogies must not be pressed, or that Plato's figures and myths should not be taken as doctrine. These similes are not myths; they illustrate doctrine, and are in fact preliminary to the theoretical discussion

of the Platonic propædeutic and dialectic. Again, analogies should not be pressed; but they must first be understood. As Socrates says, analogy is a slippery thing, and it is already pressed and deformed out of recognition when its declared purpose is obscured by supposed parallels from other parts of Plato.[1] Only after exact study of the text can we be certain what is and what is not parallel. When Adam, in applying the Cave to the Line, divides the quadripartite line into five portions, sandwiches sensibles in between intelligibles, and makes the sun an object of the intellectual education,[2] or when the ethos of the allegory of the Cave is so distorted that the struggle is transformed into an orderly educational progress and the rugged steep ascent smoothed into a 'gradual ascent,' may we not suspect that some clue has been lost for lack of which the whole figure is plunged into confusion? In interpreting analogy we must be sure of two things —to ascertain the purpose and limitations of the symbolism, and on no account to confuse type with antitype. Not until these things have been done—and I do not think they have been done —can we legitimately take the large view that analogy must not be pressed. When the general structure has been firmly outlined, common sense may be trusted to guard against the temptation to press details unduly.

Let us then see whether Plato has not told a plain tale, and whether the analogy is not clear and simple. I hope to justify the account offered below by a full discussion of the text in another place, and this may perhaps excuse a certain dogmatism, which is due rather to the need for brevity than to disrespect for views which I formerly shared.

II.

> The sun rode high. 'During our ignorance'—
> Began Ferishtah—'folk esteemed as God
> Yon orb: for argument, suppose him so,—
> *Be it the symbol, not the symbolized.'*

If we glance for a moment at the allegory of the Cave, it appears to contain two systems, each governed by its own light,

[1] See especially Mr. Stocks's paper on "The Divided Line," *Classical Quarterly*, 1911.

[2] See references in Adam, *Rep.*, Vol. II., p. 163.

which are in marked contrast to one another. A fire rules the cave, and casts shadows from a row of moving puppets, borne by concealed showmen, upon the far wall. The shadows pass before prisoners seated at the bottom of the cave, who are so trammelled by chains that they can see nothing but the shadow-play. The problem of the allegory is to rescue some of them and draw them by force to the sunshine outside the cave. Here there is a parallel system of sunlight (with natural shadows, originals and sun), of which the fire-system seems to be an imitation. However that may be, no one will dispute that the whole machinery is symbolical. It is an analogy to some experience, or set of experiences. Plato directs that the whole figure should be attached (I use the word deliberately) to what was said before (517 *b*). Let us turn to what was said before in order to see how the imagery develops.

At the beginning of Book VI Socrates asks whether men no better than the blind, deprived of knowledge of each reality, ought to rule, or those who know each reality and are not behind in experience. The problem is really twofold. The intellectual difficulty is to devise some coherent scheme for bringing the young philosopher into contact with reality. But the main difficulty is social and political. Men seek other ends than knowledge; they seek honour and pleasure, and their rewards and punishments actually warp the minds of young men who are naturally fitted for the life of the philosopher and ruler. Social pressure deforms the minds of the young, who despise knowledge; and the few who value it withdraw from public life. Can a road to the Good, which is declared to be the source of all knowledge and reality, be found, not only for those who are willing to undergo the discipline, but for men who have already been drawn aside to illusory ends? That is the problem for which the similes should suggest an answer.

The image chosen for the Good is the sun, which we have already encountered at the climax of the allegory of the Cave. Plato draws it from the immemorial tradition of religion and poetry, for which the sun is the bestower of good gifts. When he writes that the sun is the offspring of the Good and very like it (506 *e*), he means no more than that there is an analogy be-

tween them (508 *b*) in respect of a *common quality* which fits the sun to symbolize the Good. A whole mythology has been spun round this famous passage, upon the arbitrary assumption that the Good (which is a form) is a kind of Demiurge, and that the sun, itself somehow more than phenomenal, is his creation. It is unnecessary to resort to such high speculation. We speak of the sons of Mars and of Venus without genealogical implications, and it is certain that Falstaff had none when he cried: 'If they speak more or less than truth, they are villains and the sons of darkness.' Plato's own language in the similes amply shows that the common quality between the Good and the sun is goodness. He celebrates it as the steward of light (508 *b*), the giver of increase and nourishment (509 *b*), the lord of the seasons (516 *b*). A visible agent of beneficence, final in its sphere, is made the type of the intelligible source of all good.

This view is confirmed by Plato's own account of the visible realm under the sun. He expressly discriminates sight from the other senses because sight and colour serve the purposes of the analogy and the other senses do not (507 *c*). The point is not, as those believe who take this passage to be a serious contribution to Plato's doctrine of the senses, that sight depends upon a medium, but that the medium is *variable,* and proceeds from a definite source. If his illustration is to symbolize the dependence of both knowledge and opinion, the search for pleasure and for righteousness, upon a common principle, it must show how a sense-organ—if that is his example—can, though adapted for its function, perform that function well only when the variable condition is emitted directly from its source. Obviously the sun and sunshine, the eye and colour alone fulfil all these conditions. They form a sun-system, discriminated from within the sensible world, and their only significance is to illustrate the analogous system of intelligibles under the Good. As Plato has taken such pains to define his visible symbolism, we must not lightly deform it, or build allegorizing philosophies upon it.

As the chief concern of this paper is the seeming dualism in the similes, we need devote but a few lines to the figure of the sun. Obviously there is no metaphysical relation between the Good and such an aspect of the sun as alone serves the purpose

of the analogy. The simile simply illustrates by means of the sun ('descried ultimate giver of all good') the transcendence of the Good (509 *a*, *c*), and the dependence of all values upon it. But one difficulty involved in the usual view may be touched upon. The sun, though not γένεσις, is said to cause γένεσις, and increase and nourishment: even so the Good, though not οὐσία, causes οὐσία. The association of two such philosophical terms as γένεσις and οὐσία has led to much hair-splitting. But there is no metaphysical puzzle. For obviously γένεσις must be growth, since it is caused by the 'making sun,' and is coupled with 'increase and nourishment.' Milton's three words 'sovran vital lamp' cover the whole symbolism.

III.

The Line.

The Line too is an analogy and no more than an analogy. Glaucon asks Socrates to complete the figure of the sun, and Socrates recalls the original formulation of the analogy (509 *d*, cf. 508 *b*)—that the sun and the Good are two, and the kinds they rule over are two, the visible and the intelligible. If this does not mean that the visible in the lower line too is simply illustrative, the language is strangely misleading.

The purpose of the Line is stated by Glaucon—at least no other account of its purpose will be found in the text. At the end of the simile he says (511 *c*): 'I understand. . . . Not quite satisfactorily, for I think you are describing an arduous task; but I see that you wish to distinguish that part of the real and intelligible which is considered by the science of dialectic, as truer than that which is the object of what are called the arts. These have their hypotheses as first principles, and though their students are obliged to study them with the understanding, not with the senses, still, inasmuch as they do not make their inquiries with reference to a first principle, but by starting from hypotheses, you think that they do not exercise intelligence on these subjects although they are intelligible and have a first principle.'[1] If this careful summing-up is taken at its face value, the Line

[1] I use Mr. A. D. Lindsay's translation throughout.

should illustrate the distinction between the two stages of the higher education. Why does Plato at this point formulate the two methods of the propædeutic and the dialectic? They are the steps by which the soul, unwarped by lower interests, naturally moves to its goal, the Good. The relation between the Good and the intelligible realm was roughly indicated in the first simile. It is transcendent; they are dependent. But the analogy now formulates precisely the methods to be employed successively in the systematic pursuit of the Good.

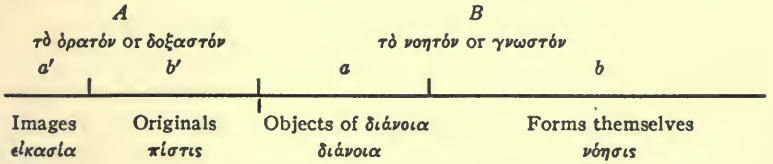
If I have stated the purpose of the analogy rightly, and if (as the text undoubtedly says) the figure of the sun and the visible is continued here, the lower line, *both states and objects,* should be purely illustrative. That is why the Line is a proportion.

Glaucon is told to take a line unequally divided, and to divide it again in the same proportion. One main part is the visible, the other the intelligible. In the first part of the visible are placed natural shadows and reflections; in the second their originals—animals, plants and things made by man. The latter are *clearer* than their images, and it is suggested that the images stand to their originals as the object of opinion (τὸ δοξαστόν) does to the object of knowledge (τὸ γνωστόν).

It is not hard to see that the bond between the images and their originals must be the sunlight, which Plato called truth in the previous simile. This consideration would seem to exclude the addition of any other objects whatever to the lower line; for such additions, however plausible they may seem to be, destroy the relation of light. Indeed, would anyone have thought of adding to the lower line more than Plato actually specifies unless it had been identified with the cave and all that the cave contains? As I hope to show that the lower line and the cave have no connexion at all with one another, it may suffice to interpret the former by holding strictly to Plato's account of it.

When Plato says that images stand to originals as the opinable to the knowable, a distinction established in Book V is simply recalled *in the same terminology,* because he wishes to 'place' the new illustration (cf. 478 *a, b,* 479 *b*). The ruling ratio ($A:B$), already known, is used to establish the subordinate ratio

($a' : b'$) in respect of clearness or truth, so that the latter in turn may illustrate the ratio ($a : b$) within the intelligible.



The lower line (and the upper) is a ratio, not a classification. To assume that the carefully specified objects between which the ratio subsists should have superimposed upon them all members whatever of the general class to which they belong, is to commit a glaring fallacy. This procedure ruins the ratio of light, which is the core of the analogy, and is not borne out by the text.[1]

Now what is the relation of an image to its original? It is a clue pointing to the original, and guaranteed by the light. To take a hint from the *Timæus* (52 *c*): it is not its own essence of itself, but is of or relative to something else, its original.[2] Again, one naturally says, both in Greek and in English, that one sees *oneself* in a reflection (*Alcibiades* I, 132 *d*). Plato's application of the figure of natural images (as distinguished from the artificial) illuminates his purpose here. A man uses the reflection of a thing to tell about the original when some difficulty or limitation prevents direct vision (*Phædo*, 99 *d*, *Rep.*, 532 *b*)—one thinks of a surgeon's speculum. But there is no certainty till the original is seen directly; then there is autopsy. It is in this sense that the originals are clearer than their images. For a thing is clear (σαφές) when it is beyond doubt, as when it is seen and touched. Then one no longer looks through a glass darkly, but face to face.[3] Indeed the scholastic figure based on St. Paul's

[1] It is well to remember that *three* sentences suffice to describe the lower line, and that the additions depend on inference from supposed parallels in other parts of Plato. Why are additions felt to be necessary? Because the content of the lower line, as Plato describes it, is not a 'world,' and cannot stand by itself. But if it is intended merely to symbolize the upper line, then it has all the meaning necessary for its purpose.

[2] See Cook Wilson, *Interpretation of the Timæus*, p. 109.

[3] Clement of Alexandria saw the connexion of the two illustrations in *Stromateis*, I, XIX, 94, 1: καὶ κατ' ἔμφασιν δὲ καὶ διάφασιν οἱ ἀκριβῶς παρ' Ἕλλησι φιλοσοφήσαντες διορῶσι τὸν θεόν. τοιαῦται γὰρ αἱ κατ' ἀδυναμίαν (cf. *Rep.*, 532 *b*) φαντασίαι ἀληθεῖς, ὡς φαντασία καθορᾶται ἐν τοῖς ὕδασιν καὶ ὁρῶμεν [τὰ] διὰ τῶν διαφανῶν καὶ διαυγῶν σωμάτων. This is a comment on the Pauline text.

text almost expresses the sense of the Platonic distinction between εἰκασία and πίστις. The one is *specular* or ænigmatical, the other is *clear* or immediate vision.

For we must revise the assumption that εἰκασία and πίστις, which are correlated with the images and originals, are real levels of apprehension. They are not curiously and artificially connected each with its own special kind of real object: they form an illustrative ratio parallel to a similar ratio of stages in the intelligible (511 *d*), and are in fact psychological attitudes perfectly easy to understand when they are taken in connexion with their objects. The selection of the word πίστις is, I think, decisive. The criterion used to distinguish images from originals is clearness. What is clear is also πιστόν, assured; and πίστις is assurance. Εἰκασία has suffered distortion because it has been assimilated to the state of the prisoners in the cave, and is hence called guesswork, imagining, conjecture and the like—one might preserve some trace of the original play of words and say mere speculation. We may retain the word, and say that Plato had in mind just 'specular vision,' remembering the old phrase 'mirrors of speculacion' and Caxton's he goat 'speculynge and beholdynge his shadowe' in the water. The attitude of *speculation* is conjectural in the sense that it is indirect, a presage which needs confirmation. The meaning of the word is stamped by the phrase εἰκάζειν ἔκ τινος, which signifies inference from evidence. Thucydides calls Themistocles the best speculator or diviner (ἄριστος εἰκαστής) of the future, and the context shows that he meant no lucky guesser. What establishes the sense beyond cavil, however, is the description of the prisoner gazing at the natural shadows[1] *outside* the cave. He is unable to look directly at the originals because he is dazzled by the light; so he is constrained to gaze first at the shadows and reflections. This symbolizes the limitation and the function of διάνοια. Plato means that διάνοια, by virtue of some limitation, is εἰκασία or speculation because it cannot 'make sure,' and that νόησις is direct and gives assurance or πίστις. Now this is exactly what the final statement of the proportion in 534 *a* seems to say. I cannot enter on an analysis of

[1] These are identical with the natural shadows in the line.

that passage here. But it is enough to note that the proportion is recalled immediately after Socrates has finally declared the propædeutic sciences to be no sciences in comparison with dialectic, and that the purpose (I think the sole purpose) of the proportion is to say that true science bears the same relation to assurance (πίστις) as διάνοια does to speculation (εἰκασία). If we take all these lines of evidence together, is it not a reasonable inference that εἰκασία and πίστις are intended to illustrate a ratio of clearness between the states in the upper line? They are simply illustrative psychological attitudes.

But, it may be objected, is it not unimaginative to tie Plato down so tightly? Even if the lower line is *primarily* meant to symbolize the upper, can the implications of the figure stop there? Why not allow that Plato, in recalling that the visible is less clear than the intelligible, wished to set forth the general dependence of Becoming upon Being? One can but invite such a critic to carry his logic through. In the interests of his interpretation he must deny that Plato intended to distinguish the *visible* from the *sensible* for the purposes of the analogy; he must allow that the lowest section of the line is meaningless for him as it stands; he must, against the indications of the text, fill in the content of the lower line according to some principle that will transform it into a satisfactory 'world'; having done this and destroyed the analogy of light, he must face the embarrassing fact that the content of the lower line as *Plato* described it is identical with the natural images and originals outside the cave; but he cannot carry his principle through, and expand these images and originals into a 'world'; for they obviously are no more than symbols of the intelligible (like the lower line!), and he is already committed to the view that the *cave* is the realm of opinion or sense. And when all these accommodations are made, can he contend that the result is valuable enough to justify them? He is left with the datum upon which Plato constructed his proportion, the already known fact that the opinable, from which the material of the analogy is drawn, is less clear than the intelligible. But that is simply the ground of the analogy. Mistiness is not the mother of imagination, and a great artist does not construct his figures with such looseness.

As the purpose of this paper is merely to ask whether a metaphysical dualism is betrayed in these similes, we need not enter in detail into the problems arising out of the upper line. It is enough to say that the apparent prominence of objects in the lower line has led commentators to interpret the upper line as a classification of objects or kinds of objects. But if the account of the upper line is read without this prepossession, it is clear that Plato formulates two successive *methods* by means of which the intelligible is systematically investigated, and that one of these, with its objects, is clearer than the other. His distinction, in fact, corresponds to the difference between the propædeutic and the dialectic. The arts, as Plato calls them, are less clear, like image-gazing, because they are self-limited. They assume as 'immovable' their hypotheses, which are not absolute, but the starting-point of fragmentary though coherent systems. It follows as a secondary mark of this limitation that the objects of the 'arts,' being relatively simple, can be represented by visible diagrams.[1] On the other hand dialectic acknowledges no absolute starting-point but the Good, and uses the hypotheses as stepping-stones, nor does it need the help of visible images. Since it is direct, and can 'give an account' of things, this method may be called science in the true sense because it gives *assurance*.

The break between the upper and the lower line is therefore simply the break that must be made between a piece of symbolism and its antitype if the analogy is not to end in hopeless confusion. There is no metaphysical dualism because the objects and the states in the lower line have no more than the ghostly life of a symbol. This result is not invalidated by the fact that the mathematician may take his diagrams from among the objects in the lower line. If Plato had said that his science arises from the contradictions of sense in the lower line, then a difficulty would have to be faced. But he has in mind the mathematician, who, conscious that his objects are intelligible only, uses visible symbols of those objects as aids in the search. In short: the two methods have for their sole aim the organization of the intel-

[1] To take a modern parallel: it is simple to make a picture of a three-dimensional world, but the four-dimensional space-time continuum conceived by the general theory of relativity does not admit of this aid to the imagination.

ligible, but they differ in clearness because the one reasons down from an ἀρχή which is taken as immovable though it is not immovable, while the other reasons up to an ἀρχή which is really immovable because it is absolute.[1]

IV.

The Cave.

The Cave is an allegory of education and the want of it (514 *a*). If we place any confidence in the train of reasoning suggested above, the region in the sun outside the cave must be the place of knowledge and education. As in the Line, gazing at the natural images in the sun signifies the propædeutic stage, and gazing at the originals the dialectic. But here the dialectic is figured in its full process, and a young man, rescued from another kind of sight, is led through all stages of the dialectic till he sees the source of all knowledge and reality. On the other hand the prison-house of the cave should mean want of education (ἀπαιδευσία) whatever that may prove to be. It is a system of half-lights and illusions.

Now the whole imagery of the allegory has been taken as a Jacob's ladder,

> 'Its foot in dirt, its head amid the skies.'

On this view the cave represents grades of opinion, which naturally and necessarily precede organized knowledge. This theory of a graduated ascent is the offspring of the union of the Line and the Cave. The passage which is thought to direct the usual application is as follows (517 *b*): 'Now this simile, my dear Glaucon, must be applied in all its parts to what we said before;

[1] I must here acknowledge my debt to Mr. J. L. Stocks's paper in the *Classical Quarterly* for 1911. We disagree in that he, while seeing the illustrative function of the proportion, still considers the lower line to be real and identical with the cave. It is right to mention that Dr. Henry Jackson takes the objects in the lower line as purely illustrative, but identifies them with the images and originals both inside and outside the cave, where he sees a 'two world theory.' As I did not see Mr. Jackson's paper (*Jour. of Philology*, X) till my first draft was written, it is Mr. Stocks who led me to see the significance of the proportion.

the sphere revealed to sight being likened to the prison dwelling, and the light of the fire therein to the power of the sun. If you will set the upward ascent and the seeing of the things in the upper world with the upward journey of the soul to the intelligible sphere, you will have my surmise; and that is what you are anxious to have.'

If this sentence is interpreted in the traditional manner, Plato is guilty of some curious oversights. The application of the allegory to the upper line—surely the most important part of the figure—is not mentioned specifically. He uses the *sun* and the *visible* in an ambiguous way: for in the Line the sun does not appear, while in the allegory the sun and the visible certainly symbolize the intelligible. And he even takes pains to bring the ambiguity before our eyes. For the phrases 'the sphere revealed to sight' and 'the power of the sun' have the very ring of the symbolism of light—yet they must be awkward periphrases for the sensible if we accept the current view. I have already remarked upon the extraordinary difficulty that commentators experience in applying the abundant imagery of the Cave to the meagre proportions of the quadripartite Line. But Plato does not say that the figure of the Cave must be applied to the Line. He directs that the figure should be attached[1] *to what was said before*—that is, to the *two* previous analogies of the sun and the visible region. The third simile is the natural development of its predecessors, the Sun and the Line. It re-integrates the system of the sunlight in the visible region *outside* the cave, and Plato asks his readers to compare the prison dwelling with this region revealed to sight—the imperfect light of the fire, which is a symbol, with the power of the sun, which has never been anything else than a symbol. That is: he contrasts a new symbolism with the old, assuming that his readers will seize the obvious contrast between the lights.

But his readers have nevertheless identified the puppets and shadows in the cave with the originals and images of the lower line, a procedure which works havoc with the interpretation.

[1] The word is προσάπτειν, which is used in the *Frogs* to describe the fitting of a tag on to verses in Euripides' prologues.

Imagery of the Allegory[1]		*Interpretation*
(*Symbolism re-integrated from the first two similes*)	Sun	Form of the Good
	Originals	Forms themselves
	Natural Images	Objects of διάνοια
(*New symbolism parallel to and contrasted with the old*)	Fire	
	Puppets	
	Shadows	Realm of ἀπαιδευσία

The originals and images in the lower line are identical with the originals and images in the sun outside the cave; they symbolize the intelligible because they are seen in the sunlight, which signifies truth; neither the one set nor the other has any additional significance; the objects in the firelight belong to a different system and mean something different. To identify the objects in the lower line with the objects in the cave is to ignore the plain indications of the symbolism of light, and it is equally arbitrary and even more inconsistent to identify the lower line with objects both outside and inside the cave. If some still contend that consistency should not be expected here, I can only remind them of a retort of Henry Sidgwick's to an opponent who suggested that a contradiction he pointed out might be a mark of a higher truth: he replied that he had never been able to distinguish contradictions which were marks of the higher truth from those that were signs of error. These inconsistencies are inherent in the interpretations, which ignore the central point of Plato's figure—that the sun and objects seen by its light symbolize the intelligible, and the fire and objects within its system signify a human θεωρία, whatever that may prove to be: and they ignore it because interpreters first identify the visible with the sensible, and then make the firelight symbolize the sensible. So much for the symbolism. The second sentence in 517 *b* explains its general meaning. The rescue is like the upward journey of the soul to the intelligible—but from what?

[1] I subjoin Adam's application for comparison:

A (Cave)		*B* (Line)
1. Fire	=	Sun
2. Shadows of puppets	=	Shadows cast by sun
3. Puppets in cave	=	Originals in ὁρατόν
4. Ascent from cave into ὁρατόν	=	Ascent from the ὁρατόν into the νοητόν

Column *A* symbolizes column *B*. Observe that ὁρατόν in *B* 3 means the sensible, in *A* 4 it is a symbol of the intelligible and nothing else, and in *B* 4 again it must be the sensible and opinable.

Let us recall Plato's problem. It was whether it is psychologically possible to rescue some from the corrupting pressure of the ordinary pleasures and ambitions. Society made men bad. Now the cave is called a human affair (517 *d*), and seems to be entirely a human device. It is a prison house (like the den of Giant Despair) which men by craft make to appear a house of pleasure (ἀγοητεία). The showmen who manipulate the puppets manage a shadow-play—what our grandfathers called a galanty-show and the Elizabethans a motion. When we consider the bonds of the prisoners, their cramped posture, their inability to see anything but the shadows, it is impossible to argue that their state is naïve lack of education. Nor are the danger to the life of the rescuer (517 *a*) and the struggle to drag the prisoner clear of the cave, reconcilable with the assumption that a natural process of education can be carried on in the cave. It is a 'nocturnal day,' a Hades with no breath of the 'air that carries health from happy regions.' The allegory figures, not a Jacob's ladder rising step by step to the Good, but an ἀγών between two opposing 'lives' or ends.

The background of the figure is the time-honoured question of the Greek sages: What 'life' ought the wise man to follow, the life of honour and pleasure, or the life of theory?[1] They are as far apart as the feeble existence of a ghost and the healthy life of a man upon the earth (516 *d*). The cave and the upper region, in fact, signify two diverse systems of ends, and the symbolism is exactly adapted to bring out this vital distinction. For in the sun the eye is naturally drawn from the shadows to the originals, and so to the source of light: these shadows 'draw' to the Good. But the end of the cave is the shadow-play, and the puppets and fire are human machinery to create illusory shadows. The prisoners are 'turned the wrong way and look where they ought not to look' (518 *d*), nor can they unaided see what produces the shadows. The cave, in short, is a system of ends hostile to the Good, and is planned to keep down as manifestly as the visible region is adapted to draw upwards.

[1] But for Plato theory must not remain mere theory; it must be used in the state. There is an absolute break between the ordinary life of the cave and the life of theory because the followers of the two ends, politics and theory, each despise the ends sought by the others.

This ἀπαιδευσία is that described in Book VI, where Socrates speaks of a noble nature ruined by a false education (491 *e*).[1] It flatters the competitive and pleasure-loving instincts of man. Now the allegory makes it abundantly plain that the cave fosters political ambitions and produces the political man, unrestrained by the knowledge of the Good and given over to the lust for power and the unbridled pleasures described in Books VIII and IX. The rewards of the cave are honour and pleasure, and its inevitable penalty is that men who remain there, warped and corrupted, forget their bonds and desire nothing nobler.

Such perversion can only be arrested by the kindly force of a physician before it becomes irremediable. Hence the rescue is called a 'loosening and healing' (515 *c*). The prisoner, with no knowledge of the source of the shadows, cannot recognize in the puppets the insignificant cause of his galanty-show. (This incredulity is commonly called πίστις, belief!) If it is necessary to define the puppets beyond saying that they are the machinery to produce shadows, they may be called human artefacts (εἴδωλα)[2] which counterfeit the true objects of knowledge outside the cave, magnified by the fire to make a shadow-play and only known for what they are after the prisoner returns to the cave (520 *c*).

The prisoner is so bemused that he must be dragged against his will clear of the cave. The bonds, the struggle, the steepness of the way—all these are signs of the great gulf between the two systems of ends, the feverish guessing at the shadow-play in the gloom contrasted with the spectacle of the sun without. What do these obstacles represent? The men in the cave have been in part cajoled, in part forced to seek inferior goods, in especial the life of ambition with its reward of honour (τιμή). The cave hardens the dispositions of τὸ θυμοειδές and τὸ ἐπιθυμητικόν into a 'way of life.'[3] This life is moulded by the showmen; and rewards and punishments are the instruments which secure the

[1] The best commentary on the allegory, with its opposing ideals, are pages 491–3 of Book VI.

[2] See Shorey, *The Idea of the Good in Plato.*

[3] One naturally thinks of the Pythagorean apologue of the three ways of life (theory, competition, and trade), which is connected, as Mr. Stocks has shown (*Mind*, 1915), with Plato's analysis of the functions of the soul in Book IV.

allegiance of the young to the established system. If the allegory has any artistic consistency, it is impossible to gloss over these obstacles, to interpret the machinery of the cave as aids to reflection, and to see in the puppets and the fire, focussed as they are upon the shadow-play, no more than natural steps on the way to truth. There is a great moral and intellectual conversion, a leap enforced 'from Satan's foot to Peter's knee'; and the cleft between the two systems is a genuine break. The continuity must be sought, not in the objects, but in the mind of the prisoner, who is converted from darkness to light because his nature, if not utterly corrupted, really needs the light.

If this interpretation has anything to commend it, there has been a radical misunderstanding of Plato's purpose. The simile of the sun proved to be a pure analogy. The Line is an analogy, continuing the figure of the visible. The Cave, which was thought to be a variation upon the Line, is concerned with opposing lives, one of which seeks political honour and pleasure, and the other seeks the Good through knowledge and then applies the knowledge in the state. It answers in figure the question of questions —whether it is *possible* to turn men from the low ends of the established state and make philosophers kings. But though the two systems are self-contained, and though there is a real cleft between them, this does not mean a metaphysical dualism because levels of apprehension and grades of objects are not in question.[1] The cave and the visible systems are turned in opposite directions because they are the setting of two systems of ends, and men must be dragged from following the one to the illumination of the other if they are to know the Good and found the ideal state—*tantæ molis erat . . .* !

Plato's end is practical. His philosophers must return to the cave. This explains one significant detail in the summary of the figure, upon which I can only touch here. The man who stops short at the 'arts' cannot know the Good; for he has never gone beyond his hypotheses. He remains in the 'specular' condition.

[1] Is the cave then not the place of δόξα? Yes, but of a blind opinion, deformed and perverted in the interest of the ends of the cave. This opinion is not the natural and healthy state of the young and naïve: it saps the impulse to know.

Not till he has grasped the Form of the Good and argued victoriously through all tests, is he fit to lead others to the Good. That is one reason why the propædeutic of itself is no better than opinon compared with science, and why he is said to remain a dreamer. The intelligible has not imparted to him the nisus which thrusts the mind on to marriage with true Being, and he is unfit to aid in founding or ruling the Kallipolis.

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THE IMPORTANCE OF HERACLITUS.

WE call the early Greek philosophers 'cosmologists,' as their successors called them φυσικοί; and, as usual, the epithet conceals as much as it reveals. The oldest thinkers from whom we have any considerable remains are Xenophanes and Heraclitus. Of the latter's work Περὶ Φύσεως, only one out of the three parts which the ancients recognized was devoted to physical questions proper. The other two parts were devoted to religion and morals. And as for Xenophanes, it is only necessary to read the comparison which he draws between himself and the Olympic victor, to realize what he regarded as the supreme value of his teachings. It is the promise of *good government* and the prosperity which that ensures. For note the point of the comparison: "Even if there arise a mighty boxer among a people, or one great in the *pentathlon* or at wrestling, or one excelling in swiftness of foot—and that stands in honor before all tasks of men at the games—*the city would be none the better governed for that.* It is but little joy a city gets of it if a man conquer at the games by Pisa's banks; it is not this *that makes fat the store-houses of a city.*"[1]

The early philosophers were cosmologists in contrast with the thinkers of the Sophistic period, who had little or no interest in cosmological problems. They were cosmologists in the eyes of the historians, because it was their theories of the cosmos that exhibited the richest historical variety and charm. They are fairly to be regarded as cosmologists *par excellence,* because the whole background of their thought, in relation to which all special problems are viewed, is cosmological. But if we say more than this we exaggerate.

There is another way in which, from excess of caution, we may easily do injustice to these men; and illustrations are not far to seek. It is notorious that the 'love' and 'strife' of Empedocles and the 'intelligence' of Anaxagoras are physical bodies, ex-

[1] Fragment 2, Diehls ed.; Burnet tr.

tended and moving. But if we emphasize this aspect of the matter, we may distort the facts not less seriously than if we neglected it altogether. For the physical characteristics of 'intelligence,' for example, are conceived as they are because of the peculiar functions that are ascribed to 'intelligence'—the teleological ordering of the heavens, on the one hand, and of plant and animal organisms on the other. Picture-minded, indeed, Anaxagoras is; but to set down νοῦς as a finely divided substance with certain definite physical characteristics is utterly insufficient. The like must be said in relation to his brethren.

The first claim of Heraclitus upon the attention of the world —his most distinctive and original contribution, in which, so far as he knew, no other thinker had anticipated him—is his theory of the nature of 'wisdom,' or science. "Of all whose discourses I have heard," he writes, "there is not one who attains to understanding that wisdom is apart from all (πάντων κεχωρισμένον)."[1] His predecessors and contemporaries had endeavored to learn the nature of things. He first turned his attention to the nature of that knowledge, which, in their undiscriminating fashion they had tried to find.

Let it not be urged by way of objection that 'wisdom' is for Heraclitus not wisdom in the abstract but the exceedingly concrete primary substance, the universal fire; or that in a writer of his time a spatial term such as χωρίζεσθαι is not to be taken as a mere metaphor. For to Heraclitus there is no need of metaphor in the case. Wisdom and fire are one; and from his point of view there is not the slightest difficulty connected with their identification. The separateness of wisdom is at the same time a logical and a spatial separateness; and it is both indistinguishably. There is all the more reason for us to be on our guard against being led—by motives of a false historical economy—to ignore the more deeply significant aspect of the matter.

In the first place, science (σοφίη, τὸ σοφόν, νόον ἔχειν, φρονέειν, φρόνησις) must be distinguished from mere information (ἱστορίη), or the knowledge of many things (πολυμαθίη).[2] "The learning

[1] Fr. 18, Bywater's arrangement; Burnet tr.

[2] There is, however, no distinction between theoretical and practical knowledge. Σοφίη is at once knowledge of natural law and practical wisdom—espe-

of many things (πολυμαθίη) teacheth not understanding (νόον ἔχειν), else would it have taught Hesiod and Pythagoras, and again Xenophanes and Hekataios."[1] "Pythagoras, son of Mnesarchos, practiced inquiry (ἱστορίην) beyond all other men, and choosing out these writings, claimed for his own wisdom (σοφίην) what was but a knowledge of many things (πολυμαθείην) and an art of mischief."[2] It is in the sense of this distinction that the term κεχωρισμένον, noted above, must primarily be taken.

On the other hand, the knowledge of particulars is necessary for science. "Men that love wisdom (φιλοσόφους) must be acquainted (ἴστορας) with very many things indeed."[3] And the particulars must be established by direct observation. "The things that can be seen, heard, and learned are what I prize the most."[4] But the observed facts must be understood. "Eyes and ears are bad witnesses to men if they have souls that understand not their language (βαρβάρους ψυχάς)."[5]

The distinguishing characteristic of science is its universality. "Wisdom (τὸ σοφόν) is one thing. It is to know the thought (γνώμην) by which all things are steered through all things."[6] Science is universal, first, in its application. ". . . All things come to pass in accordance with this Word. . . ."[7] Secondly, it is universal in its validity for men. There is diversity of opinion, but there is one science for all. "So we must follow the common, yet the many live as if they had a wisdom (φρόνησιν) of their own."[8] Its validity for all men is, of course, far from implying that all men recognize it. "They are estranged from that with which they have most constant intercourse."[9] A multiplicity in science would amount to a multiplicity of worlds; but the world "is the same for all."[10] It is only for our uncontrolled imagination that this could fail to hold. "The waking have one common world, but the sleeping turn aside each into a world of his own."[11] "It is not meet to act and speak like men asleep."[12]

cially wisdom in the conduct of government. The explicit refusal of Socrates to distinguish between wisdom and temperance is exactly in accord with the spirit of the Ionians.

[1] Fr. 16.
[2] Fr. 17.
[3] Fr. 49.
[4] Fr. 13.
[5] Fr. 4.
[6] Fr. 19.
[7] Fr. 2.
[8] Fr. 92.
[9] Fr. 93.
[10] Fr. 20.
[11] Fr. 95.
[12] Fr. 94.

With regard to method the fragments have nothing to say. We find only warnings of the necessity of faithful endeavor in spite of obstacles. The task is supremely difficult. "Nature loves to hide."[1] "If you do not expect the unexpected, you will not find it; for it is hard to be sought out and difficult."[2] "Those who seek for gold dig up much earth and find a little."[3]

It is more than probable that Heraclitus had nothing to say about scientific method. Plato tells us that Heraclitus's followers (of the Sophistic period) did not distinguish between perception as such and knowledge.[4] It may be assumed *a fortiori* that no very fundamental distinction of this sort existed in Heraclitus: that for him knowledge and opinion were alike perception. When we look over the fragments to see how the difference between those who know and those who do not know is described, we find only this set down: that the former perceive what escapes the latter's attention. "For though all things come to pass in accordance with this Word, men seem as if they had no experience of them. . . ."[5] "The many do not take heed of such things as those they meet with, nor do they mark them when they are taught, though they think they do."[6] Hence the common inability to understand scientific doctrine. "Fools when they do hear are like the deaf: of them does the saying bear witness that they are absent when present."[7] But if knowledge is no more than duly attentive perception, a theory of method is superfluous. The beginnings in this field must be ascribed to Parmenides.

Nevertheless, when this important reservation has been made, it remains true that the distinction between science and natural history, on the one hand, and the distinction between science and opinion, on the other hand, are laid down by Heraclitus substantially as they have remained through almost the whole later course of speculation.

Heraclitus's theory of nature is based upon an induction of the greatest range and moment—a generalization which is now

[1] Fr. 10.
[2] Fr. 7.
[3] Fr. 8.
[4] *Theaetetus*, 179 D.
[5] Fr. 2.
[6] Fr. 5.
[7] Fr. 3.

part and parcel of our educated common sense, but which when first proposed constituted one of those profound transformations by which the world of barbaric tradition has grown to be the world of science. To ordinary observation nothing is more evident than the distinction between motion and rest, between that which changes and that which abides. Change appears to be by no means universal. Most of the things that we contemplate appear to be stable. If the guess might be hazarded that everything must at some time or other be in some degree modified, it is none the less clear to us, as we look abroad upon the world, that most things are motionless most of the time.

To Heraclitus we owe the observation that change is universal and continual.[1] The thing that seems to keep its individuality untouched is in truth like a river. From one moment to another, every part of it is transition. To speak of it as the 'same' is only half true. "You cannot step twice into the same rivers; for fresh waters are ever flowing in upon you."[2] And that which seems most individual, the self of each one of us, is not exempt. "We step and do not step into the same rivers; we are and are not."[3]

Upon what evidence was this conclusion based? Upon the best evidence that was available—evidence which has been considerably enlarged since Heraclitus's time, but which has not been essentially improved upon. As a matter of fact, such propositions can never be formally demonstrated. As well try to demonstrate the uniformity of nature. However far our study of change may go, the experience has its limits; and beyond those limits, either in an encircling ἄπειρον or in an elementary particle, the changeless still may lurk. We accept the universality of change, not because it is proved but because it appeals to us,

[1] The nearest approach that had been made to the universal flux had been in the doctrine of Anaximenes that air is always in motion, "for if it were not it would not change as much as it does." Burnet's comment is thus beside the point: "Meanwhile we remark that the idea was not altogether novel, and that it is hardly the central point in the system of Heraclitus. The Milesians held a similar view. The flux of Heraclitus was *at most* more unceasing and universal" (*Early Greek Philosophy*, 2d ed., p. 162; my italics).

[2] Frs. 41, 42.

[3] Fr. 81.

and it appeals to us because it lies in the direction of our expanding knowledge. So much that to a superficial view has appeared to be at rest has upon examination showed itself to be compact of motions, that nowhere any longer can we find credible evidence of a limit to this state of affairs. So it was with Heraclitus. The example of the river faithfully records his thought. The hills, the sky, the stars seem stable. But so does the river, if one looks at it from a distance. Even so, "the sun is new every day."[1]

If change is universal, why is it not generally discernible? The most natural explanation would seem to lie in the slowness of the processes. Heraclitus does not reject this explanation and he doubtless made use of it. But he emphasizes a very different explanation. It is that each process is compensated and thus concealed by another and opposite process. The corollary of universal change is universal opposition. "Homer was wrong in saying: 'Would that strife might perish from among gods and men!' He did not see that he was praying for the destruction of the universe; for, if his prayer were heard, all things would pass away."[2] "Men do not know how what is at variance agrees with itself. It is an attunement of opposite tensions, like that of the bow and the lyre."[3]

How Heraclitus was led to this interpretation of the facts we do not know. But there are certain circumstances (strangely overlooked by the commentators) which were ready at hand and which may well have influenced him.

Anaximander (as Aristotle informs us) defended his theory of the infinitely extended primal substance on the ground that only if this were unlimited in amount could the processes of nature be endlessly prolonged. Hence arose the theory of the innumerable worlds, scattered through the boundless universe, ever coming into existence and passing away. Now, for reasons which we have already suggested, Heraclitus was opposed to this theory; in fact we have the indirect testimony of Theophrastus that he definitely rejected it. The universe, he held, is finite,[4]

[1] Fr. 32. [2] Fr. 43. [3] Fr. 45.

[4] Against this statement must be considered Fragment 71: "You will not find the boundaries of soul [the primary substance] by traveling in any direc-

and there is but a single world. A plurality of worlds would not lie down easily with the unity of science. As little would the notion of a world that arises and passes away. "This world," he wrote (using the technical term κόσμος which must just then have been coming into fashion), "which is the same for all, no one of gods or men has made; but it was ever, is now, and ever shall be an ever-living Fire, with measures kindling, and measures going out."[1] But if the all is limited and the world is one, how is the argument of Anaximander to be met? How does natural change continue? Heraclitus, we may surmise, finds the answer in his theory of compensation. If natural processes were simple—if there were no opposition—the world indeed could not continue. But if every process is double, containing moments which are opposed and mutually balanced, the continuance of the cosmos is assured. Plato, in his rendering of Heraclitus's theory of human survival after death, uses a similar argument,[2] and there is little doubt that he is here reproducing what was in the older thinker's mind.

tion, so deep is the measure of it." But the language is not decisive; and, indeed, the concluding words (οὕτω βαθὺν λόγον ἔχει) imply for the Greek rather finitude than infinitude. (βαθύς, of course, means simply *large;* there is no necessary implication of *downward* in it, any more than in *altus*). The fragment cannot safely be taken to mean more than that the all is animate; which, from Heraclitus's point of view is equivalent to asserting the universality of natural law. All things considered, we cannot do better than follow the ancient tradition.

[1] Fr. 20.

[2] *Phaedo, 72* B–D. The relation between Plato and Heraclitus, with respect to the doctrine of survival, is easily misunderstood. The debt of the younger thinker to the older is indeed evident. Heraclitus's reasoning is faithfully reproduced as an essential factor in the argument of the *Phaedo*. Life and death are typical opposites that pass into each other in the everlasting oscillation. "And it is the same thing in us that is quick and dead, awake and asleep, young and old; the former are shifted anl become the latter, and the latter in turn are shifted and become the former" (Fr. 78). Moreover, as in the *Phaedo,* the state after death is of the nature of a reward or punishment: "Greater deaths win greater portions" (Fr. 101). And this fact, as in the *Phaedo,* implies a continuance of the individual. (This has been held to be inconsistent with the theory of the universal flux; but it is no more so than the duration of the present life). On the other hand, in the teaching of Heraclitus, there is no implication of individual *immortality,* and every motive for questioning it; and Plato, in taking over his argument, is far from assuming that it warrants any such conclusion.

Heraclitus's theory of the primal substance follows almost inevitably from his conception of the universality of balanced change. That there was such a substance he did not call in question. It is part of his heritage. The doctrine that in its transformations this substance does not alter in amount is first (so far as we know) stated by him;[1] but it is clearly implied in the theories of his predecessors, especially in Anaximenes's theory of rarefaction and condensation. Heraclitus accepts without question the conception of the primal substance as not only that of which things are made, but that which makes them. It is the source of all motion, that is to say, of all life. It is itself a living being, conscious, rational, supremely just. The portion of the substance present in each one of us in its primitive form is (at least according to Anaximenes, and not improbably according to the earlier Milesians) the soul. Heraclitus uses the term 'soul' freely as a name for the primal substance.

Now water is a mobile substance and is essential to all living things. The 'air' of Anaximenes[2] is if anything more mobile; and it is the breath of life. But if the universal motion is what Heraclitus has declared it to be, the first principle must be such that its very nature, its very existence, is a balanced change. Moreover, perception is at least as characteristic of animal life

[1] Fr. 23.

[2] I enclose the word in single quotation-marks in order to avoid for my text an unnecessary complication. But in this note I wish to touch briefly upon the disputed point. Anaximenes taught that ἀήρ (mist) is everywhere present, though generally in an imperceptible state. When it is rarified or condensed (as fire or cloud, for example), we perceive it, but in its normal state it escapes our observation. In view of these facts, Mr. Burnet declares, air as such must be regarded as unknown to Anaximenes; and its discovery must be assigned to Empedocles, because the latter was the first to recognize it as a distinct substance, different from mist and water. This appears to me to be altogether illogical. Anaximenes, like his predecessors, believed, of course, in a single first principle; and all the forms in which this presents itself are, according to his theory, distinguished only by their different degrees of rarefaction and condensation. But the invisible ἀήρ, according to him, is as distinct from visible mist as it is from fire, or as water is from earth. Shall we say that air was not discovered till modern chemists isolated its constituents? As for Mr. Burnet's assertion that Empedocles's clepsydra-experiment proved that air was distinct from vapor of water, it is absolutely without foundation. (*Cf.* Burnet, *Early Greek Philosophers*, 2d ed., pp. 78 ff., 263 ff.)

as breathing; and in the case of vision it is evidently (to naïve observation) a *shining forth* of light from an internal source. The flame which maintains itself by consuming its fuel and passing away in smoke, and which sends out light in all directions, is clearly what is required. Add to all this the phenomenon of bodily heat, and the identification of fire and soul is inevitable.

With regard to the general course of natural changes Heraclitus has nothing new to say. Anaximenes had arranged the various form of matter, not in pairs of opposites, but in a linear series, according to density, from fire to earth and stones; and he had declared that they passed into one another, to and fro, in this order. Heraclitus takes over this scheme. He simplifies it by taking together 'air' and water as water,[1] and, conventionally enough, putting all solids under the head of earth. The transformations of substance are then in the order, backward and forward, of fire, water, and earth. The Theophrastean tradition is that he accepted Anaximenes's doctrine that the transformations are essentially changes of density, but that he "explained nothing clearly." This may well be true. The fragments speak only of 'transformations' (τροπαί) or, metaphorically, 'exchange' (ἀνταμοιβή): "All things are an exchange for Fire, and Fire for all things, even as wares for gold and gold for wares."[2]

However that may be, the only original feature of Heraclitus's theory of the matter is his application to the cycle of changes, of his theory of universal opposition. Every change is accompanied by its opposite; or rather the two form but a single unity. "The way up and the way down is one and the same."[3] In this application, if we are to judge from the somewhat scanty evidence, the triple division is somewhat of a nuisance. Water occupies a middle position, where it should be equally opposed to fire and to earth. But, as a matter of fact, in the particular explanations that have come down to us, it is only fire and water that count in any active way. The hot, dry fire struggles with the cold, wet water; and the struggle is the existence of both and of all things. Earth counts only as a passive spectator.

It has often been pointed out that if the balance of changes were indeed complete, the theory would have explained apparent

[1] Frs. 25, 21. [2] Fr. 22. [3] Fr. 69.

rest too well—it would have made perceptible changes impossible. The balance must therefore be a moving one: it is an oscillation. The principle appears to be that, since each of the forms of matter depends for its continuance upon the existence of the others, any temporary encroachment, or excess of one form over another, gives rise to a later recession, or defect.[1] It is in this way that the great cyclical changes of nature—in particular the succession of the seasons and the alternation of day and night, are accounted for. Fire and water are the great enemies. The warm, dry day and summer, and the cold, damp night and winter, mark the ascendancy of the one and the other.

How far does the oscillation ever go? In particular, does it ever lead to a swallowing up of all things in fire? The fire, being unfed, would instantly begin to go out; so this condition of affairs would be only momentary. In that moment the opposition of force would have disappeared in a perfect concord, which would in a sense be the destruction of the world, though in a deeper sense the world—that is, the uniformity of nature—would still prevail. Did Heraclitus believe that this might, or indeed would, happen? The natural interpretation of his words would imply this: "Fire in its advance will judge and convict all things."[2] Largely on the ground of a supposed logical inconsistency, some have been unwilling to accept this interpretation, and have insisted that the fire need not "convict" everything at once. That is possible but not plausible; and the underlying motive is clearly mistaken. There is no more contradiction involved in the utmost conceivable swing of the pendulum than in the least of perceptible oscillations. "The sun will not overstep his measures"—this expresses the perfect balance—"if he does the Erinyes, the handmaids of justice, will find him out"[3]—this expresses the oscillation.

It has not been sufficiently appreciated by the commentators that in Heraclitus's theory of balanced change we have to do

[1] The reasoning is thus similar to that by which naturalists explain the balance of a given flora and fauna. Consider, for example, a species of carnivora and their habitual prey. If the prey become scarce, the carnivora die down or are dispersed; whereupon the prey multiply rapidly and thus bring about a new increase of their enemies.

[2] Fr. 26. [3] Fr. 29.

with an architectonic conception of the first, or almost the first, importance—a conception comparable in its possible utility with that of latent heat, or perhaps even with that of potential energy. The historical fact is, I suppose, that the conception has remained practically unutilized, a logical scheme without specific application, until almost our own day; that is to say, until its adoption by Gibbs in the formulation of the theory of phases.

The various aspects and consequences of the universal opposition are developed by Heraclitus in a remarkably thoroughgoing fashion. (1) Contraries mutually imply each other, thus forming a single complete unity. "Hesiod is most men's teacher. Men think that he knew very many things, a man who did not know day or night. They are one."[1] "Couples are things whole and things not whole, what is drawn together and what is drawn asunder, the harmonious and the discordant. The one is made up of all things, and all things issue from the one."[2] "Good and ill are one."[3] (2) The opposites are constantly passing into each other. "Cold things become warm, and what is warm cools; what is wet dries, and the parched is moisted."[4] (3) Each opposite is indistinguishable without the other. "Men would not have known the name of justice if these things were not."[5] (4) An immediate consequence of this is a principle of great moment; namely, that opposites must be understood together. There is no incontestable evidence in the fragments that Heraclitus drew this inference;[6] but it lies so close to his center of interest that he can hardly have overlooked it. It means that there is not one theory of the warm and another of the cold, one theory of the dry and another of the wet, one of day and summer and another of night and winter. As the opposites are conjoined in reality, so they must be conjoined in knowledge. (5) But the most interesting application is found in Heraclitus's theory of values: "Good and ill are one." This proposition apparently has a

[1] Fr. 35.

[2] Fr. 59. Or, if we continue to read *συνάψειας* instead of *συνάψιες*, "You should couple together things whole," *etc.*

[3] Fr. 57.

[4] Fr. 39.

[5] Fr. 60; evidently referring to acts of injustice.

[6] But see note 3.

double sense. In line with what we have just noticed is the interpretation, that good and evil are conjoined in each man's experience, passing into each other much like any other pair of opposites. "It is not good for men to get all they wish to get. It is sickness that makes health pleasant; evil, good; hunger, plenty; weariness, rest."[1] This is one of the Heraclitean doctrines which the Socrates of the *Phædo* has taken over. But also what is good for one is bad for another. "Swine wash in the mire, and barnyard fowls in dust."[2] "The sea is the purest and the impurest water. Fish can drink it, and it is good for them; to men it is undrinkable and destrucitve."[3] At the same time, all things, however good or bad, enter into one world, the ever-living fire, and all are in accordance with its constitutive law. Thus in relation to the world, nothing is evil. "To God all things are fair and good and right, but men hold some things wrong and some right."[4] This doctrine, that evil is relative to the limitations of the creature, has had historical consequences upon the importance of which it is not necessary to dwell. From the *Timæus* to our own day its influence has been unbroken.

Again, in the field of ethics and politics, Heraclitus is the author of theories almost equal in their importance and in the extent of their continued influence, to his theory of science. The fact must not be lost sight of that, writing at the beginning of the fifth century, he included reflections of this nature within the range of his systematic thought. For he is no mere proverbial moralist. He is as much the philosopher in his theory of practice as in his theory of the cosmic order; and, indeed, the two theories are most intimately conjoined.

His contributions in this field may, for the most part, be brought under two heads: *intellectual asceticism* and *intellectual aristocracy;* the latter, however, being his characteristic application of a far more general principle, that of the *life according to nature.*

Underlying all his practical philosophy is the conception, introduced into philosophy by Anaximenes, of the analogy between the macrocosm and the microcosm. The world, the Milesian

[1] Fr. 104. [2] Fr. 53. [3] Fr. 52. [4] Fr. 61.

had said, is a living, breathing being, and its breath is its soul. Heraclitus applies the conception to his own theory of the primal substance. In man, as in the cosmos as a whole, there are fire, water, and earth; and the fire is the soul.

The relation between the soul within and the soul without is described in a well-known account preserved in Sextus Empiricus.[1] The theory is an almost inevitable modification of that of Anaximenes, in accordance with the changed first principle. Anaximenes is right, of course, in supposing that the life in us is constantly fed from without; and he is right in fixing upon breathing as a way in which this process takes place. But breathing by itself is capable of maintaining only a low intensity of life. We breathe even in sleep. What distinguishes waking life, the life of active intelligence, is that the senses are open—as we see in the case of the open eyes, and as is evident enough in the renewed activity of the other senses—and that through them we come into a fuller contact and communion with the mind without. "Just, then, as embers, when they are brought near the fire, change and become red-hot, and go out when they are taken away from it again, so does the portion of the surrounding mind which sojourns in our body become irrational when it is cut off, and so does it become of like nature to the whole when contact is established through the greatest number of openings."

In man, as in the cosmos, the everlasting struggle between the opposites goes on; and here, as there, the opposition that really counts is that between fire and water. It is this which provides the general schema for the explanation of the rhythm of life, as it does for that of the rhythm of nature. And, in particular, it serves to bring under the one general conception the moral conflict. As generally, though by no means universally, in later Greek philosophy, the special activity of the soul is regarded as intelligence, or reason. Passion is viewed as something really foreign to the soul; it is impressed upon it from without. For Heraclitus, 'pleasure' is the activity of the water in man upon the fire: "It is pleasure to souls to become moist."[2] It is note-

[1] *Adv. Math.*, pp. 129 ff. Burnet has given a clear and simple rendering of the passage; *op. cit.*, p. 173.

[2] Fr. 72.

worthy that here, as so often in later usage, 'pleasure' means, not simply what we should mean by the term, but the indulgence of passion, a certain absorption in the satisfaction of appetite—what Browning in true Heraclitean fashion has called: "Sense quenching Soul." We are not surprised, therefore, at Heraclitus's attitude toward this phenomenon. It betokens for him the destruction of that which is most worthy in us. "Wantonness needs putting out, even more than a house on fire."[1] "It is hard to fight with one's heart's desire. Whatever it wishes to get, it purchases at the cost of soul."[2]

Thus already in Heraclitus[3] the intellectualistic ideal—the idol of the cave of the Greek thinker—asserts itself; and it finds expression in a withering contempt for the vast majority. "There are many bad and few good." Among the common herd the appetites have an absolute mastery: "Most of them are glutted like beasts." In a few noble instances, the one thirst for glory is dominant: "For even the best of them choose one thing above all others, immortal glory among mortals."[4] "Gods and men honor those who are slain in battle."[5] But a radically different type of man exists, exceedingly rare though it may be—one in which reason is supreme: "The dry soul is the wisest and best."[6]

That human wisdom is due to contact of human reason with the divine reason, is illustrated with especial clearness in the field of politics. The laws of cities, imperfect as they are, are the best of human possessions—"The people must fight for its law as for its walls"[7]—and they are derived from the laws by which the whole world is controlled: "For all human laws are fed by the

[1] Fr. 103.

[2] Frs. 105–107.

[3] Not improbably before his time. For the same ideal was present in the Pythagorean society and may have descended from their founder.

[4] Fr. 111.

[4] Fr. 102. Perhaps this fragment should be interpreted as conveying a higher praise than its juxtaposition with Fr. 111 would indicate. It was a familiar Greek conception that the supreme sacrifice of the soldier meant the subjection of all other impulses to the respect for law; and this, for Heraclitus, would be a subjection of passion to reason. Heraclitus is so ardent a militarist, that in his enthusiasm he may well upon occasion rank the soldier with the scholar.

[6] Frs. 74–76.

[7] Fr. 100.

one divine law."[1] Accordingly a criterion is found for the value of human laws: *they are good or bad as they accord or fail to accord with the universal tendencies of things.* The just law is that which, in this sense is in accordance with nature. Once more Heraclitus is the great initiator. At the dawn of science he already employs—if he does not openly proclaim—a principle, which for good or ill has profoundly influenced the later course of speculation.

Heraclitus's own special application of the principle—apart from his militarism—is to the criticism of democracy and the defence of the rule of the "one wise man." In the first place, the differences of rank among men are a consequence of the universal struggle. "War is the father of all and the king of all; and some he has made gods and some men, some bond and some free."[2] Thes differences are natural and necessary, and therefore right. But, furthermore, it is natural law that those who know, however few they may be, should direct those who do not know. The validity of knowledge is altogether independent of the number of those who possess it. The truth is not to be determined by counting heads. "One is ten thousand to me, if he be the best."[3] Hence—"It is law, too, to obey the counsel of one."[4] Democracy is the very inversion of justice. It is the leveling-down of the state to the stature of the mob. Its most prominent trait is the intolerance of superior ability. "The Ephesians would do well to hang themselves, every grown man of them, and leave the city to beardless lads; for they have cast out Hermodorus, the best man among them, saying, 'We will have none who is best among us; if there be any such, let him be so elsewhere and among others.'"[5] Here, too, Heraclitus anticipates the Socratic-Platonic doctrine.

One of the three portions of Heraclitus's treatise was devoted to his religious teaching. If reason in man is fire, so the universal fire is reason. The "thought that steers all things through all things" is thought like ours. But it is more than that: it is ideal thought. "The way of man has no wisdom, but that of

[1] Fr. 91 b.
[2] Fr. 44.
[3] Fr. 113.
[4] Fr. 110.
[5] Fr. 114.

God has."[1] "Man is called a baby by God, even as a child by a man."[2] The cosmic order is supremely beautiful and excellent: "The wisest man is an ape compared to God, just as the most beautiful ape is ugly compared to man."[3] Accordingly, in the double interest of clear thinking and decent living, the popular religion (and the poets as its expounders) are bitterly assailed. In this attack Heraclitus is preceded by Xenophanes, and he goes beyond him only in the fierceness of his satire.

But in Heraclitus's treatment there is this that is distinctive: that the criticism is intimately connected with his theory of science. He will not admit any *authority* whatsoever, except the witness of reason itself. The most revered poets have, as a matter of fact, been ignorant of the very elements of wisdom.[4] But even in his own case he is careful to say: "It is wise to hearken not to be but to my Word."[5]

In the details of the criticism, it is noteworthy that the Olympian and the Dionysiac religions fall equally under his condemnation—or that if either is more severely handled it is the latter. The notion of Zeus may, indeed, be regarded as a foreshadowing of the truth. But, "The mysteries practiced among men are unholy mysteries,"[6] the phallic hymn is "shameful";[7] in their sacrifices, "they vainly purify themselves by defiling themselves with blood,"[8] in their prayer to the images, it is "as if one were to talk with a man's house."[9] Even the rites of burial are irrational: "Corpses are more fit to be cast out than dung."[10] Intellectual emancipation never went beyond this. But perhaps the most perfect expression of Heraclitus's rationalism is to be found in the following brief phrase: "Man's character is his fate (δαίμων)."[11] The old magico-religious conception of a supernatural control over individual destiny is a delusion. The sources of happiness and misery are not to be looked for in such a power, but in the natural individual himself.

To the ancient popular consciousness, the most striking feature of Heraclitus's philosophy—aside from its obscurity—was

[1] Fr. 96.
[2] Fr. 97.
[3] Frs. 98–99.
[4] Frs. 35, 45.
[5] Fr. 1.
[6] Fr. 125.
[7] Fr. 127.
[8] Fr. 129.
[9] Fr. 126.
[10] Fr. 85.
[11] Fr. 121.

its pessimism. He was the 'weeping philosopher.' Certain of the fragments amply justify the characterization. Yet we have seen him upholding the doctrine that the world as a whole is perfect —that for God all things are right and good. How are such optimism and such pessimism reconcilable, and how, indeed, are they reconciled?

It requires no very deep examination to show that they need no reconciliation—that they are substantially the same doctrine. For we see that 'good' in relation to the world means simply 'in accordance with the universal law of nature'; and the supreme law, if Heraclitus is right, is that every change is balanced by an equal and opposite change. All human efforts are self-annulling. Every victory is a father of defeat. Not only do all things flow, but all things *turn;* and, as Heraclitus says, "In the circumference of a circle the beginning and the end are common."[1] There is no real progress, no genuine accomplishment. The course of history is but the endlessly repeated alternation of birth and death. "Man is kindled and put out like a light in the nighttime."[2] "When they are born, they wish to live and to meet with their dooms—or rather to rest—and they leave children behind them to meet with their dooms in turn."[3] It is all good, in the sense that it is all *regular;* but it is also absolutely *idle.* "Time is a child playing draughts"—without care or forethought, moving us poor 'men' about his checkered board—"the kingly power is a child's."[4]

The formula of optimism and the formula of pessimism are one and the same: *this* is the best of possible worlds.

THEODORE DE LAGUNA.

BRYN MAWR COLLEGE.

[1] Fr. 70. [2] Fr. 77. [3] Fr. 86. [4] Fr. 79.

THE MECHANICAL VERSUS THE STATISTICAL INTERPRETATION OF NATURAL LAW.

IN recent idealistic philosophy there has appeared an instructive divergence of view with regard to the interpretation to be given to the conception of a law of nature. This difference becomes of especial interest when it is seen to follow as a consequence of an important disparity in the philosophic methods employed by writers who profess common allegiance to the name and principles of idealism.[1] On the one hand, there appears among certain representatives of idealism a tendency to seek truth by withdrawal from the external world to inner consciousness as to a center; and with this there also goes the abandonment of external nature in a measure to the contingent and the inexplicable. On the other hand, there are idealists who look outward rather than inward, who seek truth and values as objective in the actual world, and assume the real to be everywhere the rational. In this paper it is proposed to direct attention to the conflicting views of these writers only in so far as their views find expression in opposing interpretations of natural law. It will be seen that this opposition shows itself in essentially divergent interpretations of nature, leading on the one hand to a statistical view of natural law and on the other to a conception that is in principle mechanical.

The statistical view, as found in Ward and Royce, may first be examined. These writers assert the statistical character of natural law in two senses: first, that natural laws as formulated by the sciences are constructions of subjective consciousness; and second, that they also represent real processes of external nature. The view that natural laws are fundamentally subjective, are the methodological fictions of science, is familiar enough. Most of the laws formulated by science are admittedly no more than rough approximations to the real processes of nature. They are

[1] *Cf.* J. E. Creighton, "Two Types of Idealism," PHILOSOPHICAL REVIEW, Vol. XXVI, pp. 514–536.

only "present methods of bookkeeping, convenient conceptions whereby we summarize observed facts. . . . But they are not . . . known to express anything final."[1] Furthermore, most scientific laws are based on averages struck from large numbers of facts taken together, and claim to hold true only with a certain probability as regards any particular case. "Many of the constants of science," says Ward, "are of the nature of statistical averages."[2] And Royce, affirming the statistical character of scientific knowledge, declares that it is the "type all of the organic and social sciences, as well as most aspects of the inorganic sciences, illustrate;" and that he finds it "hard to exaggerate the importance of those methods and of those ideas of natural science which are definable in terms of approximation and of probability."[3] Recognition by these thinkers of the statistical character of scientific law is due in part no doubt to their knowledge of recent science.[4] Within the past century, success has been claimed for statistical methods in widely varied fields, such as kinetics, molecular physics, biology, meteorology and economics.[5] All these sciences deal with data collectively; their laws are said to be rough averages struck from large collections of facts and to hold true only approximately and with a certain degree of

[1] J. Royce, *The World and the Individual*, 2d ser., pp. 215–216.

[2] J. Ward, *The Realm of Ends*, p. 66.

[3] Royce, *Science*, Vol. XXXIX, p. 562, p. 559.

[4] In particular both are indebted to the views of Clerk Maxwell.

[5] *Cf.* Merz, *History of European Thought in the Nineteenth Century*, Vol. II, Ch. XII. It is indeed striking to find scientists in such widely separated fields as physics and biology—the sciences of matter and of life—alike claiming the use of statistical methods. Clerk Maxwell, speaking for physics, says, "If the molecular theory of the constitution of bodies is true, all our knowledge of matter is of a statistical kind." (Campbell and Garnett, *Life of James Clerk Maxwell*, p. 439. Quoted by Merz, Vol. II, p. 600.) In other words, if modern physics is right in holding that the smallest bit of matter we know, is composed of millions of imperceptible particles in motion, then it is maintained, all our knowledge of matter must be collective and statistical. Turning to biology, we find Galton, one of the first men to apply statistical methods to problems of heredity and variation, declaring: "The word man, when rightly understood, becomes a noun of multitude, because he is composed of millions, perhaps billions, of cells, each of which possesses in some sort an independent life. The doctrine of Pangenesis [originally formulated by Darwin] gives excellent materials for mathematical formulas, the constants of which might be supplied through averages of facts." *Hereditary Genius*, 1892, pp. 349–350. Quoted by Merz, Vol. II, pp. 612 ff.

probability in any individual instance. On the other hand, these thinkers in affirming the purely statistical nature of scientific law are no doubt partly influenced by their metaphysical prepossessions. Both Ward and Royce are convinced, on metaphysical grounds, that the world is ultimately composed of freely acting individuals. Hence they are forced to seek an explanation for the fact that science ignores such freedom and individuality and deals almost exclusively with constants and uniformities. The explanation ready at hand is that scientific laws are statistical and subjective in character. In adopting this interpretation, these thinkers abandon the claim that scientific laws represent concrete individual things as they are. On the contrary, they emphasize as the peculiar virtue of statistical laws that they lend a convenient semblance of regularity to facts which are in their nature of very different character. Statistical methods can generate the appearance of uniformity from groups of the most varied and changing particulars. This is clearly evident in the social sciences; in this field the laws ignore the peculiarities of individuals, leaving room beneath for a wide play of spontaneity and contingency. Similarly, the laws of other sciences, being statistical constants, never express the exact truth with regard to any particular case. They are pragmatic devices which serve to make a disorderly collection march in a regular manner. But their subjective and abstract character should never be forgotten, nor these rough averages mistaken for objective laws of nature or for exact descriptions of concrete fact.

At the same time, a statistical tendency is regarded (not without inconsistency) as a process in external nature. In the words of Royce, there appear to be "literally verifiable but not literally constant laws of observable Nature."[1] These laws seem undefinable in mechanical terms, yet can be expressed as statistical tendencies. And Professor Ward apparently concurs, citing from Lotze a statement that statistical formulæ, while inexact with regard to particulars, "can yet claim to express the *true law of history* as freed from disturbing individual influences."[2] Royce

[1] *The World and the Individual*, 2d ser., p. 223.

[2] *Naturalism and Agnosticism*, 3d ed., Vol. I, p. 111. Italics mine. For Ward, of course, "the actual is wholly historical." *Op. cit.*, Vol. II, p. 281.

further develops this idea of the statistical character of historical progress. The well-known disposition to explain human history in terms of 'historical tendencies' and 'historical forces,' he believes has long testified to the inexact and unconscious use of statistical methods. "In fact," declares Royce, "the term *tendency* is, in every exact usage which you can give it, an essentially statistical term. To say that *a* has a tendency to lead to *b* is to declare that a more or less certainly and definitely known proportion of events of the class *a* are followed by events of the class *b*."[1] All the sciences which deal with tendencies (in other words, with 'forces,' with growth and evolution) are then essentially statistical. Moreover, it is claimed that their statistical principles reach beyond mere subjective validity and "go down to the roots of that nature of things which our sciences are studying."[2]

Because he believes that statistical knowledge, though "only probable and approximate," is somehow "positive" and grips the objective nature of things, Royce holds that it is the ideal method of scientific enquiry. "The statistical form," he says, "is the canonical form of scientific theory."[3] Discovery of the wide range and use of statistics marks the greatest advance in inductive method. Statistical results interpreted by the laws of chance can furnish definite conclusions with a certain probability of truth with regard to any set of facts in the universe. The method for arriving at such statistical knowledge Royce calls "the Organized Combination of Theory and Experience."[4] All that is necessary in order to employ this method is to assume that the set of facts to be examined has a *determinate constitution,* and then to 'sample' the collection of them. Once we "grant the single principle of the determinate constitution of any finite set of facts of possible experience, we can draw probable conclusions regarding the constitution of such a set of facts, in case we choose 'fair samples' of this collection."[5] The 'fair sample' is explained

[1] Royce, *Science,* Vol. XXXIX, p. 559.

[2] *Ibid.*

[3] *Ibid.,* p. 562.

[4] *Encyclopædia of the Philosophical Sciences,* Vol. I (Logic), Eng. trans., p. 78. The name is somewhat confusing, yet at least distinguishes this procedure from the traditional statistical methods of logical text-books. It remains, in spite of its use of hypothesis, essentially a statistical method.

[5] *Op. cit.,* pp. 83–84.

simply to be any member selected at hazard (*i.e., without any particular reason*) from a large collection. By the magic of this simple procedure, we can obtain positive (although only probable and approximate) knowledge concerning any facts within the breadth and scope of experience. "It is possible to judge by samples the probable constitution of otherwise unknown cargoes of wheat or of coal, the general characteristics of soils, of forests, of crowds of people, of ores, of rubbish heaps, of clusters of stars, or of collections of the most varied constitution."[1]

In spite of these statements and others of a similar character which might be quoted, I believe that examination proves that Royce's canonical form of statistical method is not really a method by which science can grasp literal and objective truths of nature. In the first place, Royce, although he has previously rejected the Uniformity of Nature as a guide to inductive knowledge,[2] here claims as the *sole necessary postulate* of his method the granting of a 'determinate constitution' to the set of facts to be examined. But the postulates of uniformity and 'determinate constitution' would seem to come to the same thing. Secondly, a fundamental postulate of the method of which no mention is made, is the assumption that the law of chance is objective, that if a collection be large enough, in the 'long run' the 'sampling' will yield the character of the whole collection. This assumption makes 'chance,' 'indefinite quantity,' and 'ignorance' the grounds of knowledge.[3] Chance figures as a fundamental concept in a method based on the selection of samples at hazard. Indefinite quantity appears in the concepts of the 'long run' and the 'large collection.' Ignorance of any definite ground is made a principle of selection, in the assurance that a sample of facts chosen *without any particular reason* will be a fair one. Now we are surely justified in rejecting a method which bases knowledge on concepts that exclude the very form of knowledge. Such cannot be the canonical form of scientific theory. And while application of

[1] *Ibid.*, p. 84.

[2] *Ibid.*, p. 82.

[3] *Cf.* the writer's monograph on *Some Modern Conception of Natural Law* (Cornell Studies in Philosophy, No. 12), p. 77, Longmans, Green, 1920.

such a method might elicit certain useful results with regard to the numerical proportion of factors in a simple aggregation of instances, it could furnish no real understanding of more complicated, organic collections, where the information sought is rather qualitative and concerns the relation of parts within a concrete system.

According to Ward and Royce, a statistical tendency is the leading character of evolution as a process in external nature. As expressed by these writers, the dominant feature of evolution is a tendency to 'mutual assimilation,' to a 'fecundity of aggregation'[1] and 'integration of new properties in the whole.'[2] This integrative impulse of nature seems to express itself as a statistical progression. Phenomena assimilate to each other with a frequency roughly in accord with probability and the laws of chance. The direction of the statistical process is away from chance toward organization; and organization is a concept weighted with a teleological significance. According to Ward, "The process throughout is that of trial and error. . . . Contingency . . . is inevitable. . . . Still through all a steady tendency is apparent to replace this mere contingency by a definite progression. . . . With this progression we are familiar under the name of evolution. . . . What is thus created are not new entities but new values."[3] The process of evolution is then an integrative tendency away from chance toward order and values. Progress is by natural selection,[4] yet the unknown goal or goals of the process are assumed to have teleological significance. Royce sums up this view of evolution in more detail: "In brief, the evolution of stars, of elements, of social orders, of minds and of moral processes, apparently illustrates the statistical fecundity of nature's principal tendency—the tendency to that mutual assimilation. . . . Now it is this principle of the fecundity of aggregation which seems to be the natural expression, in statistical terms, for the tendency of nature towards . . . a purposiveness whose

[1] Royce, *Science*, Vol. XXXIX, p. 565.

[2] *The Realm of Ends*, p. 434.

[3] *Ibid.*, pp. 433–434.

[4] *I.e.*, by 'trial and error' and the "objective realization of adaptations that were never subjectively intended." *Op. cit.*, p. 79.

precise outcome no finite being seems precisely to intend."[1] According to such accounts, the bridge from chance to teleology seems to be a statistically definable natural selection. This statistical tendency is further described as a disposition toward mechanization.[2] However, evidences of mechanization do not imply that nature is mechanical, according to these thinkers; they rather imply that it is personal in character. Tendencies to mechanism in the physical world are oddly explained as nature's 'habits' and lapses from consciousness into automatism. The "routine and uniformity" of nature, says Ward, can be "explained on the analogy of habit and heredity in the individual;" and he quotes approvingly the words of C. S. Peirce that "matter is effete mind, inveterate habits becoming physical laws."[3] Disregarding the personalistic implications in such an interpretation of nature, the point for our purpose is that nature is here described as tending away from consciousness toward automatism and dead routine. This introduces a new aspect of statistical evolution. The statistical tendency is now seen to involve a twofold process: on the one hand, the devolution of conscious purposes into irrevocable mechanisms, and on the other hand, the evolution of a teleological order out of contingency. The question might be raised whether these opposite interpretations of the statistical tendency can be reconciled in the systems under discussion. If the goal of evolution be the fulfillment of purpose, can it be achieved through the degenerations of purpose? Again it might be questioned whether the facts of science verify a statistical progression in nature, and whether the curious conception of natural laws as psychical acts that have become automatic is not too suggestive of personalistic preconceptions in metaphysics.

In the writings of Ward and Royce, four lines of argument may be distinguished which support the statistical view of nature

[1] Royce, *Science*, Vol. XXXIX, p. 565.

[2] *The Realm of Ends*, p. 74; Royce, *Science*, Vol. XXXIX, p. 565.

[3] *The Realm of Ends*, p. 74. Royce also interprets signs of mechanism as 'habits' of nature. "This process of evolution will then lead from mere chance towards the similation of mechanism, from disorderly to a more orderly arrangement, not only of things and of individual events, but of the statistically definable laws of nature; that is, of the habits which nature gathers as she matures." *Science*, Vol. XXXIX, p. 565.

and natural law. The first is based on the claim just discussed of a statistical progression in evolution; the second, on the assertion noted that the uniformities discovered by the leading sciences are in type statistical. The third is a group of arguments directed against the mechanical view of nature and offered—on the assumption of a strict alternative—as proof of the statistical view. This third group of arguments also brings up the point that a mechanical view would reduce the world to homogeneity, whereas it is only heterogeneity and qualitative difference which enable us to distinguish things from each other.[1] Moreover, the search for homogeneous elements leads to abstraction, and mechanism thereby fails to account for the rich variety of life and nature.[2] Lastly, these arguments charge that mechanical theories involve an unwarranted assumption, being based on an ideal of exactitude which experience never verifies. "Mechanical theories are in their essence too exact for precise verification," says Royce. "Hence, since they demand precise verification, we never know them to be literally true."[3] And Ward states the matter similarly: "In the exact sciences, within the limits of our powers and subject only to the laws of thought—we are complete masters of the situation. . . . But applied to the particulars of experience such conceptions have no warrant."[4] Mechanical theories, then, are not really true; they lay claim to an exactness never verified in fact, and thus are self-contradictory.

The fourth argument advanced in favor of the statistical view of nature and natural law is one first enunciated in principle by Clerk Maxwell,[5] and here cited in the form developed by Ward.[6] It is the argument from the analogy of physical laws to social statistics. On the assumption that statistics is the predominant method of the social sciences, it is claimed that it is similarly the chief method of physics. Statistical averages can hide, under a semblance of uniformity, the greatest variety in the individuals.

[1] *Naturalism and Agnosticism*, 3d ed., Vol. I, p. 151.

[2] *Ibid.*, pp. 152–153.

[3] Royce, *Science*, Vol. XXXIX, p. 562.

[4] *Naturalism and Agnosticism*, 3d ed., Vol. I, p. 138.

[5] Campbell and Garnett, *The Life of James Clerk Maxwell*, pp. 438 ff.

[6] *Naturalism and Agnosticism*, 3d ed., Vol. I, pp. 109–111; *The Realm of Ends*, pp. 65–66, also p. 433.

The aggregates of the social sciences, for instance, conceal beneath them the diversity and spontaneity of animated beings. Now "the physicist, like the statist, is always dealing with aggregates, but unlike the statist he finds *the constituent individuals to be beyond his ken.*"[1] The atoms and molecules of the physicist are too minute and their collections are too vast for separate study. But even though the particulars are beyond his ken, it is argued from analogy and the principle of continuity that the ultimate units of the physicist must be also unique, spontaneous agents. The conclusion is that the universe is made up throughout of such psychical individuals, acting in accordance with free will and contingency. And as conative agents and as sources of contingency, they must be studied as social phenomena, by means of the concepts of average, probability and approximation,—in other words by statistical methods.

The statistical character of the physicist's laws is often denied. The fact of this denial is explained by these thinkers as due to the character of the physicist's data. Because the constituent individuals with which he deals are beyond direct knowledge, the physicist often fails to recognize both that he is dealing with individuals, and that his laws are simply averages expressing the behavior of vast collections of individuals. Instead, he makes the mistake of regarding his statistical constants as iron necessities. This mistake is hardly to be wondered at in physics, says Professor Ward, since it occurs even in the social sciences, where the character of the data is less concealed. "Now, if, when both the varying particulars and the statistical constants are alike well-known [*i.e.*, as in the social sciences], it is possible for a reasonable man to fall into the error of converting the one into an iron necessity which rules over the other, no wonder this should be the prevalent attitude in departments of knowledge where the particulars are beyond our ken."[2] From this illusion of iron necessity there arises the physicist's mistaken belief in mechanism and a mechanical nature. Yet if he would only recall the similar methods of the social sciences, he would recognize his physical constants to be mere statistical approximations, holding

[1] *Op. cit.*, p. 66. Italics mine.

[2] *Naturalism and Agnosticism*, 3d ed., Vol. I, p. 111.

only in general and not of each particular case. Thus the argument seeks at once to dispose of mechanism by substituting the statistical interpretation. Since statistical methods are employed in dealing with vital phenomena,[1] and since the phenomena we know best seem best studied in large collections, analogy would suggest that in physics (with much vaster collections) the same methods are actually employed; while the principle of continuity would lead on to the idea that physics is likewise concerned with what is vital and unique.

Now, it is obvious that this whole line of argument rests on the assumption that the methods of physics are statistical *in the same sense* as are the methods of the social sciences. But this is just the point that may be seriously questioned. In social statistics, you are able to strike an average because you have direct access to the particulars, and knowledge of them. Averages are based on collections of real individuals. But in dealing with molecules, particles beyond direct experience, you cannot get a genuine average just because you do not have a collection of real individuals. In fact, the individuals as such are quite unknown, being *ex hypothesi* 'beyond our ken.' You cannot, then, talk about the 'average atom' in the same sense in which you can talk about the 'average man.' Strictly speaking, molecules are 'manufactured' articles, hypothetical constructs of the scientific imagination; and as such are not derived by generalization from experience as are genuine statistical constants. To a layman, the method implied by the molecular theory of matter would seem rather a hypothetical and a mechanical method than a statistical one. For, in the first place, the theory is apparently non-empirical and defines its units as homogeneous prior to experience; no attempt is made to learn the character of material particles by generalization from definite empirical collections. Secondly, no scope is left for the calculation of probabilities, such as would be required by a statistical method; instead absolute necessity is postulated *a priori* in the movements of the particles.

[1] "The logic of the insurance actuary is essentially the same as the logic which is consciously or unconsciously used in dealing with all forms and grades of vital processes." Royce, *Science*, Vol. XXXIX, p. 558.

Dr. Bosanquet has subjected the argument from the analogy of physical laws to social statistics to a searching criticism. He maintains that the analogy is false, since in physical statistics, where we deal with minute particulars, it is impossible to get *true constants* such as are possible in social statistics. A true constant is an average derived from a *comparison of averages*; also it is an average based on *groups that in some way differ*.[1] Such averages are possible in social statistics, where individuals are capable of separate measurement and where also the groups selected for examination may differ. But they are impossible in dealing with minute physical elements, which are *ex hypothesi* homogeneous. Hence the analogy between the kinds of statistics breaks down. While this criticism seems to me valid, I think it can be carried further. Dr. Bosanquet assumes that the physicist *can* arrive at an average representing minute physical elements. But it seems questionable whether there can be any real average of elements where the individuals are beyond separate measurement. The crux of the matter is neither that groups must be *compared* nor that they must *differ*. These are considerations connected with defining a law by the causal Method of Difference and are of secondary concern here. The essential point is that when physics undertakes to deal with minute physical elements, it enters apparently a realm where separate individuals are beyond measurement and beyond its ken. This renders it impossible that genuine averages or statistical methods like those of the social sciences should be employed.

As we have seen, Royce and Professor Ward have opposed mechanism on the ground that the variety and adaptation of our universe cannot be understood as resulting from the quantitative relations of homogeneous elements. Hence they have chosen a statistical view, referring the source of law to the activity of psychical individuals and to the laws of chance. The appearance of mechanism they "analyse," as Bosanquet remarks, "into degenerated finite teleology, on the analogy of secondary automatism."[2] Now, in spite of many points of divergence from these thinkers,

[1] Bosanquet, *The Principle of Individuality and Value*, pp. 86–87.
[2] *Ibid.*, p. 142.

Dr. Bosanquet agrees with them in rejecting as inadequate the mechanical view which would reduce the world to homogeneous elements. Professor Ward has clearly shown in the first volume of *Naturalism and Agnosticism* that an uncritical mechanism in science leads to a self-refuting materialism.[1] Dr. Bosanquet is no less anxious to deny mere materialism, yet hopes to preserve mechanism by freeing it of the old spatial analogy and interpreting it more broadly in a 'sense akin to system.'[2] The essence of mechanism is not that the world consists of extension or physical substance. Rather, "the essence of it is that the world consists of elements, complete in themselves, and yet determined in relation to elements beyond them."[3] What matters is not the *kind* of element, but the fact that each claims to have a nature of its own, and that they are determined *ab extra* by relations. These are the characteristics of system. And if mechanism is system, then the nature of the elements is a secondary problem, to be settled by 'the plain probability of the facts.' The important point is that system assigns control to the content as a whole, and not to some bare directing force or element. Moreover, as system, mechanism implies unity in difference, a heterogeneity organized by relations, and not a collection of homogeneous elements.

Another charge brought against mechanism by Professor Ward and by Royce is that mechanism claims an exactitude in its laws never verified by experience. From the standpoint of concrete idealism, such a charge bespeaks a fundamental misunderstanding as to the nature of law. True, the ideal mechanical law is never exactly realized in the particular case. But this is because laws are universals; facts as such are particulars. Both remain themselves and are not interchangeable. The truth of mechanism implies that the *ideal* laws and the *facts* of experience are complementary; that there is 'equivalence' between them; but neither can be reduced to terms of the other. The unattainableness of the ideal law, then, means no more than that the ideal cannot be shorn of its ideality and reduced to common fact. The mechan-

[1] *Naturalism and Agnosticism*, 3d ed., Vol. I, pp. 143–144 especially.

[2] Bosanquet, *Proceedings of the Aristotelian Society*, N. S., Vol. XII, p. 243.

[3] *The Principle of Individuality and Value*, p. 73.

ical law remains the organizing principle, the informing ideality of facts, yet is itself no mere empirical fact.

One of the most interesting aspects of Dr. Bosanquet's view is his contention that mechanism is the only principle of law which preserves 'individuality and value' and the rights of the spirit. Here he challenges direct comparison with thinkers who, fearful of the logical consequences of the sciences, have urged that if the spiritual values are to be conserved, the world cannot be a mechanically intelligible whole. Accordingly, it has seemed necessary to discredit exact law and the Uniformity of Nature by citing instances of apparently irregular phenomena and the caprices of individuality. In opposition to this view, Dr. Bosanquet maintains that "it is the true spiritual view which regards Nature as mechanically intelligible."[1] For only a rationally organized world can sustain the existence of eternal values. Moreover, the principle of the rational order of nature is simply the principle of mechanism or of the Uniformity of Nature stated in the broadest terms. Mechanism or uniformity implies that nature is a system ordered in accordance with logical relevancy and causal connections. "The Uniformity of Nature is here taken as a logical postulate, equivalent to the Law of Identity as interpreted into the Law of Sufficient Reason."[2] It is only in such a mechanically concatenated world, that is, in one transparent to the law of causation or sufficient reason, that individuality, value and law itself can be realized.

In describing his conception of mechanism, Dr. Bosanquet calls attention to the fact that it implies a double relationship, involving both quantity and quality. He says: "The idea of mechanism here accepted is one which neither reduces the universe to modifications of homogeneous quantity, nor yet impeaches the 'uniformity of nature,' and the general quantitative relations underlying natural phenomena. It accepts as the apparent custom of the universe and as a corollary of the interdependence of content and system the principle that *qualities have quantitative connections,* and that a high degree of spiritual or emotional expressiveness accompanies a high degree of complexity and intel-

[1] *Op. cit.*, p. 140.
[2] *Ibid.*, p. 138.

ligible determinateness."[1] In such a statement, the mechanical principle is interpreted as involving the consistent correlation of quality with quantity. Sometimes Dr. Bosanquet distinguishes this view more particularly by the term 'equivalence.' By this he means that the type of relation found in individuals everywhere is one of *qualitative wholes in quantitative counterparts;* or, in other words, that "teleological wholes are inevitably constituted by what may fairly be called mechanical relations."[2] A concrete instance of the equivalence of the qualitative with the quantitative according to the mechanical principle is the equation of the comparative intensity of two colors with the relative amplitude of their ether waves. The qualitative and the quantitative are complementary, having in them the same principle; yet they remain arithmetically incommensurable and irreducible to homogeneous units. They can, however, be correlated as ratios, as in the example cited, where the intensities of the colors are proportional to the width of the ether waves. Equivalence also implies determination by the whole. Neither the psychical nor the physical can be the guiding force. Both the qualitative and the quantitative are compelled by the system in its entirety. It is always the Whole which operates upon the parts, and which, together with their response to its common logical principle, constitutes natural selection.[3]

Even to mind itself, Bosanquet says, "no injustice could be done by connecting it with a physical counterpart, and equating

[1] *Op. cit.*, p. 140. Italics mine.

[2] *Ibid.*, p. 161.

[3] Natural selection, on the statistical view, appears as a compound of the individual's conation, the particular environing obstacles and the laws of chance. On the mechanical principle, natural selection is described as the pressure of the total universe as brought to bear on the individual in any given situation. Its operation is through the law of causation, which viewed non-temporally is identical with the principle of relevancy or sufficient reason. Referring to natural selection as the power of direction exerted by the total universe, Bosanquet says: "The bearing and result of these considerations would be to lay greater stress on a factor which might be called in a very wide sense 'natural selection,' that is to say, on the moulding of the organic world, and even the world of mind, in relation to the environment which we know as physical Nature. . . . *The suggestion would be that the universe is, as a whole, self-directing.*" (*Op. cit.*, pp. xxiv–xxv. Italics mine.)

it with a sum of mechanical energy."[1] He repudiates the notion that consciousness is outside the range of mechanism or that it introduces a spiritual force antagonistic to natural law. "The mechanical appearance must be granted universal and unbroken."[2] Consciousness itself is essentially in its action "no more than a coöperative mechanical force."[3] In plain language he rejects the admixture of consciousness and chance utilized by the statistical view. "It is idle," says Bosanquet, "to appeal to finite purposive consciousness as . . . the source through its fossilized habits, of what is construed as a mechanical 'nature.'" "On the one hand, it is ridiculous to say that such a product [as a flower] arises *by accident;* that is, as a by-product of the interaction of elements in whose nature and general laws of combination no such result is immanent." "On the other hand, we must not say that 'purpose is operative' in the flower or the wave, if that is to mean that we ascribe them to an end or idea, somehow superinduced . . . by a power comparable to finite consciousness . . . out of a *detached spontaneity* of its own."[4] The purpose which Nature fulfils is an immanent one; it is latent in the whole universe and operates through the pressure of the total environment on the individual. Growth by this sculpturing-process of the Whole is what is signified by evolution or natural selection. Its law is mechanical in the sense that it is based on the principle of sufficient reason as translated into causation and the Uniformity of Nature.[5] To ascribe the work of natural selection to mere consciousness as such is absurd. Works like those of consciousness are achieved quite beyond the guidance of any consciousness as we know it, as for instance in the growth of a coral-reef colony or in the age-long developments of art and civilization.[6] No less absurd is the explanation of natural selection through laws of chance. Nature high and low gives us too strong an impression of systematic relevancy. The motions of the solar system,

[1] *Ibid.*, p. 178.

[2] Bosanquet, *Proceedings of the British Academy*, 1905–1906, p. 240.

[3] *The Principle of Individuality and Value*, p. 164.

[4] *Ibid.*, pp. 146–149. Italics mine.

[5] *Ibid.*, p. 119. "The Uniformity of Nature or principle of Relevancy means that every variation is a member in an intelligible system."

[6] *Ibid.*, p. 152.

the curl of a wave, strike us as meriting a presumption of teleological value only less than that of consciousness itself.[1]

In concluding this article, it may be recalled that for Royce and Professor Ward the type of law is statistical. This implies that the expression of the law is achieved through sampling large collections with the hope that in the long run (in default of any knowledge why variations should occur) all unknown causes will be included with equal frequency, thereby cancelling them; and approximate knowledge and uniformity will result. For Dr. Bosanquet, on the other hand, law embodies a mechanical principle under the form of equivalence. Equivalence correlates the qualitative phenomenon with its relevant quantitative conditions. The ideal of law is not to smooth over and compensate for the particular instance by losing it in a vast collection, but to correlate the particular individual with its intelligible conditions, thereby according it place and value in the whole system in accordance with relevancy or the Uniformity of Nature.

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[1] *Op. cit.*, p. 147.

THE OBJECTIVE ELEMENT IN ESTHETICS.

IT may seem like heresy to assert a foundation for esthetics in nature, yet careful consideration of the evidence makes it clear that there is something in the things called beautiful which is needed to explain the pleasurable sensations we have in contemplating them. Categories of objective difference and likeness must be assumed at the outset, and of these difference is the prerequisite of consciousness. An impression which persists gradually loses its power to impress; an object continually seen gradually becomes invisible; a sound continually heard at last ceases to be noticed. If all objects were likes to each other we should have no means of cognizing them, while if they differed totally from each other they could not be segregated into classes and knowledge of them would be impossible. For this there are required at once the superficial difference which complies with the law of consciousness by producing the shock we call feeling, and the fundamental likeness which is needed for cognition. Knowing even to this extent is pleasurable, and the discovery of likeness at the very heart of difference is the real source of the esthetic satisfactions. All the while the subjective procedure is a direct outcome of the objective process. With qualifications and amplifications understood, motion is produced away from directions of greatest stress towards directions of least stress. Change thus oriented is the easiest in both inanimate and animate; taking place as activities of the organism it gets the idealization of feeling and is not only the easiest but also the most agreeable. There is a degree of pleasure when an object is recognized; there is more of it when separate objects are perceived as likes; the pleasure is greatest when the mingling of difference with likeness, the triumph of likeness over difference, take complex forms.

An example may be selected from decorative art, whose like patterns are regularly varied by difference. If iteration were all —if it were merely a question of saving effort by mere repetition

—then a series of dots or parallel lines would be the most beautiful object man could contemplate. The effect of beauty is gained in much more intense form when the likeness is complicated with difference. There must be iteration to constitute a beautiful pattern, but there must also be variety to save it from becoming monotonous. It is the orderly union of likeness and unlikeness which makes the square more beautiful than the straight line, the circle or sphere more beautiful than the square. A twirl of the hand and the circle is drawn, however imperfectly; a square requires four movements, each separately and differently directed. In the line there is no variation—simply an advance in space; the circle continually changes direction and yet through all changes preserves its roundness, each part of it at once like and unlike every other. It is in circles, spirals and curved lines generally that we obtain the utmost maximum of the likeness which makes for ease of cognition, with the utmost minimum of the difference which is needed for the appeal to consciousness. And it is largely for this reason that curved forms such as are met with in the sweeping lines of great bridges, or in the archways of cathedrals, excite the esthetic sense and give pleasure to the beholder.

The symmetries of design afford other illustrations of the interplay between the requirement of likeness and the demand for difference. The eye rests with greater pleasure on a scheme which is symmetrical than upon one in which the figures are irregularly spaced and of unlike shape. Cognition of such a scheme is easier. Its elements recruit each other, differing as they do so; the mind returns, if in slightly varied ways, to the elements it has already perceived; it is saved the effort to readjust itself to something totally new, and is at the same time challenged by something different woven into the texture of the old. The symmetrical pattern in which like elements recur is thus more intelligible, pleases more, strains the cognitive faculty less than would a pattern founded wholly on difference. All this is shown, not only in the simpler forms of decorative art, where the elements are little more than repetitions, but also in the elaborate patterns which, made up of elements that at once vary from and resemble each other, constitute so much of the beauty of architecture.

Structures which nature fashions or come forth at the call of man also show the arrangements that underlie esthetics. Organs most fitted to their work, such as secure the highest degree of efficiency and economy for maintenance, show curved, iterated, symmetrical or otherwise self-assimilated forms, and therefore excite more or less pleasure in the beholder. The beauty of the crystal, the tree, the honeycomb, the spider's web, the bird's wing, does but reappear in the bow, the scythe, the gearing of machinery, the screw of the propeller, the blades of the ventilating fan, as the concomitant of economical, efficient, maintenance-securing appliances. George Iles writes: "In stairways the boards on which we tread now meet in smooth curves; so do the walls of rooms as they reach ceilings and floors, conducing to ease and thoroughness in sweeping and cleansing. In outer walls, in doorways, similar curves reduce liability to hurt and harm. . . . Factory chimneys have long been built round instead of square: to-day in the best designs the ducts to a chimney are also freely curved. In blast furnaces this is the rule for every part of the structure, ensuring gain in strength, lessening resistance to the flow of gases, and thus saving much fuel. When water pipes varying in diameter are joined, the junction should be a gradual curve, otherwise retarding eddies will arise, wasting a good deal of energy. . . . All the various parts of heavy guns are curved, since any sharpness of angle at a joint brings in a hazard of rupture under the tremendous strains of explosion. . . . A glance at a war ship discovers her varied use of curves in defence; to deflect shot and shell her plates are given bulging lines, her turrets are built in spherical contours, and her casemates are convex throughout. . . . There is a gain in building breakwaters with an easy curve. To give their masonry and timbers a perpendicular face would be to invite damage, whereas a flowing contour, like that of a shelving beach, slows down an advancing breaker and checks its shock. In rearing lighthouses to bear the brunt of ocean storms the outline of a breaker is repeated to the utmost degree feasible."[1]

Self-assimilated and inter-assimilated activities, both as carried on and as contemplated, arouse the esthetic sense. All move-

[1] *Inventors at Work*, pp. 49, 50, 51.

ments produced rhythmically, and therefore with the minimum of difficulty, the maximum of ease, have the quality of beauty; where movements show unlike duration and interval a maximum instead of a minimum of effort is required, and we call them stiff, awkward, ungainly, ungraceful. Not only do assimilated movements avoid the waste of effort involved by unassimilated activities—a waste due to separate mental determinations, as well as to separate neuro-muscular adjustments: they economize the effort put forth in contemplation, since like elements that recur spare the need of changing adaptations to its object by the mind. Note the exercise of dancing, where many of the movements take place along curved lines, and in which the figures, could they be fixed, would often suggest the symmetries of design. "The beauty of curved motion," says Wölfflein, "is perhaps never more effectively shown than in the majestic flight of birds of prey." Darwin, in *The Voyage of a Naturalist,* tells us that "when condors are wheeling in a flock round and round any spot their flight is beautiful." Most of us have taken a degree of pleasure in the spinning motions of the top, with its graceful secondary curves; in the gyroscope, which rotates as well as spins; even in the revolutions of the otherwise prosaic flywheel.

There is a noticeable qualification without any essential difference in the pleasure excited by natural scenery. We cannot say that the features of a landscape are spread out before us with the simple regularity of an artificially devised pattern. They are in groups: the objects they include may suggest multifarious ideas. Yet much of the difference observed proceeds from complexity. There are meanwhile countless iterated elements within the irregularity. A rude unity of impression arises even from the ensemble. The fact that the admiration of natural scenery is a late acquirement in the history of the race must not delude us into the supposition that because early literatures are lacking in descriptions of nature our modern sentiment towards it has no relation to the likening process. In primitive stages of human development the mind finds satisfaction for its esthetic sense only in the most simple resemblances, as these occur in the parallels, zigzags or iterated dots which we find in the art of savages—in the repeated beat of the barbaric tom-tom, or in the recurrent

notes, without melody, of early music. As to primitive peoples our modern musical compositions would present only a confused jumble of irregularities, worthy of ridicule rather than admiration, so to ancient man the landscape, contemplated in the large, must have suggested chaos rather than order, and could not have been esthetically intelligible. It is possibly because of advance in the power to recognize similarities beneath variety, fundamental likenesses in and through superficial differences, that the modern mind is able to take pleasure in those complexes of the regular and uniform within the irregular which make up what we call the beautiful in nature. Otherwise it would be difficult to account for that subtle fascination which, drawing men to forest and sea, to mountain and river, makes real the poet's fancy of,

> A distant dearness in the hill,
> A secret sweetness in the stream.

For within and beneath all the objective multiplicity and complexity of the landscape there are rich iterations, harmonious repetitions, large symmetries that, appealing to all the senses at once, endlessly emphasize and recruit each other—the rustling of millions of leaves supplemented by their like forms endlessly prolonged; the rhythmic murmur of stream or sea, mingling with the repetitions of sound; the iterations of contour which simultaneously reach the eye; the regular undulations of a 'rolling' landscape, or the divisions man has contrived in it; the wide areas of growing grain whose slender stalks flow in wind-chased waves, or the long meadows dotted with daisies; the crenelated zig-zags of distant mountains, cutting their iterated patterns into the fringe of overhanging clouds; then, between earth and sky, thus filled with impressions for the eye, the rhythmic hum of insects, the slower pulses in the notes of birds.

The beauty of the organized rhythm which we call music—simple as a product of the human voice, more complex when the sounds are given forth by instruments—is also largely a result of the complication of the law of assimilation with the law of consciousness. Melody is undoubtedly indispensable to music, yet music begins in the simplest regular-interval sounds; melody —variation in pitch and time—is added to relieve the monotony

of the one-note, equal-spaced sounds, account being taken of the fact that the same impression continually iterated finally ceases to be noticed; it is therefore a contrivance for refreshing the consciousness with the shock of sensations continually varied. Melody, being superadded, is thus the superficial aspect of music, while rhythm is its permanent element, its fundamental factor, founded on that law of the inorganic which makes repetition, iteration, likeness, the direction of least resistance. Whence it follows that melody could be eliminated from music without disturbing its fundamental character. None the less are the most pleasurable effects of musical sounds due to that mingling of the superficially unlike with the fundamentally like which enables the mind to recognize uniformity beneath variety and symmetry within difference.

It may be said that there is something absolute in music, something unrelated to the conditions of time and space. How much? The quality of the musical sensation, like that of the visual sensation, has an apparently unrelated element, and is to that extent *unergründlich*. We cannot say why ether vibrations should yield the sensation of red or blue; all we know is that, given the interplay between the ether and the organism, such and such sensations do actually result. The matter of importance is not the special character of these subjective products, which must vary for different types of organisms, but rather their character as likenesses and differences. None of the notes, melodies, compositions we hear have any label of language which joins them indissolubly to particular concepts, ideas or trains of thought; yet this very nature of theirs, as unchained from the trammels of speech, sets feeling and thought free to weave what they will from personal mood and individual experience. As the very vagueness of the suggestion lends itself to the recovery of subtle resemblances unattainable through the medium of bound words, so the indefinite amplitude and massive sweep of the conscious states aroused by music more than make up for any lack of intensity in the momentary impression. And though the same sounds, the same melody, may have unlike suggestions for different individuals, there is for each of them a collocation of sound and feeling that endures. Deeper, moreover, than any personal linking of

musical sounds with individual experience is that subtle recovery of race associations which is common to all. Long centuries of contact with nature have impressed upon us classes of sensations which resound more or less clearly, more or less remotely, at the touch of music. The rustle of the forest, the pattering of rain, the glint of sunshine on lake or sea, torrent-traversed valleys or mountains wreathed in mist, the cloud sailing through deep blue across the moon, morning star and western night glow, calm of summer landscape and riot of winter storm—all find their distant reverberation in the feelings aroused by musical sounds. Given the rapidly changing shocks required for vivid consciousness—given, therefore, the superficial differences from which they come—then even our unbound and speechless music must be viewed as a vast system of meaning-laden repetitions which, vaguely organized into recoverable classes, their differences dominated by likenesses, captivate the fancy and overwhelm the imagination as they unify man with nature and make life and feeling one.

The manner in which the rhythm of musical sound and of human speech echo the rhythms of nature and of art is especially instructive. We hear continually in metaphor of "waves of sound," "rippling tones," "pattering melodies." Weismann[1] writes of "the mighty ocean of music," of "the swell of the waves of music which surged along," and of the parts of a polyphonic composition as constituting "the most charming musical architecture." Similar analogies have been recognized between oratory and nature phenomena in descriptions of the former, yielding such phrases as "A combination of cloud, whirlwind and flame;" "The orator rushes upon you in full flood;" "Deep and melodious cadences, as waves upon the shore of a far-resounding sea;" "Every sentence came rolling like a wave of the Atlantic three thousand miles long;" "He loved such far-sounding words as would suggest the long roll of the wave thundering on the shore;" "He was like a billow of the ocean on the first bright day after the storm, dashing against the rocky cliff and then, sparkling with light, retreating to its home." "It is to the

[1] *The Musical Sense.*

sea rather than to fire," says Frank Byron Jevons,[1] "that Sappho should be likened, for although her verses are indeed, as the ancient critics remarked, mixed with fire, and her passion blazes out, now here, now there, and glows always, her verses and her passion are oceanic in their depth and tidal in their strength." "To express the quality of Sappho's verse we must borrow a comparison from Sappho herself: it is 'more delicate than waters which make a pleasant noise'—

> "A noise like of a hidden brook
> In the leafy month of June,
> That to the sleepy woods all night
> Singeth a quiet tune."

That the iterations which thus affect us do not belong to the realm of human artifice, but originate in the deepest activities of nature, may be seen in that poetic thought of the world which expresses the esthetic feeling in its highest flight. The brook is likened to "chatter and babble"; the rivulet "ripples on in light and shade" to the maiden's ballad; for Geibel the forest is "green-tongued" ("der Wald mit seinen grünen Zungen"). In Schäfer's verse the rustle of the leaves and the chatter of the stream are made one; in Tennyson's lines the "myriad shriek of ocean-wheeling fowl" finds its analogue in the "moving whisper of huge trees," and the "league-long roller thundering on the reef." The clouds, in their cumulus, alto-cumulus and cirro-cumulus varieties, are "billowy-bosomed" (Browning), or resemble sheep reposing in a meadow; the waves, likened by the ancient Egyptians to dragons, have been compared by Mörike to "horses of the gods" ("Rösse der Götter"), while Kipling intensifies their multitudinous aspect with a metaphor from the chase:

> The sight of salt water unbounded—
> The heave and the halt and the hurl and the crash of the comber wind-hounded.

So for innumerable poets the constellations look down on man through the same 'thousand eyes' with which Plato would fain have gazed upon his beloved; so all celestial objects have been

[1] *A History of Greek Literature*, p. 139.

conceived of as vocal, from the sun, which in the verse of Goethe,

> tönt nach alter Weise
> In Brüdersphären Wettgesang,

to the stars themselves, in whose song Shakespeare finds heavenly and human harmonies inextricably confounded:

> Look how the floor of heaven
> Is thick inlaid with patines of bright gold.
> There's not the smallest orb which thou behold'st
> But in his motion like an angel sings,
> Still quiring to the young-eyed cherubims:
> Such harmony is in immortal souls;
> But while this muddy vesture of decay
> Doth grossly close it in we cannot hear it.

The cosmic process, then, so far as we can be acquainted with it, culminates for feeling in the esthetic satisfactions, and these are adumbrated in the very nature of change as a movement from the direction of greatest stress towards the direction of least stress. It is of the nature of the universe as a dynamic system to maintain its equivalence of power, nor does that primordial necessity cease with the production of difference: prolonged into the realm of matter, it takes effect in all collocations and rearrangements thereof. Hence on the elementary, pre-vital plane, the 'conservation of energy'; hence also on the higher plane the conservation which we call life. The simpler form of maintenance shows itself in the endurance which is inorganic; later come organisms which, owing to the necessity of death, reproduce their likes and interact assimilatively in and for association. So also in the case of conscious states: knowledge is primarily the gathering of sense perceptions into classes of likes by a process which is strictly analogous with that by which like objects are themselves brought together into classes or interassimilated for association. Feeling, as we have seen, depends on difference, and esthetic pleasure arises out of likeness complicated with but dominating difference. There is a beginning of this pleasure in cognition itself—in perceiving that objects separated in space, despite superficial differences, are fundamentally like each other; it is more or less distinctly felt in the case of things re-seen or old experiences renewed; it takes more intense form

in the creative production of likes, as in the artistic imitations of sculpture, painting, the drama and literature: as the statue is a mimicry of the human form, so are the play and the novel mimicries of human life, much of the pleasure we experience in viewing the one, in reading the other, coming from the recognition of likeness. Man loves to fashion the environment after himself: his deities are mainly beings in his own image, and though the anthropomorphism is gradually refined, first emphasizing characters of shape, later characters of will, consciousness and intelligence, the process remains on its formal side a mimicry of the human self. Nor is this play of the likening process in religion invalidated by the fact that, anthropomorphism apart, we are rationally entitled to find in the universe the fundamental characters of our own being, and of these supremely the teleological character, since without it as sourced in the cosmos an organism could not arise.

Uniformities of time and space, equally spaced iterations and repetitions, self-assimilated curves and movements, symmetries of natural growth that reappear in artificial patterns, all arise out of the working of the universe towards conditions of least stress, out of its moulding of material units into collocations that secure conditions of utmost harmony and maximum endurance, and may therefore be regarded as ways or modes by which the cosmic function of self-maintenance takes effect in the realm of matter. So the movement in life and mind towards likeness, effective as segregation, operative as assimilation, or resulting from voluntary imitation, with or without esthetic pleasure, is one with the nature movement away from directions of greatest towards directions of least stress. The esthetic satisfactions are an outcome of the self-maintaining satisfactions, and are related directly through consciousness to the functional activities of both organism and universe. Our enjoyment of music, in which these satisfactions culminate, may be regarded as an enjoyment of that which most completely imitates the universe process itself—of differences buttressed in likeness, of wholes dominating parts, of unity making itself felt through variety, of order emerging from chaos, of the mechanical pervaded by the purposive. If the cosmos were an organism it would take pleasure in the conversion

of differences into likenesses, of change into endurance, of chaotic into harmonious forms; if it were conscious, it would find in the setting up of a star cluster, in the building of a solar system, in the synthesis of a crystal and in the construction of the beautiful organic adaptations seen everywhere in nature, an enjoyment analogous to that which man has in beholding them.

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REVIEWS OF BOOKS.

Space, Time and Deity. The Gifford Lectures at Glasgow, 1916–1918, by S. ALEXANDER. Two volumes. MacMillan & Co., London, 1920. —pp. xvi, 347; xiii, 437.

Dr. Alexander has made an important contribution to systematic philosophy. His work is an original, thorough and massive discussion of nearly all the main problems of metaphysics. It is, in my judgment, the most significant recent attempt to formulate a realistic system of metaphysics. Taken along with the recent publications of Dr. Whitehead and Dr. Bosanquet, it furnishes impressive testimony to the continued vigor of British philosophical speculation.

It is extremely difficult to convey a fair idea of the contents and purport of so comprehensive a work as *Space, Time and Deity,* without extending the account to inordinate length or writing a series of articles. I shall follow Dr. Alexander's own order of treatment, limiting myself to brief summaries of his most significant positions, with a few comments thereon.

The work is divided into four books, dealing respectively with—*Space-Time,* the *Categories,* the *Order and Problems of Empirical Existence* and *Deity.* In an introduction Dr. Alexander states his conception of the scope and method of metaphysics or philosophy, and outlines his own attitude and mode of procedure. Philosophy, for him, is "the experimental or empirical study of the non-empirical or *a priori,* and of such questions as arise out of the relation of the empirical to the *a priori*" (Vol. I, p. 4); "The subject matter of epistemology is nothing but a chapter, though an important one, in the wider science of metaphysics, and not its indispensable foundation" (p. 7). Dr. Alexander expresses his deep obligations to Messrs. Bradley and Bosanquet. Like the members of the school of which these two are the leaders, Dr. Alexander accepts coherence as the test of truth and rejects the doctrine of the externality of relations. As for them, so for him, reality is one Whole. He parts company with absolute idealism in rejecting the privileged position of mind in the universe, and the absolute idealist's assertion "that the parts of the world are not ultimately real or *true,* but only the whole is *true*" (p. 8). Dr. Alexander says that his inquiry is realistic, in the sense

that he does not start with the assumption that mind is the measure of things as does the idealist. "But," he adds, "no sane philosophy has ever been exclusively the one or the other" (p. 8). He proposes in the present inquiry "to examine in their order the various categorial features of existence and to exhibit the relation of mind to its objects in its proper place in the system of finite empirical existences" (p. 10). But, by way of giving a clue to his standpoint, he states briefly at the outset his theory of the relation between mind and its objects. Mind consists of *acts*—acts in which it *contemplates its objects* and acts in which it *enjoys itself*. The mind cannot contemplate itself as object; introspection is enjoyment by the mind of itself; contemplation is always extrospection. The distinction between the acts of mind and the objects of mind is expressed in the two verbal endings *-ing* and *-ed*—for example, sensing, perceiving, enjoying; and sensed, perceived, enjoyed. Mind is a *continuum* and its objects are *continua*. There can be no mental acts without objects, and mind and its objects are *compresent* or together; but the cognitive relation of compresence, as a relation, contains nothing to distinguish it from the compresence between two objects such as tree and grass. The difference between the two cases is to be found "not in the nature of the relation, but of the terms related. In the case of two physical objects both terms are physical." In the case of cognition of a physical object, one of the terms is a mental or conscious being; so, instead of saying *on, beside,* or *above,* we have to say *of, conscious of*. "The little word *of* is the symbol of the compresence" (p. 27). Togetherness, then, is fundamental to all experience. Physical togetherness is a spacial and temporal relation. Mental acts are in temporal relation to one another and to their objects; the mind seems to be somewhere in space; furthermore, Space and Time are implied in all the categories such as causality or substance. Therefore the first duty of the metaphysician seems to be to investigate the nature of Space and Time.

In Book I, Space-Time, Dr. Alexander subjects to a very thorough and searching examination the problems of Physical Space-Time, Mental Space-Time, Mathematical Space-Time, and Relations in Space-Time. This inquiry occupies one hundred and forty-five pages of the first volume, and I shall have to summarize it briefly. Space and Time are not separate existences, but aspects of one whole—"Space-Time which is the primordial stuff or matrix out of which things and events are made, the medium in which they are precipitated and crystallized." All finite existents are complexes of

Space and Time (pp. 338, 342, etc.). Space and Time are intuited as infinite and continuous wholes of parts; the parts are point-instants or pure events (p. 48, etc.). (It would be interesting to compare Dr. Alexander's point-instants with the event-particles of Dr. Whitehead.) It is Time which gives distinction to the parts of Space; namely, it is the fact that different instants occupy the same point and different points occupy the same instant that enables us to distinguish the parts of space. On the other hand, it is space which gives continuity to the successive instants of time. "If Time were bare Time it would consist of perishing instants. Instead of a continuous Time, there would be nothing more than an instant, a now which was perpetually being renewed. But Time would then be for itself and for an observer a mere now, and would contain neither earlier or later" (p. 45). . . . "In order that Time should linger, Space must recur, a point must be repeated in more than one instant" (p. 49). Space is generated in or by Time. Space is the trail of Time. Time is the occupation of a stretch of space. Space-Time consists of lines of advance connected into a whole or system, a system of motions (p. 61). The history of the universe is a continuous redistribution of instants of time among points of space (p. 63). Total Space-Time is the synthesis of all partial perspectives of Space-Time (p. 76). "For a perspective of Space-Time is merely the whole of Space-Time as it is related to a point-instant by virtue of the lines of connection between it and other point-instants" (p. 77). ". . . position in space is occupied by only one time in a given time perspective, but by all time in the totality of perspectives" (p. 80). "In total Space-Time each point is, in fact, repeated through the whole of Time, and each instant over the whole of Space. Now when these particular selections are made of point-instants, the one from the total of one set of perspectives and the other from the other set, we have a total space which occurs at one instant and a total time which occupies one point. The total Space and Time so arrived at are what we call, in distinction from perspectives, sections of Space-Time. They do not represent what the world of Space-Time is historically, at any moment, or at any point. For at any moment of its real history Space is not all of one date and Time is not all at one point. But Space and Time so described can be got by an arbitrary selection from the infinite rearrangements of instants amongst points and the result of the selection is to give a Space apart from its Times and a Time apart from its places. That Space and that Time are what is meant by the definitions of them as assemblages, the one of all events of the same

date, the other of all events at the same place. Moreover, real Space with its varying dates coincides with this total Space when the variation of dates is omitted; and correspondingly for Time. Hence from considering the true perspectives of Space-Time we can arrive at the notion of Space occurring at one time, or time occupying one place. But from these sections we cannot arrive at the notion of true perspectives or of true Space-Time" (p. 81). Thus it is possible because Time is repeated in Space, and Space in Time, to speak of Time and Space as existing by themselves. Such language is the result of an arbitrary selection from the Space-Time whole. The common notions of an absolute Time and Space are thus the result of arbitrary selections by which is formed the conceptions of a Time which flows uniformly on and a Space immovable. These conceptions are false only if it is supposed that all Space occurs at one instant, or all Time at one point. In the total reality which is their combination, Space is always variously occupied by Time and Time is variously spread over Space. Thus Space and Time are relative to one another and rest is relative, but the total Space-Time is not relative since it is the stuff of the Universe. In a brief discussion of the new relativity theory in physics, Dr. Alexander suggests that the importance of the doctrine lies: (1) in the recognition of the truth that the world is physical, not geometrical, and that Space and Time are indissoluble; (2) in the exact determination of how formulae are to be transformed in the case where one system moves in uniform translation with respect to another system. He points out truly that the relativistic physicist can only avoid solipsism by assuming a common world in which we communicate, and that this world is the total Space-Time world.

The most important points in Dr. Alexander's treatment of mental Space-Time seem to me to be the following: a memory-object is a physical object just as truly as is a present or perceived object; a memory is not a present object; remembering is a retrospective desire; the past is experienced as past; since time is real the past is not a mere invention of the mind. Similarly, Dr. Alexander holds that a remembered emotion is not a present emotion and that, when a remembered state of mind is declared to be a state of feeling, we are making a psychological mistake (pp. 114–133). Taken baldly, these statements sound paradoxical; but what Dr. Alexander means by the existence of the past in memory seems to be the real existence of the neural counterparts of memories. Psychically we enjoy the past since enjoyment is the immediate counterpart always of a neural

process. He concludes by showing that mental Space and Time are indissoluble like physical space and time.

In his chapters on mathematical space and time, and relations in space and time, I think he is successful in showing that mathematics deals indirectly with empirical Space-Time. Thus his general conclusion is that in the end physical space and time, extension and duration, and mental space and time are one; and that space and time are the same reality considered under different aspects. One might demur (as I would) to his doctrine that Space-Time is the one all-inclusive living stuff or body-soul of reality, and accept his conclusion with regard to the interdependence of space and time and the impossibility of ultimately sundering physical, mathematical and mental Space-Time.

Book II, the Categories, is a very thorough and stimulating discussion of this subject. The topics are as follows: Nature of the Categories; Identity, Diversity, and Existence; Universal, Particular, and Individual; Relation; Order; Substance, Causality, Reciprocity; Quantity and Intensity; Whole and Part, and Number; Motion, and the Categories in General; the One and the Many. The categories of experience are the pervasive or "prerogative characters of things which run through all the rest as the warp on which the others are woven" (p. 186). They are the ground-work of all empirical reality and are common to mind and non-mental things. Compared with them the Platonic forms of sensible things are empirical. The categories are "fundamental determinations of Space-Time itself, not taken as a whole, but in every portion of it" (p. 189). "The categories are, as it were, begotten by Time on Space." Carrying out his method consistently, Dr. Alexander finds every category in the empirical Space-Time order. Universality, for example, is a determination of Space-Time, since empirical universals or kinds are plans of configurations of particulars which are identical in kind. Universality is the category in virtue of which there are universals. "Universality is thus the name of the constancy of any existent in Space-Time, so far as it is constant, that is, its freedom from distortion whenever it is in Space-Time, and this is equivalent to the uniformity of space" (p. 215). The universals are non-mental; they subsist; they exist only so far as they are realized in their particulars. As such, a physical universal is a physical subsistent, and a mental one a mental subsistent (p. 223). Universals are not lifeless; "they are the plans of motion and action, to which all action conforms" (p. 225). Dr. Alexander makes a very suggestive remark in regard to the uni-

versals of Plato. He says it was a tendency of the age of Plato to seek the highest ideals of perfection in statuesque repose rather than in restless motion, and that is why Plato conceived his universals as changeless, immovable, and eternal. The universals, Dr. Alexander says, are instinct with time since they are spacio-temporal plans or laws of construction. On Mr. Bosanquet's 'concrete universal,' he remarks that it is not a universal, but a universe and it mistakes universality for system. The treatment of Relations is very important. A relation is a transaction between its terms. It may be described as the whole situation into which its terms enter in virtue of that relation. Therefore, the relation is just as concrete as the terms and just as much a reality and belongs to the same tissue with them.

Relation, in Platonic language, communicates with other categories such as universality, causality, etc. Relations are not external to their terms and are in no sense subjective or the work of the mind. There are three kinds of relations: the strictly categorical, the essential, and the extrinsic. The categorial and the essential are both intrinsic, and these are relatively unalterable; for example, a man remains a man though he becomes a king, or a father or a slave; but extrinsic relations may alter a man's character; he may become brutalized or soured. Extrinsic relations may affect the typical character; for example, intoxication. Dr. Alexander disposes of Dr. Bradley's showing up of the contradictions of space and time as due to the endless regress of relations, by the argument that the latter has taken the fictitious or abstract space and time and has demonstrated their abstractness. The truth is that the relations and the terms are of the same stuff, and time is spacial and space temporal.

"Order is a category of things because of betweenness of position in Space-Time" (p. 262). Although it may be expressed in terms of relation, order is not a mere combination of relations since betweenness is primordial to all relations. Order communicates with existence and universality; but it is not the same as universality, since order is the collective name of all the positions in ordered series, not the universal of the positions. Substance Dr. Alexander defines as individual identity persisting through a duration of time. Point-instants, the limiting forms of movements in space-time, are momentary substances. Wherever we have the repetition of a plan, that is, the existence of a particularized universal or individual through a period of time, we have substantial identity. "In all cases it is the spacial contour which provides the unity of substance" (p.

273). Dr. Alexander concludes that sensory qualities do not interpenetrate. "Thus a substance in respect of its qualities may be described as a space of a certain contour stippled over with qualities. . . . Ultimately the substantiality of it is its defined volume of space time" (p. 276). Causality is "the relation of continuity between one substance and another, whether those substances be things or merely motions which we are not in a habit of calling things (*e.g.*, light). The causal relation is the obverse side of the existence of substance" (p. 281). The distinction between transeunt and immanent causality is always relative to a point of view. The only complete self-causality is that of the universe as a whole, since within the universe every existent is in causal relation with other existents. Cause and effect are different and cause is always prior to effect. There is no necessity in the causal relation except fact. Every fact carries with it the necessity for the human mind of accepting it. Nor does the category of causality imply power or force. Dr. Alexander rejects logical atomism since he holds that concepts are objective. He also rejects the idealistic reduction of causation to rational ground and consequent. This reduction is an attempt to translate what is essentially temporal into something stationary (pp. 295–297). Quantity: "Extensive quantity belongs to existents so far as the space and time of their Space-Time vary together; they have intensive quantity so far as one or other remaining constant the other varies" (p. 307). Number: "Being a plan of constitution of a whole of parts, number is universal . . . arising out of Space-Time as such" (p. 314). . . . "numbers are empirical universals in the same way as triangle and sphere and dog are empirical universals" (p. 315). Motion is more complex than all the other categories; it includes them and communicates with them all; Space and Time are equivalent to motion. The other categories do not communicate with motion, since it is presupposed in them all. "Even substance is not in itself motion, though every *thing* besides being substance is motion. Substance represents motion only in respect of its persistent occupation of space through a lapse of time; . . . in motion the full tale of the fundamental determinations of Space-Time is told and motion is consequently the totality of what can be affirmed of every space time" (p. 323).

"The categories enter into mind as they enter into the constitution of everything else" (p. 330). "All things come into being endowed with the categories and with all of them. They are the determinations of all things which arise within Space-Time, which is the

matrix of things, 'the nurse of becoming'" (p. 331). "Space-Time itself and all its features are revealed to us direct as red or sweet are" (p. 336). "Space-Time . . . does not exist but it is existence itself, taken in the whole." "Space-Time is not universal; . . . were it universal it must be repeated or at least capable of repetition. But how should the whole of Space-Time be repeated? For if it could be, it would not be the whole" (p. 338). It is not a whole of parts nor a one of many; it is *the* one. "Infinite Space-Time is not the substance of substances, but it is the stuff of substances." "It is itself the whole of spaces and times, as it is all existence, and all substance. All its characters are reflected in its children. Call it by what name you will, universe or God or the One, it is not above Space or Time." The only eternity which can be construed in terms of experience is infinite Time (pp. 341–343). Whether things be brief as the lightning or long as the solar system, whether things disappear or be transformed, whether things perish or grow, whether they be crude as a lump of dirt or perfect as the *Divine Comedy,* they are real as configurations within the one matrix, Space-Time, which is the Absolute. Thus ends the first volume of *Space, Time and Deity.* It is original, packed with thought, informing and stimulating. To attempt to give, as I have perforce attempted, in short space, the main outlines of the doctrine, is like attempting to boil down the *Critique of Pure Reason,* or Hegel's *Science of Logic* into a few pages. The test of a metaphysics is its doctrine of the categories. Dr. Alexander's work meets the test. Whatever one may think of his Absolute, Space-Time, one cannot forego bearing testimony to the thoroughness and consistency with which the doctrine is worked out.

Volume II consists of applications of the fundamental doctrine to the Problems of Empirical Existence. I shall single out for discussion his theories of Mind, Cognition, Value and Deity. Empirical existence consists of a series or hierarchy of levels of empirical qualities. Each level is built up by a selection and complication from the processes of the next lower level. Each level, in turn, becomes the basis for the formation, by selection and complication, of the next higher empirical qualities. The new level may be called the 'soul' of the 'body' which is formed from the qualities of the next lower level. Dr. Alexander calls the 'soul' an 'emergent' from the 'body.' "The soul of each level is the soul of a body which is the stuff of which it may be called the form" (p. 68). "Each new type of existent, when it emerges, is expressible completely or without residue in terms of the lower stage, and therefore indirectly in terms of all

lower stages; mind in terms of living process, life in terms of physico-chemical process, sense-quality, like colour, in terms of matter with its movements, matter itself in terms of motion. . . . There is a body or material of the lower level, of which one part is so complicated as to be endowed, in fact, with a new quality, which performs to it the office of soul or mind and may be called with proper caution, its mind; body and mind being identical in this portion of the body in question. Life, we have seen, is a selection from a larger whole of physico-chemical processes. A secondary quality like colour, belongs to one part or grouping of primary qualities in the material body to which it belongs, other parts of which may be occupied by other secondary qualities, and others by mere matter without secondary qualities; according to the conception reached at an earlier stage that a thing or substance was a volume of space-time occupied in diverse parts so as to fill its contour by qualities" (pp. 67–68). Thus Life is intermediate between Matter and Mind. Life is not an epiphenomenon of matter but an emergent from it. The directing agency, in the case of Life and Mind, is not a separate existence but is found in the principle or plan of the constellation which is its body (p. 64). When a new empirical complex emerges from a spacial configuration of lower qualities, it is no longer purely material. Mind is the last empirical quality of finite complexes that we know. If mechanism means the assertion that the Life-complex is nothing but physico-chemical process, Dr. Alexander rejects it on the ground that, empirically, the new complex is no longer purely material, although it is material. For the emergent qualities are as empirically real as anything can be. Similarly, of course, with a Mind-complex. The 'Minds' of the various empirical levels differ in kinds. The higher emergent is "based on a complexity of the lower existents; thus life is a complex of material bodies and mind of living ones. Ascent takes place, it would seem, through complexity. But at each change of quality the complexity, as it were, gathers itself together and is expressed in a new simplicity. The emergent quality is the summing together into a new totality of the component materials. Just in this way, as our thoughts become more and more complex, some new conception arises in the mind of a discoverer which brings order into the immense tangle of facts and simplifies them and becomes the starting point for fresh advances in knowledge. . . . Somewhat in this fashion complexes of one stage of existence gather themselves for a new creation, and additional complexities mean new simplifications" (p. 70). Thus Life is not colored but it involves color. Energy does

not belong to Mind or Life, but it does belong to the material basis of these. Life and Mind are extended and in Time (p. 71). Everything is a complex of Space-Time. "Thus the same thing which as contemplated, is a living thing, enjoys itself in its distinctive quality of mind, and enjoys its mind under all the categories" (p. 71). "A calculator, given the state of the universe, at a certain number of instants, or at one instant with the law of its change could, given sufficient powers, calculate what the spacio-temporal condition of the world would be at any given later instant. But he could not . . . predict what qualities would be evoked by the complexes he predicts in Space-Time, unless he lived to observe them" (p. 73).

Mind is enjoyed innervation; mind is identical with those complex neural processes from which consciousness emerges. Mind is active or attentive and selective. It is not an epiphenomenon, because it is the enjoyment of the neural process which is mental, and not of any other neural process. Dr. Alexander rejects both parallelism and animism. Mind and brain interact in the sense that neuro-conscious processes produce other neuro-conscious processes. ". . . Consciousness is, in fact, the enjoyed innervation of the appropriate neural process. It is the enjoyed beginning of a process which terminates in somatic changes" (p. 107). Referring to Mr. Holt's doctrine of consciousness, Dr. Alexander says that consciousness is the search light which selects and illuminates that cross section of the environment *of* which it is conscious. Mind consists of acts or conations; all cognitions are conations considered in their objective references (p. 121). "Speculative conation or cognition is isolated from practical conation by diversion or suspension of the practical movements which alter the world. We learn to alter ourselves and leave the object alone" (p. 120). "Feelings are objective experiences *of the order of* organic sensa" (p. 124). Summarily, "the processes of which mind consists are the highly complex movements carrying the quality of consciousness which are described as conations" (p. 125).

Theory of Knowledge.—The elements involved in Dr. Alexander's theory of knowledge are, Things, Objects, Sensa, Appearances, and Mental or Selective Acts. The things which the mind contemplates are contemplated selectively as partial objects. The thing is revealed in its objects. There is no thing which lives, as it were, behind its object, which reveals it. Sensa, or sensory appearances, are of the same kinds of existence as the objects themselves. All that objects of mind owe to mind is their selection, their *esse* they have as finite existences in Space-Time. Sensa and images, even in the

case of illusions and hallucinations, are non-mental. For example, "The image of a tree is no more examined by introspection than the perceived tree. Both are objects of extrospection." (p. 90). The things which the mind contemplates are contemplated selectively as partial objects (p. 91). Consequently: "The partial revelation of a thing to mind in the form of objects which belong to the thing merely means in the end that no object, nor even a thing, is given alone, but, because it is a part of Space-Time, coheres in varying degrees of closeness with other objects and groups of such objects connected together by the categorial relation of substance, that is, belonging to the same volume of space-time. The thing which is partially revealed in its objects, whether of sense or memory or thinking or imagination, is thus of the same kind of existence as the objects themselves" (Vol. II, p. 94).

Mind, in virtue of its position in Space-Time, is affected by only a portion of the real characters revealed to it, for example, varying hotnesses; or because of the condition of the organism, the real thing is apprehended only in part, for example, water as hot, cold or lukewarm. All appearances are non-mental. A thing is a portion of space-time with a specific configuration of motion. The thing is discovered by the mind as the synthesis of its various appearances. Dr. Alexander distinguishes three kinds of appearances: (1) The *real* appearances of the thing are its appearances to standardized or normal minds. These, of course, have a variety of appearances and usually call the real thing what it appears to them to be when it is near enough to be touched, but reality, in this special sense, is a social convention or matter of social valuation; (2) *Mere* appearances are the appearances which arise from a combination of a thing with other things; for example, when we see things in an artificial light or blue haze; (3) *Illusory* appearances; for example, color contrasts or the plane picture of a box seen solid; these are due to the intrusion of the mind of the observer. "Illusory appearances always imply omission or addition or distortion owing to the abnormality of the percipient" (p. 185). In terms of practical value touch gives us standard sizes, shapes, etc. "Now, the superiority of touch over sight, in general, is due to the nature of its object which does not need, like color, a medium, but is conveyed to the body direct" (p. 204). "Now the price we pay for having our intuitions of Space aroused through sense, is that they are subject to whatever variations may be necessary for the proper business of vision" (p. 202).

All "perspectives" (in Mr. B. Russell's sense) are selections of

the thing presented to sight. The real thing is the totality of its perspectives (p. 196). Illusions "are perspectives of the real world as seen by a mind in abnormal condition" (p. 216). Illusions are not created by the mind. "What the mind does is to choose them from the world of reality. They also are an instance of the mind's selectiveness, only the selection is uncontrolled by that part of reality which purports to be perceived. The illusory object is as much non-mental as the real appearance" (p. 214). In an illusion: "We combine elements not really combined, but both the elements and their form of combination are features of the real world when that world is taken large enough. Sometimes the dislocation involved is more thoroughgoing still. In a rational dream I have not only appearances, but things which behave in the dream space precisely as they would in reality. They obey physical laws and are thus physical, though apprehended only in idea. . . . Everything in the dream is real. . . . But in the larger world they are not found in these arrangements and thus they cannot bear the test of the wider reference. . . . I do not make the green which I see in the illusory sensation or hallucination" (p. 215). Hallucination is an inverted illusion; in it the mind supplies the thing of which the interpretation is sensed, whereas in illusion the thing revealed is supplemented by an idea which does not fit it in fact (p. 211).

Intersubjective intercourse depersonalizes experience. So-called private experience is but each man's individual perspective of the thing (p. 229). Thus private spaces are but public spaces as observed by individuals at different points of view. Real space is their synthesis. The really important distinction is not between private and public experience but between personal and impersonal experience. Sensa and images are not private but public, except in so far as they contain illusory features. What is personal in the strictest sense is the act of enjoyment.

I shall deal briefly with Dr. Alexander's treatment of value. "Values," he says, "then are unlike the empirical qualities of external things, shape, or fragrance, or life; they imply the amalgamation of the object with the human appreciation of it. Truth does not consist of mere propositions but of propositions as believed; beauty is felt; and good is the satisfaction of persons. . . . The tertiary qualities . . . are subject-object determinations" (p. 238). Appreciations arise from the community of minds in social intercourse; they involve relations of the collective mind, by which he means a symbol for that coöperation and conflict of many minds which pro-

duced standards of approval or disapproval. The mind which appreciates value is a standard mind. What we apprehend in objects of value is their coherence. Values are real, for the mind is the highest finite empirical reality we know. The combination of two realities—mind and its objects—does not produce unreality. Truth is coherence in beliefs, as determined by reality. This does not mean that there never can be real opposition between propositions that are both true. Coherence is not a property of reality but of the perspectives which we have ourselves selected. The mind which has truth has it as a standard mind. Truth means the settling down of individual believings into a social whole. The mind which has error is so far an outcast from the intellectual community (p. 258). Were all minds perfect mirrors of reality, there would be no truth, for there would be no error (p. 259). Truth and error are as much social products as moral good and evil. A really solitary individual could not be aware of error. But the reality which is truly known is still only a human selection from the whole. The only propositions which are true and cannot change are those which embody categorial characters. "Goodness, then, like truth, is an amalgam of mental and non-mental existents; is a new reality whose internal coherence is its goodness" (p. 280). The good is a system of satisfaction of persons which is effected by right willing. The beauty of a beautiful object lies in the coherence of its parts; in a coherence which can be felt coherently by several minds. Goodness is inclusive; it belongs to all normal minds; beauty is a part of the good; goodness and truth are species of the beautiful; and all values are included in truth. In the coherence of the individual mind with itself and with other minds we find the true locus of all values; and their reality is the reality of mind.

The highest level of empirical existence known to us is finite mind. But we have every right to suppose that there are higher empirical qualities, and Deity is the next higher empirical quality than mind. God is the whole world as possessing the quality of Deity. Actually, God is the infinite world with its nisus towards Deity. God must include mind, since every empirical quality includes the lower qualities, but God must be more or higher than mind or spirit. Mind we may say, is His Body, but not his Deity. Thus God is the superior finite which has mind for its immediate body (p. 355). The body of the infinite God is the whole universe (p. 357). Our minds are organic sensa of God. The infinite God is purely ideal, since the attainment of Deity makes Deity finite. As actual, God does not

possess Deity but is the universe's tendency to that quality. We may say that God is the ideal God in embryo, always becoming Deity but never attaining it (p. 365). Thus there is a creative stream of tendency which makes for the realization of higher values—that is, of more complex empirical qualities. Our values are the proximate materials for the making of Deity (p. 416). But Deity is a quality, not a value, since values are secured by finite beings. Dr. Alexander thinks that the nisus or striving towards Deity, of the universe, is the true meaning of the God of the religious consciousness.

This is not the place to discuss fully the rich contents of Dr. Alexander's work. I will indicate briefly my difficulties, in the expectation of discussing more fully, on a later occasion, some of the fundamental issues involved in Dr. Alexander's challenge to other forms of speculative philosophy. (1) Dr. Alexander's Space-Time or Motion-Stuff reminds one of Aristotle; but Dr. Alexander has neither an Unmoved Mover nor entelechies. It reminds one of Bergson's Pure Duration; but, whereas in Bergson duration is explicitly Soul of which Body or Space is a by-product, for Alexander spacial extension is just as essential an aspect of reality as motion. In a Spinozistic sense Space and Time might be called attributes of the one Substance. I confess that Space-Time seems to me too thin, too abstract, too tenuous and mechanical, to be called the One Reality. There is motion, but there is nothing which moves or is moved. Dr. Alexander sets out from an abstract mathematico-physical concept of Space-Time, and then tells us that more concrete, or thicker and 'higher,' empirical orders 'emerge' from, or, rather, *in* the bosom of, the initial abstraction—*secondary qualities, living process, mind,* and we may believe, still *higher empirical qualities.* The magical word that does the trick, and saves the system from the appearance of being an abstract materialism is 'Emergence.' But what is 'emergence,' and how does it differ from a blind mechanico-mathematical causation? All the empirical riches that are to appear in the process are carefully hidden in this one word. It seems to me like saying—"Give me emergence and I will produce, each in its own good time, out of the Space-Time Hat, everything actual, and the promise of more to satisfy religious aspiration." Either each order of empirical qualities is produced blindly and mechanically from a lower order, and is *nothing but* the shifting of a mechanically predetermined spacio-temporal contour; or the higher qualities were already present potentially in the universe and then the higher qualities belong permanently to the essential constitution of reality, and reality is vastly

richer than Space-Time; then there is an eternal order of which the highest known qualities are the most adequate finite utterances. For the assumption that qualities not actual are potential is a logical evasion. Whatever emerges was somehow actual before its emergence, or else it was non-existent before it emerged and was caused, in the sense of being produced, by the lower complex from which it emerged.

(2) By what logical right does one speak of 'higher' and 'lower' empirical qualities, if Reality be essentially ever-moving spacio-temporal configurations? If there be creative advance or movement towards perfection, in the generation of empirical qualities, must not perfection, the goal, somehow exist or subsist through the whole process? If there be no fixed, no eternal standard, then we may be moving, indeed; but, inasmuch as we do not know and cannot know whether we are going anywhere, we have no right to speak of 'advance' or 'higher' and 'lower.' We are on the way to nowhere. Dr. Alexander has a working criterion of 'higher;' it is 'mind;' but mind is generated from life, life from matter and matter from Space-Time. In turn something higher than mind is being, or perhaps will be, or at least may be, generated from mind. But we are given no idea of what this 'higher' than mind is or will be, whenever it is or will be. Why not hold on to what we have and work it for all it is worth instead of dissolving it in a kinematical abstraction? (3) I cannot accept the validity of Dr. Alexander's explanation of the respective footings of *real, mere,* and *illusory,* appearances. In all cases, sizes, shapes, color-contrast, etc., the perceptual data depend on the interplay of percipient activity with a complex of external conditions. In all cases alike what is perceived or imaged depends, in varying degrees, on extra-organic and organic conditions plus the mental attitude of the percipient. Dr. Alexander is right in saying that the test of reality is social normality. The physically real is a social construct which presupposes community of structure in individual percipients and community of physical conditions. The world might be regarded as a collective hallucination, were it not that the subjectivist, like all other philosophers, quietly assumes a real community of persons in order to make his explanation work. Indeed he assumes this community in philosophizing at all. Dr. Alexander is on the right track in working towards a social realism. But, as a social realist, I would argue that it follows that the minimal concept of reality involves always a community of minds as its highest term and fullest meaning; and therefore, reality is not Space-Time but, at

least, a community of selves. The physical world is the frame-work of the community.

Dr. Alexander's book seems to me the most imposing and solid piece of metaphysical construction since Dr. Bosanquet's *Principle* of *Individuality and Value*. Dr. Alexander is strongest where, perhaps, Dr. Bosanquet is weakest—in physical cosmology. Dr. Bosanquet is strongest where Dr. Alexander is weakest—in the interpretation of the significance of the objective structures of historical and social culture, of mental or spiritual community and its works. The fundamental issue today in the logic of metaphysics is this—must metaphysicians, in obedience to the norms of kinematics or geometrizing physics, de-anthropomorphize the universe of experience to the extent of denying to the objective cultural activities of the human spirit, in society and its history, a key-position in reading the meaning of experience as a whole; or may they accord to "Cultural Reality" a central place? In spite of his temporal universe, Dr. Alexander pays scant attention to the metaphysical bearings of the historical cultural-life. In the large sense he is a naturalist. For him the categories of abstract physics are normative, notwithstanding the play he makes with emergence and conation. The above issue has always been the fundamental question in the logic of philosophy—what form of interpretation should philosophy aim at? But the issue is especially acute today in view of the tremendous impact of mechanics in education, industry and our entire social order, an impact greatly increased by the terrible destruction of the works of culture and the painful scission in its historical continuity wrought by the cataclysmic eruption of 1914–1918. I should be false to my own convictions if I omitted to say that the issue above stated has at stake the entire life of human culture; that philosophy is not primarily an intellectual exercise in cosmical kinematics, but is a serious call to interpret and to defend with all the power of reason, the vitality and supremacy of humanistic culture. From the standpoints alike of reflection upon the spiritual meaning of man's whole cultural experience, of the real nature and value of personality, and of the continuance and progress of civilization, I have to deny the normativeness of the categories of physics and of mechanism in all spheres, as being both grossly inadequate to the full implications or meaning of cultural experience and inimical to the spiritual welfare of civilization. To attempt to turn philosophy into a cosmical mathematics is to desert the ship. I see no worthy future for philosophy as such a discipline.

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The Ground and Goal of Human Life. By CHARLES GRAY SHAW. New York, The New York University Press, 1919.—pp. xii, 593.

This volume presents the elaborated material of a course in Ethics given in the Graduate School of New York University. The work is thoroughly representative of present tendencies in philosophy. It expresses the firm conviction that philosophy, if it is not to be shelved as an 'academic' interest, must have something positive to say about the situation in which humanity finds itself.

The problem to which the author addresses himself is that of the individual in the modern world, in his relations on the one side to nature and on the other to society. It may be stated in other terms as the problem of the subjective and the objective, the inner and the outer, as these factors present themselves to one seeking a philosophy of life. The work is an effort to discover what is unique in human life, as distinguished from other forms of existence, and to ask how these characteristic and significant elements can find expression in the objective order. What the author seeks, then, is "a treaty of peace between the forces of individualism" and those of "scientifico-social thought."

The volume is divided into three Books. Book One deals with the Ground of Life in Nature, which is treated in two parts, The Naturalization of Life, and The Struggle for Selfhood. Book Two, The Goal of Life in Society, is devoted in the first part to The Socialization of Life, and in the second to The Repudiation of Sociality. Book Three presents The Higher Synthesis in three main divisions: The Joy of Life in the World-Whole, The Worth of Life in the World-Whole, and The Truth of Life in the World-Whole.

Our age, we are told, is suffering from the submergence of the individual. Classicism sought to perfect the individual through the "substitution of the aesthetic and intellectual for the crude and barbaric." Christianity as a religion of redemption sought in turn the rescue of the individual from the world. Modern thought, on the contrary, has pursued the study of man and the world objectively "with a resolute disregard of the ultimate interests of his being." As a result we have become sure of the world but uncertain of ourselves. This naturalization of human life in the modern era was begun by astronomy and physics, and completed by biology and sociology. Positivism thus assumed "an air of finality": whatever additions might be made to a knowledge of facts, it was believed that no new principles of interpretation would be won. Against this naturalism, in-

dividualism contends that psychology should "undertake to exploit the individual, in order that the individual may find his place in the world and assert his position in the social order." We are in need of a Socrates to guide us to a higher truth.

Some explanation of terms employed by Professor Shaw is perhaps needed. "Scientism" and "sociality" are used to describe the prevailing modes of thought which have resulted from naturalism. "Scientism," unlike legitimate science, "attempts to deduce a life-ideal from the organized data peculiar to the inorganic and organic worlds" (p. 198). Science, as such, may perfect the principles of physics, chemistry, and biology "without any philosophical or poetical interference or criticism." Similarly, "sociality" is employed to designate the industrial and institutional order. It falsely regards these as adequate and authoritative interpretations of humanity. But humanity is, for Professor Shaw, a far richer term than society; it includes all the values and ideals revealed by individual experience.

The immediate protest against naturalism was offered by the æsthetic spirit, which has stood for the "joy of life." "If to be rational, the mind was called upon to be 'scientific,' the command of æstheticism was 'Be irrationalistic!' If, in order to be moral the will was expected to be 'social,' the exhortation of æstheticism was 'Be immoralistic'" (p. 67). The maxim, "Art for art's sake," with whatever abuses it has involved, has therefore to be charged to the account of naturalism. The revolt of aestheticism has been in essence a "eudæmonistic revolt." The justification of this emphasis upon æsthetic enjoyment is, we are told, that a man's joys are uniquely his own "because he has made them his own," whereas naturalism views them as the product of the physical order. Disinterested judgments of beauty rise "above the rank of mere occurrences," and so are "cleansed" of all immediate sensations and feelings. The extravagancies of the æsthetes, of whom Baudelaire is the type, are frankly acknowledged, but are justified by the necessity of asserting the claims of individualism. Even the morbid, it is said, may be valuable for this purpose by expressing "the unrecognized possibilities within the soul of man."

Immoralism and irreligion are also to be regarded as revolts against the submergence of the individual. Neitzsche linked together "self-development within" and "sin without." Semitic and Aryan tradition, it is pointed out, here unite. The story of Eve and the myth of Prometheus both make enlightenment depend upon disobedience. Dostoievsky is the great prophet of this view, but Emerson, earlier

even than the French Decadents and the Russian Nihilists, had given expression to a similar doctrine. A number of citations are given to establish the point, among them Emerson's familiar sayings that "it is an esoteric doctrine of society that a little wickedness is good to make muscle," and that "there is no man who is not at some time indebted to his vices, as no plant that is not fed on manures." "Irreligion," the author says, "strives to transcend religion for no other reason than that religion fails to assert the independence of the human self. That for which irreligion contends is the ideal which religion itself has not the courage to advance, the independence of the inner life" (p. 181). Religion has suffered, first because it has clung to an antiquated cosmology, holding "its picture of the phenomenal world dearer than its sense of inner life," and secondly, because it "has surrendered the spiritual to the social."

The argument of Book Two, which deals with the Socialization of Life and the Repudiation of Society, follows the same general lines as that of the first book. Individualism finds that human worth can not be construed in the spirit of "sociality." The social thinker has made the conception of society "commonplace and obnoxious." "According to naturalism," we are told, "the self does not exist; according to sociality the self has no right to think of existing." The protest of individualism against "sociality" has been made by decadence, pessimism, and scepticism.

One of the most vigorous sections of the book is devoted to the Socialization of Work. Mechanized industry is its typical expression. The life content of the individual is here "nothing but labor"; the higher spiritual goods have long since disappeared. It is the condemnation of industrialism that it has made man "an automaton who must wait upon his machine." The protest of socialism against the industrial order is not against "social production but non-social distribution"; and although socialism, at least with its more intelligent representatives, is not avowedly antagonistic to culture, it accepts the scientific socialization of life with a readiness that individualism is compelled to oppose. "When, therefore, socialism protests that the worker has no property, no tools, the individualist protests that the worker has no culture, no character" (p. 228). It may be added, I think, that capitalism has not put forward a higher standard of culture for the worker than has socialism. In these days, to be sure, capitalism has been insisting that the workers must at least have religion even though it has to be bought at a great price. But it needs no special acuteness to discover that religion in this connection does

not mean the deep and inward expansion of personal life, but rather an insurance against discontent, a nepenthe to drown the monotony and dullness of industrial life. In this sense religion, to quote an appeal in a recent religious campaign, "should pay dividends."

Morality, like other interests of life, has, we are told, suffered from the process of socialization. The "old duty" was imposed by the individual "who swung the yoke over his own shoulders"; the new "duty" has been placed upon the individual by society. Such a social morality lacks humanistic content. It results inevitably in an ideal of mediocrity, "the morals of the middle class," since to attain its universality, it can not be "pitched too high or too low." The antidote for the vicious nationalism and sociality of the last generation is found in the decadent individualists, who, if they have been "extreme and perverse," have at least maintained their independence.

It is not easy to do full justice in a brief statement to Professor Shaw's Higher Synthesis, which occupies more than two hundred pages of the text. Yet with his problem clearly in mind, it is possible to see at least the outlines of his solution. Individualism, for which he has so stoutly contended as a corrective of "scientism" and "sociality," and which was right "in a temporary and relative sense," cannot be the goal. Nor can this be found in "anti-naturalism or anti-social idealism," or in any view that would divorce the self from "the exterior orders of nature and humanity." Professor Shaw, however, contends that there must come a deepened and renewed "sense of inner life," and that it can perhaps be realized only by such a heightened personal consciousness as would "threaten our absurd ideals." "Our greatest need," he says, "at the present hour is a touch of solipsistic egoism." In keeping with this same temper of revolt he shows that the path of moral and spiritual progress may lead, as it has always led in the past, to the violation of social standards which have assumed a false absolutism.

More specifically, Professor Shaw's humanism is expanded in three directions, the æsthetic, the moral, and the intellectual. The æsthetic synthesis is concerned with The Joy of Life in the World-Whole. Now nature has not been exhausted by scientific method, which, however valid within its own field, proves helpless to interpret the world as a whole. A more "liberal and fluid" conception is possible, and in such an ideal of æsthetic interpretation the individualistic and the cosmic meet in "one synthesis." The æsthetic may thus overcome the opposition between the two values, and realize its "major possibilities as a form of human culture." Disinterested æsthetic appreciation not

only offers a substitute for vulgar pleasures, but provides a norm for the right judgment of legitimate pleasures, so that, as the author well says, one would "touch pleasure with the skill and lightness which is possible to him who has a consistent sense of the joy of life" (p. 408). The ethical discussion is concerned with the Worth of Life in the World-Whole, and asks how the "immoralistic pessimism" into which individualism has been forced may be overcome; how, in other words, the individual may find his true work in the world. One cannot idealize the present-day industrialism. Talk of the "dignity of labor" is but a "high-sounding phrase" which is always refuted by "the brutality and dullness" of the laboring class. And if there is "some joy attributable to human work," there is "a great deal more sorrow." The "unexpressed and perhaps unconscious logic of capitalism" reduces to a kind of "philosophical cruelty" to the effect that, "for weal or woe, the work of the world shall go on." In place, then, of work done from necessity, with its mechanical and joyless tasks, there must be substituted the ideal of intelligible and creative activity which shall give to the individual a sense of sharing "the august work which the world seems to be carrying on." The goal must also include knowledge as "the participation of intellectual life in the world." This statement is presented in opposition to traditional treatments of the problem of knowledge which have been dualistic after the manner of "thought and thing," "subject and object," "mind and matter." But intellectual life has gone on, the author says, "in delightful ignorance of the great decisions of the authoritarian epistemologists." As thought becomes more "liberal" and "versatile" the reunion of the self with the world may be effected. The old individualism which ignored the objective gives way to the new individualism which recognizes that the "subjective realizes itself in the objective." To such an individualism, knowledge, as participation in the world, is "the means to *the* end of life."

Professor Shaw's book, both in its historical and critical dicusssions, suggests a comparison with Professor Babbitt's *Rousseau and Romanticism,* which was noticed in an earlier issue of the REVIEW. To Professor Babbitt, Romanticism and all its works are an abomination, whereas to Professor Shaw it has been a useful and even necessary protest, however exaggerated and fantastic, against the forces of "scientism" and "sociality." Both writers agree in their opposition to naturalism, which they interpret in its lowest and most indefensible form. In his final synthesis, however, Professor Shaw indicates the possibility of a higher type of naturalism, as when he says: "The

concept nature is deep and rich enough to include both man and nature" (p. 576). Similarly, Professor Babbitt announces his own position as a "complete positivism," by which he means that man as well as nature is to be studied by the same careful and critical methods as have been applied to external nature. Such a view might with equal propriety be designated as a complete or higher naturalism. Each of these writers, too, announces himself as a humanist. But the individualism of Professor Shaw is far more pronounced. This difference appears sharply in their attitudes to classicism in one of its most characteristic features. Professor Babbitt's humanism exalts the Socratic method because it was able to furnish the key to what is typical and representative in human nature; and for him, the typical is the significant, furnishing, as it does, the norms and ideals for imitation. Professor Shaw, on the contrary, leans towards nominalism because he emphasizes the uniqueness of the individual. He regards the likenesses as superficial, the differences as fundamental, whereas Professor Babbitt would emphasize the likenesses and minimize the differences.

In the work as a whole, one feels that science hardly receives due recognition at the hands of Professor Shaw, despite his distinction between genuine science and what he terms "scientism." Why should we not, for example, recognize the creative joy of the scientific worker as well as of the artist? The tendency to overestimate the value of the æsthete, in comparison with that of the genuine scientist, may be illustrated by a concrete case. "Was Darwin," Professor Shaw asks, "of greater value to the spiritual life of humanity than Baudelaire?" (p. 300). The answer to this question does not seem to me to admit of doubt. Many would be inclined to go much further in such a comparison, and to accept the verdict of Professor Babbitt when he says: "An Edison, we may suppose, who is drawn ever onward by the lure of wonder and curiosity and power, has little time to be bored. It is surely better to escape from the boredom of life after the fashion of Edison than after the fashion of Baudelaire" (*Rousseau and Romanticism*, p. 350). As for Baudelaire, I can not escape the conviction that he stood in sore need of a wholesome naturalism. Certainly he never escaped from mediaevalism. Lacking both the insight and the courage to escape, and divided in his own breast, he became the prey of a morbid and distorted view of life. His pronounced sadism is a point in evidence. He believed in "the necessity for beating women," and was astonished that "people permit women to enter churches."

When it comes to settling the account between the inner and the outer, the self and the world, the course of the discussion leaves at one point a certain perplexity. This concerns the process by which the individual becomes possessor of the "soul-states" that are of supreme worth. The self is made to appear as an absolute centre, as somehow full panoplied for the business of life. "The individual," we are told, "must find the truth of his existence in himself alone" (p. 333). It is true that Professor Shaw makes it quite clear that the individual can not live an isolated life nor find his goal in himself alone. "Isolated selfhood, however rich its inner content," is not the ideal which he sets before us. But how does any such self come to have a rich content? In the criticism of the social order the individual no longer appears as its offspring either by heredity, environment or education. The world, both natural and social, seems at times to stand as a thing apart. Perhaps the difficulty which I feel arises from the fact that Professor Shaw is not here concerned with the genetic problem of the self but rather with its significance. Certainly his own doctrine of individualism as finally developed would place the self in the world-whole, there to find its joy and worth and truth. The value of the individual as against the external order has received classical expression, in the familiar question, "What shall it profit a man if he gain the whole world and lose his own soul?" But when we consider the processes by which any soul comes to have a content that makes it worth saving, we may well invert the question and ask, What shall it profit a man to gain his own soul and lose the whole world? Professor Shaw would perhaps recognize the significance of this question, and a recognition of all its implications would remove the perplexity to which I have referred.

The reader who follows the entire discussion from cover to cover will be impressed by the painstaking care with which the exposition is conducted, as well as by the wide acquaintance with the literature which is canvassed. But he will also find that the circumstances of its origin have left their impress in certain outstanding features of the work. It is unfortunate that repetitions appropriate to the classroom, and justified on pedagogical grounds, were not eliminated from the published result of these studies. A more universal vocabulary, a simpler structure, and a more rapid progress of the argument would have greatly enhanced its appeal. Because the book contains so much that is pertinent to the present fortunes of civilization, one would

wish for it a wider audience than it is likely to win in the form in which it now appears.

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La Responsibilité. Étude de Sociologie. Par PAUL FAUCONNET. Paris, Librairie Félix Alcan, 1920.—pp. xxvi, 400.

The fact that this book appears as in part the work of Durkheim gives a presumption in its favor, and it is only necessary to read into it and appreciate its method to find that it ranks somewhat above the ordinary work on sociology. Perhaps too many works in this field have devoted themselves to taking stock of the primitive mind, a conception which remains largely hypothetical in spite of such facts as could be observed since sociology has been contending with ethics for the title of science of human relations. It is therefore encouraging to follow the author through a somewhat thoroughgoing analysis of habits and customs of various peoples, not as these habits and customs appear in the haphazard observation of low races, but as they appear when organized in the legislative enactments and legal codes of peoples more or less advanced in culture. It is as a sort of comparative history of law and of moral and religious conceptions that the book possesses most of its value, and it is a little difficult to see what would remain of social doctrine if the former were left out. The book was written upon the suggestion of Durkheim, in part upon a basis of his lecture notes, and would have had his final revision but for his untimely death (Preface).

Philosophers and jurisconsults, says the author, have previously been engaged in logical and dialectical analysis of the abstract idea of responsibility. There are, however, facts of responsibility which are social in nature, since they belong to the species of juridical and moral facts. It is the purpose of this book to find, through an analysis of social facts, the elements of a theory of responsibility. Judgments pronounced by courts or by public opinion upon the juridical or moral obligation implied in acts are judgments of responsibility. They refer to the body of rules which forms an important part of all law; these rules and judgments are social facts. Much of the book is devoted to the description of these rules, which, when formulated in legislative enactments or legal codes, or when unformulated in public opinion, constitute what the author calls the "living and functioning institution of responsibility." These institutions constitute the ob-

jective social facts of responsibility. But there are also subjective social facts. The concept of responsibility, as the "abstract résumé of all the collective ways of thinking and feeling" (p. 4), and the individual's personal feeling with regard to his own responsibility, are social phenomena. Rules of responsibility when organized with reference to definite purposes are called sanctions. The person designated by a sanction as one upon whom disapprobation ought to fall is called responsible; one upon whom it ought not to fall is not responsible. Responsible and justly punishable are therefore largely synonymous terms.

In modern societies the normal adult human being is the proper subject of sanctions. But historically there have been other subjects, as infants, insane persons, dead bodies, animals and inanimate things, and collective groups. Tracing the relations among these leads to the negative conclusion that "no particular quality is universally required of a being in order that it may eventually play the rôle of patient" (p. 90). On the contrary, "Responsibility arises outside the responsible subject. It comes upon him because he finds himself engaged in situations that engender it" (p. 91). These situations are various, but the most common in all societies is the case of active and voluntary participation in crime. Another important case is that of indirect participation in the religious crime of contamination, which involves a substitution of patients, and thus suggests that responsibility is not an inherent property of individuals. All situations manifest the elementary principle of responsibility, namely, "the relation which unites the author, as a responsible person, with the act judged by reference to a sanction" (p. 173). Responsibility varies in degree according as the sanction, in being adapted to the patient, should, in virtue of a rule, be made more or less severe. There are many kinds of sanctions, among which the author designates the legal and moral, penal and civil, with the further distinctions of restitutive and repressive, etc. The book is concerned more particularly with penal sanctions in their connections with religious and moral institutions, and this throws a heavy emphasis on the institution of punishment; for, "punishment is an institution that can be isolated without difficulty from others, while the idea of definite responsibility as an institution disturbs our habits and seems to do violence to language" (p. 16). In imposing punishments societies act; their acts are determined by ideas and emotions, in a word proceed from forces; and the purpose is to find what are these elements of idea and sentiment and how they grow up in the collective consciousness. Such being the prob-

lem, comparative history is the only method that can solve it. But the historian loses faith in his method in questions of fundamentals, and with the philosophers, assigns as a foundation of responsibility a pre-social or extra-social human nature—the biological and psychological nature of the individual—and at times agrees with the metaphysician that the moral principle of responsibility is outside nature.

All philosophical and historical theories are based upon a common presupposition: that responsibility is reducible to causality. They are either determinist or indeterminist. The former fails because it conceives cause as the atomistic particular as expressed in the doctrine of individual liberty (p. 184), which is an evident over-simplification; the latter fails because it conceives the relation between author and act as metaphysical, whereas, "what is important is the relation which unites them from the point of view of opinion" (p. 198). All philosophers fail to understand the complexity and the social character of responsibiity. As a matter of fact the metaphysical character of responsibility does not differ from its secondary and variable character; besides it is first conceived in relation to crime and not in relation to the author of crime or patient. To prove this it is only necessary to refer to the fact of substitution of patients, and to the necessity of substituting for crime a symbol which represents it. The choice of symbol is largely indeterminate. "The primary fact is therefore the existence of a reservoir of forces which is nothing else than the representation of things held sacred—of moral values. When these forces are released, responsibility is created, without there being as yet any responsible persons. . . . It is not because there are responsible persons that there is responsibility. Responsibility preëxists, as a floating idea, and it is only later that it is referred to such or such subjects" (p. 244). But although we may assume that natural causation may react upon the idea of responsibility, "natural causality must not be confused with human causality in the moral sense" (p. 281). "What a contrast there is between the qualities of mind of the scientist and that moral tact, that sensitiveness of perception necessary to judge well; between the slowness and complexity of experimental method and that species of intuition or sentiment, difficult to define, which, often abruptly and without reflective stages, leads us to affirm or deny the responsibility of an accused person" (p. 286).

The function of responsibility is not retributive, not directed toward the criminal, but repressive (p. 299), directed toward crime itself as a sum of conditions which breed criminals. While it is originally and really collective in nature it has become individual by

an unwarranted extension in sense, but at the same time by an unreal limitation in scope. We have then to return, not to the primitive idea of collective responsibility, but to a responsibility based upon the solidarity of humanity. "It is rather in this case a qualitative transformation of the idea of individual responsibility. . . . It is in order the better to individualize it, one may say, that there is restored to responsibility, in a certain sense, its collective character" (p. 343). But it remains true that the more responsibility becomes narrowly individualized, the more certainly it tends to disappear altogether (p. 344). And yet the very attenuation of it which results from its being individualized has at the same time spiritualized it, so that in restoring its social character it loses the crude materialism which vitiates most 'social' explanations of it. "Man has a double origin, there are two natures in him; the one animal, organico-psychic, the other superindividual, resulting from his participation in a transcendent reality. That reality is social; it consists in a system of ideas and sentiments which make up the collective consciousness, and which very likely expresses society itself" (p. 367).

Since the argument rests in large part upon an analysis of law and legal procedure it must bear the burden of their fundamental weakness. And the characteristic weakness of law appears prominently throughout the book. It is that the law attempts to embody in negative, restrictive and repressive forms the positive, expansive, ebullient content of human relations. The eternal 'Thou shalt not,' of the law can never enjoin or permit the fulness of expression which the moral nature will always claim, and so long as the law attempts to force moral content into its empty forms, just so long will there persist the sorry succession of crime and punishment which 'publicists' and sociologists enjoy so much to describe. The idea that moral purpose should submit to precedent is inherently repulsive, and it is just that which makes the vast breach between morality and law. This of course does not mean that morality is capable of no organization, but it does mean that its organization must provide scope for its spontaneity. Moreover, responsibility cannot rest upon the accident that such and such customs happen to get formulated into accepted rules. For the criterion of responsibility in that case must be the backward reference to what as custom *was* adequate as a measure of value for human relations, but which can give no positive suggestions for the direction of effort. Again, all the elements involved in action—motive, intention, the end conceived as good—have their meaning not from comparison with precedents of fact, but by reference to what

is from the point of view of the act an ideal end. And this means that responsibility is an idea, a meaning; and since it is true that a meaning is also a fact, the question becomes one of *kinds* of facts. That the author sees this is clear from his distinction between 'natural' and 'human' causation. But what he does not seem to see is that the recognition of this distinction perhaps calls for a restatement *de novo* of his entire argument. It is questionable whether it is possible to begin with cause and work up to purpose; some element of purpose must perhaps be present in the assumption from which an investigation of 'fact' sets out. There may be some justification for the philosophical treatment of responsibility as an abstract idea. The author has written a book of more than ordinary value because he has himself done precisely what he criticizes the philosopher for doing. He has abstracted from the confusion of 'facts' an idea that comes dangerously (for the sociologist) near an ethical conception, and when the contact is made complete it will be interesting to see what there is left for the sociologist to say. The book has an extended bibliography, and closes with an appendix on "Responsibility and Liberty."

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Lectures on Modern Idealism. By JOSIAH ROYCE. New Haven, Yale University Press. London, Humphrey Milford, Oxford University Press, 1919.—pp. xii, 266.

These lectures, originally delivered in 1906 at the Johns Hopkins University, are published under the editorship of Dr. Loewenberg of the University of California, as the first of Royce's posthumous works. No announcement is made regarding the character of the volumes which are to follow; but the present book must be regarded as an important contribution to the history of philosophy, and Dr. Loewenberg has performed a valuable service by editing the manuscript and bringing it to publication. In his Preface the editor calls attention to Royce's summary at the end of the second Lecture: "The post-Kantian idealism was noteworthy in its analysis of the conditions of knowledge. But it was still more noteworthy in its development of social concepts, and in its decidedly fruitful study of the relations which bind the individual self to that unity of selfhood which includes all individuals." And he lays emphasis upon the fact that Royce has shown by his analysis of the *Phenomenologie* that "for the early Hegel the state is an inevitable stage but not the goal of human

progress." Dr. Loewenberg's remarks seem to suggest that he believes that this remains true in substance also of Hegel's later doctrine, and that the opposite view which has so long prevailed is due to 'mutilations and perversions' of his teaching. It seems to me that this concluison can be clearly established, though the arguments obviousy cannot be given here, since they would extent beyond the limits set by the purpose of this review.

Readers of Professor Royce's book, *The Problem of Christianity*, could not have failed to be a little surprised by his statement in the Preface, that in regard to certain doctrines stated in that work he owed much more to Mr. Charles Peirce than to the tradition of idealism, and much more than to Hegel. There can be no doubt that Royce was justly impatient of having his views disposed of by attaching to them the label 'Hegelian,' and that he was conscious of having arrived at results that were different in important respects from those of Hegel and his School. And, again, he was well aware that to call any man, 'Lord, Lord,' is inconsistent with the very spirit of philosophy. In the final lecture of the volume before us there are some excellent remarks on this subject that are well worth consideration: "Hardly anything in fact is more injurious to the life of scholarship in general, and especially of philosophy, than the too strict and definite organization of schools of investigation. The life of an individual scholar depends upon individual liberty. And above all does the life of philosophy demand the initiative of the individual teacher as well as that of the individual pupil. A philosophy merely accepted from another man and not thought out for one's self is as dead as a mere catalogue of possible opinions. . . . The inevitable result of the temporary triumph of an apparently closed school of university teachers of philosophy, who undertake to be the disciples of a given master, leads to the devitalizing of the master's thought, and to a revulsion, in the end, of opinion" (p. 233).

Notwithstanding Royce's vigorous repudiation of 'discipleship' in philosophy, I think that no student of his later writings in particular will feel that Dr. Loewenberg has overstated the essential kinship of his author's thought to the writers treated in this volume: "The view of the post-Kantian Absolute as a universal community is not without interest for Royce's mental biography. His own doctrine of the community, though on its epistemological side intimately bound up with Peirce's doctrine of interpretation, is metaphysically not unrelated to the post-Kantian notion of a social absolute. The social motive is Royce's most characteristic motive. It inspired most

of his independent and original thinking. And it is the same motive which accounts in no small measure for his intellectual attachment to the idealism of Kant's successors" (p. xii).

The volume contains ten lectures: two dealing with Kant, one with "The Concept of the Absolute and the Dialectical Method," two devoted to Schelling, and four to Hegel, while the concluding lecture has the title, "Later Problems of Idealism and its Present Position." The lectures do not follow the lines of the ordinary histories of philosophy, nor do they repeat what is contained on this period in the author's *Spirit of Modern Philosophy*. They presuppose a general acquaintance with the systems discussed, and are devoted to an exposition, without criticism, of the central problems and results of the post-Kantian movement. There is less repetition than in any other of Royce's writings, and nowhere, I think, has he been more successful in presenting fundamental doctrines with comprehensive grasp and lucidity of language.

While all the Lectures are fresh and valuable, I believe philosophical students will feel especially thankful for the expositions (Lectures IV–VIII) of Schelling's *System des Transcendental Idealismus,* and Hegel's *Phenomenologie des Geistes.* These works, and particularly the last, require the kind of elucidation that Royce has here afforded before they can become intelligible to a reader of the present day. Windelband has rightly called the *Phenomenologie* the most difficult work in the history of philosophy, and few who have studied it would fail to agree with this verdict. Royce had a great store of knowledge in regard to this work and the background from which it arose, having frequently made it the subject of his seminars of graduate students, and it is most fortunate that we have in these lectures some of the results of his extensive studies in this field. That he has not given us more is the only ground for regret. In particular, one cannot help wishing that he had treated more at length the final sections of the *Phenomenologie,* on Religion and Absolute Knowledge, which are of such fundamental importance in comprehending the real goal and outcome of Hegel's system. It may be that among the material still to be published will be found a fuller discussion of these subjects. It is not possible in this review to give any summary of the argument or the results of these lectures. Nor does this seem the place to attempt any discussion of particular interpretations. There can be no doubt that, as Dr. Loewenberg has pointed out, in emphasizing the essentially social and spiritual character of the post-Kantian conceptions Royce has performed a service that is specially

valuable at the present time when there is a tendency to identify the philosophy of the great teachers of Germany with the standpoint of modern industrial and military Germany. In 1865, Liebmann in his work, *Kant und die Epigonen,* set the program for the main lines of the activity of German philosophical scholarship for more than a quarter of a century in the famous words, "*Es muss auf Kant zurückgegangen werden.*" And in the years immediately preceding the war it was sometimes reported that German philosophy, moving onwards from the Kantian standpoint, was retracing the steps of the post-Kantian period and renewing its interest in the writers of its greatest period. Was there in Germany during this half century any real return to Kant and to the true spirit of his successors? The forces drawing in the opposite direction seem to have been too strong; whatever may have been true of philosophy, the eyes of the nation were blinded so that it could not see and its mind darkened so that it could not understand all that its own prophets had told it. But, nevertheless, these prophets remain the teachers of mankind, and still provide the strongest link that binds Germany to the rest of the civilized world. When a real reconciliation comes about, it will be based upon the rational principles of human life and society that the German philosophers sought a hundred years ago to bring to the consciousness of their generation.

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Cornell University.

NOTICES OF NEW BOOKS.

Studies in Contemporary Metaphysics. By R. F. Alfred Hoernlé. New York, Harcourt, Brace and Howe, 1920—pp. 306.

This volume of Professor Hoernlé may be heartily recommended to anyone who wishes a clear, compact and well-written presentation of the classic, idealistic tradition in philosophy. The author acknowledges his indebtedness to Bosanquet, and each one of the studies which comprise the volume is, indeed, an exposition of the way in which the principles of Bosanquetian idealism may be applied to some one of the metaphysical problems which have been prominent in the discussions of recent years. Two dominant motives and interests determine the argument throughout. The first lies in the desire to "save the appearances," to ascribe to each aspect of life and reality its own autonomy and integrity, and not to allow it to evaporate into something else. The world of sense experience, the existence of living bodies, the life of mind and of self must all be saved and protected against the tendency to turn them into mere forms and appearances of something which they themselves are not. But secondly, there is the no less insistent need for adequate continuity amongst these autonomous aspects of life and nature. They are to be envisaged within a setting which comprises them all, which has the characteristics of wholeness and totality, and which makes it possible to provide for a stable hierarchy of all the various appearances. "Accept the appearance in question, and exhibit it in its place in the order of the universe"—this is the command and the task of all philosophy.

From within the point of view thus defined, the author has achieved a highly creditable piece of work. Each study exhibits the results of wide reading, and a painstaking analysis of recent and contemporary philosophical writing. One of the best chapters is that on "Mechanism and Vitalism"—obviously just the kind of problem in which the desire to "save the appearances" of vital purposiveness, and also to provide for systematic wholeness and escape the arbitrary pluralism of piecemeal supernaturalism-vitalism—finds abundant opportunity for successful display.

The present reviewer, however, finds that the reading of this book leaves in his mind one insistent question. It is one thing to cope with problems from *within* a compact set of motives and a definite philosophical system, and from *within* the spirit of the classical philosophical tradition. This the author has achieved with distinction. It is another thing to survey the rise, the career, and the meaning of that tradition itself, to exhibit it within the setting of the entire group of cultural forces, most of which

are wholly non-philosophical, which have brought it into being, moulded it, and—conceivably—rendered it inadequate after these cultural forces have shifted their energy and their direction. This, the author can hardly be said to have essayed at all. But just this sort of inquiry would seem, at the present time, to be most urgently called for, and to be an indispensable preliminary before one has achieved the right to approach the specific problems of life and society from the point of view of any one philosophical system. The guess may be hazarded that, had the author set out thus to survey the wider setting of the classic tradition which he so admirably formulates and defends, he would have found himself dealing, at greater length and with perhaps more sympathy, with certain aspects, at least, of the pragmatic and humanistic movement, and he would have concerned himself somewhat more with the relation between social experience and processes and the organized thinking of philosophy. But this would have meant writing another book instead of this, and is, accordingly, hardly a fair criticism of this book. These studies remain what they are meant to be—an application to current, specific metaphysical issues of the main conviction of an "unbroken line of philosophers," that there is a systematic wholeness in the varied aspects and appearances of our world and our experience.

GEORGE P. ADAMS.

THE UNIVERSITY OF CALIFORNIA.

The Historical Method in Ethics and Other Essays. By JOHN HANDYSIDE, Liverpool, The University Press; London, Constable and Company, Ltd., 1919—pp. xvi, 97.

These essays were found among the papers left by Mr. John Handyside, late lecturer in the University of Liverpool and second lieutenant in the King's (Liverpool) Regiment, who lost his life in the war. They are published with a Biographical Note by Professor A. S. Pringle-Pattison, who speaks of his former pupil and assistant as one of the acutest and most thoughtful of the younger generation of philosophical teachers. A study of the little volume will bring home to the reader the loss suffered by scholarship in the death of this gifted young man, who, like so many of his type, "counted his life a little thing to give in so great a cause."

One is impressed with the genuine philosophical spirit which pervades these essays, with the writer's fine, critical judgment, with his independence of thought and thoroughgoing intellectual honesty. We can readily understand that he was "distrustful of easy solutions and premature syntheses," as Professor Pringle-Pattison declares; he was evidently impelled to work out the problems that interested him for himself and in his own way: he was seeking to find the light, not to marshal arguments in support of a preconceived theory. This is not to say that he approached

his task without a philosophical standpoint: he sympathized with the thought of modern English idealism, but not in the sense that any problem to which he turned his inquiring mind had reached its final solution.

The first essay, "The Historical Method in Ethics," is wider in its scope than the title indicates: it aims to lay the foundations of ethics and deals with the nature, the presuppositions, and the method of this science. Whether one accepts Mr. Handyside's conclusions or not, there is no doubt that the kind of book he intended to write to develop his conception of the subject would have been a valuable contribution to ethical literature. The second essay, on "The Absolute and 'Intellect,'" takes up Spinoza's denial of the predicability of intellect to God; and with this as the starting-point discusses the problem of knowledge. A conclusion is reached similar in spirit to that of Hegel. "Quality and relation constitute the World; sense and thought constitute knowledge, which is the realization of the 'faculty' intellect. Quality cannot exist except as the content of sense; relation cannot exist except as the content of thought. The World, therefore, or Reality, cannot exist except as the content of sense and thought combined, the content of an absolute knowledge, the functioning of Absolute Intellect" (p. 71). The third essay, "System and Mechanism," examines the notions of mechanism, organism, teleology, and self-activity or free will. Activity, as determination of whole by whole, teleology, as determination of whole by part, organism, as determination of part by whole, are found to be all consistent with, and indeed to imply, mechanism, as the uniform determination of part by part. So far as "we approximate to a view of the universe as a single and unique whole, so far the concepts which involve a reference to such a whole will be of value for us" (p. 97).

I have been able, in this short notice, to give no more than a bare skeleton of Mr. Handyside's three essays. They deserve careful study, for they deal with fundamental problems of ethics, epistemology and metaphysics, and discuss them in the manner of the trained thinker. They arouse in the reader the desire to delve deeper into the questions at issue: a book that does that, certainly justifies its existence.

FRANK THILLY.

CORNELL UNIVERSITY.

Oeuvres de Maine de Biran. Accompagneés de Notes et d'Appendices. Publiées avec le concours de l'Institut de France par PIERRE TISSERAND. Tome I. Le Premier Journal. Paris, Félix Alcan, 1920—pp. lxxv, 312.

Philosophical scholars in all countries will feel a sense of gratitude to M. Tisserand and to L'Institut de France for this gift of a new and carefully edited edition of the works of Maine de Biran. The edition will contain twelve volumes. The volume before us gives the author's first

Journal, and two other volumes are announced as already in press: Tome II, *Mémoire sur l'habitude,* and Tome III, *Mémoire sur la décomposition de la pensée.* The work is undertaken with a desire to promote a truer estimate of the importance of French contributions to psychology as compared with those of England and Germany, which have been widely made known by the writings of Taine and Ribot. "The truth is that this science has never ceased to be cultivated and to bear fruit in the country of Descartes and Malebranche. Moreover, it would be easy to show that an unbroken chain binds together the French psychology of the present time, which so splendidly maintains its traditions, with its founders. The greatest name of the intermediate period is indisputably that of Maine de Biran" (pp. i–ii).

The charge of obscurity which is often brought against Maine de Biran does not seem to M. Tisserand to be deserved. Taine has humorously remarked that de Biran must have lived in a cave a hundred metres deep. But the chief source of this apparent obscurity is to be found in the errors in the edition published by Cousin, errors for which the editor, not the author, was responsible. For example, in a hundred pages of Cousin's edition containing *l'aperception immediate,* there are more than three hundred variations from the manuscript,—omissions, contradictions, etc., which render the text unintelligible. The edition of Ernest Naville, M. Tisserand claims, relieves in part this impression of obscurity without entirely removing it. The present edition is to contain in addition to writings hitherto published: *Mémoire sur la décomposition de la pensée; La Correspondence avec Cabanis, de Tracy, et Stapfer; Diverses notes inédites sur l'histoire de la philosophie;* and the *Journal* contained in the volume before us.

Readers will find in the Introduction contributed by the editor to this first volume a careful summary and analysis of its contents. In addition to the Journal it contains a number of fragments and short papers which belong to the same period and which throw light upon this stage of the author's thought. The value of these early writings is that they make it possible to understand the development of his philosophy. "Of Maine de Biran one scarcely knows more than the philosophy of effort or of the Ego. This is indeed his central doctrine. But if one wishes to understand its sources it is necessary to take account of the writings which form the greater part of this volume. It is here that one is able to grasp the original character of the philosophy of Maine de Biran. These writings constitute a kind of psychological autobiography, the facts which they disclose belong to an unique order, and are considered by him as irreducible. For him intuition is not the anticipation of a deductive process; he has a distaste for the spirit of system; his philosophy is a philosophy of continuity, of contingency" (p. ii).

In form and appearance this edition promises to be a worthy monument to the illustrious author. Its publication at this time is a most gratifying evidence of the vitality of French philosophical scholarship, and also of the fact that the French people have not forgotten in war their just pride in their national literature or their care for its preservation.

J. E. C.

CORNELL UNIVERSITY.

Philosophy and the Christian Religion. An Inaugural Lecture delivered before the University of Oxford on May 4, 1920. By CLEMENT C. J. WEBB, Oxford, Clarendon Press, 1920.—pp. 23.

On taking up the duties of this newly established chair of the Philosophy of Religion in Oriel College, Professor Webb refers in his inaugural lecture to three Oriel men who have specially distinguished themselves in the history of religious thought, and who may accordingly be regarded in some sense as his predecessors. These are Butler, Newman, and Mathew Arnold. "Notwithstanding striking differences, these three men . . . were linked together not only by the bond of academic tradition but by a mastering love of righteousness, which made them all in their philosophy of religion emphasize above everything else the connexion of Religion with Morality" (p. 4). They were all also typically English in shunning 'ambitious efforts of metaphysical construction and concentrating attention upon the field of experience directly before them.'

Professor Webb finds that the foundation in Oxford of such a chair as that which he holds, marks an important change in the intellectual and religious atmosphere of the University. Among other things, the "Philosophy of Religion is seen to be something which neither would nor could take the place of Religion itself," . . . though "it becomes plain that to philosophize effectively upon Religion while having no religion is as impossible as to philosophize upon Art while not oneself possessing the experience which is to be had only in and by the actual enjoyment of Art as it exists" in its concrete manifestations (p. 11).

In his remarks on the rival claims of Philosophy and Religion, Professor Webb sums up as follows: "Philosophy cannot suffer Religion to claim as it were a secret chamber, into which Philosophy may not intrude; nor can Religion suffer Philosophy to treat as illusory that which Religion knows by experience to be real. But, as Philosophy must allow Religion to claim that the witness of the religious experience to the nature of Reality be not ignored, so must Religion allow Philosophy freely to examine and criticize the religious not less than any other kind of experience" (p. 14). The conflict between Philosophy and Christianity may seem more irreconcilable than that between Philosophy and the other religions; but this is because Christianity is not less, but more philosophical

than they. Christianity has rendered important services to Philosophy in the course of its history, particularly by emphasizing on the one hand the importance of historical fact and concrete process, and on the other by keeping fast hold of what is Universal and Abiding in the flux of things. Again in its doctrine of God as Spirit at its highest manifestation, "Christianity gave the greatest assistance towards the development of the notion of Personality, a notion of the profoundest importance, for which ancient philosophy had no name at all" (p. 20).

J. E. C.

CORNELL UNIVERSITY.

Du rôle de la mémoire dans nos conceptions métaphysiques, esthétiques, passionelles, actives. Par EUGENE D'EICHTHAL. Paris, Félix Alcan, 1920.—pp. 198.

The author finds in memory the source of all our knowledge, feelings and actions. He draws his conclusions from an examination of metaphysical concepts, aesthetic pleasures, passions and actions in general, each of which he treats separately. His method is purely descriptive. He waives the question 'why,' and when confronted by that of origin, he dismisses it, with a gentle reminder to the reader that he deals only with civilized man. His position throughout is empirical. He might well say with Locke that mind is an empty tablet upon which experience writes, adding, however, that experience is racial as well as individual and that the tablet is *memory*. The term memory is used indiscriminately to denote the material stored, the place where it is stored, and the function that stores it, and varies with the needs of the context. Thus, while the author gives some interesting psychological descriptions, and suggests many practical applications of them, his conclusion is not well established, because of the looseness of the terms and the superficial relations established between the data.

At the outset we are asked to note two facts. First, between the stimulation of the sense organ, and the conscious perception of the stimulant, there exists a fraction of a second. Therefore the content of consciousness is always past experience. Second, the impressions stored by memory may not be exact reproductions of the phenomena, but modified by a subjective factor that has as its end the preservation of the organism. In its contact with the external world, the organism becomes conscious of a 'self' which remains the same in all experience. Philosophy transforms this notion into a fundamental concept. In reality the concept of personality is nothing but the stamp of past phenomena (retained in memory) upon the new. This explanation of a metaphysical concept by a psychological analysis is characteristic of the entire volume. Thus for the Cartesian "Je pense donc je suis," the author substitutes, "Je me souviens, donc je suis" (p. 30).

In the struggle for life, memory not only aids by recalling useful experience, but also gathers a repertoire of related notions which, operated upon by the other faculties of mind, gives us all our general ideas. When memory furnishes many instances of concomitant agreement, the antecedent is called the cause and the consequent the effect. The mind, no longer satisfied with the 'how' of things, demands the 'why,' and is led by the imagination to extend this idea until it reaches the notion of God and final causes. Not only are these ideas logically weak, as their origin in the memory testifies, but they are inconsistent with the freedom of the will which every one experiences. The determination of choice between two lines of action lies in the comparison of the present, not with the future, but with the past. Experience points to a better being which corresponds to certain general principles in human experience. Practically, therefore, the memory utilizes the past to instill in men a motive in the choice of action which is adapted to the needs of both individual and society. In this manner the author accounts for the evolution of ethical conduct. In a similar way, *a priori* concepts, dogmas, laws, and beliefs resolve themselves into the experiences which were either useful to our forefathers, or were elaborated from the simple data of the memory into general ideas. Not only is memory responsible for their origin, but for their preservation through habit, education, religion and like institutions.

The world presents a series of impressions in an irregular and planless way, making it difficult for the memory to retain them. If, however, their occurrence is regular and rhythmic, the work of the memory is facilitated and a feeling of satisfaction arises. When this is applied in color, line and sound, the senses receive a general impression that calls forth the aesthetic pleasures. Thus the beautiful supposes a certain continuity attested by the memory that there exist no gaps in the work (p. 115); and that it is harmonious, having an underlying order.

The author distinguishes sharply between the emotions and the passions, using as criteria of the former, duration and continuity with character as a whole. Through the accumulation of affective images, memory furnishes the motive power that sets into action the passions. In recalling the results of actions it directs the passions into channels useful to self and society, without destroying the initial fire characteristic of them. In a similar way, through the recall of the past, memory guides and determines action in general.

GLADYS BLEIMAN.
ALFRED UNIVERSITY.

Annotated Bibliography of the Writings of William James. By RALPH BARTON PERRY. New York, Longmans, Green and Co., 1920.—pp. 70.

In this little work Professor Perry has made a useful contribution to the study of William James by collecting in chronological order the titles

of all the writings which are known to have come from his pen. To each is added a brief note indicating its subject-matter, various reprints, and translations into foreign languages. "In view of the fact that much of James's most important thought appeared in the form of essays and reviews, often under a title which gave no clue to the contents, some such guide as this is indispensable to an adequate knowledge of his contributions to philosophy and psychology." The usefulness of the book is greatly increased by the addition of an alphabetical index.

G. R. M.

CORNELL UNIVERSITY.

The following books have also been received:

Essays in Critical Realism. A Coöperative Study of the Problem of Knowledge. By DURANT DRAKE, ARTHUR O. LOVEJOY, JAMES BISSETT PRATT, ARTHUR K. ROGERS, GEORGE SANTAYANA, ROY WOOD SELLARS, and C. A. STRONG. London, Macmillan and Co., 1920.—pp. viii, 244.

The Foundations of Character. By ALEXANDER F. SHAND. London, Macmillan and Co., 2nd edition, 1920.—pp. xxxvi, 578.

In Search of the Soul and the Mechanism of Thought, Emotion and Conduct. By BERNARD HOLLANDER. Two Volumes. London, Kegan Paul, Trench, Trubner and Co.—pp. x, 516; viii, 362.

Freedom and Liberty. By WILLIAM BENETT. The Oxford University Press, 1920.—pp. vii, 368.

A Theory of the Mechanism of Survival. The Fourth Dimension and its Aspects. By W. WHATELY SMITH. London, Kegan Paul, Trench, Trubner and Co., 1920.—pp. 196.

Recurring Earth-Lives; How and Why. By F. MILTON WILLIS. New York, E. P. Dutton and Co., 1921.—pp. 92.

The Life Indeed. By JOHN FRANKLIN GENUNG. Boston, Marshall Jones Co., 1921.—pp. xiv, 370.

Metaphysics of Energy. By GHANSHAMDAS RATTAMAL MALKANI. Amalner, Indian Institute of Philosophy.—pp. viii, 184.

Évolution Intellectuelle et Religieuse de l'Humanité. Par PH. HAUSER. Tome I. Paris, Librairie Félix Alcan, 1920.—pp. xiv, 804.

La Philosophie Moderne depuis Bacon jusqu'à Leibniz. Par GASTON SORTAIS. Tome I. Paris, P. Lethielleux, 1920.—pp. x, 592.

Les Phénomènes de Hantise. Par ERNEST BOZZANO. Traduit de l'Italien par C. de Vesme. Paris, Félix Alcan, 1920.—pp. xii, 312.

Psychologie de l'Enfant et Pédagogie Expérimentale. Par ED. CLAPARÈDE. Huitième edition augmentée. Genève, Kundig, 1920.—pp. xl, 572.

La Théorie de la Certitude dans Newman. Par C. BONNEGENT. Paris, Félix Alcan, 1920.—pp. xii, 208.

L'Évolution Psychologique et la Littérature en Angleterre, 1660–1914. Par LOUIS CAZAMIAN. Paris, Félix Alcan, 1920.—pp. vii, 270.

George Sand. Mystique de la Passion, de la Politique et de l'Art. Par ERNEST SEILLIÈRE. Paris, Félix Alcan.—pp. xii, 456.

Du Rôle de l'Idée de l'Instant dans la Philosophie de Descartes. Par JEAN WAHL. Paris, Félix Alcan, 1920.—pp. 48.

Les Philosophies Pluralistes d'Angleterre et d'Amérique. Par JEAN WAHL. Paris, Félix Alcan, 1920.—pp. 324.

La Crisi del Pensiero Moderno. Per ALESSANDRO CHIAPELLI. Citta di Castello, 1920.—pp. xxviii, 376.

La Filosofia di G. Locke. Par ARMANDO CARLINI. Volume II. Firenze, Vallecchi, 1921.—pp. 378.

L'Azione. Per MAURIZIO BLONDEL. Traduzione di Ernesto Condignola. [Two volumes. Firenze, Vallecchi, 1921.—pp. 288, 376.

Das Problem der Geltung. Von ARTHUR LIEBERT. Zweite Auflage. Leipzig, Felix Meiner, 1920.—pp. vii, 262.

Von Organismus der Sprache und von der Sprache des Dichters. Von MARGARETE HAMBURGER. Leipzig, Felix Meiner, 1920.—pp. vii, 190.

SUMMARIES OF ARTICLES.

[ABBREVIATIONS.—*Am. J. Ps.* = *The American Journal of Psychology*; *Ar. de Ps.* = *Archives de Psychologie*; *Ar. f. G. Ph.* = *Archiv für Geschichte der Philosophie*; *Ar. f. sys. Ph.* = *Archiv für systematische Philosophie*; *Br. J. Ps.* = *The British Journal of Psychology*; *Int. J. E.* = *International Journal of Ethics*; *J. of Ph., Psy., and Sci. Meth.* = *The Journal of Philosophy, Psychology, and Scientific Methods*; *J. de Psych.* = *Journal de Psychologie*; *Psych. Bul.* = *Psychological Bulletin*; *Psych. Rev.* = *Psychological Review*; *Rev. de Mét.* = *Revue de Métaphysique et de Morale*; *Rev. Nto-Sc.* = *Revue Nto-Scolastique*; *Rev. Ph.* = *Revue Philosophique*; *Rev. de Ph.* = *Revue de Philosophie*; *R. d. Fil.* = *Rivista di Filosofia*; *V. f. w. Ph.* = *Vierteljahrsschrift für wissenschaftliche Philosophie*; *Z. f. Ph. u. ph. Kr.* = *Zeitschrift für Philosophie und philosophische Kritik*; *Z. f. Psych.* = *Zeitschrift für Psychologie und Physiologie der Sinnesorgane, I. Abtl. Zeitschrift für Psychologie.* — Other titles are self-explanatory.]

Herbert Spencer's Work in the Light of His Life. L. L. BERNARD. Monist, XXXI, 1, pp. 1–35.

Though he considered himself a philosopher, Spencer is remembered primarily as one of the two greatest figures in the development of Sociology. It is difficult to deduce, from his Autobiography, what led him to become interested in the subject, but the idea of writing a book on it grew out of his classification of the sciences. His early interest in political problems was largely practical, but the germs of his later writings are already revealed in the *Social Statics*. No doubt Comte influenced Spencer, to a far greater extent than the latter would admit, to turn his attention more particularly toward the social sciences. He seemed to have no regular plan in writing and apparently drifted into literary work. The influence of early ill-health is manifest both in his choice of occupation and in his method of procedure. In the *Sociology*, as everywhere, Spencer's great contribution consisted not so much in new concepts and ideas as in the richness of analysis and synthesis with which he illuminated every idea he touched. His conclusions lack vitality and validity because unenlightened by contemporary history. He clothed ill-adapted generalizations in the raiment of primitive and medieval practices and never thoroughly understood the world in which he lived, much less that which was to come. Although he grew up in the age of industrialism, Spencer failed to see that over-industrialization would lead to foreign exploitation and wars, and remained unfriendly to the necessary expansion of state functions in spite of the growing complexity of modern society. All this was due in part to non-conformist prejudices and county localism as well as to intellectual stubbornness and contempt for the opinions of others.

The state of his health probably affected the nature of his philosophy, while the inner struggle between the desire for self-sufficiency and the inadequacy of his own strength must have projected itself into his understanding and evaluation of society. At once the most radical and the most conservative of men, Spencer regarded many of the so-called reform movements as signs of weakening social fibre. The only safeguard, so he thought, lay in weakening the power of the state and increasing the range of activity of private associations. Much of this later conservatism was undoubtedly temperamental and personal, as is shown in a few remarks about the stupidity of the public in so coldly receiving his books. Another result of his long invalidism was to greatly restrict his output and to force him to use second-hand material. And because of lack of material he was driven more and more into those ultimate generalizations, based largely upon reflection, which, though not standing the test of time, were extremely valuable in opening up new lines of thought and in promoting constructive and critical thinking. Free, even in youth, to develop intellectually as he wished, he was thus stimulated to unhurried, independent thinking and wholesale generalizations. The extreme activity of his mind led to the same result and also to serious errors. A bold adventure in the world of thought, Spencer's work, in spite of all these faults, was that of an intellectual pioneer and true philosopher.

H. R. SMART.

Un Savant Français: Henri Poincaré. A. DENJOY. Rev. Ph., LXXXIX–XC, 11 et 12.

This article purports to be an appreciation of Poincaré as a *savant,* a description of his method, and an explanation of his genius. Poincaré's reputation as a scientist is easily recognized by the fact that upon his election to the French Academy he was already a member of forty other academies. Such an achievement naturally calls for consideration and explanation. It was his ability to comprehend the *ensemble* of rational science, and the almost instinctive habit of searching for causes, which predestined Poincaré to become one of the most remarkable representatives of positive philosophy. His incomparable mastery of the instrument of analysis and his vast acquaintance with modern physics made of him a judge capable of appraising a theory and of pointing out its weak points and of augmenting its value. The author attributes Poincaré's genius to the functioning of the subliminal self, whose potentiality Poincaré knew how to utilize. It is a well-known fact that solutions vainly sought for in the course of the day, will, after a night's rest, come to one spontaneously. Particularly is this the case with mathematics. Poincaré himself speaks of these sudden *illuminations de l'esprit* as "manifest signs of an anterior protracted unconscious labor."

J. H. GRIFFITHS.

The Ethical Significance of Time. James Westfall Thompson. Monist, XXX, 4, pp. 481–502.

Time, which is perhaps the greatest force of nature, conditions the production of everything. Both space and time have significance for the physical sciences, whereas only time is significant for the moral sciences. Time inseparably accompanies all our perceptions; for perceptions are possible only where differentiation is made, and differentiation is possible only when reference is made to past experience; but it is more especially evident in our moral life, where feelings are influenced by duration. In a moral sense, time has no value for us except as we employ it; the loss of time is practically a tragedy for the wise man. Moreover, progress may be defined as the 'intelligent valuation of time'—not only of present and future time but of past time as well. Indeed, it is most essential for a person or a nation to use aright the heritage from the past. The measurement of time is in terms of moral value, whereas that of space is in terms of physical value; hence Orphism, being dominated by temporal concepts, evolved the idea of justice and righteousness and finally evolved a religion, while early Greek theology, dominated by spatial concepts, developed into physical science. Only because the ancient Greeks turned from this spatial interpretation to the temporal did they create a moral philosophy and originate conceptions of justice, religion and society. The fact that changes of season brought each its fitting time for certain agricultural performances suggested notions concerning justice. Moreover, changes of season suggested the worship of celestial bodies. Because past, present and future are attributes of finitude, St. Thomas Aquinas eliminated them from the experience of God, for whom all is an 'eternal vision.' As man is powerless to reinstate the past or to control the future, many legends sprang up in the Middle Ages in which the hero lives through an experience of many years' duration and yet is as little affected by time as if the experience had occupied the span of a moment. These legends have significance, however, in that they show time to be what we make it.

Marjorie S. Harris.

Morality as Coercion or Persuasion. M. C. Otto. Int. J. E., XXXI, 1, pp. 1–25.

Professor McGilvary's discussion entitled, "The Warfare of Moral Ideals," defends the double thesis that morality is relative and that, in the long run, considering (as the sophisticated man does) that moral judgments as well as swords are weapons, might makes right. The objection to the position is not to the contention that morality is relative, but to the absolutistic character of the method of adjudication. Assuming (1) that *might* means coercion and does not lose its distinctive meaning by cover-

ing that of persuasion as well (in which the ideal rather than something external to it functions as the ultimate compelling force), and (2) that the purpose of the paper under discussion is not to consider how moral ideals rise and fall but to establish a theory of the nature of right and wrong; granting also, what is by no means clear, that might has played the only rôle in moral history, what is the nature and function of morality implied by the theory that might makes right? It thrusts us from an Absolute to a regiment of absolutes. It carries the Treitschkian philosophy to its logical conclusion, thereby abolishing morality between individuals as well as between nations, at least morality as it has always been conceived—the authority of an ideal. Our very language leads advocates of warfare morality to employ terms which disguise the significance of the theory and prevent the recognition of its consequences. Warfare morality is not that of a Nietzsche whose superman is ethically right, but of a Thrasymachus, to whom the interest of the stronger is exactly what right means. If it were so recognized its moral judgments would certainly lose any power as weapons. Practically, the theory would mean ruthless self-assertion socially and, in the narrower field of the individual life, surrender to the strongest impulse—a state of affairs which leaves the term morality meaningless. But such elimination of morality is not the only alternative open to one who believes that "however it may be with the Absolute and his standards, we mortals, having no natural access thereunto, can make right and wrong out of such materials as are at our disposal and can very well make shift with the result." In the case of the individual life, intelligence *makes* a more comprehensive ideal, in which the old conflicting ones have a proportionate representation. Warfare morality supposes intelligence to be used in the selection only of means, not of ends: whereas the natural history of intelligence would show that the creation of new ends wherein old ones are adjusted is its very function, and the essence of morality. The answer to the contention that might makes right is that we will *make* it something different; we will define right and wrong in accordance with the end we seek, the completest life for every human being. We will call right Adjustment. We can because we have. Might-right in games we call unclean sport, in law, corruption; the history of civilization has been one of a struggle to substitute conciliation for coercion, to secure the richness of life resulting from the adjustment of conflicting claims by solving the problems underlying the conflict. Professor McGilvary is of course right in emphasizing self-realisation. Self-respect and not self-denial is necessary to a worthy social state, but respect for the kind of self which makes self-realisation possible for others. If all ideals are valid, the program should be to use intelligence for the realisation of as many as possible, in proportion to their importance, rather than to encourage a free-for-all fight among desires.

EVE T. KNOWER.

Plato and the Judge of Conduct. Rupert Clendon Lodge. Int. J. E., XXXI, 1, pp. 51–65.

To the question who, for Plato, is the judge of conduct, Shaftesbury and the Cambridge Platonists answer *everyone,* while the later Platonists answer *the philosopher only.* In the dialogues we find eight replies: (1) Everyone, (2) The many, (3) The interlocutor, (4) The good man, (5) The experienced man, (6) The wise man, (7) The philosopher, (8) The guardian. Upon examination we find the significance of the eight replies to be: that the moral sense inhabits every normal man; that the judgment of the many is valid as long as it is judgment and not conservative habit or blind haste to act; that, with a little more emphasis upon the technical side, all parties to an ethical discussion are competent to weigh answers and collaborate in arriving at conclusions; that the good man is peculiarly fitted to judge conduct, as being in his own character the moral standard; that experience increases the ability of the good man; that the wise man who sees the whole of life in relation to a single aim, the idea of the good, is eminently fitted to judge; and that Plato's ideal philosopher with every advantage of character, birth, and training is the ideal judge, while the guardian or legislator is merely the philosopher turning to practical affairs. There is something of philosophy in every normal human being, which environmental stimulus and dialectical training can bring out and develop. This is the principle of unity entitling members of each of the eight groups to judge conduct. But few have the gift of highest birth, and still fewer the ability to take advantage of the highest philosophical training. Thus, while everyone is competent to give some sort of judgment on ethical questions, only the philosopher is judge in the fullest sense; so that each of the two answers given at the beginning of the paper is partly correct and partly incorrect.

Eve T. Knower.

The Logic and Metaphysics of Occam. James Lindsay. Monist, XXX, 4, pp. 521–547.

Occam's logic is one of the aspects of his philosophy which retains an interest for the present time. For him, the universal was a concept attained through abstraction from individual things, hence had no real value; the individual alone was real. In its emphasis upon the individual, this thesis indicates the way to a real science; but is at the same time hostile to a true evaluation of the universal and necessary at which science aims. Sometimes Occam held that the universal is a real outside of the knowing mind. In the individual mind, it is a particular but it is universal in that it is a sign of many things. It is merely a sign, however, and not a copy of things, for things are different from our ideas concerning them. The universal is an *intentio mentis,* hence its charac-

ter is conceptual rather than substantial. Were it substantial, the individual could not arise, since its universal would already have reality in another. However, Occam yielded the universal some sort of objective existence. His treatment of the individual is valuable, since he showed that, in a sense, it has not the reality obtaining in the universal—a reality which the universal has by virtue of its changelessness. In treating of insolubles, Occam granted validity to arguments which show propositions both true and false and he accepted the consequence: that no such propositions are possible. In general, Occam's logic is an anticipation of the 'dawn' of modern English philosophy. As to his metaphysics, Occam anticipated Kant in rejecting the proofs of rational theology for the existence of God; yet he fell back on authority. He considered that the First Cause is a necessary hypothesis but emphasized its conservative rather than its productive activity and thus anticipated Descartes. Furthermore, he held essence and existence to be really identical. Again, he was a voluntarist and considered the will to be absolutely self-determined. Occam thought the individual to be the true substance, capable of being known intuitively. Substance distinguishes the individual from the universal. Again, for him the mind is identical with its faculties. At the same time he distinguished the vegetable and sensitive souls from the intellective soul, which is superior to the other two. Furthermore, knowledge is not for him limited to the *sensibilia*, for intuitive knowledge grasps the *intellectibilia*. In concluding, it may be said that we owe much to Occam; the empiricism of to-day is a re-statement of the nominalism of his time.

MARJORIE S. HARRIS.

NOTES.

Note on a Passage in the *Impossibilia* of Siger of Brabant.

There is a brief passage in the first topic treated in the *Impossibilia*, which has been misunderstood by Baeumker in his learned edition of that work.[1] The passage occurs on page 2, l. 27, of Baeumker's edition, and reads as follows: "Illiud quod possibile est, ex extrinseco est possibile vel naturam habet possibilis. Et a destructione consequentis: quod non est possibile, vel naturam non habet possibilis per extrinsecum aliquod, vel per defectum extrinseci non habet naturam possibilis. Intelligentiam autem esse est tale quia non videtur dependere ex aliquo, ad cuius non-esse ipsam non esse sequatur."

Baeumker (p. 125) translated the passage as follows: "Was möglich ist, ist durch ein Äusseres (ein von ihm verschiedenes Seiendes) möglich oder hat durch ein solches die Natur des Möglichen. Also, wenn wir die Abfolge in ihr negatives Gegenteil verkehren: Was nicht möglich ist, dem kommt es entweder durch ein Äusseres zu, dass es nicht die Natur des Möglichen hat, oder aber es hat wegen Mangels eines Äussern, durch das es möglich gemacht werden könnte, die Natur des Möglichen nicht. . . . Das Sein der Intelligenz ist . . . derart, dass sie nicht von irgend etwas abzuhangen scheint, auf dessen Nichtsein ihr eigenes Nichtsein folgte."

Baeumker himself admits that the argument as thus translated is obscure, and in fact without meaning, unless a great deal is inserted and supplied which is not in the text. Baeumker suggests in fact that the text is corrupt,[2] and proceeds to supplement it in a way scarcely warranted. This circumstance alone is suspicious, and any attempt to make a sequential argument out of the text as it stands has prima facie justification. I believe that the text as we have it is correct and makes good sense. Baeumker misunderstood the meaning of the word "consequentis," l. 29. He says in a note, p. 125, note 4, "so verstehe ich die *destructio consequentis*, p. 2, 29: negative Umkehr einer Abfolge." In other words he understands "consequens" to mean the same as "consequentia," namely sequence, consequence. Hence if the proposition is: "That which is possible, is possible or has the nature of possibility from something

[1] "Die Impossibilia des Siger von Brabant," Münster, 1898. Band II, Heft VI of *Beiträge zur Geschichte der Philosophie des Mittelalters*.

[2] "Ist schon bis hieher manches in dem Beweise dunkel, so scheinen sich die abschliessenden Worte desselben—vielleicht wegen tiefer greifender Textverderbnisse—dem Verständnis völlig zu entziehen." *Op. cit.*, 126.

else," the destructio of the relation expressed in this proposition is: "That which is not possible, is not possible or has not the nature of possibility, also as a result of something else." The objections here are manifold. The first is that the statement is a *non sequitur*. If the idea intended is that there must always be an external cause why a thing has or has not a given attribute, this idea may or may not be true, but if this is the assumption, then the original proposition above mentioned as well as its destructio, likewise stated before, both follow from this general premise, but the destructio does not follow from the proposition stated in the first instance.

Another more serious objection is that the destructio is irrelevant to the thing the sophist desires to prove and stands in no logical connection with the sentence which follows; unless we doctor the argument in an unwarrantable manner.

The whole thing becomes plain if we understand properly the meaning of "consequens." "Consequens" is the correlative of "antecedens," and denotes the apodosis in a conditional sentence as contrasted with the protasis which is "antecedens." Whether a sentence or proposition has the form of an express condition, "if . . . then," or is relative in structure, "that which is *a* is *b*," makes of course no difference. The latter is equivalent to saying, "if *a*, then *b*."

In the proposition in the text therefore, "That which is possible, is possible or has the nature of possibility from something else," the "antecedens" is "That which is possible," the "consequens" is "is possible or has the nature of possibility from something else." Now if we destroy the consequent or negate it there logically follows the negation of the antecedent. In other words if a thing does not get its possibility from something else, it is not a possible thing, *i.e.*, it has not the attribute "possible" at all. But intelligence is precisely such a thing, for it is not dependent on any thing external to it. Hence intelligence is not a "possible" thing at all. Hence since it exists it must be a necessary thing, and hence needs no God. Now the text is clear and consistent. The proposition derived by "destructio consequentis" should be punctuated as follows: "Quod non est possibile vel naturam non habet possibilis per extrinsecum aliquod vel per defectum extrinseci [antecedens], non habet naturam possibilis [consequens]."

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We give below a list of articles in current philosophical periodicals:

THE JOURNAL OF PHILOSOPHY, XVIII, 3: *James H. Leuba*, The Meaning of 'Religion' and the Place of Mysticism in Religious Life; *Wendell T. Bush*, Philosophy in France. 4: *Ralph Barton Perry*, A Behavioristic

View of Purpose. 5: *Herbert W. Schneider,* Instrumental Instrumentalism; *W. P. Montague,* The Oxford Congress of Philosophy. 6: *William Kelley Wright,* McDougall's Social Psychology in the Light of Recent Discussion; *Helen Huss Parkhurst,* The Twentieth Annual Meeting of the American Philosophical Association.

MIND, XXX, 117: *G. Dawes Hicks,* Prof. Ward's Psychological Principles; *C. D. Broad,* Prof. Alexander's Gifford Lectures (I); *F. C. Sharp,* Hume's Ethical Theory and its Critics (I); Discussion, Plato's Misconception of Morality.

AMERICAN JOURNAL OF PSYCHOLOGY, XXXII, 1: *G. B. Denton,* Early Psychological Theories of Herbert Spencer; *H. T. Moore,* The Comparative Influence of Majority and Expert Opinion; *R. H. Wheeler* and *T. D. Cutsforth,* The Number-Forms of a Blind Subject; *I. G. Campbell,* Some Problems in Regard to Alimentary Sensitivity; *P. T. Young,* Pleasantness and Unpleasantness in Relation to Organic Response; *A. H. Sullivan,* An Experimental Study of Kinaesthetic Imagery; *M. Yokoyama,* Affective Tendency as Conditioned by Color and Form; *E. B. Titchener,* Brentano and Wundt: Empirical and Experimental Psychology; *S. W. Fernberger,* A Preliminary Study of the Range of Visual Apprehension; *H. C. Link,* Emotions and Instincts.

THE BRITISH JOURNAL OF PSYCHOLOGY, XI, 2: *Henry Head,* Disorders of Symbolic Thinking and Expression; *Frank Watts,* The Outlook for Vocational Psychology; *C. Lloyd Morgan,* Psychical Selection: Expression and Impression; *E. W. Scripture,* The Nature of Verse; *W. Whately Smith,* Experiments on Memory and Affective Tone.

THE PSYCHOLOGICAL REVIEW, XXVIII, 1: *Mary Whiton Calkins,* The Truly Psychological Behaviorism; *J. R. Kantor,* An Attempt Toward a Naturalistic Description of Emotions (I); *Helge Lundholm,* The Affective Tone of Lines: Experimental Researches; *Stephen C. Pepper,* The Law of Habitation; *Walter Schilling,* The Effect of Caffein and Acetanilid on Simple Reaction Time.

REVUE DE PHILOSOPHIE, XX, 6: *M.-A. Cochet,* Psycho-analyse et Mysticisme; *E. Peillaube,* La maîtrise de soi et la reforme du caractère; *P. Vignon,* Pour la philosophie des êtres naturels (3e partie); *G. Voisine,* Un nouveau traité de logique; *M. Gossard,* Les changements substantiels et la théorie de la Matière et de la Forme.

REVUE PHILOSOPHIQUE, XLVI, 1–2: *E. Durkheim,* La famille conjugale; *H. Beaunis,* Les aveugles de naissance et le monde exterieur; *W. Riley,* La philosophie francaise en Amérique.—III. Le Bergsonisme; *E. Gilson,* Descartes et Harvey (suite).

Rivista di Filosofia Neo-scolastica, XII, 6: *M. L. Cervini,* I presupposti della filosofia di Giovanni Gentile; *Luigi Stefanini,* Arte e vita nel pensiero di G. V. Gravina (continuazione); *Guiseppe Muzio,* S. Tomaso, Rosmini e S. Sordi; *Emilio Chiocchetti,* L'organicità del reale e i massimi problemi; *A. Copelli,* Il giudizio teleologico in Emanuele Kant e il concetto aristotelico di fine; *Angiol Maria d'Anghiari,* La filosofia di Leonardo da Vinci (fine).

Logos, III, 3–4: *P. Gatti,* Il pensiero di G. A. Fichte e le tendenze spirituali del nostro tempo; *I. Poiry,* La réforme de l'enseignement; *E. di Carlo,* Sociologia e filosofia del diritto; *C. Ranzoli,* Il 'dato' della conoscenza e la teoria del sogno metafisico; *A. Kastil, A. Aliotta,* I grandi di verità; *A. Aliotta,* Ciò che non muore del positivismo. In memoria di R. Ardigò.

Rivista di Filosofia, XII, 4: *Benedetto Croce,* L'efficacia politica della filosofia; *Antonio Aliotta,* La revisione dei principii della scienza; *Rodolfo Mondolfo,* Il problema sociale contemporaneo; *Frederigo Enriques,* Razionalismo e misticismo.

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THE PHILOSOPHICAL REVIEW.

MODERN IDEALISM AND THE LOGOS TEACHING.[1]

WHEN the foundations of European civilization were being laid in the ancient world, two nations brought contributions of great and permanent significance. The Greeks supplied the conception of the world as a Cosmos, of that rational order which permeates all being and acts persuasively upon the thought and will of man. The Hebrews brought the conception of the will of man as obligated to conform itself to the holy will of Jehovah, and to find therein the support for the supreme values of moral and civil life. As the Greek contribution was analyzed and amplified by the classical philosophers, it took form as the great teaching of ancient Idealism, with its clear-eyed recognition of the spiritual meaning implied in all reality developed into a reasonable and harmonious interpretation of life and experience in its detail. Under the influence of such teachers as the prophets, Jesus, and Paul, the Hebrew conception also was analyzed and deepened, until the intrinsic idealism which it had always implied was brought to light. Then the holy will of Jehovah appeared no longer as an external and austere force, but rather as the persuasiveness of an ideal which, although divine, is still simply that Perfect Manhood which is the true goal of every man. And this interpretation, already adumbrated by Jeremiah as the standpoint of the New Covenant, was seized upon by the more deep thinking representatives of the Christian movement as most adequately expressing the true inwardness of the Christian meaning and purpose.

[1] Read as the Presidential Address at the meeting of the American Philosophical Association, Western Division, held in Chicago, March 25–26, 1921.

For a long time each of these movements developed under its own intrinsic motivation. Thus the life of the Christian communities was invigorated rather by the memories of the teaching of Jesus and Paul, and by the example of martyrs and leaders, than by speculative reflection. But when, by reason of the force of its appeal to the lower classes, Christianity had at last established itself as the dominant religion of the Greco-Roman world, it found itself in the presence of a new problem. The necessity was laid upon its teachers of so interpreting the new movement as to bring home its truth and power to the more reflective minds that were molded by Greek philosophy. And the result was the development of that highly interesting form of philosophical theism which we know as the Logos Theology.

Concerning the value of the Logos doctrine estimates differ, of course, largely under the control of our philosophical presuppositions. To the Ritschlians the whole body of church teaching concerning the Logos is a baneful heritage, in which the simple gospel of Christ is confused and lost in a mass of heathen metaphysics, incomprehensible and burdensome to the modern mind. But then, the Ritschlians are essentially positivists and agnostics on philosophical matters. To many another mind, which would like to be appreciative, the formulas of the Logos teaching are less than serviceable, because they reflect a mode of thought and expression which was dominant sixteen hundred years ago, but which is not familiar to us today. Such minds may come to the stage of sympathetic appreciation, but only at the cost of a somewhat extended course of historical study and training in philosophical translation.

On the other hand, men of reflective interests throughout the ages have been accustomed to find a depth of meaning and of sound insight in the Logos conceptions, sufficient to validate to their minds the essential purport of the Christian message, although this message came to them couched in the ideas, otherwise all too crude, of a "world of Syrian peasants." As Dean Inge has expressed the matter, "It was the Logos Theology that converted the intellect of Europe to Christianity." And it is not strange that this should be so. For the Logos speculation

is simply an attempt to interpret the social and religious idealism of life, as this had been uncovered in Christian history and experience, into terms that were consonant with the intellectual and cosmical idealism implied in a philosophical world view. It was a fair claim, then, that the two belonged together; that the metaphysical idealism of the philosophers was abstract and incomplete without the more vital and inward idealism of Christian purpose and motivation; and that the Christian message, in turn, required to be set into a framework of cosmical interpretation which was harmonious with it.

Indeed, the mutual implication of these two phases of the total idealism of life is so obvious to many minds of a reflective type, that to such the entire Ritschlian contention seems like an intolerable recrudescence of barbarism. The Logos theology an alien growth on the soil of the Gospel? Is it not rather the interpretation by which the true and worthful meaning of the Gospel is brought home to men who, whatever betide, can never give up the vision of truth that has been opened to the human mind by the Greek spirit? And is it not of profound moment that the essential solidarity of the Greek idealism with the central import of the Hebrew development should be made obvious to thoughtful men? Certainly analysis seemed to bear out the view that the two belonged together, and that if either was to say its word fully to the world it required the other.

But the ancient idealism was under the domination of Plato; that of the modern day, in substantially all its forms, owes very much to Hegel. Indeed, the great increase of insight into the logic and essential meaning of modern idealism, which has been so obvious in the last few years, has been almost entirely the result of the development of Hegelian motives, or of criticism and reaction directed against them. And I suppose that most students, whether sympathetic or adverse, have felt that if the essential ideas of Hegelianism can be finally shown to be unsound, the way is prepared for some contrasting philosophy, such as pragmatism or neo-realism. For our present purposes, then, we may consider all modern idealism as having its interests more or less wrapped up in the fortunes of Hegel's central

teachings. And the question then becomes, How does the changed conception of idealism, under the influence of Hegelianism, bear upon the system of ideas and valuations that were aforetime gathered up into the Logos theology?

Now modern idealism includes among other factors a Spinozistic motive. This takes the form of the teaching that everything which is finite and with definitely marked limits is less than absolutely real. This, I suppose, was the burden of Hegel's dialectical method. The finite, then, can at best gain its reality only in and through its membership in a larger whole; and indeed this teaching will attach to all genuine idealism, by whatever name it be called. And this situation implies that the spirit of totality, of an ideal whole, is genuinely operative in every concrete thing, phase, or situation that can belong to our world of experience. We may perhaps take it that this emphasis upon the *nisus* towards totality is the essential characteristic of modern idealism, just as the emphasis upon universal and necessary law was characteristic of the Greek form. What is involved here, as has been often pointed out, is simply that the moderns have redefined in essential respects the conception of the universal, in order to avoid certain difficulties which the ancients felt indeed, but did not know how to overcome effectively. I suppose that the spirit of this change is common to practically all the modern types of thought; although the formula which expresses it most directly, the *concrete universal,* has become practically a party cry of the Hegelian school.

In view of this remaking of idealism in the modern day, there result certain problems in relation to the Logos doctrine. This teaching implies a certain definiteness in the content of the ideal which is to top all culture. "Let this mind be in you," said Paul, "which was also in Christ Jesus"; and even if the speculative theologian carries further than did the apostle that other Pauline precept of not knowing Christ after the flesh (and opponents have always charged against the Logos teachers a disregard of the historical personality of Jesus), still in all its forms this teaching stood for a determinate conception of life and of cultural values which was regarded as true to the spirit of the

Christian outlook and purpose. But now, if everything that is definite and sharply marked is to be regarded as less than real, and therefore as devoid of permanent and intrinsic meaning, will not the Logos doctrine lose all point and significance? And especially would this seem to be the case if we were justified in using the language so often employed in recent discussion, according to which every definite form of existence is supposed to be merged and absorbed into a pantheistic Absolute. In that case, although our idealism may yield a sort of Vedantic mysticism, it would fail to sustain the characteristically Christian type of motivation, and the Logos ideal would seem to fade away. And a kindred difficulty also emerges. If we define our universal spirit as simply the universe, and emphasize the fact that the actual itself is to display itself as the rational, we may easily find our idealism turning into a somewhat elevated form of secularism. That is, it may extol the ideals of science, or again of art, and so yield a highly refined paganism; but for the genuinely religious interpretation of culture in general, and for the specifically Christian interpretation in particular, it may have lost all sympathy and understanding.

In view of this situation, we find the recent exponents of idealism not fully in accord in their attitude towards this historic teaching. Writers of the type of Otto Pfleiderer, who are developing the religious implications of idealism especially, may be expected to accent the Logos. Royce also, and many writers of his type of thought, make a similar emphasis. But against these we have to set a class of writers who are widely regarded as truer to the logic of modern idealism, and who guard themselves against making any concessions to theology which are not clearly extorted by the necessity of the argument. Of this class we may cite Dr. Bosanquet as the outstanding representative. Bosanquet's philosophy, like that of Bradley, provides an opportunity for a religious interpretation, it is true; but the type of religion seems to be that of a form of mysticism, which often appears nearer to the thought of Hindu teachers than to that of Western theism. And indeed, Bosanquet rarely speaks of theism except to criticize, or of pantheism except to commend.

It is not strange, then, that the Logos theology finds little explicit approval and some implicit condemnation in his pages.

But I am convinced that the pantheistic editing of modern idealism is not the better argued and more consistent one; rather I hold that the logic of its method and fundamental positions requires for its completion precisely that kind of detailed definition of its ideal values which was historically embodied in the Logos doctrine. Indeed the thinkers who have been averse to carrying out such a development seem to have been unfaithful to the impulsion of their own thought.

The aim of this paper, then, will be to point out certain definite places in which representatives of the pantheistic wing of idealism can be shown to be false to the logic of their doctrine. In order to hold the discussion within a manageable compass, however, it seems best to confine the study to two representatives,—Bosanquet and Radhakrishnan.

In the case of Dr. Bosanquet, the first outstanding work is his *Logic*. And now, this entire work may be regarded as simply a systematic development of the Logos theology. As he traces the forms of judgment from their lower to their higher types, and exhibits that "spectacle of continuity and unity in the intellectual life, combined with the most varied and precise adaptations of its fundamentally identical function to manifold conditions and purposes," which means so much to him, he is showing how one spirit operates through all intelligence, and builds our world of common knowledge and of science. And when we find that this spirit is not an abstraction of law or ground or truth, but is the Consciousness of a Perfected Individuality, we seem to learn that what we are studying in this great masterpiece is simply the concrete development in detail of the vision which Clement of Alexandria sketched in his *Paidagogos*. The Logos is the Instructor, and through the operation of this rational agency in our lives science is born, grows, and is perfected. Clement's persuasive words did much to subdue secular science to accord with the Christian view of the world. And when in like manner Bosanquet exhibits the pressure of the idealism of judgment upon the merely factual aspect

of experience, and points out in detail how the problems and methods and inferences of science are motivated by the ideal of a Completed Individuality, we seem to be dealing with a discussion of the same significance. And this impression is deepened as we observe the treatment of the judgments and categories of abstract quantity, culminating in the ideas of infinite space, infinite time, and infinite number. The Psalmist says, "If I make my bed in Hell, behold, Thou art there." Bosanquet shows that if we analyze the logic of the most mechanical conceptions of human science, we find that the ideal of a Perfected Individuality is surging within them, and is the driving force which makes their life. In Clement's word, it is the Instructor. So far, then, we have nothing but a modern edition of "the light that lighteth every man that cometh into the world."

But edifying phrases do not meet, of course, the problem of the philosopher; and they are particularly uncongenial, I take it, to Dr. Bosanquet's temper of mind. We must press on, then, to a closer analysis of the import of this ideal of Perfected Individuality. And the most successful answer to the problem here indicated turns upon the use of the historic idea of the *concrete universal.*

Now the conception of the concrete universal refers to the most concrete and organic thing in our entire universe of discourse; but all the phrases which we use in discussing it suffer from abstractness. And my feeling is that as Dr. Bosanquet has striven in many ways, and with much success, to bring out the vital significance for science and culture of this ideal, he has gradually drifted into a certain form of onesidedness in his emphasis and expression. The concrete universal is always the spirit of the whole, of course, as this operates within any given fact or situation. "It is the active form of totality, present in all and every experience of a rational being." Just as the personality of a man of strong character enters into all his acts, so does the spirit of the whole pervade experience, and operate constructively on its details.

But now Dr. Bosanquet thinks of this concrete universal as the world-system. It is the world, thought of in terms of per-

fect *ground,* of course, so as to afford the determinate and concrete grounding of every fact we know. And it is easy to conceive this as implying merely the system of relations displayed in the actually existing realm of things. When Dr. Bosanquet repeatedly refers to it as "a world," self-complete, and so on, he is evidently straining to emphasize the solidarity of human experience as experience in dealing with things. And in like manner when he studies the significance of the concrete universal in relation to the state, his interest is in the institutions round about us, and in the ideas upon which they rest. And the result seems to throw an emphasis which stresses unduly the order of phenomenal actuality. This tends towards the interpretation of the concrete universal, world, or totality, predominantly in terms of experience as it stands. And so far as this is true, a certain very important element in the situation is not properly brought out. I refer to the entire line of thought which the Aristotelian philosophy is accustomed to express under the conception of entelechy—the story of the wealth of depth and meaning that is implied in every finite individual that belongs to the universe. I do not mean that Bosanquet explicitly denies this element of depth. Indeed, on occasion and repeatedly, he has asserted it, and particularly in dealing with the significance of art. But I mean that by reason of his effort to address himself to the naturalistic thinking of our time, so distrustful of anything which is not in obvious touch with nature, he suffers from a displacement of emphasis which does not enable him to bring out effectively the entire idealism of his thought.

Thus the concrete universal must carry within itself all the relations by which the universe has a hold over the individual—the entire loyalty of the finite individual to that Whole from which the individual springs and in which he is to find his true nature realized. But the universe which is thus resounding within the individual is not only the universe of actual facts and events in the past, although it includes this; it is not only the universe of present actual environment, although it includes this; but it is also the universe of the ideal possibilities necessarily inferred in order to interpret completely these actualities.

And further, the universe that is not expressed in time or space must be enormously more extensive in point of magnitude of power, as it is enormously more significant in point of quality and depth, than that phase of the universe that has come to temporal or spatial expression. Recent physical speculation, after contemplating the facts of radio-activity and the evidences of an electronic composition of matter, has been led to wonder if the energy locked up in the atoms is not enormously in excess of that which is displayed in shaping the phenomena that we see. It is said that the iceberg floats with only one-eighth of its mass above water. And after we have duly faced the problems of metaphysics, of ethics, and of religion, we may well come to doubt whether the real world displays more than one-eightieth or perhaps one-eight-hundredth of its power or meaning in the order of time or space as this order is interpreted by the familiar categories of the understanding.

In view of this line of thought, the conception of the concrete universal gets a new interpretation which is not very apparent in Bosanquet's pages. It becomes the call of the world's purpose surging within each member which belongs to the world. It forms the basis for the reflection that each finite individual is most loyal to his true life when he is most loyal to the spirit of the world's Ideal. And this Ideal is not simply the God of things as they are, actually, but rather the spirit of things as, "by the Eternal," they shall be. This spirit has often been cropping out in the idealism of the race, and has defined itself with some measure of precision. Now the Logos doctrine is essentially a fixation of the results of this line of reflection, in such wise that the spirit of the Whole is given a determinate interpretation, in accordance with the best ideals that the history of culture has enabled man to state. A sympathetic attitude towards its meaning is then implied, I think, in any consistent and profound modern idealism.

But there is another aspect of Bosanquet's treatment of the concrete universal, which causes him to be steadily opposed to what he calls Theism. This is the conviction that since the real must form an absolute whole, no phase or aspect of the real may

be set up as absolute; and therefore the conceptions of the Logos teaching are at best suggestions of aspects that are engulfed within the Absolute. "Father, Son, Holy Spirit—none of these terms can apply to the Universe or an Absolute that has nothing outside it."[1] Quoting a culminating passage, "The conclusion is, in a word, that the God of religion, inherent in the completest experience, is an appearance of reality, as distinct from being the whole and ultimate reality; a rank which religion cannot consistently claim for the supreme being as it must conceive him. But this conception [Bosanquet's], which finds him in the greater self recognized by us as present within the finite spirit, and as one with it in love and will, assigns him a higher reality than any view which stakes everything on finding him to exist as a separate being after the model of a man" (pp. 255–256).

Now this position is thoroughly characteristic, of course, of the entire Bradley-Bosanquet teaching. It is of a piece with Bradley's argument that the self is not to be called real at all, simply because it is not an absolute and self-sufficient reality, but rather is a member within the universe. I do not see that the contention rests upon anything more significant than an abuse in the employment of terms. Most of us regard a factor as real, if it is organically and vitally bound up with the meanings that interpret our experience. We do not thereby say that it could stand absolutely alone, were earth, sea, and sky, and even the world-ground swept away. We mean that the kind of a world that is real posits in a significant way that particular factor, and in so doing reveals its own structural nature; but we do not mean to deny vital interconnection within the universe system. In this way we are making a sound synthesis of the Aristotelian doctrine of substance with the Hegelian theory of the judgment. But now, to clamp down upon everyone who speaks of anything as real the demand that he stand ready to defend its absoluteness and repellent self-sufficiency seems an arbitrary and unwarranted procedure.

The result for Bosanquet is that he always thinks of Theism as presenting an absolute dualistic separation between God and

[1] *Value and Destiny*, p. 249.

man. Then, since by definition he drives every particle of idealism out of such a doctrine, he endorses the statement that "pure theism is unable to form a living religion." Theism, according to Bosanquet, must always be in the state of mind of the too intelligent printer in the tale. You remember that he was puzzled over the mystical line, "Sermons in stones, books in the running brooks." But how clear it all was when he revised it and set it up, "Sermons in books, stones in the running brooks!" And in like manner Bosanquet feels that all mysticism and idealism must be read out of the doctrine as soon as it says that God is real. For does that not mean that God is real over there, in isolation, absolutely apart from man, and that man is real over here, in isolation, absolutely apart from God?

But now this is certainly not the character of Christian theism, in its essential intention. Jesus, of course, was a mystic, and Paul was a mystic, and the author of the fourth gospel was a mystic. "I and my Father are one." "I can of mine own self do nothing." "I in them, and Thou in me." In short, a hundred central passages of the New Testament present a totally different view of the meaning of theism from the wooden form which it has taken in Dr. Bosanquet's speculations. It is true, of course, as Bosanquet intimates, that some forms of theistic philosophy have failed to do justice to the mystical element in religion. But it seems clear that such failure is not of the essence of theism. It seems clear also, that what is happening in the case of Bosanquet, and what is driving him from theism into a certain form of mystical pantheism, is that an arbitrary definition of the word *real* is being used to the end of eliminating all the idealism from Christian theism.

Our discussion has led us into the immediate vicinity of the question, recently so actively debated, whether the absolute of philosophy can possibly be the God of religion. But our problem is a somewhat different one, and I refer to this other for one specific purpose only. If we are led to say that man, by virtue of his membership in the Absolute, finds laid upon him all of that determinate set of cultural values which was historically wrapped up in the conception of the Logos, then, as I see the

matter, the Absolute has the Logos imbedded within its life. Bosanquet's point, that the Logos as ordinarily conceived is not the whole of the Absolute, seems not to meet the issue. No doubt the Absolute is the ground of steam engine forces and of nitro-glycerine forces, and of rattlesnake poison processes, but if it is also the ground of personal self-realization, and has power to foster that process of personal self-realization until it comes to the stature of the perfect man, that is what we mean by saying that the Logos is real, very God of very God. No doubt the nitro-glycerine phase of the Absolute is not usually in the thought of the man of religious interests; but I do not see that the recognition, on reflection, that such a phase of the Absolute exists, need seriously impair our confidence that the cultural side of the process is of the profounder significance, and is deeply grounded in the real. In short, it is only when we first define the "God of religion" as a poverty stricken conception, too thin to ground the rich detail of the world, that we find it incompatible with the Absolute. But while such a limited conception is what men often operate with, it is never a theoretically adequate account of what they really mean. And certainly the Logos philosophy, which has incorporated into the content of its teaching the Logoi or grounds of all determinate natural processes, so that "without the Logos was not anything made that was made," cannot be accused of taking an attitude of denial towards the steam engine or nitro-glycerine elements in the life of the Absolute. It may suggest that the whirlwind and earthquake are not quite so significantly real as the still small voice, but while it vindicates the validity of the culture process, it does not deny the relevancy of the nature process.

The historic idea of self-realization through self-sacrifice, central to the Christian religion and developed at large in the Logos theology, is as clearly at home in the modern idealism as in any stage of the idealistic tradition. Professor Bosanquet has developed it in many places, usually under the formula of the self-transcendence of the finite. In one significant passage he quotes with approval from Edward Caird: "It is not an imperfection in the supreme being, but an essential of his complete-

ness, that his nature, summing up that of all Reality, should go out into its other to seek the completion which in this case alone is absolutely found. The 'other' in question can only be finite experience; and it is in and because of this, and qualified by it, that the Divine nature maintains its infinity. And, therefore, it may be said that the general form of self-sacrifice—the fundamental logical structure of Reality—is to be found here also, as everywhere."[1] Professor Bosanquet comments: "The view is familiar. I only plead that it loses all point if it is not taken in bitter earnest." And in a footnote he adds: "I have had much in mind Nettleship's fragment on the Atonement."

The thought which is here implied has been most tellingly expressed by a Buddhist teacher, cited by Lafcadio Hearn: "In all the world there is not one spot so large as a mustard seed, where the Buddha has not surrendered his body for the good of the creatures."[2] And when essentially the same interpretation of the heart of reality is put in terms of Western thought, what we have is simply and always the Logos teaching.

We may turn now to a book which is highly representative of the controlling motives of modern idealism, quite without impulse to effect an external accommodation with Christian speculation. I refer to the volume, entitled *The Reign of Religion in Contemporary Philosophy,* by Professor Radhakrishnan, of the University of Mysore, published in 1920. Professor Radhakrishnan's personal connections as a Hindu are with Vedantism, which he feels free to interpret as seems most reasonable; and his whole book develops the charge against Western pluralisms and theisms that they are illogical, that they have perverted the true and normal course of philosophical development, in order to reach and fortify positions that are thought to be prescribed by religious necessities. That is, the religious necessities which have warped the argument are not the true needs of religion, which he regards as most genuinely and adequately met by absolute idealism; but they are rather the necessities imposed by popular religion, and particularly by the somewhat dualistic form in which the Christian theism is accustomed to formulate

[1] *Principle of Individuality and Value,* p. 243.
[2] *Kokoro,* p. 219.

itself for the unphilosophical mind. We have here the personal bias criticism turned against Western pluralisms. The result is a long series of keen and penetrating criticisms directed against what he calls theism, and arguments for the superior cultural and religious value of pantheism. In fact, the personal commitment to pantheism is made with an *abandon* not commonly to be found among Western writers. Now as this author is also a consistent and well trained representative of absolute idealism, essentially of the same type as Bosanquet, his book becomes of special interest in connection with the charge that modern idealism, logically thought out, is simply pantheism, and is on a parity with Vedantic Brahmanism. Radhakrishnan, at any rate, so believes and holds; and this becomes for him a great argument for the profound truth of Vedantism.

But if we analyze closely the argument of Dr. Radhakrishnan's book, we find, I think, that these commitments to pantheism and Vedantism, as against theism and personalism, require a great deal of modification. The pantheism that he accepts is not simon-pure pantheism. The Vedantism that he accepts is not the orthodox form of that doctrine, as represented by the school of Sankara. The theism that he rejects is not the philosophical theism of Greek Christianity, which culminates in the Logos doctrine. These points I have already developed in a review of this volume published some months ago.[1] I now wish to add that manifold passages in this book point to the problem of the determinate form which the ideal possesses, and require the development of essentially the same line of thought as that which issues in the Logos teaching of Christian philosophy. In short, he must have his Logos theology, however little he may desire it, or his systematic philosophy fails.

We may first notice the author's repudiation of absolute monism, remembering that in these passages what he is really rejecting is the orthodox Brahmanical teaching of the school of Sankara,—the form which we call pantheism because it declares individuality and determinateness to be unreal. "We may now see," says Radhakrishnan, "how the popular conception of the world as Maya or illusion is mistaken. Brahman, the Abso-

[1] *Phil. Rev.*, Nov. 1920.

lute, is described in the Vedantic texts as an all-inclusive and not as an exclusive idea. It is the life of life, the 'reality of reality.'" "It is existence, intelligence, and bliss." "It is not a homogeneous one, but a unity or a harmony of the different constituent elements. The Absolute is the fulfilment and completion of everything that is in the universe, and not their extinction. It is the consecration of the lower forms of life, and not their destruction. The Vedantic Absolute is not the abstraction of an *être suprême* which deletes all differences, but it is a spirit that transcends, and at the same time embraces, all living things, The Maya theory simply says that we are under an illusion if we think that the world of individuals, the pluralistic universe of the intellect, is the absolute validity. Pluralism is true only within limits. But it has to be transcended, that is, completed and supplemented, and not rejected and abolished. The lower is not unreal, which later reflection must explain away, but is only an aspect of truth that has to be fulfilled at the end."[1]

Now it is clear that this passage reflects the theistic interpretation of Vedantism, fostered by Ramanuga, rather than the pantheistic interpretation of Sankara. Further it enters squarely upon the line of thought which grounds back in the Absolute in a determinate way the ideal perfection of every individual process. Aristotelian entelechies must then be provided for, and this movement will inevitably push on until we reach the conception of the Logos as the "first-born of every creature"—"all things were created by him, and for him, and he is before all things, and by him all things consist." That is, Professor Radhakrishnan has delivered himself over bodily to the cosmological side of the Christian idea of the Son, and has accepted in principle the movement which, when it comes to the discussion of cultural values, will define the deeper truth of every human personality as rooted in that "mind which was also in Christ Jesus." Or if this particular historical reference be not accepted, and a preference be indicated for Krishna, for instance, then at any rate we may say that the metaphysical basis is laid for a Logos doctrine of a determinate type, and the only

[1] *Reign of Religion*, p. 445.

outstanding problem is the question what particular values shall be regarded as normative for human nature. And so we see that Professor Radhakrishnan, in swinging away from the strict pantheistic interpretation of the Vedanta, as he was forced to do under his Hegelian motivation, finds himself drifting nearer and nearer to the philosophical theism of the Western world.

Our author continues: "The Vedanta system cannot be considered pantheistic if by pantheism we mean an identification of the world with God. According to the Vedanta, nature or the world is only an expression of God. God is more than the world. The finite reveals the infinite, but is not the whole infinite?" (pp. 445-446) Again, "The Absolute in the world is half dream, half reality. The universe is only a partial revelation of the Absolute" (p. 449). Now these passages are quite incongruous with Sankara's teaching, according to which the Absolute does not manifest itself at all in this world of Maya. And indeed, since the Absolute has no part, it could not possibly manifest itself in part. Professor Radhakrishnan's adverse attitude towards Sankara's strict Vedantism is doubtless indicated best in the following passage, which I quote from a discussion in which he is attacking a certain aspect of Bergsonism: "This way of getting over the pressing problems of philosophy is strongly reminiscent of the Monistic school of Indian Vedanta, in which all the puzzling problems of the relation of Absolute to Maya are traced to a confusion between the metaphysical or noumenal, and the empirical or phenomenal conceptions of reality. But the phenomenal and the noumenal cannot be held apart. The metaphysical has to be related to the historical. The absolutists who are mostly 'identity' philosophers reduce difference and diversity to an appearance, illusion, non-being, and irrationality" (p. 162). And in other places he says, "False absolutism has come down, while the true is considerably strengthened. Abstract monism, which destroys personal values and reduces individuality to illusion . . . is a defective attitude of life" (p. 410). "Pluralism is right in rebelling against the conception of a block universe. It points to the central defect of a shallow and static, narrow and abstract

monism, which clings to a timeless absolute and reduces human effort to illusion" (p. 408). "But in our opinion, the greatest mistake of the new spirit of pluralists is in its conception of the Absolute as Anti-Christ. The kind of absolutism which comes in for a severe rebuke and condemnation at the hands of our pluralist critics is a fiction of their own imagination, and not a theory held by any one of its recognized exponents. The paramount question of philosophy, whether concrete absolutism does not bridge the gulf between faith and thought, is only raised to be dogmatically dismissed" (p. 407).

I may sum up thus far the discussion of the author by saying that absolute idealism is his central and controlling motivation; that under Hindu conditions this makes him a Vedantist, but a Vedantist of a theistic rather than a pantheistic type; that it yields, however, a certain aversion to popular, dualistic theism, and sympathy for the doctrine of the immanence of God, a doctrine which he is not unwilling to speak of as pantheism; that as he holds it, however, the doctrine postulates transcendence also, and has a strongly theistic bent. I now wish to point out briefly the lines along which this theistic element tends to develop, and the reasons why Professor Radhakrishnan does not fully work it out. And to do this, I notice first a significant passage in his closing chapter.

"The Absolute, therefore, is the Whole, the only individual, and the sum of all perfection;—It progressively manifests itself in and through these particulars. The Absolute is thus an organized whole, with interrelated parts in it. It embraces time, its events and processes. The finite universe is rooted in the Absolute. The Absolute is not an abstract unit, but a concrete whole, binding together the differences which are subordinate to it. The values we find and enjoy while on the way to it, are preserved and receive their full supplementation in it. They are not annihilated" (pp. 442–443).

This passage puts us fully at the standpoint of the Logos theology. For if the real is such as to contain essentially within its life the grounds of that order which we know as nature, and especially of those values which we think of as culture, then

the Absolute means not simply the universe in general, but the world ideal at its highest and best. "The highest, holiest Manhood Thou." And the Logos teaching does but interpret this formula. Or rather, this formula would be but 'conceptual shorthand' unless it were opened up and developed, as the Logos teaching has done. And I leave this passage with the simple comment, then, that having said so much as this, the author is under the compulsion to say very much more.

Let us notice for a moment the status of self-sacrifice in the thought of Radhakrishnan. Quoting briefly: "The whole universe is a vast struggle to realize the unity which is the ideal—the finite strives to pass out of itself—The presence of the infinite enables the individual to break the finite and to proceed higher up. It is such a breaking of the shell of finiteness that the infinite self finds itself and developes. Unless our little self is sacrificed, progress is not possible. Every step in the path of realization means the sacrifice of something else" (p. 447).

Now the thought involved in this passage is an ancient one. We have to notice only that this sacrifice of the finite is not to be made for the sake of unity in the abstract. It is not that the finite longs to be merged in the universe—that would be the teaching of the abstract monism which our author has repudiated. For a concrete monism, then, the sacrifice of the lower can be made only that the true and adequate meaning of human nature and of human personality should be brought to pass and should stand out. And this implies a constructive conception of what cultural ideals are indeed true to human nature in its best estate. In social development it is not every change that indicates progress, but only those by which the concrete possibilities of human life are given a larger opportunity. And this we can often determine in any concrete situation, by observing the cramping effect of the old institution, and observing the drift and tendency of the new powers that are released and brought into function. Not unity or harmony in the abstract, then, but the bringing to realization of those powers that are concretely founded in the life process and implied in human personality,—this would be the key to any self-sacrifice that a concrete ideal-

ism could soundly demand. The Logos teaching has but developed systematically this quite unavoidable implication.

In another passage, while discussing Eucken, Radhakrishnan says, "It is for the sake of the whole that the surrender has to be made. It is because we already possess the ideal of spiritual perfection we agree to those laws which serve its ends and repel all those hostile to it: The vaster deep already stirs in man—If, therefore, spirit is in man, then what is wanted is not a complete victory over human nature, which is partly spiritual, but only a transformation of the lower, and a development of the higher. The pathway to salvation is not through sudden conversion, but gradual growth. This view of man as potential spirit and of salvation as the development of his spiritual nature is satisfactory, but it is the view of absolutism" (pp. 310–311).

This passage seems to me to be fairly typical of the vacillation that runs through the thought of Dr. Radhakrishnan. While he is speaking of the surrender to be made to the spirit of the whole, he is a Hindu and a Vedantist, a pantheist if you please. But in that stage he is still speaking incompletely, and is so far forth an abstractionist. But he means to be a representative of concrete monism, and not at all an abstractionist. So soon, however, as he yields himself to the logic of concrete idealism, he stresses development, growth, gradual progress towards perfection. And these Western conceptions, so little at home in the speculations of India, require for their essential and adequate expression a definite intimation of the nature and leading of the ideal—the suggestion which Clement attempted to convey in his doctrine of the Instructor.

We may conclude, then, that the characteristic meaning of the Logos teaching is as congenial to modern idealism as it has ever been to any stage of the idealistic tradition; and that the recent appearance of an editing of idealism which is more than half pantheistic, mystical, and Vedantic, does not really tend to set it aside.

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A COMPARISON OF STRONG'S THEORY OF PERCEPTION WITH REID'S.

PROLONGED inspection of any object of thought requires the direction of attention upon it to be accompanied by a continual movement. Attention is essentially exploratory and inanition is the rapid consequence of fixity: "it being almost all one for a man to be always sensible of one and the same thing, and not to be sensible of any thing."[1] This movement of attention over and round its object corresponds to the appearance of successive features before the mind: as, in looking at a rose, now its redness, now the shaping of its petals, now its general design is perceived. A determined fixture of regard upon redness or petal or general plan results in a wane of consciousness: we observe things, experience emphatically informs us, by exploring them attentively and not by a single fixed act of attention.

The explorative inspection even of a simple object like a rose may extend to an object of thought which has the flower for a centre and a wide range of ideas within its circumference. The rose with its qualities of colour and form, its inner mechanism of sap and vessel and tissue, its position in the plant world, its beauty and its significance for a theory of beauty, its place in the system of knowledge, may, as a single though complex object, invite attention from the observer. Attention may travel round this ampler object as it travelled, in a simpler act of perception, round the seen rose.

The perception of the rose by its percipient, the manner and mechanism of the act of knowing or conceiving it, may become the centre of exploratory movements of attention. A thinker attentively inspecting this particular problem is a model, reduced in scale and narrowed in time, of the combined processes of inspection, performed by many minds, which may be regarded

[1] Hobbes, *Elements of Philosophy*, pp. 4, 25.

as a single collective or historical movement of explorative attention, directed on the problem of perception. The percipient perceiving external objects is the centre of this movement, which has sought unremittingly and assiduously to discover the method of this knowing and the nature, validity or origin of the knowledge secured.

Neglecting for purposes of preliminary exposition, the possibility of confusion between realities singled out by differentiation and conceptions deposited from the mind under attention, history discloses to us the principal movements of the focus or centre of the inspecting process and, perhaps often less clearly, the secondary movements round the primary movement of this focus. During the primitive stages of human history men were too busy perceiving to ask why or how they perceived or even to realise very explicitly that they were perceivers. The external senses "give to all mankind the information necessary for life, without reasoning, without any art or investigation on our part."[1] They are so efficient in this office and it is so immediately necessary for men to utilise this efficiency that, at the first, the objects of perception received an exclusive attention. When thought did turn from the simple contemplation of objects as they appeared in perception to consider their relations to their perceivers, to discuss the mechanism of perceptual knowledge and to enquire into its validity, its tortuous, perplexed course intimated how much more perfectly men are constituted to perceive than to understand their perceiving. The focus of explorative attention moved gradually from the perceived to the percipient. Descartes marked a culminating point of a great historical movement of thought which, after discussing how objects made men perceive, proceeded to discuss how men were able to perceive them. With equal, if not with greater, assiduity, exploration has continued since Descartes and, it must be admitted, so far, inconclusively. Now, during the explorative movement of collective attention over the problem of perceptual knowledge, similar features or conceptions tend to recur. Thought circles round some explanation, leaves it, and returns

[1] Reid, *Essays on the Intellectual Powers of Man*, Essay 2, Ch. 20.

to it again. The recurrence is seldom, if ever, absolute: explanation reverts to a previous method or plan but elaborates it differently. In this sense Strong's theory of perception is a recurrence of Reid's, though it is not simply a twentieth century facsimile of an eighteenth century original.

This recurrence is grounded in a similarity between two movements of thought. Reid and Strong represent a similar, though not an identical, transference of the centre of explorative attention. Berkeley had centred thought on the 'idea' in the mind during perception and had resolved the physical objects which common sense percipience supposes itself to see, hear, touch, smell or taste into 'ideas'. Reid was seduced, during his youth, into Berkleyanism and then drawn out of it by the conviction that "the wisdom of philosophy is set in opposition to the common sense of mankind", that "The belief of a material world is older, and of more authority, than any principles of philosophy" and that "since we cannot get rid of the vulgar notion and belief of an external world" we should "reconcile our reason to it as well as we can."[1] One consequence, or cause, of this defection was his hostility to the invasion of philosophy by 'creative imagination' which "disdains the mean offices of digging for a foundation, of removing rubbish and carrying materials", his conviction that "it is genius, and not the want of it, that adulterates philosophy", and his satisfaction that the "castle-builders" now "employ themselves more in romance than in philosophy."[2] Another consequence, or cause was his insistence that "All knowledge, and science, must be built upon principles that are self-evident; and of such principles every man who has common sense is a competent judge, when he conceives them distinctly."[3] He erected common sense into a competent tribunal because it confirmed, against Berkeley, the existence of physical objects given in perception. Another consequence, or cause, was his theory of perception, which bears obvious marks of the 'ideal system' which he retracted and is obviously determined by his resolve to take his "own existence,

[1] *An Inquiry into the Human Mind,* Ch. 5, Sect. 7.

[2] *Ibid.,* Ch. 1, Sect. 2.

[3] *Essays on the Intellectual Powers of Man,* Essay 6, Ch. 2.

and the existence of other things, upon trust; and to believe that snow is cold, and honey sweet, whatever they say to the contrary."[1]

Strong's theory is also a deposit from a movement out of an idealistic version of perception towards a realistic version; he also has been anxious to exchange mental immediate objects for non-mental immediate objects. His theory has developed out of, or along with, a conviction that the distinction between real things and phenomenal things (real things rendered in mental version) must be replaced by a distinction between things as perception exhibits them and things as they really are.[2] When he disclaims any implication in "as perception exhibits them" of failure to perceive things very much as they are he implies that the substitution of this for 'phenomenal things' is intended to carry anti-idealistic or realistic implications. Like Reid's, Strong's theory bears upon itself the marks of its idealistic starting-point and is determined powerfully by an attempt to secure the realist's immediateness in perception for the physical object.

Reid's theory compares with Strong's as a preliminary sketch with the finished picture: it provides a plan which Strong amplifies, a simple scheme which he makes more complex. Strong may not have consulted Reid, he probably did set a quite separate mental course, but it is almost as if he had observed the points open to attack in Reid's theory and fortified them from some modern resources. This relation between the two theories decides the order of exposition: Reid's theory provides an outline which can then be filled in to secure Strong's.

The perceived object, the sensory nervous mechanism, consisting of sense-organs, nerves and brain, and the percipient mind participate in the act of perception. "Certain impressions" are "made by the object upon the organ, and by means of the organ upon the nerves and brain"[3]: this is the physical process in perception. Sensation is the immediate mental cor-

[1] *An Inquiry into the Human Mind*, Ch. 1, Sect. 8.

[2] *The Origin of Consciousness*, p. 7.

[3] *Essays on the Intellectual Powers of Man*, Essay 2, Ch. 4.

relate of the impression on the brain: a sensation, Reid affirms, speaking more particularly of the smell of a rose, "appears to be a simple and original affection or feeling of the mind." "It is," he adds, "indeed, impossible that it can be in any way in body: it is a sensation, and a sensation can only be in a sentient thing."[1] The mind achieves its perception of the object by means of the sensation. Reid's term, or principal term, for the nature of the agency of sensation in perception is 'suggestion'; but it is convenient to apply Strong's term 'vehicular' to this suggestive function, because the fundamental plan in both theories is the functioning of sensations as 'vehicles' for the mind's realisation or perception of the object. The object, then, is immediately perceived or apprehended through the mediacy of sensation. Reid undoubtedly *intended* to admit the mind to an immediate, direct apprehension of the physical object of perception, though such apprehension might be incomplete. During his expository circling round the problem of our knowledge of the external world and during his criticisms of other philosophical schools he may have made statements or lapsed into suggestions which are incompatible or not strictly compatible with this intention, but his fundamental scheme obviously embodies it. He must mean this when he affirms that hardness, softness, roughness, smoothness, figure and motion "by means of certain corresponding sensations of touch, are presented to the mind as *real external qualities*,"[2] and he can hardly mean less when he asserts, against Hume, "to my apprehension, I immediately perceive external objects."[3] He may admit some inconsistencies into the fundamental scheme as he builds upon it, but in his central idea sensations vehicularly establish an immediate perceptual contact between mind and physical object.

Conformably to his doctrine of perception, Reid avers that "the notion which all mankind have of hardness" is attained "by means of a certain sensation of touch." "This sensation of hardness may easily be had, by pressing one's hand against the table, and attending to the feeling that ensues, setting aside,

[1] *An Inquiry into the Human Mind*, Ch. 2, Sect. 2.

[2] *Ibid.*, Ch. 5, Sect. 4.

[3] *Essays on the Intellectual Powers of Man*, Essay 2, Ch. 14.

as much as possible, all thought of the table and its qualities, or of any external thing." This sensation is unlike the external quality which it reveals. "The firm cohesion of the parts of a body, is no more like that sensation by which I perceive it to be hard, than the vibration of a sonorous body is like the sound I hear"; it is also, of course, "a simple and original affection or feeling of the mind", since this is the nature of sensation. Before the perceptual habit is formed this sensation may be the sole object of apprehension when it is experienced. "For I think it is probable, that the novelty of this sensation will procure some attention to it in children at first"; when the perceptual habit is formed, "We are so accustomed to use the sensation as a sign; and to pass immediately to the hardness signified, that, as far as it appears, it was never made an object of thought, either by the vulgar or by philosophers; nor has it a name in any language." In developed perceptual habit, "it is never attended to, but passes through the mind instantaneously, and serves only to introduce that quality in bodies, which, by a law of our constitution, it suggests." In short, "a certain sensation of touch both suggests to the mind the conception of hardness, and creates the belief of it."

Refraining from a substitution of criticism for exposition, we next learn from Reid that all sensations are not thus 'fugitive' under attention. A man who leans his head gently against a pillar feels hardness in the stone and nothing in his head; if he "runs his head with violence against a pillar" the "attention of the mind is here entirely turned towards the painful feeling." Sensations need not be vehicular: at first they may be only sensations, then they may become both sensations and vehicles and finally they may virtually become nothing but vehicles for perception.[1]

The odour of a rose apparently combines, or may combine, according to Reid, vehicular function with sensational impression: it can both be a recognised sensation and act as a vehicle. "It is evidently ridiculous to ascribe to it figure, colour, exten-

[1] *An Inquiry into the Human Mind*, Ch. 5, Sect. 2.

sion, or any other quality of bodies"[1]: it is a sensation, "a simple and original affection or feeling of the mind," which is realised in the act of smelling. As "the result of experience and habit" it happens "that a certain kind of sound suggests immediately to the mind, a coach passing in the street"[2]; "By the original constitution of our nature," we are both "led to believe that there is a permanent cause of the odour," and "prompted to seek after it; and experience determines us to place it in the rose."[3] In this way "We come by the notion" "that there is really something in the rose . . . which is by the vulgar called smell, and which continues to exist when it is not smelled."[4] Thus "the smell of a rose signifies" both "a sensation, which can have no existence but when it is perceived, and can only be in a sentient being or mind", the odour as sensation, and "some power, quality, or virtue, in the rose, or in effluvia proceeding from it, which hath a permanent existence, independent of mind, and which by the constitution of nature, produces the sensation in us,"[5] the property revealed to us vehicularly, though the discovery of 'a constant conjunction' between rose and smell appears to share, at any rate originally, in the vehicular function.

Reid distinguished hardness, perceived through a sensation of touch, as a 'primary quality', from the smell of a rose, perceived through an odour, as a 'secondary quality'. "Primary qualities", he observes, "are neither sensations, nor are they resemblances of sensations"; but "we have by our senses a direct and distinct notion of them"; also, "their nature is manifest to our senses, and cannot be unknown to any man, or mistaken by him, though their causes may admit of dispute." Neither do 'secondary qualities' resemble any sensation, but, in their case, we have only relative notions of them through our senses: "We know" merely "that they are the causes of certain known effects."[6]

[1] *Ibid.*, Ch. 2, Sect. 2.
[2] *Ibid.*, Ch. 2, Sect. 7.
[3] *Ibid.*, Ch. 2, Sect. 9.
[4] *Ibid.*, Ch. 2, Sect. 8.
[5] *Ibid.*, Ch. 2, Sect. 9.
[6] *Essays on the Intellectual Powers of Man*, Essay 2, Ch. 17.

Reid suggests that some vehicularity in perception may devolve exclusively on 'material impression' upon the senses: sensation drops out of the scheme and perception follows immediately when the object impresses the sensory mechanism: "There seems to be no sensation that is appropriated to visible figure" which "seems to be suggested immediately by the material impression upon the organ."[1] The relation between brain and mind troubles Reid: it is "ridiculous" to "imagine that any motion or modification of matter should produce thought" and difficult with respect to an immaterial mind "to affix a meaning to impressions made upon it."[2] He rests this, with other difficulties, on the constitution of our nature and on the Will of the Divine Being. The connection between brain-process and mind-process is too prominent to be ignored. It may be stated as a parallelism between physical and psychical and left there: this is virtually Reid's statement when it is relieved of its theological appendix. Strong tries to probe more deeply by appealing to panpsychism: ". . . mind and body are . . . one existence apprehended from two different points of view"; mental states are causes of the brain-events being perceived and integral parts or 'extract' from the existences that appear to the senses under that form; the mind is part of the existence appearing as the brain.[3]

This intervention of panpsychism homologates sense-perception with introspection by referring their differences to a difference between forms of a single process of cognition: objects which might be apprehended by sense-perception as brain-events are introspectively apprehended as psychic states.[4] The vehicularity of 'psychic states' is doubled: "In all sense-perception a state of our sensibility is used as the means of apprehending the object", and in tasting or smelling, our sensations are not objects but vehicles;[5] mind appears to introspection as body appears to sense-perception;[6] and introspective cognition includes

[1] *An Inquiry into the Human Mind*, Ch. 6, Sect. 8.
[2] *Essays on the Intellectual Powers of Man*, Essay 2, Ch. 4.
[3] *The Origin of Consciousness*, pp. 2–3.
[4] *Ibid.*, p. 92.
[5] *Ibid.*, p. 93.
[6] *Ibid.*, p. 5.

a feeling as object and a persisting memory image as vehicular cognitive state.[1] Reid appears to contemplate a double vehicularity in sensations when he says, of the sensation of smell, "this sensation suggests to us both a faculty and a mind; and not only suggests the notion of them, but creates a belief in their existence": language very similar to much of his usage in describing the 'suggestion' by sensations of physical properties.[2] Strong developes the parallel between sense-perception and introspection: introspection represents psychic reality incompletely,[3] just as sense-perception exhibits physical reality incompletely; in both cases "knowledge may be authentic though vehicular";[4] in touching a cold object the essence (of which more hereafter), "a cold object" is given by means of a psychic state, a sensation of cold; similarly the true datum of introspection, vehicularly conveyed, is the psyche itself:[5] We introspect feeling or sentience which, like physical things, may exist when it is not our object.[6]

Strong's cognitively vehicular states and Reid's significatory sensations have different implicative settings. Reid's sharp contrast between material body and immaterial mind is blurred out by their common derivation from 'mind-stuff'. From the outset, says Strong, the psyche must have had space somehow involved in it,[7] and the psychical, which appears emphatically extended in its physical guise, is not itself unextended.[8] "My reason convinces me," firmly declares Reid, that my mind "is an unextended and indivisible substance."[9] Reid conceives the vehicular sensation as something relatively detached from the mind, as an 'affection' of it or something 'in' it: "Everything is said to be in the mind, of which the mind is the subject".[10]

[1] *Ibid.*, p. 201.
[2] *An Inquiry into the Human Mind*, Ch. 2, Sect. 7.
[3] *The Origin of Consciousness*, p. 13.
[4] *Ibid.*, p. 43.
[5] *Ibid.*, p. 105.
[6] *Ibid.*, p. 11.
[7] *Ibid.*, p. 290.
[8] *Ibid.*, p. 2.
[9] *An Inquiry into the Human Mind*, Ch. 7, Sect. 5.
[10] *Essays on the Intellectual Powers of Man*, Essay 1, Ch. 1.

Strong's vehicular 'psychic states' are in no way externally attached to the self but are conditions of the psychic, as boiling or freezing are particular conditions of water: "a psychic state is the psyche in a certain state."[1] Strong's psychic states include feelings of pleasure and pain, emotions, volitions, sensations and mental images. Reid conceives consciousness somewhat vaguely and with inconsistencies; Strong, correctly or incorrectly, more explicitly defines it as a functional relation: sentience—mind-stuff—constitutes the substance of mind and consciousness is its function;[2] consciousness is a function by which things are 'given';[3] it is an aspect or constituent of the function of cognition,[4] cognition being "a matter of function subserved by psychic states;"[5] and consciousness itself cannot be experienced.[6]

Theories of perception could often proceed comfortably if there were no perceptual errors. Since they cannot be ignored permanently, the epistemologist has to reckon with these troublers of his peace. Reid defers notice of deceptive perceptions till he has settled his theory comfortably down; Strong, keenly conscious of the lion in the path and perhaps realizing that realistic tendencies precipitate the encounter, has 'perceptual error' explicitly in mind from the first. Reid refers "many things called deceptions of the senses" to "conclusions rashly drawn from the testimony of the senses": when a counterfeit guinea is mistaken for a true one the senses testify rightly "of the colour, or of the figure, or of the impression." "Another class of errors imputed to the fallacy of the senses, are those which we are liable to in our acquired perceptions" which are conclusions drawn from the testimony of sense and thus distinguished from "what is naturally, originally, and immediately testified by our senses." Ignorance of the laws of nature also lays us open to deceit by whispering galleries, 'gastriloquists', reflections in mirrors, 'magic lanthorns' and other optical instruments. De-

[1] *The Origin of Consciousness*, p. 105.
[2] *Ibid.*, p. 11.
[3] *Ibid.*, p. 36.
[4] *Ibid.*, p. 91.
[5] *Ibid.*, p. 134.
[6] *Ibid.*, p. 141.

ceptions of sense, he finally concludes, can only properly proceed from disorder or abnormal conditions in the sensory mechanism.[1]

The last item brings Reid close to the crux so clearly recognised and definitely faced by Strong: the occurrence of *perceptual* error, error attaching to what we perceive itself, the fact that we see things that are not there or *feel* things that are not present.[2] Strong is convinced that if the physical object itself were given in perception there could be no perceptual error: hallucination and dreaming, he affirms, are not possible on neo-realistic assumptions.[3] Reid's theory brings actual objects or actual properties of actual objects into perceptive view through the agency of sensations. Normally, these sensations arise concomitantly with impressions made by the objects upon the sensory mechanism. On an idealistic assumption of mental immediate objects in perception which represent the mediate physical objects, a spontaneous or abnormally stimulated sensation might present an immediate mental object to the mind and induce the belief that its corresponding physical object was being perceived. But an aberrant sensation could be no vehicle for the immediate perception of non-existent external objects: if physical things are the immediate objects in perception they cannot be *falsely* perceived, with or without the aid of misleading sensations. Reid simply states that "Nature has connected our perception of external objects with certain sensations" and "If the sensation is produced, the corresponding perception follows even when there is no object, and in that case is apt to deceive us."[4] Either he surrenders the immediate and direct connection of perception with the external object, which, from the main tenor of his writing, he does not *intend* to do, though he may actually make the surrender in exposition, or he ignores the impossibility of perceiving an absent or non-existent object. Strong is too impressed with the hallucinatory elements in sense-perception, with our impressions that stars are fading now

[1] *Essays on the Intellectual Powers of Man*, Essay 2, Ch. 22.
[2] *The Origin of Consciousness*, p. 6.
[3] *Ibid.*, p. 37.
[4] *Essays on the Intellectual Powers of Man*, Essay 2, Ch. 18.

instead of hundreds of years ago, with variations in apparent shape and position as we approach to, or retire from, objects, with familiar errors such as the bending of a stick by immersion in water, with all the variety of 'perceptual error,'[1] to venture on the final realistic departure from his original and more idealistic base. He therefore intercalates an 'essence', as the immediate object, in the perceptive process.

Reid *intended* to expound the immediateness of the physical object in perception; but he wrote very freely of "This conception and belief which nature produces by the senses"[2] and of 'notions' suggested by them. His 'notion' or 'conception', speaking freely though quite relevantly, fills, unpremeditately and unconsciously, a rôle which is more explicitly recognized and allowed for by Strong's 'essence'.

An 'essence' is anything that can be 'given', either to sense-perception or to thought.[3] When it is actually given, or considered as given, it constitutes a 'datum' which is the essence-object present to thought.[4] Strong thus carefully distinguishes between the physical object, which itself is never 'given,' the essence, which, like the physical object, need not be given, and, unlike it, can be given, and the datum which is the essence considered as given, or present to the psyche. The essence has neither physical nor psychological existence; it is the entire 'what' of a thing, without its existence; it is an entity or subsistent of a logical type.[5] It is also a universal, though concrete. Representationalism interposes between percipient mind and perceived object an immediate mental object; Strong expels this intermediary from the psyche into a logical realm. He defers to idealism by refusing immediacy in perception to the physical object; he defers to realism by placing the immediate object outside the psyche; and he defers to the Reid scheme by retaining vehicular cognition of the essence. By these deferences he secures for perception a view of the real physical

[1] *The Origin of Consciousness*, pp. 63–65.
[2] *Essays on the Intellectual Powers of Man*, Essay 2, Ch. 17.
[3] *The Origin of Consciousness*, p. 35.
[4] *Ibid.*, p. 36.
[5] *Ibid.*, pp. 38–39.

object and assigns to it that possibility of perceptual error which it compels us to admit. The 'essence' of a tree can be cognised whether the real tree be present to perception or not. Since "The essence is, as we have seen, the object without its existence, and therefore a mere ghost or vision of the object, the same in sense-perception as in hallucination,"[1] it is possible, by adding to the 'givenness' of the essence the belief in the existence of the real physical object, to be deluded into seeing the tree. If the tree is really there the belief in its existence is true and the perception veridical. Thus, in perception the essence and existence of the object are divided—the former being apprehended by consciousness and the latter asserted or assumed.[2] This provides for error in cognition, because givenness does not depend on the actual existence of the object. Essences are not confined to the 'ghosts' of physical things: they may exhibit psychical objects.[3]

Reid constantly distinguishes between the conception and the belief which the senses produce in perception. Strong more definitely refers the assertorial element to the 'intention' which his theory substitutes for 'intuition.'[4] The percipient is a reacting and adjusting organism as well as cognising subject. The true correlate of sensation, he remarks, is the nervous act of adjustment.[5] Hallucination is not a mere misinterpretation of impressions in themselves correct; imagination consists of hallucinatory objects to which we are sane enough not to react;[6] when the givenness of the essence constrains a successful adjustment to a present or real physical object there is veridical perception.

"Upon the strictest attention," writes Reid, "memory appears to me to have things that are past, and not present ideas, for its object." He has to recognise that "sensation and memory . . . are simple, original, and perfectly distinct operations of the

[1] *Ibid.*, p. 175.
[2] *Ibid.*, 42.
[3] *Ibid.*, p. 89.
[4] *Ibid.*, p. 123.
[5] *Ibid.*, p. 291.
[6] *Ibid.*, p. 52.

mind, and both of them . . . original principles of belief."[1] The full implications, however, of propositions usually require time for their full disclosure. The realistic annullment of the distinction between remembering a smell and remembering the having of the smell, between remembering an event and remembering the seeing of it, carries some very definite ultimate implications. Lossky has realised that the assignment of the same object to perception and memory involves drastic ontological revisions of space and time. To watch a procession pass by, the observer must be present *when* it passes and within visual range of *where* it passes. He can remember it many years after it has passed and at any point of space. If the same event is present both to the original perception and to any subsequent memory of it, it seems clear that Lossky rightly demands from ontology a theory of time and space which will dissipate the apparent impossibility of an event separated from the knower by space and time being present in his acts of judgment through memory.[2] Strong employs the 'essence' to pull his theory of knowledge out of this quandary. He is convinced that if naïve realism be true the character of the perception will vary with the object alone.[3] The realistic assumption of an identical object in perception and memory converts the latter into a variety of the former. Lossky actually speaks of anticipation and memory as indirect *perception*.[4] Strong, while recognising that memory is the form of representation most nearly approaching cognition, and can still allow to representation only a mediate contact with the thing known.[5] "The essence is the vision-of-the-object which we get in cognition—a vision that may then be repeated and utilised in representation."[6] The essence thus provides the same object for perception and memory, as realism demands, and by the difference of relation between the knower and the physical object in the two instances allows a differentiation between perception and memory.

[1] *An Inquiry into the Human Mind,* Ch. 2, Sect. 3.
[2] *The Intuitive Basis of Knowledge:* Duddington's Trans. p. 274.
[3] *The Origin of Consciousness,* p. 59.
[4] *The Intuitive Basis of Knowledge:* Duddington's Trans. Ch. 9.
[5] *The Origin of Consciousness,* p. 113.
[6] *Ibid.,* p. 67.

The addition of Strong's statement that givenness depends *wholly* on the psychic state,[1] of his emphasis on the function of the psychic state in guiding action or thought,[2] and of his insistence that the cue to the practical attitude must lie in the psychic state, since the essence is the same in memory, expectation and sense-perception,[3] completes this comparison, with a minimum of comment and a maximum of exposition, of Reid's theory of perception with Strong's. This comparison illustrates the recurrence, during the explorations of thought, of similar notions which are modified and re-elaborated as implications disclose themselves to successive thinkers and necessities of interpretation are realised.

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[1] *Ibid.*, p. 42.
[2] *Ibid.*, p. 103.
[3] *Ibid.*, p. 179.

EDUCATION AS CRITICISM.

IN the history of modern philosophy no distinction has been more often made than the distinction between dogmatism and criticism. It is with this familiar distinction and its bearing on the aim of education that I am concerned in what follows. There are two typical movements of thought: one is outward toward activity, the other inward toward consistency. Roughly speaking, these thought processes correspond respectively to dogmatism and criticism. Dogmatism is the natural attitude of the mind in the face of certainty or emergency, and in so far as certainty or emergency are permanent features of our experience dogmatism is an ineradicable trait. No implied contempt is entertained in using the word 'dogma' or 'dogmatism'. Dogmatists are in the great majority among us. For instance, children are dogmatists. Their judgments are notoriously apodictic and everyone who has tried knows that to teach a child the use and significance of the hypothetical judgment is a tedious and often well nigh impossible task. Caution in judgment and chronic uncertainty are not to be found among children. This contention is as easily verified in the observation of child-like minds among the adults as in the observation of children as such. It is unnecessary to raise a dispute by entering too closely into a definition of the child-like adult, but I have in mind primitive people—savage or otherwise—those who shun knowledge in the fear that it will destroy their faith—those who know and know that they know. It is a common saying that if you want a clear and definite solution of a political, philosophical, or scientific problem ask the man in the street.. The first one you meet in ninety-nine cases out of a hundred knows whether or not the League of Nations covenant, for instance, impairs the sovereignty of nations. This certainty is not based on a study of the notion of sovereignty, a reading of the covenant, or an insight into the principles of our national constitution but upon a pragmatico-emotional disposition. Not only do the great majority

of men live and die in dogmatism, but the minority also are dogmatists during the greater part of their lives. The scientist or philosopher, who earns his living by the cultivation of hypothetical judgments and an experimental attitude toward reality, spends the rest of his time cultivating judgments of certainty in the form of uncriticised habits—religious, social, political, and economic. He may be said to hold opinions in physics or logic because he has examined the evidence, but to hold opinions in religion or politics because he has not examined the evidence.

The desire to promote education usually arises in the mind of a dogmatist or in a dogmatic mood. Educational systems therefore, reveal in various degrees their instrumental character. The first schools in history were clearly in the interest of the dogma of tribal solidarity. What we call today the superstition of the initiatory ceremonies was, except for our anachronistic interpretation, a canny selection of material well designed to serve the desired end. Indeed the fact that we call it superstition and the fact that they called it truth are one and the same fact for this discussion. From then until now men have sought knowledge to serve their faith. The well known definitions of education bear out the hypothesis that the dominant purpose of the school has been instrumental. To educate is to discipline, to train, to mold, to restrain, to form.

While this is a conspicuous feature of the history of culture it is by no means the only one. Along with it and opposing it is the ideal of education as criticism. The scholar in all times, like the voice of one crying in the wilderness, has uttered the lofty idealism of Plato's phrase "to follow the argument where it leads." For the pragmatic test of ecclesiastic and politician the scholar has substituted the principle of internal criticism. What I mean by criticism is clearly implied in the foregoing paragraphs. It is the opposite of dogmatism. The critical mind is the open mind. Whenever minds are freed from emergency from whatever cause, they commonly adopt a playful attitude toward the world. This attitude may be called the root of the critical intelligence. Like all playful attitudes it comes into existence only with leisure. It was first exhibited on a broad scale

by the Athenian philosophers. Socrates is the forerunner of all critical minds. So far as western civilization is concerned, the Hellenic people were not only the first to exploit, but they were truly the inventors of the critical method. As other people had striven after conformity the Greek strove for consistency. His thought was constantly thrown into the form of the hypothetical judgment. If we follow Matthew Arnold, for instance, in a comparison of the Greek and the Hebrew culture, we shall find reason to conclude as he did that at best the Hebrew mind expressed itself in maxims of conduct rather than in a criticism of life. The doctrines of Christianity can, of course, be traced to no single source, but the recorded words of Jesus leave no doubt of the almost total absence of Hellenism in his culture. This is the more remarkable, if we remind ourselves that the records were transmitted to us by Hellenic rather than by Hebrew medium. There are flashes in Plato's story of Socrates that furnish some ground for saying that Socrates was like Jesus, but the conspicuous and outstanding fact is rather that the two men had so little in common. Who would suspect that Jesus lived in a world that had inherited four hundred years of the Socratic tradition with its science and philosophy and literature? The Sermon on the Mount has no flavor of dialectic and no suggestion of the interminable Greek hypothesis.

The critical method has never been fully assimilated by the schools. The nearest approach to such an assimilation is to be found in the Athenian schools of the Periclean Age. The Greek experience may be looked upon as man's first experiment in education as criticism. Here, in the clearest outline, is the apotheosis of the intellect. The evidence to be found in the great philosophical tradition of Athens to support my interpretation is very familiar. For Socrates, knowledge and virtue are one; for Plato, the passions and appetites are of a lower order and take their direction from the higher functions of thought. Plato was so pleased with the idea that he applied it directly to social theory as set forth in the *Republic*. Aristotle changes the theory in no important respect. There is the most persistent defense of knowledge as the guide and master of life. There is no talk

of bringing reason to the support of faith or of making knowledge instrumental to any other human interest. Life itself becomes in this theory a satellite of knowledge.

With the coming of Christianity, however, knowledge rapidly assumed a minor rôle in cultural economy. Indeed, the categories of the understanding were entirely ignored by the early Christians, who abandoned their obscurantism only when they surmised that knowledge might have a use; namely, to support the creed and the organization of the church in its fight with heresy and dissent. Here we see the clear assumption of the instrumentality of the categories. The understanding became the hand-maiden of the faith, and dogmatism sat upon the throne.

In like manner the state, when it succeeded the church as the guardian and master of human destiny, cultivated learning for the sake of the state, and not for the sake of learning. "Were there neither soul, heaven, nor hell," says Luther, "it would still be necessary to have schools for the sake of affairs here below." Two things seemed axiomatic to Luther—that learning was useful to the church and also to the state. Beyond this he can hardly be said to have had any interest in learning. Standing as he did midway between the dominance of the church that was and the power of the state that was yet to be, he embodied the educational theory common to them both. Learning and knowledge were instruments of the will and of power. If Luther's saying strikes us as true, it is vivid testimony to support the theory that the aim of education commonly assumed is not criticism. As an age and a nation we are devoted to the goods which science will buy; we demand that our schools shall serve our desires—our desires for physical comfort, for economic or political power. In this respect we are at one with the past. The change of institutions has left intact the common attitude of those institutions toward the school—the habit, it may be called, of judging the school in terms of its support of the orthodox faith.

Men search as they have been searching for means to accomplish the established ends, and treason largely consists in

questioning the validity of those ends. The courage of criticism is the courage to doubt rather than to do, and is at present alien to the public mind. The courage to do is based upon dogmatism and is essentially an assumption of the instrumentality of the categories. It can hardly be an accident that religions have failed to put an end to war, for the framework of religion is dogma. Nations also have been in the past mutually exclusive —inside are the saved, outside are the damned. There is a finality about all creeds that leads to action and therefore to war. The faith that leads to war is the faith of the doer, not the faith of the thinker. Doing rests upon past thinking and paralyzes critical judgment. Thinking, on the contrary, has faith in the future, and is in some sense a paralysis of action. The courage to think breeds the philosophy that right makes might as surely as the courage to do breeds the idea that might makes right. Thinking in this sense is a distinctly human trait. The fox thinks how he may get what he wants, but he does not criticise the validity of his desires in spite of the sour grapes story. This seems equally true of fox-like people. They are intelligent, sometimes more so than we wish they were, but their intelligence is always a means to an end other than itself. The end may be good or it may be bad, but in either case it is uncriticised. At most it is accidentally good. As long as men are willing to accept the aims suggested by impulse, instinct, habit, or tradition, and to use the intelligence only as a means of securing those aims, wars can hardly cease. When an individual sets his mind on private wealth, economic war is the result. His intelligence becomes the instrument of his desire. He may be clever and resourceful in securing the end, but he has neither the imagination nor the courage to doubt the validity of his desire. With our minds full of war imagery, it is not easy to convince ourselves that education should devote itself to criticism, but it is the world tragedy that gives point to the question,—Is criticism a proper aim of education?

Although the passion for objective truth has actuated some men in all times, only twice in our history has a persistent attempt been made to embody the idea in social institutions. The

first attempt was made, as I suggested above, in Athens where it took the form of a radical democracy based upon an aristocracy of the intellect. If that marvelous age of enlightenment succeeded in creating great persons, it quite as clearly failed to change the traditional subordination of thinking to doing. The Socratic principles of criticism were entirely abandoned during the decadence. The disintegration which began in factional dissent ended in moral degradation. In this state of affairs the church came into power and saved the day. At best the Greek enlightenment only set the stage for the dramatic return of humanity to its old habit of using knowledge to serve its desire. The temporary success of the age of criticism was probably due to the smallness and comparative isolation of the Greek city-state. The attempt to realize the ideal of life ordered by reason was made by a favored few under the exceptional economic and social conditions of a small, highly-organized community; and yet it failed. In the ten centuries from Anaxagoras to Justinian criticism had its chance. It fell of its own weight because of its inherent weakness, and toward the end of the period actually developed into dogmatism. In the Hegelian phrase it passed over into its opposite. Learning had brought heresy and disobedience into the world. Even the Socratic interpretation of the dictum that "man is the measure of all things" does not in the least remove the feeling that the logic of the age of criticism was the closing of the pagan schools.

The second attempt to realize the ideal of criticism followed the breaking of the power of the church and in a broad sense is embodied in the modern institution of the public school. Modern criticism arose during the Reformation and found its full expression in Eighteenth Century philosophy and science. The *Novum Organum* and more especially the *Advancement of Learning* formulated again the hope of a social order in terms of reason. A recitation of the steps by which philosophy arrived at the elaborate criticism of Kant and his followers is beyond the limits of this paper. What I wish to recall is that criticism got its connotation for us from this process and for two centuries it was pretty generally taken for granted that

knowledge could compass the whole of reality. During this time many of our social institutions were modeled and, therefore, they embodied the prevailing theory of those centuries. The notable instances of such institutions are those of political democracy and of democratic education. The American public school in particular is dedicated to the ideals of criticism and furnishes in its history an interesting dialectic of the apotheosis of criticism.

Three factors entered prominently into the making of the American school. Two of these factors were ideas; the other was a condition. The condition was the comparative homogeneity and isolation of the colonies. This condition furnished an interesting parallel to the conditions of the Athenian democracy, with the exception of the presence of slave labor in Athens, for which perhaps the productivity of the soil and the abundance of natural resources partially compensated. It is with the two ideas, however, that I am more concerned. These ideas were—(1) faith in the universality of intelligence; (2) faith in the finality of the scientific categories.

The humanitarian sentiment of Rousseau and Kant existed in Western Europe long before either of them crystallized it in their immortal phrases. The *Social Contract* and the *Critique of Practical Reason* are based upon the nominalistic heresy. The individualism that challenged the right of the church to determine belief was the same individualism that flattered men with the postulate of the infinite worth of each and every one of them. This prepared them to accept Kant's dictum that the individual must be treated as an end and never as a means. The state, jealous of the power of the church, fostered this heresy, little realizing that it was thereby weakening its own power. For the time was to come when the seed of ecclesiastical dissent would beget political revolution. The alarming cry of equality and fraternity was the full fruit of the Protestant Reformation. Philosophical and religious humanitarianism found educational expression in the charity schools which developed all over Europe during the Eighteenth Century. The philosophy of these schools was clearly that of Rousseau. Education was here

projected as the right of the child and not as a means to a further end. This was undisguised humanitarianism, sentimental if you please, but widespread and easily the most important single influence in establishing modern public school education. The Sunday-School movement was a part of the same enthusiasm.

The second major idea I have called faith in the categories of science. The rapid expansion of the field of knowledge led men at first to hope for and then to believe in the power of learning to solve all mysteries. Evil was a synonym for ignorance. In the enthusiasm for knowledge and faith in its adequacy the complex world seemed very simple. Intellectualistic formulæ were substituted for scholastic symbolism. Nominalism, which is hardly more than the outer aspect of rationalism, was the prevailing tendency. In politics the king was dethroned and reason or the contract was set up in his stead. In ethics, a mathematical calculation of pleasure and pain; in psychology, the association of ideas; and in religion, the watchmaker deism furnished easy and precise answers to all our questions. Modest philosophers, indeed, like Hume, resolved the world into subjective categories, but categories just as precise, just as universal, just as scientific as any categories. The darkness of mysticism and ignorance vanishes at the dawn of reason. Sentiments and social relations no less than suns and stars were plotted and charted and described. This was a snug, well-kept little scientific universe. If there was here and there a loose end hanging, it was a mere detail and would be caught up by the master—reason. We are all familiar with the symptoms of this buoyant hope. Truth was indeed close at hand and easily seen. In this temper men abandoned dogma wholesale and sought knowledge at retail. A new age of criticism had come.

It was during this period of utter devotion to the categories of the understanding that universal public education was taking its form. What was more natural than to revive the old pagan theory that the aim of education was perfect knowledge? The *New Atlantis* might be realized. The founders of our own political institutions looked to the school to remove the evils and

frictions of life. It was natural to assume that an educated people could govern themselves and do it well. Jefferson and his contemporaries formulated the aims of the American public school under the spell of rationalism. In this spirit they promoted the establishment of free common schools from the primary grades through the universities. No other country in the world ever proposed so ambitious a plan for the universal education of the people through all the grades of learning. We actually established universities for the many, and not on the theory that this was the way to preserve the *status quo,* but that it was the way to reach the *summum bonum.* That is to say, we believed in education in the spirit of Bacon's *Advancement of Learning.* We believed that an educated man was one who judged for himself, owed allegiance to none and scorned to make truth the slave of his desire. This seems to me to be a real revival of the Greek ideal of criticism plus Rousseau's sentimental theory of equality.

If the supposition that criticism was the educational aim of our early schools is substantially correct, how shall we explain the common view today that the school is the instrument of the state? More particularly how shall we explain the absence of critical judgment and the subordination of knowledge during the war?

My answer is, briefly, that the intellectualistic hypothesis has again failed in verification. Knowledge is not and cannot become commensurate with reality. The Greek experiment failed under the most favorable conditions because of an inherent fault in the hypothesis itself. How much more certainly might the failure of the modern attempt have been foreseen, considering the conditions under which it was made. Along with a confidence that knowledge could plumb the depths of life, there was a sentimentalism that led men to universalize the concept and to hold that all mankind might be guided by reason. The fault in the rationalistic hypothesis can hardly be corrected by simple addition; many knowers cannot compensate for the absence of validity. If knowledge is special, instrumental, and derivative, how shall we succeed in making it primary and universal? The

result of the modern attempt to educate the race has clearly defined the distinction between knowledge as instrument and knowledge as criticism. Our public school clearly set out to accomplish education as criticism and has succeeded only in producing education as instrument. That is to say it has succeeded only in the degree to which it has failed. It has ministered to the desires until they have grown fat. It has greatly increased the chances of the average person of getting what he wants. But it has failed to develop anything like a criticism of ends. It has turned out to be an instrument of will and of power.

This failure to develop critical judgment suggests that criticism is not a true aim of public education. Perhaps to feel is better than to know, first because it is possible and, second because it is wholesome. That it is possible goes without argument; that it is wholesome is suggested by the Freudian interpretation, namely, that feeling is subject to no disease-breeding inhibitions or restraints. The amazing recrudescence of superstition within the last decade admits of the Freudian explanation as a reaction from an overdose of the restraints of reason. If we still believe that some purging of desire or some selection among the desires is necessary, we may turn to the purification doctrine of other days—that desires are purged by anguish and debility more surely and more easily than by learning. It is by no means self-evident that in our educational efforts we should seek to develop judgment. The training of the critical intelligence has certainly not been accepted by all periods nor by the majority in any period as the proper aim of education. The mere fact that our forefathers were so ready to assume this as the aim, is no guarantee of its universality and validity. Far from being a normal healthy view, it may be only a symptom of a modern disease. Many facts support the latter hypothesis.

In the first place, the events of the last decade furnish very little evidence that our efforts to educate the race have ever so slightly improved the critical intelligence. Of the millions of men arrayed against each other in the great war, who pretends that one tenth of one percent were thus arrayed as a result of their own thinking? The scourge of hunger, pain, and catch-

words whipped us all into a fury like the fury of the waves driven by the wind and tide. Ours not to reason why. The stage upon which this scene was enacted had been shifted since the hordes of barbarians fell upon Rome or the crusades devastated Europe under the lash of religion, but the characters were the same. The same motives, the same brutality, the same frenzy of action! Our educational conceit that all men can be taught to think appears in this crisis as the king who commanded the waves to stand still appeared in his humility and defeat. Can so brave a hope, so long indulged, meet such a disaster, without suggesting the hypothesis that we have striven for the impossible? May it not be after all that we have builded on the sands of the discursive understanding rather than on the rock of moral sense?

We might escape this unpleasant conclusion, if there were no further evidence to support it. Our failure, someone is sure to remind me, is due to the employment of wrong methods rather than to the pursuit of a false hope. The further evidence in support of my hypothesis is the cumulative result of scientific study since Darwin. This result has made forlorn the hope of making man a reasonable animal. This hope began to vanish when our attention turned to precise analysis of the mental and physical characteristics of the race and disappeared entirely with the coming of the doctrine of relativity. Judgment must be treated like hoof or hide as an adaptation instrumental to life. But it is not merely the drift of scientific result but the profounder influence of scientific method that has led us to conclude that knowledge is an instrument of a larger unity which we may call the will. "In order to be true," says one of our major educational prophets, "a philosophy must be optimistic." The categories are instrumental, not constitutional. The age of reason is passing or past. This somber reflection is not, I beg you to believe, a mere dramatic gesture put in for the sake of contrast but one which events in state, and church, and school seem to me certainly to indicate.

The implications of this hypothesis are many and in surprising conformity with the actual tendencies of educational prac-

tice: (1) It implies the substitution of particular for general education. The emphasis is taken from the command that we shall think and placed upon *what* we shall think. (2) It implies the substitution of utilitarian for cultural values. We must know what knowledge is of most worth. (3) It implies the substitution of drill, habit formation and courses in 'citizenship' for contact with creative imagination and courses in 'mental and moral philosophy'. (4) It implies a recession from the secular school and a drift toward the inculcation of automatic reverence and loyalty. (5) It implies that schools should more and more be subservient to other institutions. The state may use the school as long as it wields the power. But when the power of an economic group exceeds that of the state, it will take control of the school. The church in turn may get enough power to bring reason again to the support of its faith; and thus onward. To the victor belongs the spoil.

There is, however, a somewhat more cheerful interpretation of the failure of our hope. I refer to the interpretation suggested by the Platonic figure of the philosopher drawing aside into the niche in the wall to wait for the storm to go by. I do not refer to the common, rather cheap hope, that the storm of reaction will spend itself and life will be normal again. This is too easy and perhaps not even a pleasant assurance. We face a dilemma. The educational experiment has failed either because critical intelligence is not attainable, or because it is impossible for the many to attain it. Our efforts have confused these two ideas because the great expansion of modern science and the sentimental philanthropy of the Reformation were simultaneous. It may be that the highest good is the life of dispassionate contemplation, but that the common lot must ever be in a world of force and matter. Was it a childish dream that all men could be taught? Perhaps the development of judgment is not a program of social reform, but the hope of personal salvation. Only here and there criticism is discovered in the barren wastes of action. The knowledge that serves action is an instrument which makes action more terrible, brutalizing and multiplying the power of doing, but failing to humanize

or educate the doer. Criticism is the figure of yearning contemplation reserved to the few who wait for the storm to go by. Was it the God-intoxicated philosopher who said that the business of philosophy was neither to bewail men's actions nor to rail at them, but to understand them?

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SOCIAL FATALISM.

SOCIAL systems are vast and impersonal things. It is not difficult to suppose that the slow processes of social action and change go on quite apart from the conscious or unconscious wishes of man, as do the motions of the stars. Such is the theory upon which social fatalism rests.

But fatalism is more than a theory. It is a counsel of action. If the forms of society are predetermined by natural laws against which man struggles in vain, it is best to submit to the inevitable. "Acquiesce in the necessary course of events", we are told. "Do not attempt to alter or interfere with social systems, since all alteration must come of itself in an unavoidable way." Thus, social fatalism becomes the policy of *laissez faire*.

The theory draws its support from the use of analogies from the physical sciences. Each period of thought has its paramount science; in the Middle Ages, theology; from the Renaissance through the seventeenth and eighteenth centuries, mechanics and physics; in the nineteenth century, biology. The tendency is to explain everything in terms of the paramount science. The result is twofold: scientific progress, because analogy is a swift and fruitful method of reasoning; and scientific deception, the illusion of accuracy and completeness.

The social sciences have been peculiarly given to this scientific borrowing. It is possible to trace in them the distinct influences of mechanics and biology. At the end of the eighteenth and beginning of the nineteenth century, they take as their model the Newtonian mechanics. This is the age of social 'forces', of social 'dynamics' and 'statics'. After Lamarck, Spencer and Darwin, we find the stamp of evolution upon them. We hear of 'super-organic evolution', of social adaptation, of the 'social organism'.

Biological law, in general, deals with an historical process, with transformation and growth. Mechanical law, on the other hand, states the principles which any mechanical system must

follow at any point in its history. It is to these two different aspects of society that the mechanical and biological analogies direct attention; biology to social history and growth, mechanics to the conditions which must obtain in any society at any stage of its growth.

The laws which arise from the two analogies are like physical truths; they show the linkage of social causes and effects. Society is thought of as an abstract entity, with principles of its own, which exercise compulsion upon the human beings who compose it. Social action is doubly determined; historically, it must follow one, and only one, course; and at any time in its history it must obey one, and only one, set of laws. Thus, the part played by human behavior in the creation and maintenance of social systems, is minimized. Control is taken out of the hands of man and placed on the shoulders of Providence.

Biology in the social sciences, however, becomes more than an analogy. We are led to believe that sociological and biological principles are identical. The law of the evolution of living organisms, say the biological sociologists, *is* the law of the growth of societies.

Although the reduction of one science to another is always an achievement, this reduction must not be a sham. One science may presuppose the whole or part of another, as astronomy presupposes physics and chemistry. But this does not mean that the one can be reduced to the other. In the same way, social science presupposes, and is limited by biology, but a complete social science cannot be built on biological foundations.

The defining ideas of sociology are psychological; the material of social law is human behavior. Economics and biology exhibit physical principles which circumscribe human action. But these are not laws of human action; they are the boundaries within which it takes place. Social science, as such, is therefore restricted by these principles which lie beyond it—it cannot contradict them; just as chemistry is limited by the principles of mechanics, or biology, by the principles of physiology. But these limiting principles do not comprehend or exhaust social science.

From the psychological point of view, we can say that social science is the study of man's behavior, and its products, in his relations to other men. This gives rise to a theory of social autonomy or self-determination. Fatalism passes away. Governments, institutions, social systems are explained as the products of man's conscious or unconscious acts. It follows that they are within his control, if his behavior is the essential factor in their creation and perpetuation.

Everywhere in the background of social theories are conceptions of morality. The fatalism of mechanics and biology in social science is colored with moral feeling. The destiny of society is pictured as good or evil, as inevitable perfection or imperfection.

A description of the social process need not concern itself with moral problems; but if it does so, it cannot claim exemption from moral criticism. A mechanical, biological, or psychological sociology is usually accompanied by a mechanical, biological, or psychological ethics. Thus, the mechanical sociology will interpret the good as the 'natural'; natural laws will necessarily be the right laws. To this the economist will add a belief in an ethics of productivity. The right act will be the 'productive' act, the wrong, the 'unproductive'.[1] For the evolutionist, good will mean 'more evolved', worse, 'less evolved'; and for the psychologist, good will be the satisfaction of desire, evil, the thwarting of it.

If we adopt the psychological point of view, the moral feelings with which we regard the inevitable principles of the mechanical and biological sociologies will be wholly different from the feelings of their proponents. We shall estimate the worth of various stages of the social process in terms of human satisfaction, or happiness; and we shall discover that mechanical, economic and biological principles work indifferently with respect to human happiness. In some instances they promote it, in some they defeat it. It will therefore appear that social fatalism is not resignation to a good or evil Providence, but to an indifferent one.

Mechanical determinism in the social field is illustrated by

[1] See Carver, T. N., *The Religion Worth Having.*

the classical political economy, which was a kind of sociology from a special point of view. It often went beyond the purely economic to larger social and moral questions. For this reason it has played an important part in shaping all later thought on these subjects.

We find its most complete statement in J. S. Mill's *Principles of Political Economy*. The mechanical terminology is by no means a superficial addition made by Mill to the thought of his predecessors. It is inherent in the very nature of that thought. In this period, to be scientific meant to be like mechanics. Bentham introduced Newtonianism in morality; his followers, Ricardo and the two Mills, naturally modelled their social science upon the principles of their master.

The result was a determinism which gave to social law the rigidity and externality of the laws of motion. Mill divides Political Economy into 'statics' and 'dynamics'. The first deals with the production, exchange and distribution of wealth; the second with the "influence of the progress of society on production and distribution". A social law, on the analogy of mechanics, states the form in which social forces act. Where forces balance, we have a case of statics; there is no social movement. Where forces are not in equilibrium, we have a case of dynamics; society moves in a certain direction.

The fatalism which accompanies the classical political economy is of two sorts, optimistic and pessimistic. If we believe, as did Adam Smith, that the natural course of events is beneficent, we shall be confident, in allowing social laws to work themselves out, that the greatest good of society will be reached. Men have long since lost this superstitious faith in the goodness of natural law. Malthus's theory of population dispelled the optimistic illusion from the minds of the political economists. It replaced the beneficent determinism of Smith with a maleficent determinism. Since population must increase more rapidly than the means by which population can subsist, mankind, or at least the lower classes, must come to misery and starvation. This law will brook no interference. The alleviation of suffering will result in an increase of population, which must, in turn, bring pressure against subsistence and more suffering.

The Malthusian pessimism haunts social thinking throughout the nineteenth century. Ricardo carried it into the field of distribution. He showed how increasing population causes high rents, which enrich the landlord at the expense of the other members of the community. Mill pushed social dynamics, based on the Malthusian law, still further. The increase of population tends to create the 'stationary state', a condition of society in which all forces are finally in equilibrium; population is just balanced against subsistence; capital is no longer increasing; wages and prices are fixed. At the lower edge of society is a marginal misery, which is just sufficient to deter the workingman from having too many children. Mill probably knew nothing of the physical concept of entropy when he wrote this chapter of his *Political Economy;* but the fact that he here describes a kind of economic entropy bears witness to the exactness with which he followed the mechanical analogy. He speaks of "the irresistible necessity that the stream of human industry should finally spread itself out into an apparently stagnant sea"; a necessity like that of the second law of thermo-dynamics, that physical energy shall at last reach a condition in which it will no longer do work.

What is to be done about this hideous necessity that there shall always be misery and starvation at the lower end of the social scale? The fatalist answers, "Nothing." Mill escapes, without wholly giving up the mechanical analogy, by restricting the area of social compulsion. Distribution, he says, "is a matter of human institution solely" and hence can be regulated. Thus, the evils of the stationary state are to be avoided by a redistribution of wealth, so that in a better society "while no one is poor, no one desires to be richer, nor has any reason to fear being thrust back by the efforts of others to push themselves forward".[1]

The fact that Mill is willing to make an exception of the laws of distribution points away from compulsion and fatalism, and the accompanying policy of *laissez faire*. We may well ask, if the laws of distribution do not "partake of the character of

[1] Mill, J. S., *Principles of Political Economy*, Bk. IV, Ch. VI, sec. 2.

physical truths", if there is something "optional and arbitrary" in them, may this not also be the case with other, and possibly all social laws? May they not be, likewise, "matters of human institution solely"?

Economic law is only one type of social law. It is possible that human behavior has a smaller part in determining economic processes than it has in others. Nature as well as man is an indispensable term in the production of wealth. Hence there are economic limits to man's action.

What are these limits? To this question the economist must give the answer.

The mechanical analogy, with its notion that economic law "partakes of the nature of physical truth", created the belief that all economic laws are necessary limits to human action.

The abstract society of the political economist is an 'ideal case', like the ideal cases of mechanics. We suppose free circulation of labor and capital; we suppose a supply and demand unaffected by disturbing influences such as fashion or public prejudice; just as in mechanics we suppose frictionless bodies and points without extension. Beneath this hypothetical society is a hypothetical human nature. For economic purposes, we are asked to view man as being motivated by self-interest, aversion to work and love of ease; as a rational calculator of the future, who prefers the greater to the less good. Psychologists have pointed out that none of these things is true of human behavior; and Professor McDougall asserts, on this account, that the classical political economy is "a tissue of false conclusions drawn from false psychological assumptions".[1]

It is thus made to appear that certain abstract economic principles govern man's action. The falsification of human nature in political economy has the effect of concealing the place of human beings in creating the economic process. We come to believe that economic principles determine men's behavior, instead of men's behavior determining economic principles. Those economic principles which depend upon human behavior cannot be considered as necessary limits of human action. In

[1] McDougall, Wm., *Social Psychology*, p. 11.

so far as man has power to change his behavior, he must have power to alter these principles.

The genuine economic limits to human action will be principles which are independent of human choice and desire. They will be veritable laws of nature, and hence, inescapable. If such limits exist, to this extent, social compulsion will be a reality. But outside of these limits, society will have economic autonomy.

Two such limits immediately suggest themselves. First, the 'niggardliness of nature'. Any kind of social or economic system must reckon with the principle of diminishing returns. For equivalent amounts of effort nature will never yield an equivalent product. Secondly, it is impossible to consume without producing; therefore, any society must produce at least as much as it consumes. These might be called purely physical postulates of political economy.

But there are other economic principles, such as supply and demand as the determinants of prices, into which the character of human behavior enters. There is no inherent necessity that prices should be determined by supply and demand if men wish to determine them otherwise. Indeed, the owner of a monopoly enriches himself by violating this principle. So long as society continues to produce as much as it consumes, prices may be fixed in any fashion. But if a system of price regulation were devised such that more would be consumed than produced, a physical law beyond human control would be brought into operation. Society would have exceeded the limits of its economic autonomy.

The biological sciences suggest new limits to human action. Under their influence social compulsion becomes even more inclusive.

Social structures are changing at every moment, as the surface of the earth is changing under the slow influence of geological causes. Every society has a history; this is the most fundamental point about it. What is the law of this change? The social dynamics of the political economists pointed the way to this problem. The biological sociologists, having in their

hands the concepts of a science whose subject matter is the historical process, were ready with a solution of it.

Biology not only supplied terms in which the process of historical change could be described; it made possible a new morality—a system of values—by means of which the worth of any stage in the series could be judged. Biology, the science of organic development, finds that its first duty in the social field is to explain 'progress' and to evaluate the stages of human culture.

Optimism returns, an optimism of a terrifying sort, which pictures man carried on, despite his will, to perfection. "Progress", we are told, "is a necessity from which there is simply no escape and from which there never has been any escape since the beginning of life."[1]

The Darwinian conception of natural selection through struggle and survival is the central idea of evolutionary social theory. Curiously enough, the social conditions of the time—unrestricted competition, the pressure of population against subsistence—played some part in suggesting to Darwin the theory of natural selection. Darwinism is a kind of generalized extension of Malthus's law of population to the whole domain of life.

The tendency of the biological sociologists is to apotheosize Darwin's principle. We are told that any attempt to suspend natural selection will be fatal to mankind. "If all the individuals of every generation in any species were allowed to equally propagate their kind, the average of each generation would continually tend to fall below the average of the generation which preceded it, and a process of slow but steady degeneration would ensue. . . . The law of life has always been the same from the beginning—ceaseless and inevitable struggle and competition, ceaseless and inevitable selection and rejection, ceaseless and inevitable progress."[2]

It is difficult to take these phrases as a sober description of what goes on in society. Indeed, the Darwinian sociologist is not so much attempting to describe society as to state a principle

[1] Kidd, Benjamin, *Social Evolution*, Ch. II, p. 37 (Macmillan, 1895).
[2] Kidd, Benjamin, *op. cit.*, pp. 39, 41.

which society ought to follow. He is confessing his faith in the law of natural selection as the only means of 'progress'.

If we look at the facts of social life we shall find that the selective struggle for existence is not so keen within any one group as it is between groups, or between the group and its natural environment. In war, the struggle between groups, we unquestionably see the Darwinian natural selection at work, especially if one group succeeds in exterminating another, as the whites in America have exterminated the native Indians. The struggle of the group against nature, to win sustenance and preserve life, is also a genuine part of the process of selection. But within the group selection is often suspended. Societies consciously preserve their weak and ill-adapted members. As Huxley points out, there is less and less throat-cutting, less and less of either-your-life-or-mine as civilization continues, at least within the group.

But to the Darwinian sociologist, any such tampering with the principle of natural selection is a breach of a natural, even a moral law. Thus optimistic fatalism, like that of Adam Smith, returns. But now the faith in the beneficence of natural law, the law of evolution, is strengthened by the moral idea that those organisms which survive are the best, that the later stages in the evolutionary series are the higher. In this way, the Darwinian theory, which was suggested by the social struggle, is used to justify the social struggle.

Darwinism, itself, is wholly free of moral connotations. It is a description of a process. To be fitted to survive is simply to be capable of existing. To be further along in the evolutionary series is to be capable of living at a remoter time and in a different environment. This, in strict Darwinian terms, is the 'higher' and 'lower' of evolutionary morality.

The theory of natural selection, therefore, furnishes no ground upon which we can assert that the social struggle—free competition among men for the means of life, is progress. Progress, if it is anything, is at least a change from a worse to a better social state. It must be defined in moral terms. But Darwinism does not provide us with moral terms. It offers a

means of describing but not of evaluating the stages in the social process.

If we discount the moralizing of the evolutionary sociologists, we can reduce their 'progress' to the following: "There is a ceaseless series of social changes which go on through the struggle of man with his environment and with his fellow-men, and by means of which some groups or individuals survive and some perish." This no one can deny. But that this struggle ought to bring about the extinction of those individuals who are unfit for the society in which they happen to find themselves is another question.

If we escape from the fatalism of the biological analogy in social science, it becomes apparent that man can, and ought to control the social struggle for his own ends. Otherwise he allows himself to be the instrument of chance.

It is difficult to view Spencer's social policy, for instance, as anything other than resignation to chance. He describes the gradual adaptation of man, through struggle, to the social state, in which altruism and justice are the rules of every individual's life, and government is unnecessary. His theory is a powerful argument for *laissez faire*. It literally says: "Do nothing about the relation of man to man except to wait, without interference, for the process of social adaptation to work itself out." To one who has a less exaggerated confidence in the goodness of evolution, it does not appear that in our present-day industrial society, which Spencer found so praiseworthy, men are growing more social and altruistic. Nor does the theory gain much credibility from its practical consequences. He advises, for instance, that the poor of London be allowed to die of small-pox rather than interfere by vaccinating them, with the process of social selection and adaptation.[1]

The biological analogy, pushed too far, has, therefore, the same result as the mechanical analogy. It obscures the part played by human behavior in the history of social change. It gave us, for example, the 'social organism', which Kidd describes as follows: "Civilized society is becoming one vast, highly organized, interdependent whole, with a nervous system of five

[1] Spencer, Herbert, *Social Statics*, Ch. XVIII, Sec. 6.

million miles of telegraph wire, and an arterial system of railways and ocean steamships, along which currents of trade flow with a rapidity and regularity previously unimagined." The consequence is the subordination and sacrifice of the members for the good of the organism. There is no doubt that society is an organization of desires or purposes or interests; but organization is not equivalent to organism. And the effect of the analogy is to extinguish the genuine desires and purposes which create society, in a fictitious purpose of a non-existent organism.

Biological determinism suggests, however, as does economic determinism, that there is a biological limit to human action. If any group becomes unfitted to its material environment, if it becomes unable to withstand the ravages of nature or of hostile groups with which it can not coöperate, it must face extinction. Stripped of exaggeration, this is the element of truth in the law of natural selection as applied to society. No race can with impunity weaken its physical vitality. But *laissez faire,* resignation to chance, cannot assure the maintenance of biological fitness in a society. Social success is not equivalent to biological success, nor social failure to biological failure.

The existence of this biological limit to social action does not mean that sociology is reducible to biology. Struggle and survival by no means exhaust social life. As we have shown, within the group, this biological principle is suspended. It is impossible to understand or explain the complex forms of human relations in these simple terms.

The history of society is the history of communities, associations, institutions, and these are human creations. What is the nature of these human social products? How do they come into existence? How do they change? To these questions the most general social science will give an answer. It will be, on its descriptive side, a psychological sociology.

Must we not, then, substitute for mechanical and biological determinism, psychological determinism? Are not the principles of human behavior fixed? If this is so, have we not replaced one kind of fatalism by another?

The assumption that man's behavior is not within his own

control is ethical fatalism. This brings up the question of free will. If anyone believes that man's will is not free, it is difficult to convince him of the contrary. But whatever be our solution of this metaphysical problem, it remains true that the sources of human acts are human personalities; a man is compelled by the nature of his own self, and not necessarily by something alien to himself. This is self-determination, which, for practical purposes, is moral freedom. So, if the principles of human behavior are fixed, this is no more a reason for taking a fatalistic view of social action than of individual action.

We see, therefore, that a society which is humanly determined, is, from the human point of view, autonomous. It is self-determined. To the extent that man can control his behavior, he can control social systems.

The 'economic interpretation of history' of Karl Marx is an example of psychological determinism—the inevitable progress through the class war, accumulation of surplus in the hands of the capitalistic class, and the growth of the army of the proletariat, to the socialistic state. These things follow from the nature of man's desires. They are the factors which are bringing them to be. But Marx's inversion of the Hegelian dialectic has led him to a falsification of human psychology. He has not considered the whole of human nature, and hence he pictures one aspect of man, and society, the economic, as determining all others. Thus, in place of a society which is completely self-determined he shows us one only partially so.

Human behavior in all of its possible forms, so far as it affects others, will be the determinant of a completely autonomous society. A sociology, like Marx's, which abstracts a single element in social behavior, and regards it as the necessary one, will give the impression of a society under compulsion.

Social autonomy does not mean that social systems are subject to the control of the individual. From his point of view society must always remain vast and impersonal. The only means by which he can make himself felt is coöperation, the coincidence of his purposes with the purposes of others. This is because collective power is essential for social action.

The social behavior of two individuals is the behavior of the one with reference to the other; from the point of view of the single individual this will always be modified by the other's acts. In this respect, a case of social conduct will be different from a case of individual conduct; it will have one more determining element—the behavior of others. In this sense, only, is social behavior more completely determined than individual behavior.

The associated purposes of many control. Thus the social struggle, particularly as we see it today, is a struggle between associations; the trade unions against the industrial organizations, the political parties, the state, educational and religious bodies, against one another. But coöperative human action moulds the whole.

Fatalistic social theories, by explaining away the creative and destructive action of man in society, falsify the issue. Sociology ought to show how concerted human action is possible, rather than assume its impossibility. Social fatalism is an excuse for giving up one of the central problems of life—the problem of social control. With society, as with the individual, "all things excellent are as difficult as they are rare", and are to be attained only by conscious effort and direction.

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REVIEWS OF BOOKS.

Essays in Critical Realism. A Co-operative Study of the Problem of Knowledge. By DURANT DRAKE, ARTHUR O. LOVEJOY, JAMES BISSETT PRATT, AUTHOR K. ROGERS, GEORGE SANTAYANA, ROY WOOD SELLARS, G. A. STRONG. Macmillan & Co., London, 1920.—pp. ix, 244.

The publication of this volume, which has been in preparation since 1916, and which has been much heralded and eagerly awaited, is an event of first importance in the history of American and British philosophy. Such is the sensation created by professed agreement among philosophers that whether the book gains adherents or not, it is sure to gain attention. If it does not command assent, it will evoke dissent; and will afford a central topic of discussion for some years to come.

The title is intended to suggest the antithesis to 'naïve' realism. This is explained by Professor Sellars, as follows: "It is critical realism in that it appreciates the nature of knowledge more critically in the light of the act of knowledge and of the actual conditions of human knowledge. . . . It does justice to that play of mental activity that modern logic and psychology stress. It is synoptic in a way that other epistemological systems cannot claim to be" (p. 199). At the same time, the book is strictly limited in scope. It deals with that which might be called the structural problem in epistemology. What are the component parts, or *irreducible factors* of cognition? How many are there? What are they? How are they related? The book deals exclusively with these questions; and its title implies that these questions are here dealt with more circumspectly, more adequately, more knowingly, than in any previous attempt to answer them.

Professor Drake's essay, the first in the book both alphabetically and logically, is entitled, "The Approach to Critical Realism". It is necessary first, he tells us, to exorcise "the spectre of pure subjectivism"; and this is accomplished by the pragmatic or experimental justification of our "instinctive belief in the existence of the physical world about us" (p. 5). The author then advances to the assault upon the new-naïve realism, which would identify the data of sense with "aspects of the object" (p. 10). He uses the two familiar weapons

of attack, the argument from physiological relativity and the argument from contradiction. According to the former, the data of sense, like affective data, are functions of the age, position, capacity and condition of the sentient organism; and cannot "exist out there in the physical objects" (p. 11), or "really belong to the life of the object" (p. 11). According to the latter, the supposition that the different sense-data of different percipients belong to the same object, implies qualitative, spacial and temporal incompatibilities or 'contradictions'. Naïve realism being thus overwhelmed, Professor Drake proceeds with his own constructive account. The corner-stone of the structure is the conception of 'essences' or 'character-complexes' (p. 20): namely, *what* an object is or may be, as distinguished from its existence. Sense-data, or the content of immediate perceptual apprehension, may now be interpreted as essence; and true veridical perception as the case in which these perceptual data are "genuine aspects of outer reality" (p. 20), or the case in which the apprehended essence which is "taken to exist" also *has* existence (pp. 20–21).

The writer then proceeds to the topic which especially interests and challenges him, the relation, namely, between *mental states* and *data*. There must, he thinks, be mental states distinct from the data, because the latter, being 'essences', are non-existent, and common to two or more perceivers; while mental states, having an existential-causal status, must be as numerous as the individuals to whom an essence is given. He assumes, apparently, that mental states must be "bits of sentiency" (p. 31), or contents observable by introspection. But the datum or given essence, on the other hand, now turns to be something referred to or 'grasped' (p. 28). Although for some inexplicable reason he fails explicitly to say so, Professor Drake virtually says that the datum is what is *meant*. "The essence given is a mere intent, a focus for discourse and action" (p. 28); the mental state or introspective content which mediates the intent (or the idea which mediates the meaning?) being of a variable psychological character. Whether it needs to be similar to the essence which it intends is not wholly clear (p. 27). In any case, the datum is something transcendent rather than something immanent.

But the most interesting portions of Professor Drake's essay are those in which he states the difference which distinguishes the majority report submitted by Messrs. Drake, Rogers, Santayana and Strong, from the minority report submitted by Messrs. Lovejoy, Pratt and Sellars (p. 4, note, p. 20, note). Professor Drake says that the

difference is only a question of 'terms'. Does he mean 'words'? If not, then it is a very fundamental question, *the* fundamental question at issue. The fact that the authors of the volume "have not been able fully to agree" (p. 20, note), when they would no doubt like to have presented a solid front, confirms the impression that the difference is a real difference; perhaps as great a difference in its ultimate implications as those differences which divide 'critical realists' as a group from 'neo-realists' or 'idealists'.

The difference is this. The minority hold that the 'datum' as a whole is the character of the mental state of the moment, and therefore "*is* an existent" (*sic*), though "its existence is not given" (p. 4, note). In other words, according to this view, the datum is the 'essence' both of the object known, and also of the state which is the 'vehicle' (*ibid.*) of the knowledge. But according to the majority view the character of the mental state is one item, and the datum another, the latter being a non-mental complex, *sui generis*, containing "traits of the mental existent, traits of the object known, or both or neither" (p. 21, note). The reason why this complex is not mental is because it is in part "apprehended. . . through the attitude, or reaction of the organism" (*ibid.*), and so is not 'content.'

Professor Lovejoy's essay, entitled "Pragmatism *versus* the Pragmatist", takes the form of a relentless cross-examination of Professor Dewey. As regards the issue between realism and idealism the writer quotes the defendant at length on both sides. He then examines him on the question of 'immediatism' *versus* 'mediatism', and shows that, while he implies the former in his denial of a duality between mental states and things, he adopts the latter when he comes to deal with knowledge of the past or future. "Whatever his antipathy to epistemological dualism, from the dualism of anticipation (and of reminiscence) he cannot escape" (p. 54). He proposes to construe perception as free from the division into presentations and objects, by construing it as a non-cognitive natural event (p. 56). But he admits that usually it is cognitive; and that when so it is a ground of inference (p. 59).

This dualism implicates Dewey in an acceptance of 'mental' or 'psychical' entities; by which Professor Lovejoy means "*anything which is an indubitable bit of experience,* but either cannot *be described in physical terms or cannot be located in the single, objective, or 'public', spatial system, free from self-contradictory attributes, to which the objects dealt with by physical science belong*" (p. 61).

Dewey must admit these, and therefore accept dualism or idealism according as he does or does not also admit physical entities.

The pragmatist's peculiar difficulty with the knowledge of the past lies in the fact that the verification of a belief occurs after the belief. If this verification is an actual experience of the fact referred to, then the fact must lie in the future. This difficulty disappears, Professor Lovejoy contends, if we admit the possibility of *indirect* validation. And this must be admitted on other grounds than those afforded by the case of the past. Only by indirect validation is it possible to know other selves. Indeed the essential teaching of pragmatism is that knowledge is 'functional' and 'social' (p. 77); which implies that knowledge can get beyond the presently given. Pragmatism has been diverted from its own essential insight by its acceptance of the alien and irreconcilable doctrine of radical empiricism.

In the third essay, entitled "Critical Realism and the Possibility of Knowledge", Professor Pratt restates the general position of the book without conspicuously betraying that peculiar minority opinion which is attributed to him by the writer of the opening essay. Critical realism, he says, agrees with neo-realism in asserting that "the data presented to our thought consist of meanings or natures" or "neutral entities" (p. 89); but critical realism improves upon neo-realism and other doctrines in distinguishing between (1) the meaning or datum aforesaid, (2) the sensational or imaginal part of our mental states, and (3) the object referred to. The relation between (1) and (2) is intimate and elusive, especially in the case of perception. Sometimes the qualities sensed or imagined are not meant, as in the case when a rhombus is seen but a square meant; but ordinarily the meaning or datum includes[1] all of the sensous images, and adds more. The datum and 'sensum' (I am taking the liberty of coining this word for convenience of exposition) together constitute what Professor Pratt calls the 'quality-group'; and this is the means or vehicle by which the object is perceived. This is an improvement upon the Lockean conception that it is the quality-group which is itself perceived; and enables the critical realist to escape the agnosticism of Locke, in spite of the fact that both agree in distinguishing the quality-group and the object. Perception is true when the object perceived has the qualities which

[1] The writer appears to say that the sensed or imagined qualities are always included in the perceptual datum except in the case of visual perception. But the statement is obscure. (Cf. p. 91.)

are meant. On the question how such truth is verified Professor Pratt has nothing in particular to offer. He "merely points to the common methods of experience and reasoning which scientists, historians, judges, juries and business men ordinarily use". All knowledge of physical objects is inferential, *i.e.,* we have no "acquaintance with them" (p. 107).

In the fourth essay, Professor Rogers canvasses and criticizes all the current explanations of error by way of showing that critical realism alone can cope with the problem. Unfortunately his statement of his own view is brief, casual and much inferior in rigor and precision to his analysis of opposing doctrines. Error, he says, is "the ascribing of an ideal character to what we are mistaken in supposing to be real, or the ascribing to a reality of a wrong character instead of a right one" (pp. 117–118). The coherence doctrine of objective idealism fails because it cannot distinguish between inadequate knowledge and flat error. The neo-realist, who fails to distinguish between *what* one believes (a universal or essence) and the object about which one believes it (an existent), cannot explain error because in his view the very occurrence of the belief carries with it the existence of the object. The feature of the critical realistic view is its allowance for a non-logical existential factor, a material or 'stuff', which can never be embraced within logical description (pp. 132, 135). Russell's view that error is due to the mind's connecting terms as they are not really connected, fails because in the case of error the content of the belief is internally connected, or constitutes a meaning *as a whole.* Holt's identification of error with objective contradiction fails to provide for the part played by belief; and belief is indispensable, since contradictions can be *contemplated* without error. Montague's solution rests upon an untenable identification of consciousness with potentiality. Spaulding's solution is substantially correct; but is inconsistent with "the true neo-realistic faith" (p. 157). Pragmatism, finally, does not consider the real problem of error, which is how there can *be* error; but deals only with the question of "the conditions involved in our conscious recognition of error" (p. 158).

In his "Three Proofs of Realism," Mr. Santayana recapitulates the argument for critical realism, and incidentally restates the position in terms that must be regarded as authoritative. There are, he says, two parts to the realistic doctrine: the affirmation of the existential distinction between the 'substance' of things and their appearances; and

the affirmation of a high degree of similarity, which "may even rise to identity", between the appearances and the 'intrinsic qualities' of the object (p. 165). Realism, in short, "tends to separate appearance from substance only in existence", and at the same time "to identify them only in essence" (p. 166). By 'essence' this writer understands "a universal, of any degree of complexity and definition, which may be given immediately, whether to sense or to thought", "an object of pure sense or pure thought, with no belief superadded, and object inwardly complete and individual, but without external relations or physical status" (p. 168, note). There are three proofs: The 'biological proof' of realism lies in appeal to the fact that the reacting organism identifies its object, both for the reacting individual himself and for observers. The 'psychological proof' is an *argumentum ad hominem* applied to the subjectivist; showing that if he were thorough he would destroy himself. As a matter of fact the subjectivist accepts a realistic version of his knowledge of the past and of other selves. The 'logical proof' consists in showing the necessity of the distinction between essence, as intelligible, 'inert' and self-contained; and existence as irrational, forceful and changing.

In the sixth essay, entitled "Knowledge and its Categories," Professor Sellars undertakes "to make clearer the nature and conditions of the knowledge of the physical world gained through external perception" (p. 219). It is again explained that the object is not what is 'intuited' (p. 189); but that we 'know' it none the less (p. 195). We 'affirm' it, and 'react' to it (p. 196). The fundamental postulate of knowledge is that the content intuited somehow has the power to 'reproduce' the character of the 'object' (p. 198); "it has a sort of revelatory identity with the object" (p. 200). Knowledge is not a 'real relation' between knower and known; but is a function of the knower, a status or 'honor' conferred on the object (pp. 206, 213). Professor Sellars then proceeds to look more carefully into the meaning of 'consciousness', 'mind', 'transcendence', 'objectness', and other concepts which the critical realist employs; and here betrays a decided leaning towards behaviorism. Indeed the reviewer finds it possible to follow him just so far as he puts a behavioristic-psychological construction on these concepts,—and no further.

The importance of Professor Strong's article, "On the Nature of the Datum", lies in his explicit rejection of the psychological interpretation of the datum, or "what we are immediately conscious of" (p. 223). The datum cannot be physical because that would involve

imputing contradictory physical properties (spatial perspective, time, shape, color, etc.) to the same physical object. Shall we therefore construe the datum as a psychical fact? Professor Strong thinks not, because it is only the being-given that makes a datum psychological, and its being-given is itself not given. The act, or relation which constitutes consciousness, it just the factor which escapes introspection. 'Psychical things', such as pain or anger, may in some cases be given (in essence or existence?) (p. 227); but the datum as such is not psychical in its nature (p. 229). The datum in fact is not an existence at all. It may, as in the case of the sense qualia, possess a high "degree of concreteness" (p. 231); but it remains a universal, in the sense of having no space-time locus or relations. The psychical existent comes to light only in introspection; but in ordinary perception it is there, though it is not 'felt'—there functionally, as the 'vehicle' by which the essence is given (pp. 234–235). Professor Strong's essay is distinguished by this insistence on the distinction between the psychical state and the datum; but he also emphasizes the identity, in the case of true knowledge, of the datum with the nature of the object. He even goes so far as to say that "in contemplating the datum we *virtually* behold the object" (p. 239).

It is difficult for the critic to judge how much internal consistency it is reasonable to expect of the present volume. Each author is justified in preserving his own individuality; and ought, strictly speaking, to be judged in his own terms. Nevertheless the volume is a 'coöperative study'; all of its authors profess a common doctrine which they call 'critical realism', and employ a common key-conception which they call 'essence'. The Preface affirms that, with the single exception above mentioned and within the scope of the purely epistemological topic which the book 'isolates' and discusses, there are no differences of doctrine; but only "divergences of emphasis" and "expression", or "variations in angle of approach and method of analysis" (pp. vi, vii). As a rule, furthermore, the essays are not supplementary, but reiterative. Like Browning's *Ring and the Book* or Masters's *Domesday Book*, they mean to tell the same story over in different terms. It seems just, therefore, to construe the book as an attempt to make clear and convincing, through diverse restatements, a single fundamental doctrine. Everything is staked on this; there is a poverty of empirical detail, and little incidental illumination. So construed, the book fails in so far as it fails to present the same doctrine, or fails to present it clearly and consistently. The critic

can perhaps assist the authors to accommplish their purpose by indicating his difficulties of comprehension, and by complaining of what appear to him to be its ambiguities and inconsistencies. In other words, I do not propose here to render a verdict on the case submitted in the book; but, like the puzzled jury, to ask for further evidence, or rulings from the court.

I shall confine myself to the central conceptions of the book. The first of these is the 'precious conception' (p. 224, note) of 'essence', begotten by Mr. Santayana, sponsored by Professor Strong,[1] and now incorporated under the trusteeship of our seven authors. Another central conception is the existent object. Each of these, the essence and the existent object, has, furthermore, its own peculiar mode of approach for the mind. The essence is a 'datum'; that is, it is 'given', or 'appears' (p. 25); or is 'intuited' (pp. 183, 193), or 'presented' (pp. 89, 97); or is 'content' (pp. 76, 193), or object of 'awareness' (p. 228). The existent object, on the other hand, is 'thought of' (p. 25), or 'known' (p.193); or is reached by 'attribution', 'outward projection', 'unreflective affiirmation' (pp. 92, 195), 'implicit recognition' (p. 194), 'intention' or 'reaction' (pp. 95, 196). These two types of attitude must be sharply distinguished, because the great remedial power of critical realism lies in its denial that the existent object is a datum. Then there is the relation of the essence to the existent object, as both detachable, so that the one may be given when the other is doubtful or missing; and also inseparable, as when the one is the 'character' of the other. Above all it is vitally important to critical realism to keep the essence and the existent object distinct. For if they unite, then when the one is given the other is given too, and the virtue of critical realism will have been lost.

Let us inquire, first, regarding the cognitive status of the *existent object*. Owing to considerations that are familiar to students of epistemology, the object which one's knowledge is *about* has in some sense to be infallibly identified before the cognitive act can be either true or false. The questionableness of cognition is relative to the indubitableness of its object. The writers of the present volume acknowledge the force of this point,[2] and seek to provide some act of mind by which cognition unambiguously picks and designates its object. But there is much ambiguity and apparent vacillation. Pro-

[1] While Mr. Santayana is responsible for the conception of essence, and suggested it to Mr. Strong, the latter is responsible for its application to sense-perception. Cf. Mr. Strong's *Origin of Consciousness*, 1918, p. 36.

[2] Cf., *e.g.*, Professor Sellars, pp. 212–213.

fessor Sellars insists that the physical object is *not* 'inferred' (p. 195). Professor Drake, on the other hand, speaks of our "belief in the existence of the physical world" as "pragmatically justifiable" (p. 5). Professor Pratt says that our knowledge of real objects is always 'mediate', and then goes on to show how we can "*infer* from our immediate experience to that of which we have no immediate experience" (pp. 107–108).[1]

We have noted that Professor Rogers speaks of error as "the ascribing of an ideal character to what we are mistaken in supposing to be real, or the ascribing to a reality of a wrong character instead of a right one" (pp. 117–118). The latter type of error presupposes that knowledge can somehow 'ascribe' a 'character' to a particular reality, or existent object, which it must therefore be able to pick out and identify. The former type presents difficulties. Here we seem to be ascribing reality itself to something, a procedure which certainly presents difficulties for a view whose essential doctrine is that of the distinction between essence and existence. That Professor Rogers has not himself gone to the root of the matter is suggested by a later passage (p. 141) in which he speaks of belief as involving "what is believed to be a relation of an ideal content to a (supposed) real". Until one has made clear what it is to 'suppose' a real, it is a waste of time to deal with the more complicated functions of this term. There does not appear to be any satisfactory formulation of the existential judgment except to say that it is an ascribing of some essence to the field of reality generally. We should then have two types of judgment (or perception) of the same form: the definite judgment, "that is a man"; and the indefinite judgment, "there are men". In either case an unquestionable predicate would be questionably applied to an unquestionable reality.

This seems to be the view of the matter taken by the other writers most of the time and by Professor Rogers some of the time (p. 135). Thus Mr. Santayana says, "Even to fall into error and misconceive its object, the cognitive process must first select that object unequivocally, by designating its real locus or some true circumstance that will suffice to identify it" (pp. 165–166). This is accomplished by a 'bodily attitude', which serves to identify the object both to the individual taking the attitude, and to an observer who, by comparing the object of his own attitude with that of the first individual, can see that both have to do with the same object (p. 170). This bodily

[1] Professor Strong speaks of our knowledge of the 'powers' of physical things as a knowledge of the 'empirical, inferential type' (p. 216).

attitude is elsewhere described (the view being imputed to Aristotle) as "the reactive instinct and sagacity which posits a material object and places it in its external relations, here, now and in such a quarter" (p. 168, note). Similarly, Professor Sellars says that the "physical existent" is "*made* an object by the selective activity of the percipient organism. And this selection is behaviour on the part of the organism, preliminary, usually, to overt action upon the existent selected as object" (p. 213).

But now what remains of the fundamental contention that the real object is not 'given'? Is it that this selective behavior and its *terminus ad quem,* are not internal to consciousness in the introspective sense? Even this is not perfectly clear. Professor Drake tells us that "the very meaning (*sic*) of 'existence' involves a definite locus" (p. 16). Professor Pratt tells us that "'things' are spatial, or at least temporal, particulars" (p. 102). Mr. Santayana, as we have seen, says that "its real locus" will identify an object unequivocally (pp. 165–166). In another context he tells us that "to exist, for the naturalist, means to exert force" (p. 181). In other words we are here encouraged to identify existence with a sort of localized forcefulness, which is sensibly perceived. Professor Strong intermittently admits the factor of localization in our sensory experience (pp. 232, 234, 236). He says "A pain, such as toothache, is apt to be localized in a definite spot, and, in so far serves to bring before us *the morbid process occurring at that spot*"[1] (p. 234, italics mine). Even more explicit is the passage in which Mr. Santayana speaks of the "living substance in us" as projecting "whatever (in consequence of its reactions) reaches its consciousness into *the locus whence it feels the stimulus to come*" (p. 179, italics mine).

Let us suppose, however, that the existent object is not sensibly perceived, but only *meant.* Thus Professor Sellars says that "we mean independent objects" (p. 194); and Professor Pratt speaks of "the external object which the perceiver instinctively means and reacts to" (p. 96).[2] The trouble now is that the external object assumes the same status as the essence. For this same writer (Pratt) distinguishes the essence as "a meaning or datum not to be identified with my intro-

[1] He goes on to argue that the localization is different from the pain; but I do not see how that bears on the main argument, so long as both are within the field of introspective consciousness, and *it is the pain which is localized.*

[2] There is nothing approaching clearness in this concept of meaning. On the very page from which the above is quoted, Professor Pratt speaks of meaning as the 'immediate implication' of the 'quality-group.'

spectively discovered images" (p. 91). (Cf. Strong, p. 235, and Sellars, p. 194.) Why, then, is not the existent object a datum in the same sense as the essence?

That this identification of the status of the existent object with that of the essence is not due merely to the use of the word 'meaning', appears from a passage written by Professor Drake. He is explaining the fact that "the same essence can be given" through diverse subjective states. "This is possible", he says, "because the essence given is a mere intent, a focus for discourse and action; the fact that just this essence is given is the result not of the mental state alone, but of that plus the attitude of the organism, all the irradiations (including verbal associates) of that sensational or conceptual nucleus" (p. 28, and p. 21, note). If there is any difference in principle between this "attitude of the organism", and that "bodily attitude" (p. 170) or "selective activity of the percipient organism" (p. 213) which Messrs. Santayana and Sellars tell us constitute the affirmation of the real object, then it is a difference which the reviewer has been wholly unable to discern. But if there is no difference then the whole doctrine loses its distinctive physiognomy.

There are passages in the book in which it appears to be admitted that the real object is given. Mr. Santayana, after speaking of the organic behavior which designates the object, goes on to say "that this object exists in a known space and time and has traceable physical relations with all other physical objects is given from the beginning: it is given in the fact that we can point to it" (p. 172). Professor Strong says, "When, having a sensation caused by an object in our minds, we are disposed . . . to act as with reference not to it but to the object, then that object is, in so far, before the mind as a datum" (p. 237). I can readily understand why one should be led to say that objects are given in the same sense as their essences; but I cannot understand how one can then construe essence as something which like Kant's phenomenon is intermediate between subject and object, or how one can say of data generally that they "are *not* the real things themselves" (Strong, p. 224 and note; italics mine).

In connection with this problem the difference above alluded to between the majority and minority opinion assumes fundamental importance. Both groups profess a common doctrine to the effect that the physical object itself is not 'grasped', but only its "*what*, its essence or character" (p. 20, note). But for the minority this grasped or given essence coincides with the character of the mental

state; whereas for the majority it also includes what is defined by the 'function' of the mental state and by 'the attitude of the organism' (p. 21, note). In other words, for the minority group the essence tends to be assimilated to the mind, and for the majority group it tends to be assimilated to the object; either outcome being contrary to the central contention of the theory.[1]

Let us survey the situation from another angle and inquire concerning the relation between the essence and the existent object. It is perhaps idle to quarrel over a term so fundamental as existence. But if the topic is to be withdrawn from the field of definition, then it would be better to say so. This would at least have prevented offhand, diverse and half-hearted definitions of it as 'stuff' (p. 132), or as the exertion of 'force' (p. 181), or as being in 'flux' (p. 180), or as involving 'a definite locus' (p. 16). Any specific characterization of existence obviously contradicts a view which absolutely distinguishes between essence and existence, and includes within the former "all those features of the thing which are reproducible" (p. 218) or "its entire concrete nature" (p. 223). But existence is evidently that which individuates (p. 131); and on this account all of the writers tend repeatedly to identify existence with locus, and

[1] Professor Drake's note (pp. 20–21) is by no means clear, nor does it check up satisfactorily with other parts of the book. I cannot feel sure, for example, whether he means that the minority group defines the psychical in terms of the given; or whether they define the given in terms of the psychical,—the "actual, literal, psychological existence". In the latter case, is 'psychological existence' ascertained by introspection? The statements made by the minority group do not make the matter any clearer. For Professor Lovejoy, the psychical is "an indubitable bit of experience" which is not describable as physical, or localizable in the "the single, objective or 'public' spatial system" (p. 61). Does experience here include meanings? Apparently not; since it is the central contention of his essay that knowledge has a 'functional' capacity to *transcend* what is 'directly experienced' (p. 79). Professor Pratt, on the other hand, speaks of the "*meaning or datum* as something not to be identified with my introspectively discovered images" (p. 91, italics mine). Is this 'meaning or datum' the same thing which Professor Drake calls "the character of the mental existent of the moment", and which he *distinguishes* from what is given functionally? Professor Sellars takes the psychical to mean 'content,' such as the psychologist observes introspectively (p. 207–208). Professor Sellars would construe all 'content' as 'mental' (p. 212); but at the same time asserts that the object is 'known' in terms of this 'content', and that the object is 'selected' by "an internal veering of attention upon the object" (p. 213). There are similar difficulties in construing the views of the majority group. Thus data are for Professor Strong presumably not psychical, and yet they "are subject to the law of psychophysical correlation" (p. 225).

then, as we have seen, to admit that locus is given as a precondition of the judgment.

Here again the difficulty and obscurity of the concept is aggravated by the difference between the majority and minority groups. Mr. Santayana, for example, insists that the essence intuited and the essence of the act of intuiting are quite distinct. In knowledge the mind "intuits an essence which it does not embody" (p. 167). It would seem to follow that the essence intuited either has no embodiment,[1] or is embodied in the existent object of knowledge. It has only one existential status and that is as character of the object known. Mr. Santayana speaks of substance and appearance as quite "distinct in their existence" (p. 165), which could be the case only provided 'appearance' means act of intuition, because what appears can have no existence unless in the substance; and he speaks of a tendency to "identify them in essence" (p. 166), which is unintelligible on any ground. For if 'appearance' means act of intuition, its essence is utterly different from that of the substance known; while if "appearance" means what appears, it *has* no essence because it *is* an essence.[2]

According to the majority opinion the datum cannot be similar to the object, because it is either identical with the character of the object, or is irrelevant to it and has no other existential status. But on minority ground the datum, being a psychical existent, may perhaps be said to be similar to the object, since there are two existents with a common essence. At any rate, Professor Sellars says that in the case of memory "the content can be like its object" (p. 216); though he denies it in other cases (pp. 199, 210).[3] Neither Professor Lovejoy nor Professor Pratt would, I think, object in principle to imputing the relation of similarity to datum and object (cf., *e.g.*, p. 105). In any case Professor Sellars and Professor Pratt repeatedly allude (pp. 109, 200) to a causal relation between percept and object.

This view, whether in terms of similarity or in terms of causality, bristles with difficulties, most of which are classic. It is true (accord-

[1] The majority view seems to imply the subsistence independently of mind of all the erroneous or illusory or fanciful essences. Cf. pp. 25, 168, 180, 182, 231–232, 234.

[2] I am here using the view of similarity, identity and so forth formulated by Professor Rogers, pp. 131–132, and apparently accepted by the other authors.

[3] He also says, "The content in terms of which we think the object must have the property of reproducing the character of the object in some measure" (p. 198) (Cf. pp. 198–199).

ing to Professor Drake) that although for the minority group the datum is "the character of the mental existent of the moment", "its existence is not given" (p. 21, note). But this does not seem a particularly significant qualification, in view of the fact that existence apparently is not the kind of thing that can be given anyway. In any case, in 'veridical perception' we have a situation in which there are two existents with identical essences (having their "entire concrete natures" in common); but one of these existents is physical and the other mental.

Both groups profess to acknowledge the untenability of the Lockean or dualistic view that the immediate object of knowledge is an idea, and that physical existence must be inferred from the idea as something externally and causally related to it. But the minority group in particular has great difficulty in escaping this view. Its members constantly allude to knowledge of physical existents as knowledge *about* (p. 107), as *mediate* knowledge (p. 76), or as pragmatically justifiable inference (pp. 107–108). In order to escape from this dualistic view there is a recurrent emphasis (especially in the majority group) on the direct accessibility of the object, through its selective localization or through immediate apprehension of its own identical essence. "Knowledge *is* a beholding of outer and absent objects in a very real and important sense—a beholding, that is, of their *what*, their nature" (p. 29). "In contemplating the datum", says Professor Strong, "we *virtually* behold the object. How could there be knowledge at all unless we managed somehow virtually to behold absent things, to behold the past and the future, and, in the case of sense-perception, to behold objects existing separately from ourselves" (pp. 239–240). What this 'virtuality' consists in may perhaps be gathered from the exposition above.[1] When the critical realist from fear of dualism accents this part of his doctrine his position

[1] Does 'virtually beholding' mean beholding the existent, but not beholding its existence? Professor Drake says that according to the minority opinion what is given "*is* an existent," namely a mental existent, since it is the character of that existent; though the existent's existence is not given (p. 4, note). It would seem to follow that in veridical perception (where "the characters that appear are the characters of the physical objects," p. 20) what is given is a physical existent whose existence is not given. But then what does it mean to say that neither the object nor any 'portion' or 'aspect' of it is a datum (pp. 19–20)? Or when we are told that we are 'acquainted' with our 'immediate psychic content' (p. 107), are we to suppose that here (Professor Drake to the contrary notwithstanding) existence *is* given, in a sense not possible in the case of physical objects?

would seem to be at least 'virtually' the same as that of the neo-realism which he repudiates.

A few words may be in order regarding this repudiation of neo-realism. There are many points of misrepresentation or misunderstanding. Neo-realism does not deny the existence of mediate knowledge. It does not assume that "*all* knowledge can be only the literal presence in experience and to awareness of the objects known" (p. 189). It does not forfeit any of the advantages which pragmatism and critical realism possess for explaining error through the functional miscarriage of ideas. Professor Rogers, at least, admits this (pp. 148, 157); though the whole polemical position of the book implies the contrary. Neo-realism does contend, however, that mediate knowledge is possible only because there is, at least occasionally, immediate knowledge, in which the object is identified, the judgment verified, or the quality revealed.[1] We have seen that critical realism denies this view in principle and then frequently accepts it in the application.

Professor Rogers shows some annoyance at the neo-realists' resort to behaviorism (p. 148), and accuses them of being scientific poseurs (pp. 148, 150–151). He would understand the drift to behaviorism better if he would give careful attention to the writings of his colleagues, especially the essays of Professors Sellars and Santayana (*e.g.*, pp. 170, 209, note, 213). He would find that a careful effort to describe the act by which a knower selects his object, or the act of meaning, or the act of sense-perception, will inevitably lead an empiricist, whatever his philosophical inheritance, to attach central importance to the functioning of the physical organism.

As to the alleged inability of the neo-realist to cope with physiological relativity, there are at least two reasons why the criticism misses fire. In the first place, the argument from the "existential incompatibility of diverse sense-data", or the "implicit affirmation that contradictory qualities exist at the same point in space" (p. 25) begs the question, and begs it in the form of a preconceived idea of the relation of a physical thing to its properties. In the second place, the argument regarding the impossibility of immediately knowing the past or the spacially remote, begs the question in the form of a preconceived idea of immediate knowledge, as requiring the simultaneity and spacial proximity of knower and known. As a matter of fact, in

[1] Or, as Professor Sellars says, "the content of knowledge must be experiential" (p. 211).

spite of urging the second argument the authors of the present volume hold themselves free on their own part to employ conceptions that leave the datum quite undetermined as to its spacial and temporal relations to the knower. Professor Sellars says that "we can *mean* a reality which no longer exists equally with a reality which exists at the time of the intention" (p. 215). While Professor Sellars would not regard such an object of meaning as a datum, Professor Strong would. The latter tells us that "what is given is the meaning" (p. 235); and speaks of "the datum in memory as 'given-as-past'" (p. 239). In other words Professor Strong avoids his own paradox by the expedient of construing consciousness in terms of an act (meaning) whose subject and object need not be simultaneous. But this is exactly what the neo-realists did before Professor Strong discovered his paradox.[1]

The reviewer ventures the opinion that the more careful and vigorous thinking out of the doctrines of 'critical' and 'neo-'realism will render them indistinguishable. Especially is this the case as regards the form which these doctrines assume in the essays of the writers of the majority group, where the dualistic heresy is more unequivocally renounced. Indeed it is doubtful if this majority opinion differs at all, except by profession, from neo-realism. It is perhaps only another existence with the same essence.

I am disposed to say further, that this book shows the 'crucial' importance in contemporary philosophy of two conceptions, namely 'meaning' and 'universality-particularity'. The former conception is the rock on which the critical realists split. The disagreements and misunderstandings that divide idealists and realists turn largely on a recognition of the importance of 'meaning', combined with the utmost carelessness and obscurity in its use. The second conception is not less important, since it underlies this revival by the critical realists of the ancient conception of matter, rechristened 'existence'. But the topic of meaning is a newer topic, and a more empirical one; hence it affords a better opportunity of advance and agreement.

I do not feel, in other words, that the authors have found it possible "to isolate the problem of knowledge", or to suppress their "somewhat different ontological views" (p. vii). There are allied and ulterior problems which perpetually intrude themselves and raise doubts both as to the meaning and the agreement of the several

[1] Cf., *e.g.*, Professor Montague's conception of consciousness as 'implication'; and the reviewer's article, "The Knowledge of Past Events," *Jour. of Phil., Psychol., and Sc. Methods*, Nov. 8, 1906.

authors. The reviewer, for one, would welcome a second coöperative volume by these same writers, and with a table of contents somewhat as follows: "The Act of Meaning", by Durant Drake; "The Nature of the Psychical", by Arthur O. Lovejoy; "The Status of Logic", by James Bissett Pratt; "Universality, Particularity and Individuality", by Arthur K. Rogers; "Body and Mind", by George Santayana; "The Thing and its Attributes", by Roy Wood Sellars; "The Nature of Judgment", by C. A. Strong.

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Annales de l'Institut Supérieur de Philosophie. Directeur, S. DEPLOIGE. Tome IV, Année 1920. Louvain, Institut Supérieur de Philosophie, et Paris, Libraire Félix Alcan, 1920.—pp. 623.

This volume contains eleven essays, two or three of which are of sufficient length and importance for separate works. It represents the work of the *Institut* since the interruption due to the war, as only one of the essays was ready for publication in 1914. Some others are the results of the leisure enforced by the occupation, but most of them have been produced since the conclusion of the war. The essays cover a wide variety of subjects and are uniformly good.

The first article is by M. Defourny on "Aristotle and Education". The author develops Aristotle's educational theory from the discussions of the *Politics,* with some reference to the *Ethics* on matters of general principle. These two works show a fundamental discrepancy which the author takes as his problem, viz., the reconciliation of the individualism of the *Ethics* with the social and public point of view taken by the *Politics.* For the solution of this problem, use is made of the general philosophy of Aristotle, the contemporary educational theory and practice of the Greeks, and a historical interpretation of the traditions and institutions of the Hellenic world. The five chapters of the essay deal with the state, the family, the school, post-academic institutions, and the last giving the author's conclusions.

A particular aspect of Aristotle's ethical theory is worked out critically in the second essay by G. Colle with the title "The First Four Books of the Nicomachean Ethics". These four books, says the author, contain the principles of Aristotle's theory, together with their more important applications. The basic problem is that of the moral virtues, which form a sort of ascending series with the highest position occupied by magnanimity. This leaves out of the account any

discussion of temperance, for the reason, it seems, that Aristotle does not give it full consideration until the seventh book. The author criticizes magnanimity on the ground that it approaches too near the objectionable forms of egoism.

M. R. Kremer attempts to show the relations of cause as a metaphysical conception to the conception of cause as employed by the sciences in an article entitled, "Metaphysical Remarks on Causality". Science, he says, is concerned with the order of phenomena, while metaphysics is concerned with being. Scientific causation reduces the multiplicity of phenomena to unity by eliminating from the world all real novelty and by forcing all differences into the category of uniformity, while Thomist metaphysics seeks the real origin of becoming, the real existence of which it assumes. For it, concrete beings within the process of evolution are individual and actual, although dependent upon the unique Being, which, while distinct and transcendent, yet collaborates in the action of concrete beings through ultimate union with them. This synthesis allows for pluralism in the concrete universe without sacrificing the unity of being. From this point of view therefore cause is the ground of becoming, of existence, and of the essence of all contingent fact, which at the same time respects the individuality of things.

The fourth article is by E. Janssens and has the title, "The Kantian Morality and Eudaemonism". The appearance of finality and the wide currency of Kant's criticism of the morality of happiness seem to call for a re-examination of that criticism. Kant's first objection to this type of moral theory attempts to show that duty has nothing to do with the enjoyment of life; that in the presence of the command of duty one should abstract completely from all consideration of happiness; that one should conceive it as possessing complete authority, an authority that exacts unconditional obedience, and is sufficient in itself. To support this view Kant argues that the concept of happiness has no precise content, and that we possess no rationally certain means of acquiring happiness. True, there are practical prescriptions that enable us to live a life the least undesirable under the circumstances, but these are not 'commandments', they are only 'counsels' founded on experience. As such they are suggestions useful only within the circumstances under which the agent happens to be placed. Attention to practical affairs leads to "a certain degree of misology." Thus Kant's isolation, the strict regulation to which he subjected his own life, together with the influence of Rousseau, have

developed with him a hatred of the reason from which he infers that it is not its natural rôle to render us happy. Another form of the argument maintains that the admission of happiness as a principle of morality destroys the characters of universality, objectivity, and necessity, all of which are essential to the law. Eudaemonism gives too much scope to empirical elements and too narrow scope to the reason, and thus destroys duty. This objection is for Kant fundamental and rests on his artificial separation of the empirical and the intelligible orders. The happiness principle destroys the distinction between good and evil. The moral good and happiness, instead of being identified, are often found dissociated. Crime often goes unpunished and triumphant; virtue is often unhappy and persecuted. All these objections, the author thinks, depend for their force upon the rigid antithesis which Kant sets up between the concept of happiness and that of the moral order. This antithesis approaches very near mere juggling of terms. Kant has stripped off, both from the idea of happiness and from that of the moral order, all those characters that enabled Aristotle to find close relations between them. And these characters show happiness to be the supreme achievement which terminates in the perfection of the agent, realized by the habitual practice of the good, *i.e.*, by virtue. He does not see therefore that the essential element of happiness is that of ontological perfection, and it is through this latter that happiness is related to the supreme End of the ontological order which is nothing else than the pure Act, the Thought which thinks itself in an operation that is complete and eternal. The consciousness of the possession of Perfection, and the search for it as a means to the practice of virtue, are imposed upon us with the imperative value of a commandment of God. The idea of happiness thus being stripped of all ontological perfection, it is inevitable that the characters of objectivity, universality, and necessity should be denied of it. The idea is weak because Kant has taken care to weaken and distort it. He similarly mutilates the concept of duty. Seeing in the idea practically nothing but imperative and obligatory aspects, he can find nothing in it that responds to our aspirations or satisfies our tendencies, which latter he regards as aspects of mere physical life. While it must be granted, I think, that the criticism of Kant is in the main sound, it still may be doubted whether the author's attempt at constructive theory through the idea of metaphysical perfection and the theological imperative avoids abstraction more successfully than does Kant, or whether, after all, it gives us a real happiness theory.

Recent discussion of educational theory has developed a controversy as to whether the work of Pestalozzi or that of Herbart is fundamental, and the matter has given the title, "Pestalozzi and Herbert", to an article by F. de Hovre. He finds that too much Pestalozzian 'pedagogy' confines the individual mind too closely to 'method', and that other interests are required. Consequently a complete view of educational theory will take from Pestalozzi such doctrines as the central place of will in education, the necessity of cultivating special capacities, and the social character of culture. It will also take from Herbart such ideas as the necessity for education of a fundamental philosophy, the necessity of the cultivation of the intellect, and the utility of the recitation as an educative factor. This will involve less emphasis on experimentation and more emphasis on reflection.

The sixth article is on "French Philosophy at the Beginning of the War", by P. Nève. In this period French thought was at a turning point of its history. It had abandoned a dogma that has been called 'scientism', which consisted not so much in doctrine as in the attitude of unlimited confidence in the infallibility of science. The main representatives of this point of view were Comte, Renan, and Taine. Comte's "law of three states" is the starting point for scientism. The positive 'state' of mind should take the place of the metaphysical and the theological 'states' of mind, leaving the whole field of thought to be occupied by positive science alone. Renan was neither scientist nor philosopher, and it is rather his work as a literary character that has contributed to the diffusion of the scientific spirit. Taine is the theorist of the movement, and it was largely through his influence that French philosophy turned strongly toward radical intellectualism. The extreme to which scientism is carried is shown by a passage in his *Classical Philosophers*, in which, in distinguishing between the ordinary use of intelligence and its scientific use, he says, "it is not a man, it is an instrument endowed with the faculty to see, to analyze, and to reason." Thus scientism rests upon the dogma of determinism. But there grew up a strong reaction against the scientist dogma in the last years of the nineteenth century, whose purpose was to reconcile science with an idealistic philosophy. The first attempt, that of Brunetière, was extreme in that it anounced the 'bankruptcy' of science. But a new attempt, consistent with the scientific spirit, was inaugurated by Ravaisson and Boutroux. The former counselled a return to the theory of habit of Maine de Biran as a means of escaping materialism. In 1874 Boutroux, in his *Contingence of the Laws of*

Nature attempted to show the limitations of the determinist dogma. His conclusion in its negative form is that necessity is not the law of nature, and, in its positive form, that there is an element of spontaneity in all forms and degrees of being. A strong tendency to idealism sprang at once from the doctrine of contingence. As a criticism of science it has given rise to the type of scientific philosophy represented by Poincaré. It has become a religious philosophy with MM. Blondel, Laberthonnière, and Le Roy. As a doctrine of total contingence it has been the precursor, if it has not directly influenced, the tendency to the intuitionistic pragmatism of Bergson. An influence of Anglo-Saxon origin has come into French thought through the writings of William James. It has had various forms, but they all hold a theory of consciousness which reduces science to the humble rôle of servant of action. This is anti-intellectualism in the sense that intelligence is regarded as designed not to give knowledge of reality, but to enable it to act upon reality. Bergson is anti-intellectualist in the sense that he would restore to the intelligence the speculative rôle that has always been assigned to it. But he recognizes the distinction between science as concerned with utility and philosophy as concerned with truth, and from this point of view science is explained in terms of pragmatism. While Bergson does not call the faculty of knowledge intelligence, but instinct or intuition, yet he has been the strongest influence which has carried French thought back to intellectualism, in that it has inspired the criticism of knowledge which has forced intellectualism to assume a larger view than that of scientific rationalism. French philosophy at the beginning of the twentieth century was distinctly anti-determinist. Bergson's concept of duration and Boutroux's metaphysics of quality show strong resemblances to Aristotle's principles of change and of the constitution of being, and this effects a certain affiliation with Thomas Aquinas. This suggests to the author a closer understanding among thinkers representing all points of view when the problems that confront us are appreciated in their larger aspects.

M. M. de Wulf's article on "The Work of Art and Beauty" is beyond the competence of the reviewer, at least to give more than a superficial description. It takes the intellectualist and objectivist point of view of neo-scholastic metaphysics and psychology. The thesis maintained is that the aesthetic phenomenon resides in the perfect accord between the work of art and the mind that is affected by it. One element of the pleasure of beauty is subjective and this

element varies with such conditions as age, sex, temperament, education, etc. But this does not mean that aesthetic feeling is arbitrary or that it depends on individual caprice. The pleasure of art has a basis in the perception of art, hence the adage, that there is no disputing about tastes, must be corrected by saying that tastes are disputed by reflection. Experience shows that tastes can be developed by discussion and training. The basis of the work of art is the unity of the objective elements which the artist portrays in his work, and which give the work its value independent of the circumstances which surround those to whom the work is presented.

It may be due to the prejudice of the writer that the two theological essays, the eighth by Yves de la Brière on "Christian International Law" and the eleventh and last by J. Maritain on "Some Conditions of the Scholastic Renaissance", seem least satisfactory. M. de la Brière seeks to show that Catholicism possesses a doctrine, a tradition, and a power which are capable of safeguarding the peace and order of the world. The doctrine is the message of Christ, the tradition is that represented in the history of the church of Christ, and the power is the living unity of the hierarchy. No balance of power can effect an international order, yet a certain equilibrium maintained among states would give support to an international juridical organization. Such an organization as the League of Nations could be made effective only by the collaboration of the Roman Papacy, which would give the new juridical institutions that moral authority, prestige, and stability necessary to sustain them. While fully appreciating M. de la Brière's motive, we may be permitted to remark that, if we are to respect history, the Papacy has had its chance. It is interesting to note that it is just the purpose of M. Maritain to analyze the causes which, at the end of the middle ages and at the beginning of modern times, have lost to scholasticism the sovereignty which it had over the minds of men, and have assured the triumph of a new philosophy. This new philosophy represented the tendency to subjective individualism and to criticism of tradition which began with the Renaissance and the Reformation. The reaction of French thought of the seventeenth century against this new philosophy failed because it did not embody the true philosophy of the church. The new philosophy was a sort of bastard Platonism adopted and developed by Descartes. By playing fast and loose with the church, Descartes succeeded in introducing into France a philosophy which pretended to be a spiritualism as incisive as that of Aristotle, but which broke

with the tradition and changed the notions of science in the direction of mechanism. He gave this philosophy the form of mathematics, but it was nothing more than what with Bacon and Bruno was a jumble of desires and inclinations. The author regards Bergson as an instance of the same sort of thing. It will occur to many persons as at least a question whether such an interpretation of Descartes is fair.

M. Duthoit's essay on "A Catholic Sociologist: Henri Lorin" is primarily a biography and an appreciation of Lorin's influence.

There is a bit of interesting metaphysics in the essay on "The Idea of Creation" by A. D. Sertillanges. The question is regarded as a real one for metaphysics, and the attempt at its solution as a hazardous undertaking, because it approaches the limits of intelligibility. It is not a question for science, which looks merely for proximate causes, but one which involves the first condition upon which all others depend, that is, the idea of total causality. If we start from the idea of chaos we end with the idea of a demiurge; if we begin with the idea of God as that of which the world is a mode or an emanation, we merely arrive at the idea of a mechanism; from nature we get the ideas of Destiny, Fate, or Fortune, the plague of ancient philosophy, traces of which may be found in Plato, Aristotle, and Cicero. But the true God is independent, distinct from his work, transcends his creation at the same time that he is immanent in it. This clear idea of creation we have only from the biblical tradition. But philosophers and instructed Christians have, with popular thought, attempted to think a 'beginning', that is, a time when there was nothing. This has necessitated the further assumptions of the act of God, and the world as the result of the act. But this confuses the idea of eternity with time, and the act of God with the existence of the world. The creation of the world refers to the logical dependence of the world on God as its ground.

The volume also contains a statement of the work and of the organization of the University of Louvain for the academic year 1919–20, and a list of the University's new publications.

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NOTICES OF NEW BOOKS.

Proceedings of the Aristotelian Society. New Series, Vol. XX. Containing the Papers read before the Society during the Forty-first Session, 1919–1920. London, Williams and Norgate, 1920.—pp. 314.

This volume contains eleven papers and three Symposia. Two of the Symposia, the one on "The Problem of Nationality", and the other on the question, "Is the Existence of the Platonic Universals presupposed in the Analysis of Reality?", were part of the program of the International Congress of Philosophy held at Oxford last September, and an account of them is included in the Report of the Congress in the REVIEW for January, 1921. As usual, the papers read before the Aristotelian Society are by experienced writers who have here to a considerable extent merely enlarged, refined, or defended what they have elsewhere propounded more at length. In spite of the variety of subjects and conclusions, the book gives a unified impression of seriousness and competence. For example, while Mr. Cator's manner is whimsical and paradoxical, his theme is not trivial, and he begs his readers to appreciate the positive, rather than sceptical, character of his purpose. Nowhere in the volume did I find any suggestion that philosophical reasoning should be subordinated to practical ends.

Both the Presidential Address by James Ward, entitled "In the Beginning. . . .", and the second paper by Gerald Cator, on "The Nature of Inference" are attempts to define the method and limits of philosophy. In the third paper, on "External and Internal Relations", Mr. G. E. Moore brings the engines of mathematical logic to bear on the dogma: All relations are internal. The importance of contemporary Italian philosophy is appreciatively treated by J. A. Smith in his account of "The Philosophy of Giovanni Gentile." Two papers are psychological in character: "Of Impulse, Emotion, and Instinct" by Alexander F. Shand, and "Memory and Conation" by Beatrice Edgell; two are ethical and political: "Is there a General Will?" by Morris Ginsberg, and one, Kantian in temper, on "Obligation, Autonomy and the Public Good" by Clement C. J. Webb; two are historical: "Buddhist Metaphysics in China and Japan" by W. M. McGovern, and "The Problem of Truth and Existence as Treated by Anselm" by A. E. Davies. The final paper is by W. F. Geikie-Cobb on "Mysticism True and False." The one Symposium belonging properly to the Proceedings of the Aristotelian Society is on the subject: "Is the 'Concrete Universal' the true type of Universality?" Those participating in the discussion were J. W. Scott, G. E. Moore, H. Wildon Carr and G. Dawes Hicks.

An impressive proportion of the critical discussion in the book is directed against some phase of Absolute Idealism. Thus, although there is little favorable comment on the Hegelian tradition, there is the undoubted compliment of controversy. The remark of Mr. Cator in regard to his own paper, that Bosanquet's logic was the wood in which all his arrows were cut and he therefore used it as a text for his criticism, might, with some extension, be applied to many of the papers. Mr. Bradley and Mr. Bosanquet funish texts, even when they do not convince. The President's Address is the first case in point. Beginning as an objection to a fixed first principle in philosophy in general, it passes quickly into criticism of this conception in the philosophy of the Absolute in particular. "From first to last in this whole movement, 'the Absolute' is the name for the dominant or first principle; this is the beginning, and with this the movement professes to begin" (p. 9); and this fault of the Absolute in functioning as logical foundation seems to propagate in Professor Ward's hands most of the faults commonly attributed to it. He finds, for example, that one consequence of beginning with a "One theoretically inaccessible" has been to detract from the reality and worth of finite centres of experience. In so far as this article is simply a fresh insistence that the method of philosophy must not be abstract, that it cannot take its origin from above or outside the real world, it would meet, I think, with little dissent; but the identification of the method of a fixed first principle with the method of Absolutism is another matter. I take it that the epigraph of Mr. Bosanquet's *Implication and Linear Inference* expresses his theory in regard to the beginning of knowledge: "Knowledge starts neither from sense-data nor from general principles, but from the complex situation in which the human race finds itself at the dawn of self-consciousness." The Absolute functions in his philosophy not as the starting-point of knowledge, but as the constraining force of its movement and the principle of its life. It is worth noting that Professor Ward, and others whose contentions are like his, set up absolutes even while they profess mystification at the meaning of the term. That is to say, they give a fixed status to some isolable part or aspect of the universe. In "individual agents *en rapport* together" we come "to the bedrock of experience," we read on page 20. But what of individual agents *en rapport* with nature? If the second relationship is not a part of "the bedrock of experience", the first relationship would appear to be treated as an absolute in the unfortunate sense of an abstraction. Again we read: "Leibniz, for good and all, as I believe, started philosophy on a better track by making activity, not substantiality or reality, the fundamental idea" (p. 19). But activity certainly implies passivity, and both would seem to fall within the more "fundamental idea" of reality.

Mr. Cator, like Professor Ward, believes that he has traced the weakness of Absolutism to a single root. "I am persuaded that the fundamental presupposition, and fallacy, of Absolutism [is] . . . that reality as such, *i.e.*, in virtue of its very realness, must have some general character, must if it is to be real be something more than merely real, must, for instance, be such that we can say of it that it is individual, or spiritual, or super-personal, or self-conscious, or not self-conscious, or something of the sort" (p. 25). This proposition is supported rather by a collection of related considerations than by a direct argument. Various introspections and an inquiry into the theory of chance lead the writer to the conclusion that thought does not involve systematic and necessary connection, but is "an activity of which the characteristic nisus is to mediate between differents by the interposition of just-nots, separately imperceptible, cumulatively perceptible. Thought's working principle is that a thing is what it is only just not" (p. 33). "Leaping [to conclusions] is the only possible mode of advancing" (p. 30). Thus Mr. Cator's theory of inference denies a necessary connection of attributes in the Absolute in the same sense that it denies the validity of any supposition. The paper is too incoherent to be placed precisely, but it is significant that the writer's attention seems constantly to be directed toward psychological processes rather than toward situations and facts in their integrity. The suspicion is inevitable that he is attempting the impossible feat of spying out the processes of life—the life of logic—while looking at the machinery of mental operations. Take the passage: "When I enjoy, as the humblest may do at times, the apparent experience of becoming 'spectator of all time and of all existence' I find, on close attention being given to it, that this field of thought is sustained as co-present in a way not dissimilar to the way in which a juggler sustains a dozen balls in the air, by giving each attention in turn" (p. 33). The object of analysis here would seem to have been rather the subjective phenomenon of attention than the concrete fact of a philosopher's vision.

As Mr. Cator is concerned to deny that there is any interpenetration or fusion of ideas, Mr. Ginsberg in his article entitled, "Is there a General Will?" opposes the Absolutist notion of the confluence of wills or selves. "Even if all wills be shown to aim at a universal or general object, they would still as psychical existents remain distinct" (p. 108), is the burden of his argument. "Men do indeed share in a common life and contribute to a collective achievement, yet nothing but confusion can result from hypostatizing this life and ascribing to it a reality, over and above the reality of the lives which individuals live in relation to each other" (p. 112). Mr. Ginsberg is dealing, of course, with a very difficult question, but I cannot help thinking that there is a *Petitio* involved in the use of the word 'hypostatize.' Those who speak of a 'general will' are not

so much ascribing substance to a concept as—in the words of Mr. Webb in his article on "Obligation, Autonomy, and the Common Good"—doing "justice to the undoubted facts of common life wherein we feel pride or shame at the acts of our family or of our nation, or even for the deeds of kinsmen or fellow-countrymen, although we may have no individual responsibility for them" (p. 114).

One of the historical papers seems to me to deserve special notice as a very profitable attempt to reinstate an often misprized philosophical argument. In the conventional treatment of the history of philosophy Anselm's ontological argument has stood for "an unwarrantable transition from essence to existence". In the tenth paper Mr. Davies maintains that the "reasoning is not from essence to existence but rather from a particular experience of existent reality to a fuller apprehension of the meaning of such experience" (p. 169). The reason that the fool can say there is no God is that he lacks the living experience which must serve as a basis of understanding. "Anselm writes: 'He who believes not cannot experience, and he who has not experienced cannot understand'" (p. 170). His proof, therefore, is not abstractly conceived, but is designed as a verification of an experience, or as Mr. Davies puts it, "a progressive realization of immediacy". Although Mr. Davies would rehabilitate the ontological argument, he does not agree with Professor Caird's similar attempt. Caird represents Anselm as saying that "there is an essential distinction between the idea of God and all other ideas, that it is the one and only idea which over-reaches the distinction between thought and reality" (p. 182). But Mr. Davies believes that Anselm preserves throughout the distinction between thought and existence. He argues that Anselm asserts merely that God must be *conceived of* as existent, validity of conception being regarded always as a criterion of reality.

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KNOXVILLE, TENN.

Fugitive Essays by Josiah Royce. Introduction by Dr. J. Loewenberg. Cambridge, Harvard University Press, 1920.—pp. 429.

Dr. Loewenberg and the Harvard University Press are to be heartily commended for rendering accessible, in a suitable and highly attractive form, this collection of fifteen of Royce's essays. Of these essays, four have not previously appeared in print: "The Practical Significance of Pessimism" (1879), "Tests of Right and Wrong" (1880), "On Purpose in Thought" (1880), and "Natural Rights and Spinoza's Essay on Liberty" (1880). Eleven of the essays were published during Royce's lifetime but, generally speaking, they have hitherto been as good as buried in local, discontinued, or more or less ephemeral journals. They are: "Schiller's Ethical Studies" (1878), "Shelley and the Revolution" (1880),

"The Nature of Voluntary Progress" (1880), "Pessimism and Modern Thought" (1881), "George Eliot as a Religious Teacher" (1881), "The Decay of Earnestness" (1881), "Doubting and Working" (1881), "How Beliefs are Made" (1882), "A Neglected Study" (1890), "The Problem of Paracelsus" (1893), "Pope Leo's Philosophical Movement and its Relations to Modern Thought" (1903).

Written, as these essays mostly were, approximately two and three decades, respectively, before Royce's *magna opera, The World and the Individual,* and *The Problem of Christianity,* one can readily understand why they contain little that would now impress a student of philosophy as novel. Nevertheless such an one, as well as the serious general reader, will find in the essays both intellectual stimulus and a body of deeply earnest reflections enshrined in dignified and noble utterance. The volume will interest most of all such as desire to study Royce's thought genetically or to gain a closer familiarity with his personality. His biography, we are told in Dr. Loewenberg's introduction, will probably never be written. For Royce had a distaste for conventional biographies and desired that his personal history remain unwritten. "The life of a man was for him the life not of his external fortune but of his moral achievement. The self he identified, for reasons at once practical and metaphysical, with loyal endeavor and choice and with active purposes and ideals. Thus man is reflected in his works" (p. 4).

The essays call to mind the writings of Royce's later years, beginning with the "Philosophy of Loyalty", far more frequently than they do the more closely reasoned and articulated publications of what may now be called the middle period of his philosophizing. They contain numerous pivotal declarations which seem more like ethical affirmations than like results of empirical or deductive procedure. Entirely in harmony with their spirit is the contention that "men catch from other men moral ideals, or now and again originate new ones for themselves. Never do they receive their moral principles as they do their mathematics, by rigid demonstration" (pp. 177 f.).

Ethical and spiritual motifs are dominant. The concern with Schiller, Shelley, George Eliot, and Browning's Paracelsus is with insights into the nature and vocation of man; with Schiller's perplexity over, and treatment of, the antithesis between the unlimited demands and aspirations of man and the narrow bounds of his attainments whether in his dealings with nature or in the achievement of personal ideals; with the reaction of a spirit that loves both freedom and the mysterious and that is gripped by the sense of the worth of emotional experiences—a spirit from whom we may learn that "in the world of active life we are in no wise near to a solution of our problems" (p. 94), that "contemplation is ever better than action", "thought is higher than things" and "ideals put to shame the

efforts made to realize them" (p. 95); with George Eliot's intense effort to "comprehend the realities of the human heart" and to "express the religious consciousness in terms of natural, not of supernatural, facts", and her eloquent assertions that "man is submissive in the presence of the world of life and especially of those whom he regards as higher, better, more admirable than himself" (p. 289), this leading him to a conscious submission "to the demands of the world of sentient existence", a spirit which contains "the essential element of that greatest of higher human agencies, Religion" (p. 289); with the antithesis between loving and knowing and the message of Paracelsus that "all the waves and eddies of human passion, even when they seem farthest from the divine, reveal God as no object in outer nature, however wonderful, can ever do" (p. 407).

Ethical likewise is the interpretation that is given of the ultimate purpose of even "purely theoretic thought". This purpose is indeed "the attainment of truth", "the anticipation of experience", "the construction of the conception of possible experience" but, more fundamentally, it is to effect an "ideal harmony of belief", "to be at one with all men by making all men at one with what we hold to be true" (p. 341). Hence we should reverence "the business of truth-seeking as we reverence all toil for the good of mankind. We ought to regard truth-seeking as a sacred task" (p. 341). Moreover, in the formation of beliefs, as in all our experience, there are operative potent personal factors. Man is not a mere copyist. His thoughts are always transformed reality. "For thy transforming activity, as well as for thy skill in copying, thou art answerable" (p. 363). In an especial degree is this true of our worth-judgments. Such a judgment is "the result of an act of mind somewhat resembling an ordinary practical volition. *This life is good, this life is evil,* these opposing judgments are two opposing attitudes of will" (pp. 160 f.).

Thinking is said to involve a transcendence of direct experience. It represents an affirmation that given data stand for something not immediately present to consciousness. "Whatever validity is ascribed to a judgment beyond the sphere of the moment in which it is made is not certified by the data of consciousness themselves as data, but is a product of some mental activity, working on the data, and evolving from them what is not in them" (p. 200). "The past, the future, the possible, are not immediately given facts. They are only assumed facts, fundamental persuasions. As such they express fundamental wants of consciousness. . . . The present moment does not satisfy us. It is poor and empty. It gains meaning only when we view it as one of a series, or as one fact in a world of facts. Therefore, if we say we must believe in past and future—the 'must' expresses a felt need" (pp. 112 f.).

Voluntarism comes to expression also in the emphasis which is put on

time. Thinking by its very nature not merely goes on in time but arises precisely as a means of escaping from the limitations of a bare present. Its significance lies in the fact that it discloses a 'no more' and a 'not yet'. Moreover, that which we may legitimately expect is a "life of endless battle, with temporary triumphs here and there" (p. 185); "the goal never is finally attained, but is repeatedly attained, though but temporarily" (p. 185). One is reminded of James rather than of the familiar Royce when we read: "As men we must be in continual war. And even final victory for the right is never certain" (p. 90).

The cleavage between egoism and "the Higher and Holier Life beyond Self" is made very sharp. "All life for self is worthless"; "the best possible result would be simply zero" (p. 153). "The greatest foe to voluntary progress everywhere, and especially in politics and morals, is the selfishness of individuals" (p. 126). Pessimism is unescapable except for the possibility of "quelling", of "putting down" the self and of "building up" a "peaceful, harmonious, but entirely unselfish life" (p. 153). Just as the present acquires significance only through an act of thought whereby it is brought into connection with an irrevocable past and a possible future, so human life gains worth only with the adoption of ends that are at once remote and likewise comprehensive of the good of all rational beings.

Alongside the emphasis upon the genuinely social end of action and of thought and upon the fundamental significance of the time process, however, these essays contain intimations of that form of absolutism which later found expression in the doctrine of the *totum simul*. The goal of life is "the self-reference or self-surrender of each conscious moment to the great whole of life, in so far as that whole is within reach" (p. 183). "The end of thought appears to be: That experience past and future, should be conceived as one whole with a necessary connection of parts; that the present and immediately given content of consciousness should be found to be, not alone significant or enough, but a moment in a world of life; that the relations conceived as necessary for one part of the time-stream should be conceived as necessary for the whole time-stream" (p. 259).

Some of the central contentions on which much in these essays hinges and which, though not at all or but inadequately argued, are nevertheless arguable are: (1) Voluntary activity makes for simplicity and homogeneity in the social organization and process; heterogeneity and diversity result solely from involuntary factors (pp. 110 ff.). (2) "I never would look either backwards or forwards with any interest to a feeling of pleasure that must vanish from memory the very instant it had been felt" (p. 142). (3) "Reflection is of its nature opposed to enjoyment, and so recognizes pleasures as of worth only by opposing to them the empty and worthless

present of the reflection itself" (pp. 144 f.). (4) "To recognize our self-development as in itself a worthy object of striving, we must be able . . . to see some absolute worth in a given grade of self-attainment or self-perfection" (p. 145). (5) Even though an individual himself (Caius) may not himself realize or believe it, "we who reflect and suppose ourselves in full possession of the facts, must decide . . . that all Caius' aims have failed, and that viewed with reference to himself only, it had been better for him had he not been born" (pp. 149 f.). (6) "History is powerless before the fact that whatever the moral consciousness of men has sprung from, it is more than enlightened selfishness" (p. 194).

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Religion and the New Psychology. A Psycho-analytic Study of Religion. By WALTER SAMUEL SWISHER. Boston, Marshall Jones Company, 1920.—pp. xv, 261.

The rapidly growing literature on the psychology of religion exhibits numerous and wide diversities alike in viewpoint and in line of approach. In this there is cause for gratification. At least one lacuna, however, still exists—a comprehensive and critical account from the standpoint of the Freudian or that of some psycho-analytic psychology. It is to be hoped that some scholar, thoroughly equipped for the task, will soon undertake it.

The present volume contains some sentences of interest but the author is too lacking both in philosophical perspective and in technical and accurate knowledge of psychology—even, one would judge, of 'the new psychology'—and of the scientific literature on the religious consciousness and life to make any contribution to his subject. The "book aims to be a comprehensive treatment of the religious problem in its various phases, the varied phenomena of religion, and various normal and abnormal religious types, together with certain suggestions for a new and different kind of education" (p. x). This "comprehensive" treatment occupies 231 small, wide-margined pages (besides two brief appendices), and the type is large! Most of the problems of religion are left entirely or practically untouched, while much of an extraneous sort is introduced. So far as the evidence goes, the author's knowledge of the literature of the psychology of religion is limited to James's *The Varieties of Religious Experience,* and even of this volume he cannot have carefully considered the foot-notes; otherwise he would scarcely have ventured dogmatically to maintain (p. xii) that "religion has *a* phallic origin" (italics mine) and that "primitive life in all its phases reveals a phallic origin" (p. xii). What can one's conception of religion be who speaks of "cosmic problems for religion to solve" (p. 1) and mentions among these: "What or who

created the universe? What was the process? What orders the universe, sustains it and preserves it in its multifarious activities?" So far as the author's general background is concerned the reader cannot escape serious misgivings when he finds that "Hedonistic philosophers", though given a "qualified approval" are criticized for "their inordinate claims that all men act always from none but selfish motives" (p. 41).

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Les Maîtres de la Pensée Française. Par Paul Gaultier. Paris, Payot & Cie, 1921.—pp. 271.

The four '*Maîtres*' are: Paul Hervieu, Émile Boutroux, Henri Bergson, Maurice Barrès.

The first and last belong rather to literary criticism than to philosophy. And yet they are far from uninteresting to philosophy: Hervieu as a firm believer in the Aristotelian theory of purgation of passion by means of a fatalistic drama; and Barrès, because the theory of egotism in his early works has been very pertinently related with Max Stirner's *Der Einzige und sein Eigentum*—with the difference that the keenness, subtlety, and gracefulness of Barrès make his volumes much more enjoyable reading.

The writer desires to discuss here only the chapters on Boutroux and Bergson—"B and B" as they are called by their opponents in French philosophy.

The essay on Émile Boutroux (pp. 49–95) is as satisfactory and objective a statement of the eminent Frenchman's philosophy as is possible to offer. If the doctrines of B. fail to give satisfaction it is not Mr. Gaultier's fault. Of course—and this is often the usefulness of such essays—when the doctrines of some thinker are formulated by another, the original thinker is not there, consciously or unconsciously to cover up the dangerous spots and the weaker points by skilful language, or by leading the reader's attention off; but certainly Mr. Gaultier's intention was to do full justice to B. Yet on every page this fact stands out clearly, viz., that, after all, B.'s whole work is of a negative character; it is a reaction against the philosophical dogmatism of scientists. This is further made clear by the leanings of B. towards religious and mystic theories. "En fait, ce qui intéresse M. Boutroux chez les mystiques n'est autre que l'approfondissement de leur conscience, grâce à quoi ils ont la certitude de descendre dans leur for intérieur jusqu'au point où, à les écouter, ils touchent Dieu. Ils enseignèrent, à tout le moins, à M. Boutroux qu'il y a bien plus de choses au coeur de chacun de nous que n'en soupçonnent les philosophes" (p. 81). Was not, moreover, B.'s first book called *La Contingence des lois de la nature?*

If one should object that in speaking thus the author just misses the

point because B. wants to bring out the positive elements which are beyond the contingencies of natural laws, and wants to introduce notions of immediate or metaphysical activities into the world, the reviewer begs to remark that these positive elements fail to appear, not only in Mr. Gaultier's summary but in B.'s books as well. There are allusions enough to these elements, but never anything concrete about them. Take page 87: "Au dogmatisme absolu des savants, qui leur donnait l'assurance de la vérité foncière, a succédé un dogmatisme relatif, qui n'est pas moins exclusif, parce que, s'il avoue l'inconnu, c'est pour le qualifier de provisoire. Afin d'abattre cette superbe et, du même coup, de démontrer son dire, M. Boutroux,—comme il en a déjà usé dans le débat de la science et de la philosophie,—s'autorise de ce que la connaissance scientifique n'est ni le tout, ni l'essentiel de la raison humaine, pour déclarer qu'il y a des questions qu'elle ne saurait trancher, des barrières qu'elle ne saurait franchir." This leads *to the door* of the "beyond the natural laws", and *to the doors* of religious phenomena, but not inside the door. B. speaks of "autres postulats que ceux qui président à la recherche scientifique", or of "foi en un devoir". But he does not even try to grasp these things, for he finds that they flee as we approach; they are "un idéal qui s'élève au fur et à mesure que nous en approchons." Elsewhere he speaks of "une vie plus riche et plus profonde, par la croyance en Dieu qu'elle implique" (pp. 88–89). At best we come to this: "la raison refuse de mettre à l'origine le hasard" (p. 89), suggesting a first cause not different from that suggested repeatedly by theologians and thinkers like Rousseau. The importance of B. is historic rather than theoretical; namely, he voiced this useful warning to scientists (that they had not the whole truth) at a time when this warning was particularly necessary. But if the scientists had replaced the "*hasard*" by natural laws, B. replaces natural laws by nothing; for, his '*Dieu* = X'.

Certainly B.'s attempt to distinguish between different means of knowledge (*raison, entendement, intuition,* etc.) leads nowhere. If he claims the existence of a means of knowing which would be independent of understanding, then, by definition, things perceived in that way lie outside the pale of philosophy. But to speak of a faculty of the human mind "alliant l'esprit de finesse à l'esprit de géometrie"—if it means anything but accurate knowing and thinking, is just words. B. gives his whole case away when he states that philosophy is "oeuvre de sentiment autant que d'intelligence" (p. 74), and must develop action. This leads either to poetry, or to pragmatism—neither of them being philosophy, if philosophy means *intelligence* of the truth of things. At one time B. went as far as to assimilate philosophy to art, giving it a *creative* function; this means that philosophy is nothing more than ethics; B. sees in it a way to satisfy our need "de développer cette faculté d'initiative et de création qui se sent à l'étroit dans le réel et le nécessaire" (p. 74).

And these words show that Boutroux is after all only an introduction to Bergson. Although much more veiled and subtle, and cautious, Bergson leads the reader to the same goal as Boutroux. And if Gaultier can write "un nom entre tous célèbre, un nom dont l'Ancien et le Nouveau-Monde retentissent, qui accapare l'attention de l'élite pensante" (p. 96), it is a case of the disciple having outdone the master, or at least the last comer having achieved more success than the first comer.

Bergson was more bold, too. Gaultier claims for Bergson having "entré en communion avec la réalité" (p. 97) and "assis la métaphysique et la science même en partie, sur l'absolu". It would be difficult to grant that Bergson has done anything of the sort; but one may well grant that he has shown more penetration of the extreme complexity of psychical phenemona:—so complex, so subtle, so delicate are these, that they baffle human understanding (he is careful not to say 'pure' understanding). But for Bergson as well as for Boutroux, Gaultier with all his art cannot convert us to such views. Read this perfectly faithful account of Bergson's argument; "Ainsi quand, à l'heure marquée, un sujet exécute, pendant la veille, une suggestion reçue en état d'hypnose, il donne de son acte des explications qu'en réalité son acte suscite. Ne nous surprenons-nous pas parfois nous-mêmes, à délibérer encore, alors qu'au fond notre résolution est déjà prise?" (p. 103). What more can one infer from this proposition except, (1) that you may give yourself false accounts of the causes of inaction; (2) that after you have decided, you still may wonder whether you acted rightly or wrongly? But never does this prove that you acted freely.

The suggestion elsewhere that the "perception pure" is "instantanée, et par conséquent, vierge de mémoire" (meaning not affected by memory in its dealings) is irrelevant. One is surprised at such an argument, especially as B. denies the right to deal with time according to traditional notions. Why should the quickness have anything to do with being metaphysical or not? And if you suggest comparison with the "point géométrique", you render things worse, since it is clearly understood that this is a purely theoretical notion (not metaphysical, please!) with no actual existence. Elsewhere we have the idea of "indetermination" reduced by B. simply to great complexity: "L'encéphale de l'homme est une manière de bureau télégraphique . . . où la multitude des fils qui s'entrecroisent permet une infinité de communications" (pp. 123–124). That is not so at all; the number of wires is never infinite but finite; from a finite number of wires we can get only a finite number of possibilities,—prodigious in number, still not infinite; and therefore the theory of determinism remains the only conceivable. We say 'conceivable', not necessarily 'true', for we may not be able to conceive truth; but it is Bergson who introduces the comparison, and his comparison leads not to where he claims.

The vocabulary of Bergson ought to be enough to put people on their guard. Of course Bergson's method consists in "avoir recours à des métaphores, qui, à l'aide d'images diversifiées à dessein, suggèrent, plus qu'elles n'expriment, ce qu'il a senti" (p. 190). But that will not do: either his notions are conceivable by philosophical means, or they are not. If they are not, well and good, let us stop at Spencer's 'Unknowable'; if they are, let us deal with them directly, not with similes. What will you do with definitions like this: "L'intuition métaphysique est analogue à ce choc que ceux qui ont le goût de l'art ressentent en face d'un chef-d'oeuvre" (p. 185)? How often expressions like "*comme si*", or "*en quelque sorte*" come up in Bergson or in Bergsonites! Now, philosophy cannot be termed into poetry. If one agrees to reason on comparisons, like the "encéphale" = "bureau télégraphique" (p. 123), one does not see how one could refuse to call philosophy the allegorism of the *Roman de la Rose*, in which Love is represented as a rose, the approach of which is rendered difficult by Jealousy, Danger, Slander, etc., but is helped along by Welcome, Courtesy, etc.

Of course the great achievement of Bergson in the matter of conscience and free will is his theory of space and time. But really one fails to see the reason for making the distinction he suggests: why should *l'esprit* grasp space and not time, or *conscience* grasp time and not grasp space? Why is it not the other way? Or why does not *conscience* grasp both (as Kant had it) and *l'esprit* both? How is it that Bergson reproaches philosophers for breaking the unity of philosophy by allowing arguments based on intellectual perception, when he splits our mental being into *esprit* and *conscience*. When thinkers spoke of 'conscience' and 'inconscience' there was at least some common term between the two notions (as indicated by the very words), only, one being analytic, the other synthetic. But why make it synthetic in time and analytic in duration, one does not see—except that one may thus save free-will.

The more Bergson proceeds in his work of metaphysical speculation the less he can give satisfaction. Says Gaultier: "il démontre, de façon singulièrement probante, que ni le mécanisme, ni la finalité ne rendent compte de la vie dans l'individu ou dans l'espèce, voire dans l'univers" (p. 152); and just below, "De même qu'un portrait, qui, une fois achevé, s'explique par la physionomie du modèle, par le talent du peintre et par les couleurs de la palette, n'aurait pu être prédit par personne, pas même par l'artiste, chaque moment de notre existence est inédit. La vie est création ininterrompue" (p. 152). Again, Gaultier's statement seems to do full justice to B. But then, what about the statement? Can anybody expect us to go from this statement: "the origin of the portrait is a mystery to us", to this other: "the origin of the portrait is not due to the action of cause and effect"; or, to use Bergson's own words—for he could accuse us of being the vic-

tims of a stale philosophical vocabulary—: because the origin is a mystery, is this a proof that in the portrait there is 'creation'? B. can claim only that we have not gotten at the 'cause' but not that such is not existing.

Still, once B. gets to '*la vie*', then, like the aeroplane which has difficulty to rise at first, but once off the ground flies splendidly, B. becomes magnificent and fascinating (pp. 155 ff.). Nothing could give more the impression of being philosophy, without being really that—if by philosophy one means like Descartes "les choses que nous concevons fort clairement et fort distinctement". We listen once more with delight to the song of nature with its endless resources, with its stages of progress from mere organization to instinct, then to life and then to consciousness which "soulève le fardeau de la matière, qui s'appesantit sur elle comme une chape de plomb et ne tend à rien moins qu'à l'étouffer en brisant son élan" (p. 162). Everything ends in a fine poem of beautiful and subtle images—and images of a creation not "accomplie une fois pour toutes et, en quelque sorte, intemporelle" but "d'un incessant devenir créateur" (p. 168). As Gaultier expresses it, "A proprement parler, dans la philosophie bergsonienne il n'y a pas de *choses*, il n'y a que de l'action: de *l'action* qui, se faisant, s'exprime, à travers de l'action qui se défait, en formes imprévues, le tout jailli d'un centre d'où les mondes s'élanceraient comme les fusées d'un immense bouquet" (p. 170).

Gaultier endeavors to shield B. when he says: "les critiques oublient que, si mystique que l'on soit, on ne peut jamais s'exprimer qu'avec des idées et des mots" (p. 173). But exactly; if one is consistent one ought to stop trying to express oneself since one can do it only by such inadequate means.

Gaultier gives one this impression which is typical of so many Bergsonites when they allow themselves to be caught in those subtle spider-webs made of invisible threads. They are caught without knowing it but caught irremediably. Is it not well known that ropes made of spider threads are stronger than steel?

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Common Sense and the Rudiments of Philosophy. By CHARLES G. HOOPER. London, Watts and Co. Second Edition. 1920.—pp. viii, 130.

This is a well-written little book. It aims to expound the nature of common-sense and to develop its philosophical implications. These the author approves. He defines common-sense not by a set of 'intuitions', but as a part of the whole conscious process and complex of personality which tacitly infers the existence of self and surrounding objects conceived as singular, concrete and fundamentally material entities, and which also tacitly infers so much of the nature of things and persons coming within

the range of individual experience and so much of our own powers of action as enables us to act towards them effectively for the attainment of the more obvious and commonly accepted ends of life rather than the more momentous and ideal. The first part of the book shows how the world of common-sense is built up and analyzes it. It is seen to be realistic, to subordinate the abstract to the concrete, the universal to the singular, and to have many important practical and social bearings. The more philosophical part of the work, containing the explicit and developed speculation, is found in the last two chapters, the one dealing with common-sense and the philosophy of knowledge, the other with common-sense and the philosophy of causation. In epistemology the author is anti-pragmatist. Genuine science has, he holds, an object-matter which is correlatively real; truth is impartially objective. The peculiar object-matters of philosophy are relations. Instead, however, of dealing with these after the manner of the "new" realists, he deals here principally with the traditional problem of the relations of universals to individuals, as to which he holds that factual and classific relations *unite* in the individual, and with "the chief question" of epistemology, namely, how relations *in* experience can explain the relation *of* experience to the world of objective persons and things. To the latter question, he suggests the confessedly inadequate answer that "the relation *of* experience to physical reality is properly viewed as a relation of thought, *through* sense-perception, to physical reality." Here, of course, is the *crux* about which idealistic philosophy and the philosophy of common-sense appear to differ radically. Passing to the problems of causation, the author, while opposing dualism and making the fullest admission of a physiological basis of consciousness, nevertheless regards consciousness as a 'real condition' of changes in personalities and the world, and even as involving an element of spontaneity; assuming that the relation of consciousness to neural function is parallel to that of form to substance in a material body, he points to the difference made by the form to mechanical action—knife-blade, saw and chisel for dividing things, rivet, screw or band for joining them together—as an analogy. Taking his stand on pluralism for the material world, he considers that things are both interactive and causally independent, according to circumstances, and the same holds in human relations. There is such a thing as real contingency or chance, and not merely in our ignorance. Distinguishing five contingent modes of causation, physical, chemical, vital, cognitive and social, he makes a special analysis of the cognitive and follows this with an account of the evolution of reason, the germs of which he finds in animal instincts. The whole discussion culminates in a naturalistic but temperate view of man as capable of fulfilling within limits and without supernatural sanctions his human purposes, his relations to Nature being neither one of awed subservience to a mysterious

Providence nor of angry protest to a malignant goddess "red in tooth and claw", but of "philosophic acquiescence combined with sustained interest in and growing knowledge of that ordered reality which is ultra-human". It would be hard to find a better statement of reasoned common-sense: but many will feel that human nature is more complex and the world, even if not governed by a "mysterious Providence", more mysterious and surprising than is dreamt of in this philosophy.

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Seneca. By Francis Holland. London, Longmans, Green and Company, 1920.—pp. vii, 205.

Mr. Holland's book is primarily a biography. The author gives us with a good deal of detail and in a very pleasant literary style the facts of Seneca's life, an account of his ancestry, education, political offices and influence, his exile, the conspiracy of Piso, his relations to Claudius, Agrippina, and Nero, and discusses interestingly his writings. A valuable and instructive part of the volume is the admirable translations of striking passages from the *Letters* to Seneca's friend, Lucilius the Epicurean, and from the *De vita beata.* Many of these throw light upon Seneca's pragmatic ethical values and applied Stoicism. The volume concludes with a chapter on "The Philosophy of Seneca" and an essay on Maecenas, the latter published originally in the *Dublin Review,* and not very intimately concerned with the chief theme of the work.

Holland aptly characterizes Seneca's view of philosophy in the following sentences. The value of philosophy "lies not in words, but in realities. Nor do we pursue it in order to spend our days agreeably or to banish weariness from our leisure; it cultivates and forms the mind, orders life, guides our actions by showing us what to do and what not to do, sits at the helm and directs our course through the changes and chances of the world. What is the one true possession of man? Himself, answers Seneca. What is Liberty?—to be the slave of no want, of no chance, to meet Fortune on equal terms; but if a man desire or fear external things he is so far the slave of him who has them to give or to withhold." He has small patience with abstract philosophy, with academic subtleties, and in this respect he is like the other Stoics of the Empire. Wisdom is the constancy of enlightened will. It is man's divine prerogative to retire into the impregnable spiritual world of freedom and serenity, unmoved by sickness, poverty, obloquy, or the checks and entanglements of the body or physical things. To be master of these, is to be a Man. The dualism of spirit and matter is nowhere among the Roman Stoics more strongly accented than in the writings of Seneca. He was not an original or systematic philosopher, but he was a wise statesman, directing the govern-

ment during the first quinquennium of Nero's reign with a success rarely if ever equalled in the imperial period, a cosmopolitan of the widest sympathies, a fastidious if somewhat rhetorical stylist, a popularizer of valuable philosophical concepts, and a preacher of lofty spirituality.

In regard to the *Tragedies,* Holland is of the opinion that all of these nine works were written possibly by a member of Seneca's family, perhaps by Marcus, the philosopher's son, but not by Lucius. The *Octavia* is excluded because of the description of the death of Nero. The other eight can hardly be attributed to Seneca, because Quintilian makes no mention of him in his discussion of Roman tragedy, although he mentions the other writings of Seneca and subjects them to severe criticism.

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Cornell University.

The Principles of Aesthetics. By DeWitt H. Parker. Boston, Burdett and Company, 1920.—pp. v, 374.

This excellent volume, which embodies the substance of lectures delivered at the University of Michigan, offers within small compass a survey of the entire field of aesthetics, treating first of the general philosophical aspects of the subject, then of the several fine arts, and finally of the relation of these to morality and to religion, making throughout occasional reference to the history both of the arts and of aesthetic theory. Two preliminary chapters defining art and discussing the sources of its intrinsic value as that which enlarges and preserves experience or life in forms delightful to contemplate are followed by two which present a psychological analysis of the elements and structure of the aesthetic experience. Unity, dominance, and equilibrium, are the three principles of aesthetic structure. Some interesting remarks are made upon the theory of the comic, and a chapter upon the standard of taste sides in the main with the classical view, that there is a real standard, though one which, growing through comparison in the course of experience, allows for such variations of taste, historical or personal, as are not traceable to non-aesthetic sources of judgment, *e.g.,* racial prejudices or imitation. The sceptical views of the impressionists are thus in the main erroneous, and there are "certain qualities generally recognised as necessary to the perfect fulfilment of the artistic purpose of a work". The full and interesting treatment of the six fine arts (adding prose literature to the customary five) we can only mention. Under the heading of art and morality are discussed the views of three possible critics of art, the puritan, the philistine, and the proletarian, and the work concludes with a brief review of its relation to religion. A short bibliography is appended.

R. B. Cooke.

Cornell University.

The General Principle of Relativity in its Philosophical and Historical Aspect. By H. WILDON CARR. London, Macmillan & Co., 1920.—pp. x, 166.

The first six chapters of this valuable little book are devoted mainly to historical aspects of the theory of relativity. Space, time, and movement are metaphysical concepts which have always played an important part in scientific and philosophical theories from the days of Democritus to those of Einstein. When united with an atomistic conception of matter these concepts have often led to a philosophical materialism, as in the case of Democritus and of some of the perhaps too enthusiastic followers of Newton. The dualistic system of Descartes, however, with its principle of the relativity of all motion, presents a different world-view—a mechanistic conception,—"in outward resemblance . . . extraordinarily like that which is presented to us by the general principle of relativity" (p. 73). But the new physics is based upon a dynamic conception of matter so that in essence it is much more closely analogous to Leibniz's system. In short after two hundred years of successful application of Newtonian principles (the Laws of Motion, and 'absolute' space, time and motion) to its problems, "physical science . . . is [now] seeking a principle which will enable it to coördinate observations from individual centers of experience (monads), without the aid of and recognizing the impossibility of having absolute standards of reference independent of the observers" (p. 118). Chapter VII of Professor Carr's book deals with the scientific structure of the relativity theory in language which the average reader can easily understand. The eighth and last chapter presents the author's conclusions. Absolute space and time are banished from the domain of physical science and there is substituted in their stead the conception of a truly infinite universe of four dimensions—three for space and one for time. "It seems to me, therefore," declares Professor Carr, "that the principle of relativity is a philosophical principle which is not only called for by the need of mathematical and physical science . . . but is destined to give us a new world-view" (p. 160). "Carried to its logical conclusion the principle of relativity leaves us without the image or the concept of a pure objectivity" (p. 162). In other words, physical science as well as philosophy is teaching that there can be no object without a subject.—Whether or not the philosophical reader be prepared completely to accept the analogy between the principles of Leibniz's metaphysical system and those of Einstein's physical theory, and even if the mathematician should choose to regard the mathematical criterion of invariancy employed in connection with Einstein's equations as a 'purely objective' standard, the essential value of Professor Carr's book, in calling attention to the important historical antecedents of Einstein's theory, will still remain.

H. R. SMART.

The following books have also been received:

Mechanism, Life and Personality. An Examination of the Mechanistic Theory of Life and Mind. By J. S. HALDANE. 2nd edition. New York, E. P. Dutton and Co., 1921.—pp. vii, 152.

The Nature of Existence. By JOHN MCTAGGART ELLIS MCTAGGART. Cambridge, University Press, 1921. Vol. I.—pp. xxi, 310.

The Philosophical Writings of Richard Burthogge. Edited with introduction and notes by MARGARET W. LANDES. Chicago, The Open Court Publishing Co., 1921.—pp. xxiv, 245.

The Absolute Relations of Time and Space. By ALFRED A. ROBB. Cambridge, University Press, 1921.—pp. viii, 80.

Space, Time and Gravitation. An Outline of the General Relativity Theory. By A. S. EDDINGTON. Cambridge, University Press, 1921.—pp. vi, 218.

Studies in Human Nature. By J. B. BAILLIE. London, G. Bell and Sons, Ltd., 1921.—pp. xii, 296.

Divine Imagining. An Essay on the First Principles of Philosophy, being a Continuation of the Experiment which took shape first in "The World as Imagination". No. 2 of the "World as Imagination" series. By DOUGLAS FAWCETT. London, Macmillan and Co., 1921.—pp. xxviii, 249.

Origin of Mental Species. An Investigation into the Origin, Growth, Development and Variation of Mental Species with Especial Reference to their Relation to the Absolute and its Adaptation to Human Usefulness. By H. J. DERBYSHIRE, Flint, Mich., 1919.—pp. 370.

Purpose and Transcendentalism. An Exposition of Swedenborg's Philosophical Doctrines in Relation to Modern Thought. By H. STANLEY REDGROVE. New York, E. P. Dutton and Co., 1920.—pp. xvi, 170.

Plato's "Theaetetus" and "The Sophist". With an English Translation by H. N. FOWLER. New York, G. P. Putnam's Sons, 1921.—pp. 459.

Bergson and Future Philosophy. An Essay on the Scope of Intelligence. By GEORGE ROSTREVOR. London, Macmillan and Co., 1921.—pp. 152.

Dodi Ve-Nechdi (Uncle and Nephew). The work of Berachya Hanakdan. Now edited from MSS. at Munich and Oxford with an English Translation, Introduction, etc., to which is added the first English Translation from the Latin of Abelard of Bath's *Quaestiones Naturales.* By HERMANN GOLLANCZ. London, Oxford University Press, 1920.—pp. xxii, 219.

L'Art et la Vie Sociale. Par CHARLES LALO. Paris, Octave Doin, 1921.—pp. xii, 378.

Introduction à la Psychologie. L'Instinct et l'Émotion. Par J. LARGUIER DES BANCELS. Paris, Payot et Cie., 1921.—pp. 286.

De la Nébuleuse à l'Homme. Hypothèse Cosmogonique et Nouvelles Théories sur la Naissance et l'Évolution de la Vie Terrestre. Par ÉMILE LONGUET. Paris, Félix Alcan, 1920.—pp. 752.

Éléments de Biologie Générale. Par ÉTIENNE RABAUD. Paris, Félix Alcan, 1920.—pp. xi, 444.

La Genèse des Espèces Animales. Par L. CUÉNOT, Deuxième édition entièrement refondue. Paris, Félix Alcan, 1921.—pp. vii, 558.

Il Pragmatismo nella Filosofia Contemporanea. Saggio Critico con Appendice Bibliografica. Per UGO SPIRITO. Firenze, Vallecchi, 1921.—pp. 223.

La Teoria Psicologica dei Valori. Per ANTONIO RENDA. Roma, "Bilychnis", 1920.—pp. 39.

Diogenes Laertius. Leben und Meinungen Berühmter Philosophen. Übersetzt und erlaütert von OTTO APELT. Leipzig, Felix Meiner, 1921. Zwei Bände.—pp. xxviii, 341; iv, 327.

Aristoteles über die Dichtkunst. Neu übersetzt und mit Einleitung und einem erklärenden Namen- und Sachverzeichnis versehen. Von ALFRED GUDEMAN. Leipzig, Felix Meiner, 1921.—pp xxiv, 91.

Platons Dialog Theätet. Übersetzt und erlaütert von OTTO APELT. Dritte verbesserte Auflage. Leipzig, Felix Meiner, 1921.—pp. vi, 195.

Vorwort und Einleitung zur Gesamtausgabe von Platons Dialogen. Von OTTO APELT. Leipzig, Felix Meiner, 1920.—pp. xlviii.

Platon-Index als Gesamtregister, zu der Übersetzung in der Philosophischen Bibliothek. Von OTTO APELT. Leipzig, Felix Meiner.—pp. iv, 172.

Die Vorsokratiker. Von GUSTAV KAFKA. München, Ernst Reinhardt, 1921.—pp. 164.

Sokrates, Platon und der Sokratische Kreis. Von GUSTAVE KAFKA. München, Ernst Reinhardt, 1921.—pp. 158.

Der Vernunftcharakter der Religion. Von WILHELM BRUHN. Leipzig, Felix Meiner, 1921.—pp. 283.

Einführung in die Erkenntnistheorie. Von AUGUST MESSER. Zweite, umgearbeitete Auflage. Leipzig, Felix Meiner, 1921.—pp. iv, 212.

Geisteswissenschaften und Naturwissenschaften. Untersuchungen zur Theorie und Einteilung des Realwissenschaften. Von ERICH BECHER. München und Leipzig, Duncker und Humblot, 1921.—pp. x, 335.

NOTES.

The publication of the *Bulletin de la Société Française de Philosophie* was resumed last January. Due to war conditions the *Bulletin* was not issued during 1915 and 1916, and publication was again necessarily suspended during 1918, 1919, and 1920. In the January issue (vol. XXI, 1), M. André Lalande continues his "*Vocabulaire technique et critique de la Philosophie*".

Dr. Daniel S. Robinson has been added as Assistant Professor to the staff of philosophical teachers at the University of Wisconsin.

Professor J. H. Scott of University College, Cardiff, is to spend next year at the University of California as Mills Lecturer in Philosophy.

George P. Conger has been appointed Assistant Professor of Philosophy at the University of Minnesota, succeeding R. C. Lodge who is now professor at the University of Manitoba.

G. R. Morrow, who has been an Assistant in the Sage School of Philosophy during the past year and has taken the Doctorate at Cornell University, has been awarded the American Field Service Fellowship for French Universities, and will continue his studies at the University of Paris during the coming year.

Marjorie S. Harris, who in June received the degree of Doctor of Philosophy at Cornell University, has been appointed Instructor in Philosophy at the University of Colorado.

Dr. I. G. Whitchurch, who also completed his work for the degree of Doctor of Philosophy at Cornell University last year, has received an appointment to teach ethics and the philosophy of religion at Garrett Institute, Evanston, Ill.

Professor Maurice de Wulff, of the University of Louvain, has accepted a permanent appointment as Professor of Philosophy at Harvard.

We give below a list of articles in current philosophical periodicals:

THE JOURNAL OF PHILOSOPHY, XVIII, 7: *Ralph Barton Perry,* The Independent Variability of Purpose and Belief; *Beardsley Ruml,* Reconstruction in Mental Tests; *J. R. Kantor,* The Twenty-ninth Annual Meeting of the American Psychological Association. 8: *A. P. Brogan,* Urban's Axiological System; *J. E. Turner,* Some Philosophic Aspects of Scientific Relativity. 9: *Sterling P. Lamprecht,* Some Political Implications of Ethical Pluralism; *Theodore de Laguna,* The Complex Dilemma. 10: *J. R. Kantor,* A Tentative Analysis of the Primary Data of Psychology;

Wesley Raymond Wells, Is Supernaturalistic Belief Essential in a Definition of Religion? 11: *M. T. McClure,* "Crisis" in the Life of Reason; *Maurice Picard,* The Coordinate Character of Feeling and Cognition; *F. Russell Bichowsky,* The Basic Assumption of Experimental Science. 12: *W. H. Sheldon,* Professor Dewey, the Protagonist of Democracy; *John J. Toohey,* The Distribution of the Predicate; *George Boas,* A Source of the Plotinian Mysticism. 13: *Frederick J. E. Woodbridge,* Mind Discerned; *Maurice Picard,* The Unity of Consciousness.

Mind, XXX, 118: *C. D. Broad,* Prof. Alexander's Gifford Lectures (II); *F. C. Sharp,* Hume's Ethical Theory and its Critics (II); *W. P. Montague* and *H. H. Parkhurst,* The Ethical and Æsthetic Implications of Realism; *F. C. S. Schiller,* The Meaning of 'Meaning'; *B. Bosanquet,* The Basis of Bosanquet's Logic; *Mrs. Duddington,* Do We Know Other Minds Mediately or Immediately?

The American Journal of Psychology, XXXII, 2: *E. B. Titchener,* Wilhelm Wundt; *H. J. Mulford,* The Child Mind; *C. Comstock,* On the Relevancy of Imagery to the Process of Thought; *J. R. Kantor,* An Objective Interpretation of Meanings; *F. J. O'Brien,* A Qualitative Investigation of the Effect of Mode of Presentation upon the Process of Learning; *M. F. Washburn and S. L. Grose,* Voluntary Control of Likes and Dislikes; The Effects of an Attempt Voluntarily to Change the Affective Value of Colors.

The British Journal of Psychology, XI, 3: *David Forsyth,* The Infantile Psyche, with special reference to Visual Projection; *H. Hartridge,* A Vindication of the Resonance Hypothesis of Audition; *J. C. Flügel,* A Minor Study of Nyctopsis; *Ll. Wynn Jones,* A Method of Measuring Nyctopsis with some Results; *F. C. Bartlett,* The Functions of Images; *S. M. Haggard,* A Case of Somnambulism.

Psychological Review, XXVIII, 2: *Shepherd Ivory Franz,* Cerebral-Mental Relations; *L. L. Bernard,* The Misuse of Instinct in the Social Sciences; *J. R. Kantor,* An Attempt toward a Naturalistic Description of Emotions (II); *Edward L. Thorndike,* On the Organization of Intellect.

The Monist, XXXI, 2: *John Laird,* Mental Spaciousness; *B. Muscio,* Psychology as Behaviorism; *J. E. Turner,* The Elements of Croce's Aesthetic—A Criticism; *George Boas,* Parmenides and Authority; *R. W. Sellars,* The Requirements of an Adequate Naturalism; *Victor A. Endersby,* Einsteinian Space and the Probable Nature of Being.

The International Journal of Ethics, XXXI, 3: *Arthur O. Lovejoy,* Profit-sharing and Industrial Peace; *Wallace Craig,* Why do Animals Fight? *Ralph M. Eaton,* The Social Unrest of the Soldier; *Thomas Reed Powell,* How Philosophers May Be Useful to Society; *Prabhu Dutt Shas-*

tri, Objective Freedom; *Cavendish Moxon,* Modernism and Immortality; *A. R. Wadia,* The State under a Shadow.

The Journal of Religion, I, 2: *Albert Parker Fitch,* What is the Present Attitude of College Students toward Organized Religion? *Edwin Diller Starbuck,* The Intimate Senses as Sources of Wisdom; *Shailer Mathews,* The Functional Value of Doctrines of the Atonement; *Clarence Marsh Case,* Religion and the Concept of Progress; *Edward Increase Bosworth,* Some Resources of the Modern Preacher; *Elizabeth E. Hay,* Christianizing Assamese Folkways in Marriage and Family Life; *Henry Sloan Coffin, Gerald Birney Smith, and Francis J. McConnell,* Is There a Religious Breakdown of the Ministry? *A. Eustace Haydon,* Why Do Religions Die? —a Reply; *George Cross,* Does a Philosophy of Morals Tend to Undermine the Christian Faith in a Personal God? 3: *Clarence H. Hamilton,* Religion and the New Culture Movement in China; *Julian Morgenstern,* The Historical Reconstruction of Hebrew Religion and Archaeology; *Cornelius Woelfkin,* The Religious Appeal to Premillennialism; *Edward Scribner Ames,* Religion in Terms of Social Consciousness; *Harry F. Ward,* The Bible and the Proletarian Movement; *William Adams Brown,* The Common Problems of Theological Schools; *George Galloway,* The Problem of the Personality of God; *Kemper Fullerton,* The Problem of Isaiah.

Revue Philosophique, XLVI, 5–6: *E. Rabaud,* L'adaptation et l'évolution; *Ch. Lalo,* La fonction individuelle et sociale de l'amour dans l'art; *G. Poyer,* La psychologie des caractères.

Bulletin de la Société Française de Philosophie, XXI, 1: *André Lalande,* Vocabulaire philosophique; *MM. F. Abauzit, G. Belot, Bethod, Maurice Blondel, Boisse, Brunschvicg, Ed. Claparède, Drouin, Georges Dumas, Gilson, Hadamard, Hémon, Karmin, Lalo, Langevin, Xavier Léon, E. Leroux, Mentré, Parodi, L. Prat, Ranzoli, L. Robin, F. Roussel, Van Biéma, Cl. C. J. Webb, Ch. Werner, M. Winter,* Observations et corrections.

Revue de Métaphysique et de Morale, XXVIII, 1: *E. Boutroux,* Jules Lachelier; *C. Rougle,* Souvenirs d'entretiens avec Jules Lachelier; *V. Delbos,* Les facteurs kantiens de la philosophie allemande de la fin du XVIII^e^ et du commencement du XIX^e^ Siècles; *G. Davy,* A propos de l'évolution de la pensée juridique contemporaine; *A. Berthod,* Faut-il reviser la Constitution? *R. Lenoir,* Le Meeting d'Oxford.

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THE PHILOSOPHICAL REVIEW.

PHILOSOPHY IN FRANCE, 1920.[1]

I.

TWO years ago I called attention to the fact that although the war had so greatly limited the output of constructive, systematic philosophy in France, it seemed to have affected much less the number of works relating to the history of philosophy.[2] Is this due to the fact that works of the latter kind do not touch so closely the keen anxieties and difficulties of the present hour, which weigh so heavily not only upon the life of the individual but also upon that of society? And is it because by such work the mind is diverted and a refuge provided for one's thoughts? We shall see that it is scarcely possible to account in this way for all these works on the history of philosophy. On the other hand, may the explanation be found in this fact—that such studies can be carried on with a less carefree mind and, to use the expression popularized by M. Pierre Janet, with the minimum of *'tension psychologique'?* Perhaps we shall have to accept one reason in some cases, and another in others. However that may be, the fact is that, during the past year also, historical works have been by far the most numerous and the most important.

First rank, by common consent, is awarded to the masterly work of Hamelin, *Le Système d'Aristote.*[3] However, this is not

[1] Translated from the French by Lucy Shepard Crawford.

[2] See THE PHILOSOPHICAL REVIEW, September, 1919.

[3] 1 vol., 8vo, III, 497 pages, Edited by M. L. Robin. Alcan, publisher. (In regard to Hamelin, his philosophical doctrine and his death, see THE PHILOSOPHICAL REVIEW, May, 1908, pp. 291, 299–303; and September, 1920, p. 432.)

really a recent work—its publication has been delayed by circumstances. During his lifetime, Hamelin had published a translation of the second book of the *Physics,* together with a detailed and thorough commentary of 140 pages. With too much modesty, he used to say that this was merely an essay, merely a sample, still very imperfect, of an extensive and complete annotated translation of that work of Aristotle's, which he had hoped to bring to completion. His tragic death has made this impossible. But among his papers he left the manuscripts of several lecture-courses, from which has already been selected his excellent *Système de Descartes,* and from which also has just been selected this *Aristote,* which undoubtedly will prove to be quite as useful.

Le Système d'Aristote is, first of all, a technical work, remarkable for its profound erudition and scholarly precision. You must not expect to find in it anything artistic. Its style is sometimes cumbersome and careless. It is a course of lectures delivered by Hamelin to the students of the *École Normale,* when he was *Maître de Conférences* there,—written out by the author himself, but with no other thought than to have his facts and arguments clearly before him.—No bold synthetic views, such as are found in the historical works of Renouvier and Ravaisson; but rather a concise analysis of the texts, from which many quotations have been cited in the notes. Ethics and politics are not discussed. The most extensive part of the work and the part which gives evidence of the most thorough research, is the study of the Aristotelian Logic. For, if in one sense the Logic is merely a propaedeutic, a methodology of demonstration, from another point of view it is the instrument which created the sciences of physics and metaphysics. But at this point we must avoid a possible misunderstanding. The latter view, indeed, states its significance *for us* who are the historians of Aristotelianism, and who know how much all thought depends upon the directing concepts which it adopts. But Aristotle had no such notion of his Logic, because he always maintained the attitude, not of a critical philosopher, but of a modern scholar of the empirical school. Zeller, according to Hamelin, was quite mistaken in this regard. In his exposition of the Aristotelian system, Zeller placed metaphysics ahead of the

sciences (in the strict sense of the term), basing his judgment upon the fact that it is not possible to comprehend the theory of nature, of motion, of the First Mover, without first understanding the theory of dynamic and potential activity, of matter and form, of the efficient cause and the final cause. The major premise is quite true, but it presupposes, according to Hamelin, a second premise which is false: namely, that for Aristotle all these concepts belong to metaphysics,—using 'metaphysics' almost in the Kantian sense, as denoting the constitutive laws both of thought and of its object at one and the same time. This is not the case. On the contrary, Aristotle always proceeds from established facts to their explanations, guided by common-sense truths which no one denies, and of which logic can likewise make the inventory *a posteriori*—I might even say, thus perhaps going a step beyond Hamelin's thought, as if it were studying the natural science of the language. The way in which Trendelenburg interpreted the categories is a matter of common knowledge. The theory of the four causes—(or rather, the four original meanings of the word 'cause')—is included among those generalities which no one in Aristotle's time had yet thought of postulating as ontological principles. The *Metaphysics,* to be sure, brings them again under discussion, but it is for the purpose of finding their bases rather than of making reality depend upon them. And for this reason, logic does not even find a place in the classifications of the sciences which Aristotle drew up in the Fifth and Tenth Books of his *Metaphysics.* It is only in the light of the more recent analysis of the human mind that we are able to perceive what these forms of thought can predetermine in advance in the doctrine itself.

Such a man as Hamelin, who in his own *Essai sur les éléments principaux de la représentation* explains the world in terms of dialectics, deserves no little praise for having so clearly recognized the absence of any such idea in Aristotle. This does not mean that his own philosophical convictions are not to be found in the present book. But it is one thing to project one's own thoughts into an author, and quite another thing to make use of them in order to judge him and to discern what of historic interest

is to be found in his work. Durkheim had already noted this characteristic in his preface to Hamelin's *Descartes*. "The thing that gave its profound originality to Hamelin's teaching," says M. Léon Robin, likewise, in his foreword to the *Aristote*, "is the fact that, with the unequalled skill of a master, he fuses the philological analysis of the text, and the exact determination of the meaning (in which Trendelenburg, Waitz and Bonitz had excelled) with the effort of a thinker who, in order to extend philosophical knowledge, seeks to measure its significance and effectiveness." Some examples of this are seen in the chapter on the opposition of the concepts, where, at the very beginning, there is clearly indicated the antithesis between the analytic and synthetic methods; in his discussion of the theory of chance, and especially in the last chapter on being, which, throughout, testifies to the importance which Hamelin attaches not only to the opposition between extension and connotation, but also the superiority (somewhat illusory, in our opinion) which he attributes to the latter. Perhaps it is for this reason also that he reduces to such a comparatively small compass all that he has to say in regard to physical matter, life, and the soul. And it is certainly this same mental orientation which accounts for the very original criticism at the end of the work. For him there is a defect in the logic of Aristotle's system inasmuch as it adopts the principle of individuation by means of matter which, in fact, implies Plato's contempt for the individual. For a philosophy which accepts God himself as an individual reality, without assigning to him, however, any privation or indeterminate possibility, matter should not explain the actuality of the individual, but only his limitations.

This combination of pure history with doctrine is carried still further in the book of M. Eugène de Faye, *Idéalisme et Réalisme*,[1] the most important part of which is completely devoted to an explanation of the political ideas of Plato and of Aristotle. It cannot be said of M. de Faye that he wished to escape the cares of the present day by immuring himself in antiquity! Quite the contrary; for at the beginning of the war he was engaged in his

[1] 1 vol., 8vo, 260 pages. Bossard, publisher. The author is a scholar well known for his studies on gnosticism, and Professor in the *Faculté de Théologie protestante* and at the *École des Hautes Études*.

scholarly studies, and he continued to pursue them in the light of the events which were convulsing Europe: and in the writings of the great Greek philosophers, he found, he said, reflections in regard to the organization of society, truer and more profound than those of any of our contemporaries. Historians in general will undoubtedly take exception to such a mental attitude, although the author has taken the precaution to separate clearly, into two distinct parts, the exposition from the applications. He is convinced that, in the philosophical order as in the political and social orders, the past deserves to be studied only in so far as it is of interest to the present. Without being narrowly pragmatic, an historical study cannot ignore the idea of value. Why study Descartes rather than Voëtius if there were not in him more enduring truth? Doubtless in the case of philosophers there is less of this permanent truth in the general system which they adopt than in their orientation, their method of approach, and the articulations of thought. Nevertheless, in so far as it is truth, it will always be of paramount interest. To treat classical authors like curiosities in a museum is, in general, to misrepresent them! It is not in this way that they would wish to be read. It is said that even their mistakes are interesting.—Agreed.—But, only when they give us a glimpse into reality. A mistake, as M. Séailles used to remark, is not really refuted until the element of truth which it contains is included.

M. de Faye passes over briefly the details of Plato's and Aristotle's plans for society. He, however, does emphasize the necessity of a social aim, of a community interest over and above the simple desire of self-preservation, or the desire to grow or to rule. In opposition to what sociologists usually say, the State, like the individual, is not justified in living only for the sake of living. The highest possible good can never be attained unless we fix our hearts on spiritual things. M. de Faye gives no quotation at this point, but without doubt he has in mind the great words of Aristotle: "A man ought not to entertain human thoughts, as some would advise, because he is human, nor mortal thoughts, because he is mortal; but as far as it is possible he should make himself immortal, and do everything with a view to

living in accordance with the best principle in him." During the past forty years, France's fault has been too much '*laisser-aller*' and a certain lack of settled moral purpose: she has scattered her energies in party strife. Germany has sinned by aiming at hegemony, at success through organization. France has lived like a dilettante, Germany like a rapacious business man. On the other hand, when the United States plunged into the war, it seemed to be a social personality, behaving like a man of feeling, who, even at the cost of painful effort and of risk to himself, was eager to make Justice rule in the world in which he lives.

How is this higher end *to be attained?* As Plato saw so clearly, every nation would have to possess institutions which represent this function of the ideal, and especially a system of education consistently directed toward this end. What the Germans did, with such success, by way of inculcating in the younger generations their ideal of conquest and of imperialism, would it not be possible for the United States, for France and for England to do, so as to hasten the coming of a *human life,* and to find some just solution of labor problems and of international difficulties? In this way the spiritual organization of each people would guarantee, without violence, a constitution of humanity based upon law. The law alone, as Aristotle remarked, is not odious when it prescribes what it is necessary to do. In the eyes of the idealist, an international army—a source of friction and possible hostility—would possess less real power than the determined will of an organization founded upon justice. Ideas seem to be impracticable, only because people talk about them instead of believing in them. Instead of searching, in the first place, for material support from the outside, offered reluctantly by skeptical governments, let our hearts have faith in the possibility of realizing the spiritual achievements which are inherent in these ideas. As the result of such a spiritual movement, there would arise a control over the material affairs of men, more powerful than could ever be effected by the most skilful combinations of diplomacy and an international police.

This faith may seem utopian. Nevertheless, it is more than an echo, on the part of the philosophical historian, of the creed of

certain Greeks concerning legislation and education. *L'Union pour la Vérité* has just published a very interesting collection of documents—*Les Français à la recherche d'une Société des Nations.*[1] From the time of Henry IV up to the struggle of 1914, the "Grand Design" of an association of nations for the maintenance of peace has assumed a great variety of forms which give proof of the extraordinary vitality of this idea in France, and her clear opposition to the *other* ideal,—the "Monarchie universelle", represented by a Charles V, a Louis XIV, a Napoleon, and a William II. The collection is by no means complete; the authors themselves acknowledge in the preface that a more exhaustive historical inquiry would have made it possible to include some striking passages gleaned from French refugees in Holland, from the free-masons of the Eighteenth Century, from the positivists and from the socialists. Leibniz, for example—should not he be included in this list, in view of the fact that he shared so intimately in French culture, and that his principal philosophical works were written in French? However that may be, the work contains a long series of texts and of names, including the following, among the most celebrated: Fénelon, Montesquieu, l'abbé de Saint Pierre, Rousseau, Condorcet, Saint-Simon, Lamartine, Hugo, Renan, and Littré. The glimpses which it affords of the thoughts of such men as the economist, Pecqueur, or the socialist, Victor Considérant, not to mention a jurist like M. Hauriou, or an intellectual like Albert Thierry, who was a soldier in the great war, are also of great interest.

II.

Unfortunately posthumous, like Hamelin's *Aristote,* are also the works of M. Léon Blanchet: *Campanella,*[2] and his study of *Les antécédents historiques du "Je pense, donc je suis."*[3] The author, who was in delicate health, died at the end of 1919, when he was only thirty-five years old. It may be that his life was

[1] One small volume, 8vo, 237 pages. (*Union pour la Vérité,* 26, rue Visconti, Paris.)

[2] 1 vol., 8vo, 596 pages. Alcan, publisher,

[3] 1 vol., 8vo, 325 pages. *Ibid.*

shortened because of the material difficulties which today everywhere beset intellectual workers. In addition to these two great works, he wrote a most valuable article on *L'attitude religieuse des Jésuites et le pari de Pascal.*[1] He found the prototype of Pascal's wager very exactly formulated in the work of the Jesuit, Father Sirmond, who was the object of a refutation by the great Arnauld, and whom Pascal likewise attacked in his tenth *Provinciale*. Here we have one of those finds which, although they have a bearing only on one special point, nevertheless are as enlightening to historians of philosophy as the discovery formerly made by Brochard of the parodies which form the theme of Plato's *Symposium*. People had been so accustomed to say that this argument of the wager sprang from Pascal's own genius, and that it was the direct result of his studies regarding the calculation of probabilities!—The same wealth and precision of documentary evidence which enrich *L'attitude religieuse des Jésuites* are also found in *Campanella*. Previously there existed no philosophical study of this great philosopher in French. The origin of M. Blanchet's book happened to be the competition opened in 1914 by the *Académie des Sciences Morales* for the purpose of filling this lacuna. M. Blanchet's manuscript, crowned by the Academy and later revised and developed, resulted in this voluminous and learned work, which was to form his major thesis for the doctorate. For, contrary to what people surmised, neither the war nor financial straits prevent candidates in philosophy from submitting to us, for this degree, theses of considerable scope. From various sources aid is being given to them to defray the excessive cost of printing. Some of them succeed in printing their theses at their own expense. In a word, the tradition is being maintained. Whereas in most foreign universities (and even at Paris, in the Faculty of Sciences, of Law and of Medicine), theses are almost always student-exercises; in the Faculty of Letters, on the other hand, the collection of doctor's theses is constantly being enriched by works which would do honor to any mature writer, no matter who he may be. Attention has been called to the disadvantages of such a require-

[1] Two articles in the *Revue de métaphysique*, July and September, 1919.

ment, namely: too great delay in taking the doctor's degree, and as a result, delayed entrance into teaching in the higher institutions; artificial stimulation to produce extended works (good or bad) which prove to be of advantage to the author from the point of view of his future career; and finally, in the case of dogmatic[1] theses, the tendency of the aspiring doctor to compress into one comprehensive work a complete philosophy which is in the process of growth in his mind, and which often would have been of greater worth if it had matured more gradually in works of smaller compass and greater ripeness. I do not underestimate these disadvantages,—but let us weigh them in the balance with the other results of this régime. Certainly the *Campenella* of M. Blanchet—because it is so replete with learning, with criticism and with the results of his own reflection, and because it sheds so much light upon the whole philosophy of the Renaissance—is a good argument in favor of this tradition.

M. Blanchet's other work, on the antecedents of the *Cogito,* is on the same high plane. M. Bréhier was quite correct when he praised the author for his success in avoiding the danger of underestimating Descartes's originality, by investigating the sources of his ideas. This work belongs to the very interesting cycle inaugurated several years ago by *La doctrine de la liberté chez Descartes,* written by M. Et. Gilson (at present Professor at the University of Strasbourg), and by his noteworthy *Lexique scolastico-cartésien.* The teaching profession in France has for too long a time agreed with Descartes himself in its estimation of Cartesianism: namely, that it was truth revealed directly by the *'lumière naturelle'* which illumines every man,—a theory which must be judged on its own merits, irrespective of any previous philosophizing. But today, this long-neglected territory is being explored by large numbers of scholars. In addition to the works which we have been discussing, M. Filliâtre has just published an important contribution on *the philosophy of St. Anselm,* its principles, its character, and its influence[2]; and M.

[1] This word is quite currently used in our academic vocabulary to indicate all that is included in philosophy proper, as distinct from historical philosophy or philosophical criticism.

[2] 1 vol., 8vo, xv + 475 pages. Alcan, publisher.

Durantel has submitted two doctor's theses, entitled respectively, *Le retour à Dieu par l'intelligence et la volonté dans la philosophie de Saint Thomas,* and *St. Thomas et le Pseudo-Denis.*[1] Both are well supported by references and represent a vast amount of research and critical work.

Despite its controversial tone, and even its digressions into contemporary politics, M. Louis Rougier's *Les paralogismes du rationalisme*[2] may be considered in connection with those just mentioned; in the first place, because M. Rougier has included in his book a large number of citations from mediaeval sources, as well as an index of the names of seven or eight hundred authors. But an even more cogent reason is the fact that studying in this field establishes a *'liaison'* between the philosophy of the Middle Ages and Classical philosophy, by discussing the meaning of 'necessary truths,' of the argument *a constantia subjecti,* of the ontological proof, of the argument from degrees of perfection and reality, of the principle of final causes, or of sufficient reason. Moreover, it has been said that, by his criticism (which is often incisive), M. Rougier endeavors to entomb a philosophy which is already dead, rather than to dispute a philosophy which is still living. However, let us not lay too much stress on this point.— What is true in the academic world need not necessarily be applicable to other intellectual circles where Bossuet and Saint Thomas continue to hold sway. The other day I was talking to a priest in regard to a doctor's thesis which he had just written, and in which I was astonished to find that he had merely presented an accurate commentary on St. Augustine's rationalism, on his classical proofs for the existence of God and the immortality of the soul, and on his theory of 'substantial truth'— and all this without reservation or objection, just as if Hume or Kant or Renouvier had never written a word, and as if this whole line of reasoning of the Bishop of Hippo were as firmly established as a treatise on geometry. "Indeed," he said to me, "it is my conviction that this whole doctrine, and no other, brings satisfaction to the mind,

[1] Theses of the *Faculté de Lettres* of Paris. 8vo, 412 pages; and 8vo, 273 pages. Alcan, publisher.

[2] 1 vol., 8vo, xiv + 540 pages. Alcan, publisher.

in spite of all the skeptics and semi-skeptics who have criticized it. Unless you repudiate metaphysics altogether, you come back to these basic theses of St. Augustine, which are also St. Thomas's; and in our circle, this is the religious philosophy which is most generally accepted." Therefore, we see that M. Rougier's polemic, which seemed at first to be merely an attack against the shades, has, in reality, a bearing on doctrines which are still very much alive in the souls of certain people. What a difference there is, not only between points of view of individual thinkers, but also between the collective thoughts of communities, even among compatriots and contemporaries! How difficult it is to penetrate the intangible barriers which separate the scientist from the philosopher, and the philosopher from the cleric! And how often it happens, even today, that although a discussion is undertaken in a most courteous and deferential spirit, and actually embodies the good faith of each disputant, nevertheless it results in revealing mental attitudes which have no common measure!

III.

There has likewise been the same activity in the field of the history of modern philosophy. *La Philosophie de Berkeley*,[1] of M. A. Joussain, is not so much a scholarly study as an intelligent and sympathetic commentary. To borrow an epigraph of M. Boutroux: "Systems are living thoughts. It is only by seeking in the printed page for a means of resuscitating the thoughts themselves that we can hope to understand them." And this has been what M. Joussain has accomplished. It is impossible to read M. Joussain's book without being charmed by the author's ingenuity, his delicate subtlety, his artistic sense and his psychological insight. No one could appreciate the perfection of Berkeley's literary style, or make others aware of it, save a man like M. Joussain who is at once a philosopher, a writer, and an artist.[2]

[1] 1 vol., 8vo, 261 pages. Boivin, publisher.

[2] In addition to interesting works and articles on psychology, M. Joussain has published several literary works, including some volumes of poetry. A list of his works will be found at the beginning of his *Berkeley*, in accordance with the convenient practice of French publishers, which we should be glad to see adopted by American publishers.

But among the works on modern philosophy which have appeared this year, the most important is the excellent work of M. Ch. Andler—*Les précurseurs de Nietzsche*.[1] The distinguished professor has dedicated the book to the memory of one of his colleagues and to twenty-one of his former students—"germanistes français, morts dans la Grande Guerre pour la patrie et l'humanité." Probably M. Andler is better informed than any other man in France regarding German literature and civilization. Before the war he knew enough to foresee (what all French socialists refused to believe and which they heaped reproaches upon him for proclaiming) that the German socialists would cooperate wholeheartedly with their government the day it decided that it was advantageous for Germany to attack France. But, M. Andler is not merely a specialist in Germanism—his is a mind of wide sweep which, if he had so desired, could have held a place, with equal distinction, in philosophy or in literature—all of which is proved by this book. All his breadth of skill and learning was needed in order to disclose in such detail the great debt which Nietzsche owes to his predecessors: first of all, to his great compatriots from Goethe to Schopenhauer; secondly, to Montaigne, La Rochefoucauld, Pascal, Fontenelle, Chamfort, Stendhal, and finally to his teacher and friend, Burckhardt, the Swiss historian. Nor did M. Andler forget the influence which Emerson exerted upon Nietzche's development. As we read the many statements of fact contained in this book, we realize that, although this thinker has been so far-famed, nevertheless, up to this time, our knowledge of the sources of his speculation has been quite imperfect. Henceforth, before discussing Nietzche, it will be necessary to study all the evidence collected by M. Andler and to reflect upon his impressive conclusions.

M. Mustoxidi's *Histoire de l'esthétique française*[2] has been

[1] 1 vol., 8vo, 384 pages. Bossard, publisher. This is the first of a series of six volumes on *Neitzsche et sa Pensée* by M. Ch. Andler, which is to include the whole life and philosophy of the author of *Zarathoustra*. The succeeding volumes are now on the press.

[2] 1 vol., 8vo, lxiii + 240 pages. Champion, publisher. This is a new edition revised and completed, of the *Systèmes esthétiques en France* by the same author. (See THE PHILOSOPHICAL REVIEW, September, 1919.) This new edi-

criticized on the ground that the subject is treated from a narrowly national point of view, and that the book is restricted to aesthetics in France, without taking account of its relation to the work done in this field in England and Germany. As matter of fact this is true, but perhaps it is not without justification. When an historian breaks ground in an unexplored field, he must, first of all, devote himself to investigation and to the task of collecting and classifying authors and texts. Only after this has been accomplished need he concern himself with the connections of his subject, and the influence it has exerted in related fields. What would be a serious defect in the history of literature (which for a long time has been the subject of study) is merely a limitation which it is impossible to avoid when making, for the first time, a summary study covering the whole field of French aesthetics, or only of those systems which aim, at least in principle, to rest upon a scientific plane. And this is precisely the kind of study which M. Mustoxidi intended to make.

A similar work has also appeared during the past year: M. Dwelshauvers's *Psychologie française contemporaine*.[1] This work was suggested by Ribot's well known *Psychologie Anglaise* and *Psychologie Allemande*. Its purpose is to present a concise and systematic account of French psychology throughout the Nineteenth Century and during the opening years of the Twentieth Century, including in its discussions: Maine de Biran, Jouffroy and the Eclectics; the great systems opposing Eclecticism,—namely, Comte, Cournot, Renouvier, Ravaisson, among whom he includes Durand de Gros; the founders of the French scientific psychology—Taine, Ribot, Binet, Janet, Paulhan and Tarde; idealism and neo-spiritualism—Fouillée, Lachelier, Boutroux, Hannequin, etc.; and finally, the psychology of Bergson. These are the main divisions of the work. In some instances, exception may be taken to the order in which the several works

tion includes a bibliography of French aesthetics and its sources up to 1914. Containing, as it does, more than a thousand titles, this bibliography, because of its extent and usefulness, deserves mention on its own account.

[1] 1 vol., 8vo, xii + 256 pages. Alcan, publisher. M. Dwelshauvers is a Belgian. For a long time he was Professor at the University of Brussels. At present he is *Professeur au séminaire de philosophie* at Barcelona, Spain.

are arranged. Nevertheless, the book presents clearly and accurately the representative types of French psychology, and for this it deserves commendation. A long conclusion gives with bold strokes a *résumé* of the way the different schools succeeded each other and how they are related to each other. M. Dwelshauvers believes that modern psychology lays the greatest emphasis upon the dynamism of psychic facts, upon mental synthesis, upon synergy and the organic unity of thought. And for this reason it seems to him that metaphysics is the ultimate goal of psychology—and a metaphysics which presupposes active and thinking subjects as the real elements of the universe.

Two of the philosophers mentioned in this work have elsewhere been the subject of special study.

M. Tisserand has just issued the first volume of his *Oeuvres complètes* of Maine de Biran,[1] which was undertaken under the auspices of the *Institut*. In this first volume are to be found de Biran's earliest works, all written during his youth—some dated 1793 and 1794, others without date but belonging to the same period, and in no case later than 1798. In an extended introduction M. Tisserand gives us valuable details concerning the author and the works contained in this first volume. At the same time, M. Tisserand published (in the "*Classiques de la philosophie*" series) de Biran's *Mémoire sur les perceptions obscures* (1807). The same little volume also includes several tracts hitherto unpublished, and a simple and useful account of the life and work of Maine de Biran.[2]

Secondly, M. Séailles has just published a short but excellent philosophical monograph on *La philosophie de J. Lachelier*.[3] Lachelier published little during his lifetime. And at his death he forbade the printing of anything which might be found among his papers, or in his written lectures, or in the many voluminous letters which he had written on philosophical questions and which

[1] 1 vol., 8vo, lxxv + 312 pages. Alcan, publisher. The *Oeuvres complètes* of Maine de Biran will comprise about twelve volumes.

[2] 1 vol., 12mo, xi + 67 pages. Armand Colin, publisher.

[3] 1 vol., 12mo, 171 pages. Alcan, publisher. In regard to Lachelier, see The Philosophical Review, September, 1919, pp. 461–463.

his correspondents had proudly cherished. This over-scrupulousness on the part of a thinker whose thoughts were always developing, makes such a work as M. Séailles's doubly valuable—especially as M. Séailles was personally familiar with Lachelier's teaching and has the authority of a master to select for us his most important and fundamental ideas.

To speak here of the works on the history of American philosophy would, according to the French proverb, be "to carry water to the river." But nevertheless, we must mention *Les philosophies pluralistes d'Angleterre et d'Amérique*[1] by M. J. Wahl. This is an excellent and very exhaustive study of the origins of contemporary pluralism, as exemplified in: Fechner and Lotze, Ménard and Renouvier, J. S. Mill, Bain, Shadworth Hodgson, and many others too numerous to note here. Although the book contains some very interesting documents and comparisons, it is unfortunate that a large number of contemporary works have been referred to very briefly and in a way which does not clearly indicate their true character. The result is that it is not always possible to get a clear picture of the ideas and tendencies of the authors cited. But this defect is to be explained by the fact that M. Wahl wished to be as complete as possible and to cite the largest possible number of writers in this field. The long bibliography at the end of the volume indicates the wide range of his information.

Finally, from the *Institut Philosophique de Louvain,* there has come to us another work on a closely related subject: *Le néo-réalisme américain*[2] by M. l'abbé Kremer. In our opinion, the work would have been more valuable if it had united in one volume a study of English and American realism. But, even as it stands, it will be a great aid to French readers; for difference in language is such a barrier to complete and perfect understanding, even for thinkers who seem to have a wide range of intercourse! Whenever I read the work of a foreign philosopher, I am astonished to find how many Frenchmen are not mentioned, whose

[1] 1 vol., 8vo, 325 pages. Alcan, publisher.

[2] 1 vol., 8vo, x + 310 pages. Louvain, *Institut de Philosophie;* and Paris, Alcan, publisher.

names, as it seems to me, should necessarily be included among the citations and references. And I believe that a foreigner must be struck by the same lack in our own books. A sad lack, to be sure, for is it not true that the highest aim of all science, and indeed of all life of the spirit, is communication, and, in the last analysis, a communion of thought?

IV.

This rich harvest of historical and critical studies does not, however, represent the whole output for the year in the field of philosophy. We have no desire to ascribe to the philosophical works that are now being issued any greater tendency toward unity of thought than they actually possess. Nevertheless, there is noticeable, we believe, quite a general reaction against traditional idealism, particularly against the dialectic which pretends to construct the world solely by the power of the mind. Even among philosophers, the partisans of experience are becoming more and more numerous. Proof of this is to be found in the French articles criticising the recent work of M. Parodi in which high appreciation is expressed of Hamelin's dialectics.[1] One of the most characteristic of these is the long and learned study which M. Brunschvicg contributed to the *Revue de Métaphysique*.[2] The question was also discussed at a meeting of the *Société de Philosophie*. The report of this meeting has not yet been printed, but this will be done shortly—thanks to the generosity of some American philosophers, whose subscriptions have made it possible for the *Société* to resume the publication of its *Bulletin*.[3]

Les problèmes de la philosophie[4] by M. Paul Dupont is also an essay on *a posteriori* metaphysics—a metaphysics based on science and aiming to extend the scope of science by a critical study "as

[1] See The Philosophical Review, September, 1920.

[2] *L'Orientation du rationalisme, Revue de Métaphysique et de Morale*, July, 1920.

For lack of funds the publication of the *Bulletin* was suspended in 1917, (Publication resumed January, 1921.)

[4] 1 vol., 8vo, vi + 386 pages. Alcan, publisher.

valuable, from the point of view of logic, as the positive sciences." The author's early training was "scientific". He was formerly a student at the *École Polytechnique* (as were also Auguste Comte and Renouvier). He approaches traditional problems with freshness of spirit, but with no lack of skill. Throughout this work, M. Dupont has kept in view a twofold goal: (1) to arrange philosophical problems in a systematic way so that all those who are able to understand them will accept such arrangement as legitimate; and as a result of such systematization, (2) to present a common program which (in this study as in the study of the positive sciences), by making possible cumulative and progressive work, will reduce causes of doubt to a minimum. This is an ideal which M. Dupont shares with some of the best minds of our time,—especially with M. Bergson who, although often referred to as a mere artist, nevertheless always intended to create a *positive* metaphysics which will leave room for real progress and cumulative results.[1] To attain this ideal M. Dupont takes a path which philosophers since Kant have for the most part neglected. He is frankly a 'realist', but that is not all—his fundamental problem is the knowledge of things in themselves. And naturally he is led to the drawbridge of the whole theory of reality; that is, to the fundamental problem of the existence of our fellows. It would be beyond the range of this article, and it would take too long, to discuss the way M. Dupont justifies his position by a bold application of the calculation of probabilities, from which he deduces our knowledge of other human beings.[2]

But that which is of immediate interest to us is the idea which dominates the work, and the intellectual movement of which it is the expression. We find another example of it in *L'Invérifiable*[3] of M. André Cresson, doctor of letters. The realism of this author is all the more worthy of note in view of the fact that his duties as professor of philosophy as well as his generation have placed him in an environment which in general is naturally in-

[1] See especially *Le parallelisme psycho-physique et la métaphysique positive;* and cf. Le Roy, *Une philosophie nouvelle*, ch. 1.

[2] For this discussion, see the *Revue Philosophique*, May, 1921.

[3] 1 vol., 12mo, 400 pages. Chiron, publisher.

clined to idealism. But he combats idealism with all the freedom of thought, all the spontaneity, and all the *sound common sense* that he possesses. He faces squarely the eternal questions of philosophy: "What really exists?" "What is the essence of existence?" This is the way his book begins. And he answers these questions—in good faith and with absolute sincerity—by a metaphysical probabilism, which undoubtedly leaves plenty of room for individual and social differences, without, however, excluding the possibility of a *"conviction raisonnée"*. Our readers will perhaps remember that even M. Meyerson himself, in an article on *La science et les systèmes philosophiques,* emphasized the scientific usage of the realistic notion of the 'thing'. He will presently return to a discussion of this subject in a large work which is now on the press.

M. d'Eichthal has collected in one volume several very original articles on the rôle of memory, which he had contributed to the *Revue Philosophique*. To these he has added a few new studies on the memory and the passions, memory and language, memory and action. The general title of the book is *Du rôle de la mémoire dans nos conceptions métaphysiques, esthétiques, passionelles, actives.*[1]

In connection with this book by M. d'Eichthal, we may consider the studies on the rôle of memory which form the basis of a new work by M. Rignano, *La psychologie du raisonnement.*[2] The point of departure of M. Rignano's very original analysis is the origin and mnemonic nature of affective tendencies. Its aim is to resolve the process of reasoning into more simple phenomena, and these in turn into simple elements. The author then proceeds to reconstruct the composite forms of reasoning, emphasizing the affective origin which they all preserve. On this point the ideas of M. Rignano are generally accepted. But his

[1] 1 vol., 12mo, 198 pages. Alcan, publisher. M. Eugène d'Eichthal, Director of the *École des Sciences Politiques,* is principally known as an economist. He is the son of Gustave d'Eichthal who was the friend and correspondent of John Stuart Mill. M. Eugène d'Eichthal has given us a fine portrait of his father in another work entitled, *Quelques âmes d'élite* (Hachette, 1919).

[2] 1 vol., 8vo, xi + 544 pages. Alcan, publisher. M. Rignano, *Directeur de Scientia,* is an Italian. But he speaks and writes French well.

other thesis has not been so readily accepted: namely, (1) that demonstrative reasoning is comparable to mental experimentation and constructive reasoning, and (2) that the reasoning which he calls 'intentional' (plausible pleading) is comparable to classification, to the determining judgment of Kant. Constructive reason is not always 'objective', nor is the reasoning of classification always arbitrary. Without doubt, in the process of reasoning there are two fundamentally different elements, which Aristotle had already showed were quite distinct. We are indebted to M. Rignano for having given us such a penetrating analysis of this 'dialectic reasoning' which logicians nowadays so rarely study. But we must draw a sharp distinction between the validity and the form of a course of reasoning on the one hand, and on the other hand the psychological attitude of the man who builds it up. For instance, a lawyer, for quite 'intentional' reasons, may make a demonstration which, as matter of fact, is perfectly 'constructive' and, in so far as it is so, it will be sound and valid. Stendhal narrates in his *Memoirs* that his Aunt Séraphie was generously endowed with the power to "find reasons" in support of her own interests or her passions. But the reasons which were thus found after the act were nevertheless good in themselves and convincing to an impartial mind. And it is precisely in this respect that Stendhal's aunt was so gifted. Almost all women can plead a cause skilfully, but only a few possess the talent of Aunt Séraphie.[1]

Another contribution to the study of logic is *La Classification des Sciences*[2] of M. Adrien Naville. This is a new edition of an earlier work which was remodeled in 1901. In its present form it has been thoroughly revised, but it still contains the three main divisions which characterize his system: namely, demonstrative sciences, historical sciences and canonical sciences (or, as we usually say nowadays, the 'normative' sciences). Also from Switzerland we have received *La Raison et la Vue*[3] by M. Frank

[1] An interesting discussion of M. Rignano's ideas was held before the *Société de Philosophie*, but unfortunately it was at the time when lack of funds made it impossible to print the *Bulletin*.

[2] 1 vol., 8vo, iii + 322 pages. Alcan, publisher.

[3] 1 vol., 8vo, 374 pages. Alcan, publisher.

Grandjean, Professor of Philosophy at the University of Geneva. This is an interesting work and even somewhat peculiar, which may be considered from two points of view—like those figures in a psychological laboratory, which, according to the play of the imagination, seem to represent a design either in hollow or in relief. From one point of view, it is a critique of the best known works of French contemporary epistemology: Bergson, Poincaré, Rabier, Goblot, and Meyerson are cited and discussed at length. It is evident that M. Grandjean's reading has not been confined to the classical authors and that his reading has affected his thought. Nevertheless, in this book also we find some curious lacunae. For example, even though the book is devoted to a discussion of the points of resemblance between Reason and Vision, the author fails to make use of the excellent work of Villey on *Le monde des aveugles,* written by a highly cultivated man who has himself been blind since early youth. This book might have dissuaded M. Grandjean from accepting, without sufficient criticism, and in opposition to Poincaré's opinion, the much discussed thesis of M. Dunan on visual space, and especially the formula of Platner (which to our mind is so apt to mislead psychology)—namely, "For the man born blind, time takes the place of space."[1] And this leads us to the second aspect of *La Raison et la Vue,* which is as dogmatic and as original as the first is critical and academic. The author has a two-fold purpose: In the first place, he aims to show the extent of the gulf between pure logic and applied logic. Secondly, he wishes to account for the part played by reason and for its relation to intuition, by showing that reason is formed under the dominating influence of visual sensations, of which it borrows the fundamental character. That is to say, like visual sensations, reason creates mental images, presents things clearly and synthetically, in forms that are plastic, static, simultaneous, and above all immobile—(but these images reflect only the surface of things, not their depth, whereas intuition penetrates directly to a distance)—and finally reason sees things with the eye of an artist, because at bottom our geometry (which is

[1] There is, however, in M. Grandjean's book (p. 257) a judicious observation which he might have urged more strongly, had he read Villey.

a rational study *par excellence*) is obviously also an aesthetic study. Does that mean that all science is to be converted into a work of art? Not at all! But, according to M. Grandjean (and this is not the least astonishing aspect of his work), 'rational' activity is quite different from scientific activity. Knowledge of the concrete and reason are not two tiers of the life of the mind, superimposed one upon the other—they are rather two opposing functions. Reason wishes to reconstruct the world to satisfy our intelligence. Science, on the other hand, modestly accepts the forms of experience so that action may have a successful outcome. Reason is a logican and a geometrician; Understanding is an observer, a physicist, a workman. There is nothing more romantic than reason; intuition, on the other hand, is positive, and from intuition, understanding receives its positiveness. Upon the normal collaboration of these three functions—reason, understanding, intuition—depend the poise and the life of the mind.

This aesthetic nature of rational thought, which to M. Grandjean seems so striking, is also emphasized in a very remarkable book by M. Pierre Boutroux,—*L'Idéal scientifique des mathématiciens.*[1] The author gives us a very vivid picture of the three great periods of mathematical thought:—For Antiquity geometry seemed like a beautiful structure of theorems—a complete, simple, harmonious edifice—based upon the first axioms and crowned by the theory of the regular polyhedra which so delighted Plato (Cf. *Tim.*, 54d–55e). For the ancients, especially, mathematical intuition is comparable to a vision of rational thought. But 'synthesis' (in the sense that the third rule of Descartes' Method is called the 'rule of the synthesis') is quite a different conception. This conception originated with the Arabs, gained in precision through the Cartesian algebra and infinitesimal calculus, and finally reached its height with the triumph of 'analysis.' During this second period, there was less interest in the completed work than in the

[1] 1 vol., 12mo, 275 pages. Alcan, publisher,—in the series called "*Nouvelle collection scientifique.*" M. Pierre Boutroux is the son of Émile Boutroux, Henri Poincaré's nephew. After having taught mathematics at the University of Poitiers, and later in the United States (at Princeton) he now occupies the chair of General History of Science at the *Collège de France*, Paris.

machine. Search was made for general processes which would make possible the unlimited development of new conclusions. "It is the reign of the factory supplanting that of the artisan." At last, modern mathematicians—or at least the most advanced among them—are now weary of this mechanical formalism. If they are not actually returning to a pure criterion of beauty, they are at least approaching a feeling akin to it. For they are now coming to believe that there are *natural mathematical forms*, just as there are types of mountains, of fauna and of flora. Some mathematicians of the present day are devoting themselves to the task of setting forth the most interesting forms—their work resembles a collection of impressive or graceful landscapes. Others prefer to become acquainted with the main outlines of the territory, and its configuration as a whole, like a traveler who, after much wandering through unknown regions, wishes to discover and understand their general topography. Here, as in all other sciences, each scholar selects his own field of study with perfect freedom of choice. This has been made possible by the very perfection of the algorithm, by means of which a man can get his bearings in the midst of many different directions. Ethics, Schleiermacher used to say, is the theory of the knowledge of history. Geometry needs a similar criterion, but what this criterion is, is less obvious. When seeking freely for truth, the true mathematician—that is, the one who has the real feeling for science—is dominated by the intuitive feeling that there is an objective value which the future will reveal, as soon as distance and perspective become sufficient.

While speaking of the history of sciences, it may be interesting to call the attention of philosophers and of scientists to the publication of a series of old monographs and scientific works, which have been re-edited by M. Solovine and published by Gauthier-Villars, under the title of *Les maîtres de la pensée scientifique*. The following have already appeared: *Traité de la lumière* by Huygens, the *Dynamique* of D'Alembert, *Les Animalcules des infusions* of Spallanzani, and the admirable little book of Carnot on the *Métaphysique du Calcul infinitesimal*.

V.

In conclusion—in the field of social questions, there is first of all an important work by M. Fauconnet, Professor at the University of Toulouse, on *La Responsabilité*.[1] M. Fauconnet is a pupil and disciple of Durkheim. He warns us in the preface that his work was inspired by a course of lectures on the theory of sanctions, once delivered by Durkheim, whose spirit directs the whole study. The book is rich in historic and legal facts and full of new glimpses into this very complex subject, which at one and the same time belongs to psychology, ethics and sociology. The idea which dominates the book is that responsibility is born of Society's reaction against crime, *not* against the criminal. The public wreaks its vengeance against the author of the offensive act, like the man who in anger breaks the object which happens to be in his hand. Later the phenomenon becomes more complicated, the feelings provoked by the agent come into conflict with those provoked by the act; the reaction is no longer blind; the effects of the punishment are now taken into consideration—responsibility is becoming individualized and moralized. But traces of the original phenomenon still persist. Here we have, I believe, a remarkable example of the interest of sociology, and, at the same time, of the limited value of this point of view. In the other logical or moral applications of Durkheim's method, we find throughout proof of the same kind of transformation. The fundamental thesis of sociology (which explains moral and intellectual facts by their dependence upon society, in so far as society is a socially organized body; that is, an actual and real thing cemented by the division of labor) is all the more valid when applied to more ancient and less civilized epochs. It becomes less and less true as man develops the power of reflection and a conscience, and as the point of view of personalism (which is the same as universality) at the present time takes precedence of the simple synergy and of the organizations or institutions which depend upon it.

La Science de l'éducation[2] by Dr. Demoor and M. Jonckheere (of Brussels) is a manual of theoretic and practical pedagogy.

[1] 1 vol., 8vo, xxvi + 400 pages. Alcan, publisher.

[2] 1 vol., 8vo, 380 pages. Printed in very small type. Brussels, Lamertin; and Paris, Alcan, publishers.

Its two authors, one a physician, the other Director of the *École Normale,* have collaborated by each contributing his special knowledge, and in this way they have produced a rather new type of work. Whenever they describe anatomically and physiologically any part of the brain, it has been their aim to attach to this description the corresponding study of psychological facts and the pedagogic applications which naturally follow. But, it must be admitted, the connection is not always very complete. When physiology and psychology are considered together, they are more often found to be in juxtaposition than actually fused together. But the book is none the less full of information and practical points of view based upon experience, which recommend it to educators. It will also be profitable for teachers to consult the new book of M. Queyrat on *L'Émulation.*[1] This is well supplied with facts, by means of which the author defends an old pedagogic method which has had many opponents.

Finally, in a related field, we must note a remarkable *Manuel de Morale*[2] by Mlle. J. F. Renauld, which is primarily intended for the instruction of young girls, but which would be very enlightening to many professors. It is written in an entirely new spirit, is concrete and always in close touch with the facts and realities of life, although the author in addition shows an extensive knowledge of philosophy and literature. She never tries to evade ethical problems, but looks them squarely in the face. She understands moral difficulties, and wishes above all never to be content with empty and traditional formulas. As we see especially in the chapters on the family and professional ethics, the book is dominated, moderately to be sure, but nevertheless in an unmistakeable manner, by a spirit of moderate socialism—not revolutionary, but actively reformist.

In the same pedagogic and social spirit, the question of the *"École Unique"* has aroused keen interest in France for some time. The question is whether or not we shall preserve the duality of our present school system. As matter of fact, we have two kinds of elementary instruction, which are parallel to

[1] 1 vol., 12mo, xii + 162 pages. Alcan, publisher.

[2] 1 vol. 12mo, 175 pages. Alcan, publisher.

each other. The first, free and popular, is intended for the 'masses' of the nation. It is designed to be complete in itself, and it is what we call the *enseignement primaire.* The second kind, which recruits its pupils from the richer families of the nation, charges tuition.[1] Its course of instruction, like that of the *enseignement primaire,* includes reading, writing, arithmetic, elementary history and elementary geography. But it claims to teach these subjects in a different way, as a preparation for the *enseignement secondaire,* with which it is incorporated in the same system. This question has been brought to the forefront of discussion by the forceful and impassioned book entitled, *Éducation, un essai d'organization démocratique*[2] of M. Zoretti, Professor at the University of Caen. The author pleads earnestly for a unified system of primary instruction. These schools would be attended by children up to twelve years of age, when some of them could seek employment in manual trades, while others would be advanced to secondary schools. This selection of children for higher instruction would be based entirely upon ability, and no preference would be shown to children because of wealth or social class. This book, which dates from 1918, is a severe and incisive criticism of the present organization, and the general program which it offers for a future school organization is distinctly socialistic in character. Professor Zoretti's socialism is more clearly marked than Mlle. Renauld's. But it, too, is an intelligent and enlightened socialism, which while recognizing that the class-struggle is a reality, does not consider this an ideal condition, but on the contrary understands that progress depends upon the disappearance of the social differences which produce this struggle. Because of the principles which this book proclaims, it calls to mind in many ways Professor Dewey's *Democracy and Education.* Apparently, however, M. Zoretti has never read this book, because if he had, he would not have failed to include

[1] Except for certain scholarships, or exemption from the cost of tuition.

[2] 1 vol., 12mo, xviii + 287 pages. Plon, publisher, 1918—with the following epigraph by Bishop Frazer: "The education of the people is the most important of social interests." It must moreover be noted that it is possible to separate the question of the "*École Unique*" from the problem of making secondary schools accessible only on the basis of examinations and ability.

Professor Dewey among the American educators whose authority he invokes at various times during the course of his discussion. The relation between these two books is none the less interesting, —because here again, both in the subject discussed and in the similarity of viewpoint, we find the controlling idea of the convergence of minds, which we already have had occasion to speak of several times during the course of this article, and which, in our estimation, is of more importance than any other single thing to the philosophic interpretation of the world, as well as to social progress.

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REASON AND FEELING.

I.

BOTH in the language of every-day life and in that of philosophy there is no contrast more familiar than that between reason and feeling. Whether these terms are used in a popular sense or with some attempt at greater precision, the tendency is to set them over against each other as denoting phases or aspects of experiences that are largely, if not wholly, mutually exclusive. In ordinary life there is no admonition more frequently given than that we should distrust feeling and take reason as the guide of our conduct. And running all through the history of philosophy, one finds that the appeal to reason, as to a standard which is constant and objective and in its very nature opposed to the wavering and subjective character of every day experience, is an ever-recurring theme. In the Stoic philosophy, for example, the ideal state which the philosopher has to strive to attain is represented as a passionless condition of mind. And in the philosophy of the eighteenth century we find the same distrust of feeling, and the demand that reason shall rule alone.

Nor is this distrust and opposition something that has been superseded at the present day either in popular thought or in technical philosophy. There remains a dualism that is still maintained as true and vital in both fields. We still distrust emotion, as doubtless we generally have a good right to do, and continue to think of reason in the perfection of its use as dealing with facts without any admixture of feeling or emotional reaction. The excellence of reason is supposed to consist in its capacity to see and judge all things with cool indifference to anything but bare fact or formal consistency, and without any reference to results or consequences. We recall Pope's description of the intellectual attitude of the deity:—

> "Who sees with equal eye, as Lord of all,
> A hero perish, or a sparrow fall,
> Atoms and systems into ruin hurled,
> And now an atom burst, and now a world."

This supreme indifference to consequences, however, as would be acknowledged even by those who regard it as the logical ideal, is something rarely attained by mortals. It is only the philosopher-sage who is capable of becoming thus like the gods and rising to the height of passionless intelligence. Nevertheless, this is still taken to be the demand and criterion of perfect reason that must be held in mind by one who would be freed from the bondage of the emotions. Feeling is a hindrance, a veil of illusion, from which he who would see the truth must deliver himself.

Now no one can seriously doubt that these statements contain an important element of truth. The fact that they have been so long and so generally received is in itself proof that they are not wholly without foundation in experience. But even from the standpoint of common sense, it is evident that there is another side to the story. For in ordinary life we are frequently forced to recognize that experience is a whole, and that a lack on one side carries with it a corresponding deficiency on another. For example, we note cases where the lack of what we call proper feeling is coordinated with a stupidity or intellectual obtuseness. And a reasonable man is characterized no less by reasonable modes of feeling than by acuteness of logical judgment. We feel that the 'equal eye' which Pope glorifies would be diabolic rather than divine. An intelligence without any appreciation of value cannot be conceived as a perfect instrument of truth. And appreciation of value, I suppose, implies the presence of some form of feeling.

It must accordingly be recognized that there is still a good deal of vacillation and inconsistency in the current theories of what constitutes complete reasonableness. To some extent this inconsistency is obscured by the recognition that in actual life the feelings do enter in and often largely control the reason. "The reason of man," as Bacon says, "is no dry light, but admits a tincture from the passions and the will." The psychologists

continue to moderate man's pride by pointing out that his claim to be rational cannot be sustained in the light of the facts; that his beliefs and convictions are determined in advance by irrational impulses and wishes that are frequently unnoticed and obscure. In the last resort, it is said, it is always some such irrational influence which decides. The sovereignty of Zeus is denied and Vortex recognized as the *de facto* governing power.

Nevertheless, even when emphasis is thus laid upon the conditioning of reason in its actual use by other psychological forces, it is usually assumed that what is thus illustrated is the imperfect functioning of reason in human experience, rather than its complete logical exercise and function. These influences are impediments to reason rather than something that belongs to it in its true nature. They are either idols from which it is called upon to deliver itself, or human imperfections that it is necessary to confess for the soul's good, but from which it is impossible entirely to escape. In either case, one may recognize the gulf between actual human attainment of truth, and the logical ideal of the passionless impartial spectator to whose 'equal eye' facts are all seen as on the same level and reflected without emphasis or obscuration.

But once more we can only formulate such an ideal in order to reject it. To be unmoved by feeling, to apprehend everything on the dead level of bare existential fact or abstract logical conclusion, is after all to lose sight of an element that gives to truth its distinctive human interest and coloring. And this objection cannot be dismissed as merely pragmatical or sentimental; for it is based upon the demand that our experience shall disclose to us the nature of a coherent world. Such a world can be constituted only by an intelligence that selects and evaluates, giving to each part its place in the whole; and this must involve some ground of preference, some estimate of relative significance that goes beyond the bare existential assertion. To attach equal importance to the great and the small, to admit all classes of facts to an equal footing, not to be able to see distinctions of value in the items of experience, this is surely not a mark of intelligence, but of its lack. It is true that persons who exhibit

such defects of feeling may sometimes be characterized by great acuteness and persistence in analysis within some restricted field, but this is usually lacking in fruitful result and is seen to be defective even from the logical point of view. Without the ability to feel rightly, understanding is paralyzed: a man may have great power of abstract logical reasoning, and yet be incapacitated by emotional obtuseness or by irrational and undisciplined modes of feeling, so that his judgments concerning concrete matters are quite untrustworthy.

Once more, then, there is seen to be a conflict between the two demands which the reason as the truth-seeking activity is called upon to fulfil: on the one hand, that of apprehending facts objectively, as it were unaccompanied by any emotional or affective fringe, and, on the other, that of estimating their significance in the light of 'right' feeling. The problem might perhaps be stated provisionally in terms of feeling: What is the standard of 'right' or reasonable feeling, and how are such feelings to be distinguished from feelings that operate prejudicially to reason?

II.

What has preceded may serve to suggest that the difficulties which have been noted have their source in the traditional antithesis between reason and the other modes of experiencing. This separation is based upon the conception of reason as an independent power or faculty of the mind, operating in abstraction from the ordinary level of mental life, and having absolute authority, if not absolute power of rule within itself. Now, it is evident that it is no longer possible in the light of modern analyses of experience, both psychological and logical, to assign to reason any such distinct and isolated position. From the point of view of psychology, thought, feeling, and will are distinguishable aspects of experience, each of which yields its own peculiar characteristic and makes its own contribution; but no actual moment of life is reducible to any one of these forms taken by itself. Each faculty, on the contrary, represents a logical distinction within the experience of any moment, and the function-

ing of each penetrates and is penetrated by that of the others. As elements of experience, they do not represent actual states of mind that are chronologically separable, but aspects of the one inner experience that are isolated only through the logical analysis that psychology effects. The same conclusion is enforced from a somewhat different point of view by logical reflection. For when reason is taken as an abstract and independent faculty, it sinks to the position of a particular faculty of mind, coördinate with the other divisions. As a result, reason is isolated from what is concrete and individual, and restricted to dealing with general propositions and barren formulas. It then becomes necessary in the interest of truth to institute a revolt against the narrowness of reason and to dispute its claim to exclusive rule. But such protests are in themselves fruitless, just because it is impossible to set up any other authority outside reason.

If any progress is to be made, it seems clear that it is necessary to begin by recognizing that the mind is a whole, and that its total life is the life of reason. Reason is not a separate faculty, once for all given in its completeness, which announces its conclusions *ex cathedra* from some high eminence apart from the ordinary course of the mind's experience. The power of reason is simply the power of the whole mind at its fullest stretch and compass. This of course involves will and feeling; but the appeal is to the energy and capacity of the entire mind, not to the contributions of separate faculties. Reason, as Hegel has said, is the medium in which all the elements of our experience,—sensations, impulses, and feelings,—find their place as living parts of the whole. It is synonymous with mind as the universal principle or capacity, and is not something that can be brought in from without or dismissed at pleasure. "When me they fly I am the wings." This is illustrated admirably by the procedure of sceptical systems of thought, as well as by the arguments of those that profess to find truth and reality by appealing to some non-rational principle. In the end the authors of these systems are always obliged to justify their conclusions by appealing to reason. Whatever appeal may be made to specialized functions of the mental life, the ultimate criterion of truth can never be found

elsewhere than in the most complete unity of experience that the mind is capable of achieving.

To justify the position we have taken, however, and to bring it into relation with the problem from which we set out, something more than the mere assertion of the essential rationality of experience in all its phases is evidently necessary. In the first place, we need some further explanation of what is meant by 'reason' as the medium of the mind's experience. Now this requirement may perhaps best be met by referring to the power of the mind to transform the immediate data of its experience through analysis and insight that lead on to a consciousness of connections and relations. Reason is, on one side, just the transforming power of the mind in action, the striving towards a more systematic and significant world of experience, and on the other, the power of conserving as elements of that world the results already attained. What is immediate in experience is no mere existential fact, but the product of the mediation of the past; and the immediate retains its vitality as an element of present experience just in so far as it continues to partake of the process of transformation and interpretation in which it has its being. The facts of perception or of memory maintain themselves only in so far as they are mediated, and thus given significance beyond their mere form of isolated existence. What is vague and relatively chaotic attains in the life of the mind the form of definite individuality or system; what is isolated and apparently self-sufficient is saved from death by being transformed and assigned a place in the living process of concrete experience. The mark of reason, then, is just this power of at once retaining the old and making it live again and yield new results that are more significant and satisfactory than the standpoint from which the movement has set out. The starting-point in experience is never a new beginning. So far as contents are in the mind, *i.e.*, so far as mind is implicated at all, the process of the rational transformation of experience is already under weigh, and the movement of reason already in operation. What falls in any way within experience partakes of the rational form of the mind. As mental content, any part of experience is something more than a particular impression having

only the attributes of existence. As already baptized into the life of mind, it partakes of its logical nature and moves on the plane of universality.

The process of reason, then, is that which is being realized in the concrete life of mind. If the objection is raised that its demands and purposes are not completely realized in any individual mind or in any historical society, the answer is that in the life of reason the process and the result are inseparable. The result must be found in the process and the explanation of the process in the result. This relation holds of all living things that grow and develop, and is a relation capable of being expressed in terms that make the various stages comprehensible. And yet it may be noted that for the formal logic of mechanism this outcome is simply impossible—either a confusion of thought or a 'mystery'. The plain fact then is that the process of reason cannot be circumscribed by the limitations of abstract thought to which the term 'logical' is often confined. Indeed, there is nothing so 'illogical' —so little capable of being reduced to abstract rules—as life and mind and what passes for concrete reasonableness in the world.

It is interesting to note that it is usually those who take the narrow and formal view of logic and reason who feel compelled in the end to appeal for truth or authority to aspects of experience supposed to be wholly outside reason. Now if the definition and scope of logic and reason are to be limited to what is abstract, it is of course true that this abstraction is neither the world of actual experience nor of ultimate certainty. There can be no possible ground of dispute: everyone admits the futility of attempting to translate life and experience into a formal system of inclusions and exclusions as set forth in terms of general concepts. But why set up this system as the final expression of reason? There does not seem to be any justification, either in the usage of common language or in that of philosophy, for limiting the sphere of reason to the world of mere shadows, and accepting as a higher authority the deliverances of oracles that speak in the ambiguous language of feeling.

The question, then, is whether it is not possible to find operative in actual experience itself a 'method' of mind, a procedure that

does not lose touch with concrete things, and still is capable of expression in terms of universal comprehensibility. The formal view of reason would seem to give a negative answer, and one may at first be inclined to say that the issue raised concerns only the definition of words. But on thinking the question over we see that by limiting the function of reason to the abstracting process the unity of the mind is logically abandoned. For there is no other principle than reason in which the universal character of mind can be exhibited and expressed, no other type of wholeness in which its nature as unity in difference can be made intelligible. No matter how strongly the unity and integrity of the mind is asserted, this unity is nothing more than verbal if the mind is not in principle the expression of reason. For it can be shown that all attempts to render comprehensible the unity of the mental life in terms of an alogical principle fail to attain their goal.

The protest made against the adequacy of reason as a universal principle of mind generally takes one of two forms. In the first, reason is represented as a special function of mind, with its own specific purpose and its own exclusive type of procedure. This procedure is exhibited in mathematics and the physical sciences, and formulated (though incompletely and sometimes incorrectly) in the older logical treatises. The protest against reason here contents itself with urging the claims to consideration of other types of experiencing: the process of reasoning must not be pushed too far; it is necessary in fairness to recognize the value of emotion and imagination, or of 'feeling'. Such a view often makes a claim to 'concreteness', as against the abstract procedure of logic. The mind, we are told, is a whole, and all the sides of experience must be listened to and heeded. But it does nothing to justify its claim of concreteness; the only whole to which it is able to appeal is a group of coordinate parts or faculties without any organic relation. These are arranged in a row like a number of claimants to be 'satisfied' or 'recognized' in turn. It is clear that this form of protest plunges us into new difficulties; and that, however valuable its warnings may be against the narrowness of a formal logic, it nevertheless furnishes no genuinely philosophical standpoint from which the problem before us can be fruitfully discussed.

It may at first sight appear, however, that the unity of mind which is sacrificed in the foregoing procedure is preserved and maintained when the rational process is described as in itself something secondary, which functions in the interest of some more fundamental purpose or activity that forms the basis of the mental life. But how is this unity itself to be conceived? It is true that the abstract process of reflection, with its work of defining, analyzing, and externally relating element to element, is a special function within the more concrete life of mind as a whole. The scientific procedure has a character and a purpose that are assigned to it by the demands of a more comprehensive unity. It lives and is supported in action by the ends of a larger mental experience of which it is the instrument. When it loses this connection and sets up to be 'constitutive' of knowledge in its own right it forfeits its title to the name of reason and becomes, as Kant says, 'a faculty of illusion'.

So much is often maintained by adherents of the view that the unity of the mind is rooted, not in reason, but in feeling, or in some biological instinct or group of instincts. But the difficulty arises just in the attempt to make comprehensible how reason can be a specialized function of a unity that does not already contain reason. If the underlying unity that is here postulated does not move in the medium of rationality, does not have within itself something of order and coherence, it is impossible to recognize in it the principle that gives unity to the manifold. For what meaning can be assigned to the unity of that which possesses no definite mode of behavior? How could that which as devoid of reason must be without the capacity to hold together differences, be the root of the unity that expresses itself in self-consciousness? Kant is quite impregnable in his contention that the synthetic unity of experience cannot be given as a bare form of psychical existence, but must possess the character of logical universality. In spite of the unfortunate way in which he sometimes states his doctrine, he has made it clear that the thought that unifies experience is no specialized fact or datum, but can be nothing less than the universal life within which all psychical existences take on the form of experience. As the central unity of mind, as the logical

unity of thought, nothing can escape its grasp; it is no specialized function coördinate with other mental activities, but the principle within which all the specialized phases of mind live and move and have their being.

The conception of reason as a specific phase or element of mental life is then refuted by the doctrine of the unity of mind. And it is at the same time evident that the development of experience is comprehensible only on the assumption that reason runs through all its phases and thus mediates the process of transition. For development is not constituted merely by change; it implies the continuity of the discrete, and also an order and coherence expressible in terms of law.

In the light of these considerations it seems impossible to accept the narrower definition of reason and the more restricted view of the logic which describes its procedure. On the other hand, when we say that the principle of reason expresses itself everywhere in experience, we must remember that what is asserted is the universal capacity of the mind in the understanding of its own life, and not the reduction of that life to abstract intellectualized terms. The life of reason must indeed have a 'method' capable of being formulated as a 'logic.' But its forms of comprehensibility are not externalized as inflexible moulds, but literally enter into individual things and illumine them. It says, 'Behold, I make all things live,' not, 'Behold, I furnish a label that will do duty for real things.' And this, if a mystery, is yet a mystery in which the steps may be pointed out and the order expressed in universal terms.

This, of course, is just the point at issue. The demand is sometimes made that rationalists who dispute the adequacy of formal logic shall set forth the nature and procedure of the more concrete reason to which they constantly refer. This may seem to be a reasonable demand; yet it should be recognized that from the nature of the case what may be legitimately demanded is not formal definitions or rules, but an exposition of the principles immanent in the actual course of experience. In a comprehensive sense the whole history of philosophy may be said to be the answer to that demand. For reason is nothing but the form of the

living mind in its most complete form and perfection, and to follow this through the various stages and to bring to light and to expression the nature of its essential principles, is just the task in which philosophy has constantly been engaged. It is accordingly vain to demand in this formulation the same kind of definiteness and completeness that is found in formal logic. For it is not only a much more difficult and comprehensive undertaking, but one which does not admit of the same kind of completeness. Formal logic remains outside of the content of experience and operates with generalized conceptions or fixed headings under which various types of content can be brought. Aristotle was able, as Kant remarks, to bring it almost to completion at a single attempt. That kind of thinking—classifying, adding, subtracting—can, as we know, often be better performed by a machine than by a mind. Of course it takes a mind to construct the machine and to work it. Moreover, it must not be forgotten that the work that I have characterized as external and mechanical is important, and in its own place indispensable. The mind is a whole, and order and calculation are everywhere essential to the concrete comprehension at which it aims. This kind of reasoning can be criticized justly only when the connection with the whole is lost and the mind rests in the isolated details or in the abstract form. The defect of the traditional logic consists in taking the preliminary work of thought for the final goal, and thus erecting its machinery of external rubrics into a formal system regarded as complete and final. In maintaining the logical nature of all experience, accordingly, it is necessary at the same time to insist that its logic is not that which is formulated by the doctrines of the traditional text-books.

What, then, are the principles of experience as formulated by this more complete logic? It is, of course, impossible to set them down here; one can only suggest in general terms the logic of the great systems of philosophy. In the first place, it assumes as its postulate that experience is in principle comprehensible and capable of description in universal terms. The mind has a method or way of procedure in which new results are obtained in accordance with principles that afford insight and systematic unity. The demand of the mind for reality is not, as we have seen, satisfied

when the process of thought is confined to arranging ready-made items under fixed rubrics. But the goal to be sought is the realization of the mind's demand for commerce with the real world. And this means commerce with individuals. The logic of philosophy may be said to be based on Aristotle's doctrine that the real is the individual. For this logic his rules of definition and theory of the syllogism form only the propaedeutic. And it must not be forgotten that the true individual is no mere particular, no isolated item, but has a permanent constitution and universal nature. At the same time it possesses 'matter' as well as 'form': it is embodied as an individualized entity and as a real member of our world. As such it is possible to hold commerce with it; to experience it, not merely to think it contemplatively 'in idea'; but to perceive it, hate it, love it, hold practical relations with it. All these attitudes and phases of the mental life fall within the 'universal capacity' of reason, and it is through their inclusion and systematization that the abstractness of mere rationalism is overcome.

The logic of philosophical experience, then, sets out from individual wholes, and working from within seeks to penetrate to the constitutive principles of reality in its individualized form, and thus to exhibit the unity of the real and the rational. In applying this procedure to the comprehension of the mind, it recognizes here the concrete unity of the manifold, and attempts to follow the actual process of its development and to understand how the various functions and aspects—perception, memory and imagination, as well as feeling and will—are included within the developing reason of the individual. Moreover, the logic of the concrete universal does not rest in the classification of static forms or of ready-made 'facts', but undertakes the task of exhibiting the transformations and organic relationships of the various functions of mind in their dynamic process of development. Nothing in this process is regarded as a fixed element that remains unchanged at every level. Neither feeling nor memory, for example, remains unchanged throughout the whole course of experience, but both alike are transformed and given a new significance as the mind passes from one level of experience to another. The reason is the

whole power or activity of the mind, and particular functions like those I have mentioned are not excluded or left behind in the growth of logical thinking, though they undergo constant transformation through the more intimate union into which they are brought with the other functions of experience. As members of a system, they first attain their true rank and logical valuation, and at this level enter into the total result as supporting or contributing factors.

That this is true is commonly recognized in the case of memory. Thinking, we say, rests on memory, and this latter mode of experiencing takes on new functions at different levels of experience, passing from bare memory or recognition to something that involves both imagination and inference. But the fact that feeling undergoes similar change in the development of experience is very commonly overlooked. And this fact, I believe, is the main source of the confusion and inconsistency to which reference was made at the beginning of this paper. In popular theory, feeling is assumed to persist unchanged throughout the course of experience, its character being unaffected by the context in which it appears. As mere isolated bodily feeling, it is opposed as something subjective and particular to the objective deliverances of the logical consciousness, and as no distinctions in the organization of feeling are recognized, the conclusion seems to follow directly that the only road to rationality is through its elimination or suppression.

But, as an appeal to the actual movement of experience makes evident, in the progressive organization of the content of the mental life, the feelings participate in the nature of the total system into which they enter and to which they contribute. Since the total movement of the mind is in the direction of wholeness and satisfactory significance of experience, the life of feeling as an integral part of this process is carried forward in the same direction. The mind is a whole, or a progressive movement toward a whole, and the further this movement of development advances, the more completely do thought and feeling interpenetrate. A defect or imperfection in one side is a mark of failure in the other: wrong feeling connotes as well a lack of thinking, or a prejudice or bias in intellectual comprehension, while deficiency

of feeling in concrete affairs is generally synonymous with logical incapacity. As mind reaches higher levels it becomes more clearly evident that the ends of reason are not independent of those of feeling, or of memory or sensation, nor can they be attained except through the inclusion and coöperation of these ends. Nor can the latter functions find their fulfilment in ends from which reason is excluded. The functions of the mind are one and all functions of the whole mind, and in the course of the development of the mental life they reveal more and more clearly their unity and complementary character. This unity is not a mere 'concord' or 'external harmony' attained in some mysterious way by 'specialized functions,' each of which retains its hard distinctness and restricted end. Nor is it merely something to be postulated as a 'far-off divine event' concerning which faith may prophesy, but which is never realized in actual experience. On the contrary, it seems to me to be precisely on the basis of such an achieved unity that men rest the fundamental certainties of life and knowledge. What is the basis of one's belief in the integrity of a friend, in the superiority of democracy to autocracy, in the value of religion or of art or morality? If it is said that such convictions rest upon faith or feeling, or upon a will to believe, such statements may be accepted as indicating that these truths have a more solid foundation than could be furnished by abstract logic, taken by itself. But they must not be understood to assert that they are unsupported by logic, or permitted to obscure the fact that they are sustained by the most comprehensive and systematic survey of the facts that the mind is able to make. And it is just such an integer of mind in which all the elements are tempered and combined that we call reason.

III.

The principal purpose of the foregoing discussion has been to emphasize the fact that in the development of mind, feeling does not remain as a static element, constant in form and content at all levels, but that it is transformed and disciplined through its interplay with the other aspects of experience. As thus organized as

a phase of a rational mind it attains objective significance. Indeed, the character of the feeling in any experience may be taken as an index of the mind's grasp of its object: at the lower level of experience, where the mind is only partially or superficially involved, feeling appears as something isolated and opaque, as the passive accompaniment of mere bodily sensations; while when the mind is at its full stretch the feelings are interfused with the content in the consciousness of power and achievement. In the former case, the content of mind, both sensational and affective, has not advanced beyond subjectivity, but merely indicates how the subject is affected by an external stimulus. In the higher experiences, the feelings assume an entirely different character, just as do the sensations and the other contents of mind. Here the bodily feelings may be still involved and even heightened, though they no longer exercise a dominating influence upon consciousness by their mere presence and immediacy. But the feeling experience that belongs to the level of systematic thought is not rightly described as a subjective reaction, an isolated 'state of consciousness'. It is a phase of the integral experience, and partakes directly in the universal and objective nature of that experience. The distinction may be illustrated by a comparison of the experiences that Butler differentiates as 'sudden anger' and 'deliberate resentment'; or by contrasting the more immediate feeling of physical love with the more highly developed forms of love that involve reverence and loyalty.

It should never be forgotten that a reasonable life is one that is guided by principles, not by rules. If reason were merely 'a faculty of rules', the contention that life in the forms of feeling and effort falls outside of it would of course be justified. But as the recognition of the principles of experience, reason is not something external to the content, but the literal comprehension of the content with the unity of mind. And as it has in it nothing of exclusion, so also its logic possesses none of that kind of fixity and finality of which its critics complain. These qualities belong only to the logic of rules. Rules, as we say, are good servants but bad masters. Principles, on the other hand, are the spirit and the life, the consciousness on the part of the mind

of its total power and insight which enables it to remake rule and custom in the light of new circumstances and demands.

But those who claim to be more loyal than the king—more loyal to logic than the organization of experience itself—still demand a 'sign' or abstract criterion. But this is again to assume that reasoning is a matter of the manipulation of rules, and not a life that is carried forward by the progressive development of principles.[1] Reason is justified of her children, not by those who seek for a 'sign'. This, of course, does not mean the renunciation of the critical faculty. But the critical faculty can do its proper work only within the organization of experience. Every fact, as well as every feeling and intuition, is to be evaluated in accordance with its function and necessity within the organized whole. Without feeling and intuition there could be no concrete unity of experience, just as there could be none without effort and the work of the scientific understanding. The whole mind must criticize itself; the self-critical mind, at home with itself in its own medium, is just the power to which we give the name of reason. As the power and grasp of the whole, it has the right to rule and authority. It is the whole mind confident in its power to correct its own mistakes and to justify itself to itself through its own procedure, not by the criterion of external rules. But its path is not the *via negativa,* and it enters at the end no secret place. Though its course cannot be charted in advance, it is taken upon the open sea where it may be followed and recorded. That is to say: It has the form of thought and moves in the medium of thought, whose purpose and nature is to comprehend. It may and must love and believe in order to understand, but its spirit is that of understanding and its form that of the light.

There is truth, then, in the popular view of the necessity of subordinating feeling to reason. But, as we have seen, feeling is not eliminated in order that another special faculty may 'rule alone', but is lifted up into the total context of experience and thus at once transformed by the spirit of the whole and in its turn

[1] This is the same spirit that in practical affairs refuses to act until everything has been calculated and provided for. It lacks faith in the capacity of intelligence to meet its own concrete problems, and trusts only to rules and external planning.

made to contribute its indispensable share to the movement and maintenance of the life of reason.

The logic of the concrete mind which I have attempted to apply to the claims of feeling is not the private doctrine of any man or of any school. Its fundamental principles have guided the whole development of philosophy. Plato's view of reason is its source, and to this in principle Aristotle's constructive philosophy is true. It expresses itself in the scholastic formulas such as '*amo ut intelligam*', and '*credo ut intelligam*', and in Spinoza's conception of the highest type of knowledge as '*amor intellectualis Dei*'. And however divergent from this course the method of Kant's critical analysis may appear, his results, when taken comprehensively and in accordance with the spirit of his whole system, lead back to the same main stream of philosophy. In emphasizing the logic of the 'concrete universal' Hegel was not introducing any real innovation; but with characteristic German genius he was able to recognize the procedure which had guided preceding philosophy and to seize upon and develop it into a systematically formulated principle. There is ample ground for discussion as to whether Hegel's efforts at 'system' were on the whole beneficial or injurious to philosophy. But the significance of the doctrine of the concrete universal as a logical method does not depend upon the form given to it by Hegel or by any of his followers, but in itself it can claim, as we have seen, much more ancient origin and support. Ultimately of course its test as a philosophical method is its adequacy to afford the final form of intelligibility demanded by the mind.

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EPISTEMOLOGICAL DUALISM VS. METAPHYSICAL DUALISM.[1]

IN the present paper I desire to re-open the question of epistemological dualism in the hope of showing new leads in which good philosophical ore can be mined. To continue the figure, it is my belief—and I know the belief of many others—that modern epistemological realism decided too quickly that the shaft driven by dualism ended in the bare rock. Was there not simply a 'fault' here beyond which careful exploration would have found ore again?

Epistemological dualism has suffered in the main from three things: (1) its association with Cartesian metaphysical dualism, (2) the false bias toward subjectivism assigned to it, and (3) the belief that it cannot escape an indefensible copy-view. Against all three indictments the modern epistemological dualist, who calls himself a critical realist, wishes to enter a plea of not-guilty. In what follows I shall try to defend a critical form of epistemological dualism against these traditional counts. And by so doing I shall hope to justify the discipline of epistemology itself, which is being severely attacked these days by the pragmatists. Not that I wonder at their impatience, for which there has been sufficient cause.

In his recent attack upon epistemology as such, in his essay, "A Recovery of Philosophy," Professor Dewey argues that *all* epistemology is guilty of the above errors. Beginning with an exposition of his own view of empiricism as contrasted with traditional empiricism, he maintains that epistemology has been a product of false assumptions and unveracious descriptions. And he draws up a tremendous indictment of Humianism, Kantianism and idealism. All of them were founded on a non-empirical doctrine of experience. But why? "The traditional

[1] This paper was read before the meeting of the Eastern Division of the American Philosophical Association, December, 1920.

account is derived from a conception once universally entertained regarding the subject or bearer of experience. The description of experience has been forced into conformity with this prior conception; it has been primarily a deduction from it, actual empirical facts being poured into the moulds of the deduction."[1] Thus the self, soul, subject or spirit was taken to be non-natural or supernatural. "Even if they had wished to make a complete break, they had nothing to put as knower in the place of the soul." He argues that the bearer of experience was conceived as outside of the world; so that experience consisted in the bearer's being affected through a type of operations not found anywhere in the world, while knowledge consists in surveying the world, looking at it, getting the view of a spectator. In this way, Professor Dewey argues that epistemology has assumed that "the bearer of experience is antithetical to the world instead of being in and of it."

Now the epistemological dualist is just as desirous as is Professor Dewey to eliminate any such metaphysical dualism. He, also, is a naturalist who is convinced that his data are natural events or occurrences. He, also, means by the subjective a "specific mode of objectivity." He does not use it in any disparaging way, any way which assumes a contrast with a peculiarly *real* object and implies that "the organism *ought* not to make any difference when it operates in conjunction with other things." The epistemological dualist of to-day has no thought of a ghost-like knower who watches the world but is not of it. He is certain that this attack upon epistemology has no other than an historical meaning for him. And it is at his own risk that the pragmatist assumes that the epistemological dualist is self-deceived and knows not what he believes. It is a mistake to underestimate your opponents, and savors of sectarian passion. The differentia between pragmatism and epistemological dualism does not lie in the naturalism of the one and the supernaturalism of the other.

The modern epistemological dualist begs to differ from those who identify epistemology with metaphysical dualism. He can see no logical connection between his own epistemology and Cartesian

[1] *Creative Intelligence*, p. 30.

dualism and he is, moreover, no dualist. To assert that one's idea in knowledge is numerically distinct from the object known does not imply that they are parts of different worlds. Only those who take knowledge wholesale and disregard its actual setting would at all be inclined to make this inference.

The modern epistemological dualist always concerns himself with an individual knower and his knowledge-claims. He takes knowledge retail and not wholesale. The idea (which is the *content* of knowledge and not the *object*) is bound up with the knower existentially. It is his accepted idea or thought of the object. But may not the knower be in the same world as the object known? I can see no reason why the epistemological dualist cannot be as biological as the pragmatist. To put the argument concretely, I know the tree outside my window in terms of, and by means of, my percept-datum. The tree is existentially external to me while still in the same objective physical nexus. The percept-datum is subjective only in the sense that it is bound up existentially with me as a specific concrete knower. It assuredly is not subjective in the sense that it is non-natural and belongs to a 'mind' as a mysterious realm apart. Just what mind is, is a problem to be determined in the course of the investigation. Surely there is in this approach nothing opposed to objectivism and naturalism. Sense-data are natural events taken as the material of knowledge, and the content of an act of knowledge is an interpretation of the affirmed object. We can accept all occurrences as equally real. It is a question of their use and status. The subjective is an occurrence which can be used as content of an act of knowledge. The reason for this is that it is in the possession of the active brain-mind of an organic knower. The knower is quite apparently one thing among others; what kind of a thing empirical knowledge, and not epistemology, informs us. To return to the case of knowing the tree outside my window, this knowledge-claim is a specific empirical act and must be empirically analyzed in the light of all the relevant facts. This demand for analysis is simply the expression of scientific standards—and the result is epistemology. Epistemology develops out of specific facts and problems.

And yet because the history of philosophy is so constantly present as a part of the apperceptive system of the thinker, very few philosophers are able to examine an analysis with unprejudiced eyes. "Epistemological dualism? Ah, yes; you assume a 'mind' which *knows* its own states, and you postulate an external world to which those states must somehow correspond." Such is the rapid-fire response of the majority of philosophers. "Yes" and "no" must be our reply. It all depends upon what you mean by the terms mind, states, knows, and correspond. These terms must be taken empirically and away from any substantialist setting.

Historically, epistemological dualism was shipwrecked on the puzzle of the status of ideas in knowledge. Attention swung to the ideas, and the query arose, Is it not possible that in all cognition what is known is never the object itself but only an idea *representing* that object? But how representing? And how can you be certain that there is an object to represent? When epistemological dualism once allowed itself to be formulated thus, its fate was settled. Radical empiricism, or epistemological monism, seemed so much more simple. The idea is given: why not call the idea the object of knowledge? Representing an unknown which you only infer does not sound plausible. So thought Berkeley and Hume; and the neo-realists have followed them.

But this radical empiricism was not empirical enough. Anti-epistemologist as he is, Dewey has seen this fact. Mere subjective occurrences, call them sense-data, images, concepts according to their level, are not ideas in the cognitive sense. It is the *cognitive use* of these subjective events which makes them ideas. The fact was that attention had swung from the cognitive use of mental data to their mere givenness. Logic and epistemology were virtually shoved aside in favor of the elements of physiological psychology. The conditions of the *material* of knowledge were studied to the exclusion of the act, content and claim of knowledge. In the second place, this first burst of empiricism was not empirical enough in another regard. It did not realize the significance of the fact that we have such distinctions as that between the

subjective and the external world and that we make cognitive claims to know this external world.

The way of ideas did not win without a protest. Thomas Reid attempted to carry through a distinction between sensation and perception. Unfortunately, he was unable to analyze this distinction and fell back upon common sense as a court of appeal—a refuge denied to one who sets out to be a philosopher and so reflective and analytic. "We are so constituted," argues Reid, "that, on the occasion of *sensation,* we *perceive* material objects and their qualities existing independently of the percipient mind. . . . Grasping a ball, we perceive it at once to be hard, figured, and extended, moving the hand along the table, the qualities of hardness, smoothness, extension, and motion are at once *suggested* to the mind. . . . The knowledge of the primary qualities thus obtained is inexplicable; all that can be said is, that *by an original principle of our constitution* sensations of touch arouse in our minds the conception of, and belief in, external things. . . . From the natural sign in sensation the mind passes at once to the thing signified, though reason can discern no tie or connection between them."[1]

Can the modern philosopher with the help of psychology explain the distinction between sensation and perception, and indicate the factors of the process by which we build up the category of thinghood? If so, he can explain that which to Reid was inexplicable. Puzzled as he was, Reid yet held obstinately to the fact that in knowledge we claim to know external things and not ideas. But *how* we could know external things he really did not see. The modern epistemological dualist believes that he has found the opening and that it leads to critical realism.

It is interesting to note that Hodgson, who is generally acknowledged to be the father of the English realistic movement, makes a demand or postulate very similar to Reid's. He asserts that a thing is what it is known as, a reality independent of the existence of a perceiving consciousness. But neither was he able to carry this postulate through successfully. He set a problem instead of giving a solution.

[1] Cf. Laurie, *Scottish Philosophy in its National Development,* p. 139.

The critical realist believes that he can give a solution of the problem in terms of two things: (1) a more complete analysis of perception, and (2) a re-interpretation of knowledge.

Why is it wrong to identify perception with the givenness of a sense-datum? Because a sense-datum is only an elementary part of the total experience of perceiving. There are *two* distinguishable elements in the total experience of perceiving, the datum, or content, of perception and the affirmation of an object. With regard to the *content* of perception, the critical realist points out—in this he is in harmony with modern logic and psychology (*pace* Russell)—that there are many meanings and images in the content of perception. We perceive what we take to be things and not sensations. The category of thinghood has been developed and, with its arrival, sense-data are interpreted as qualities of things.

Perception involves a coördinating and interpretative response to a complex of stimuli, and there is attached to it and implied in it the sense of contrast between my bodily self and the things surrounding it to which it is responding or tending to respond. To remove sense-data from this context is to be unempirical. The modern bio-psychologist can understand the level of perception with its distinctions and categories in a way impossible to either Reid or Kant. They were seeking some innate principle by which to lift sensation to perception.

This approach enables us to discover the factors in the total experience of perceiving responsible for the element we called the affirmation of the object. The attitude, or set, of the organism in perception floods consciousness with a sense of something co-real to which it is responding. The motor impulses to reach out to, or move toward, this something carry out this feeling and develop it. And I think that there can be no doubt that additional meanings, such as externality, independence of direct control, and persistence, all add themselves to this nucleus to constitute the affirmation of, or belief in, a co-real object. Professor Strong calls this affirmation instinctive. It seems to be quite empirical and expressive of the nature and situation of the organism. The structure of the field of consciousness reflects the situation of the organism.

These elements combine into the apparent givenness of an object. Such is the psychological derivation of naïve realism and the reason for its strength. Now the epistemological dualist simply argues that, while all this is natural and inevitable, reflection forces him to declare that the actual physical thing, which is the object of the *organic act* of perception, cannot be given in consciousness as the content of perception is given. Into the facts breaking down naïve realism I shall not here enter. They are a part of the stage property of philosophy which only the desperation of the neo-realist led him to challenge.

I would suggest that the flaw in Berkeley's analysis of perception was due to his lack of attention to the psychological factors mediating the affirmation of the object. In common with all radical empiricists he did not do justice to the category of thinghood. The inadequacies of Lockeian realism furnish him with a partial excuse. But there can be little doubt that he was too anxious to get rid of a physical world distinct from sense-data to be quite scientific in his approach.

Though in a very summary fashion, we have thus far endeavored to show that modern epistemological dualism does not begin with a metaphysical dualism; nor does it assert that we know ideas first and then infer objects. There is no bias toward subjectivism in it. Objects are affirmed rather than inferred, though reasoning supports the affirmation and develops its implications. We believe from the beginning, as much as the naïve realist does, that we know external things; but reflection on the conditions of knowledge forces us to realize that the external thing cannot be inspected or intuited, that only subjective content is given to awareness. *The consequence of this conclusion is that the exact nature of knowledge becomes a problem in a way that it does not for the naïve realist.* Knowledge of a physical thing cannot be an intuition of it in part or in whole. A thing cannot enter consciousness or be in a cognitive relation of compresence with consciousness. It is the content of perception or the content of judgment which occupies this position.

What, then, is knowledge? Let it be noted that the critical realist does not fall back upon blanket contrasts between two stuffs called mind and matter. His analysis remains empirical. Such contrasts are for him epistemologically unreal because they are not found in the knowledge situation as it presents itself. Any ultimates must be worked up to in the course of empirical reflection rather than assumed.

The critical realist differs, then, from neo-realist and pragmatist on two fundamental points. These are, (1) the acceptance of the distinction between the content of knowledge and the object of knowledge, and (2) the frank recognition of the consciousness (psychical or subjective)-and-organism problem. It is evident that these two positive doctrines of critical realism hang together. And it is probably because of the second doctrine that the epistemological dualist is still so frequently thought of as a metaphysical dualist. But surely fairness suggests that the recognition of a problem is no proof that there is only the traditional dualistic solution of it. And is it not better to admit a problem than to act ostrich-like, as pragmatists and behaviorists are doing? Moreover, epistemology comes first logically and is to be settled on its own data. It has no direct connection with the problem of the relation between the subjective and the organism even though it leads to a closer statement of the problem. The mistake with both Descartes and Locke was the constant injection of metaphysics into epistemology. Our modern empiricism has helped to allay that evil.

But we are now confronted with the most difficult of our tasks, the working out of a clear idea of knowledge. At the beginning of the paper we said that critical realism had to meet the indictment that it could not escape an indefensible copy-view. To this question we now turn. I believe that much that is novel in the position lies here and that it has not been grasped.

The critical realist must show that past representative realism committed certain blunders which he can correct, and then he must work out a critical correspondence theory which is proof against the traditional objections.

In regard to the first point, he argues that the blunders of past representative realism were due to two things in the main: (1) the retention of the idea of the physical thing which grows up through the identification of content of perception with the object of perception, the only change being the rejection of secondary qualities so-called; and (2) the tendency to make an idea of a thing an object in the same sense that a physical thing is an object. The first mistake led to the assumption that physical things possess qualities which are copyable, and that these qualities inhere in an unknowable substratum. Now I, at least, reject this substance-quality schema in its entirety and hold that it is a result of the influence of naïve realism. Representative realism of the Lockeian type has often been called representative perceptionism, and this term expresses exactly what its outlook is. It has not sufficiently broken loose from naïve realism. Its ideal is an indirect intuition of a *sensuous object*. The second mistake, that of treating a cognitive idea as an object in the same sense that a physical thing is an object, led to a substitution of the category of resemblance in place of the act of cognition *by means of the idea*. It is easily seen that this second mistake played into the hands of the first.

Now it is no wonder that the two basic arguments customarily employed against epistemological dualism are, (1) that you can never compare object and idea, and (2) that it assumes that the effect is *like* the cause. The way in which critical realism meets these objections will give a clearer idea of how it conceives knowledge.

Critical realism recognizes, from the first, the different status of cognitive content and object. That came out in our analysis of perception. It follows that you cannot literally compare idea and object. Man's situation is such that, while he responds to things, he cannot apprehend them as naïve realism supposes. But, if there is a good reason to suppose that ideas convey something of the nature of the object, we can still have knowledge. We must have faith in this knowledge-conveying capacity of data of all sorts. So much for the first objection.

The critical realist then asks himself what characteristics of the physical world can be copied or reproduced by data and elicited by an intelligent synthesis and interrogation of data. Let it be noted that the characteristics of the physical world are not qualities in the Lockeian sense. It is the physical thing which is the object of knowledge, and we are not assuming that it has qualities stuck on it which we have to copy.

The answer to this first question is *the order, or structure of the external world*. The correspondence of two orders in different material is quite thinkable and does not demand the kind of specific, end-on, qualitative, cause-and-effect likeness which Lockeian realism presupposes. What, alone, is required is a correlation and order in the subjective field corresponding to the structure in the physical realm. And it is precisely this correspondence that the pattern of perception offers. In other words, the structure of nature can be worked out by the mind through a careful study of the pattern of appearance. And, furthermore, since the sensible appearance is a qualified, or differentiated, order, and every datum has meaning to the inquiring mind, much knowledge about the world can be achieved. It is these leads that science rightly follows. The conclusion is that data can be used by the mind to attain knowledge of the structure and properties of things, properties being the name for responses of things to one another and to specific conditions. All this is knowledge, but it is different from the sort of knowledge that naïve realism stresses. We have even got beyond the perennial controversy about primary and secondary qualities.

I have examined in detail the knowledge of the external world which science offers, and have found that it all falls into categories which are either categories of order or categories which fit into and develop order, such as spatial and temporal positions, quantity, structure, composition, interdependence, behavior. These categories permit an immense variety of detail; but nowhere in science do you to-day find an attempt to copy qualities which are like specific sense-data. Knowledge has the external world for its archetype or object, but we must shake ourselves loose from the notion that it copies sensuous qualities which specific, isolated ob-

jects possess in their own right. Much of our knowledge tells us how things behave, not how they are dressed, as it were. Knowledge enables us to grasp and understand the structure and interactive process of things. And the crude material upon which this knowledge is built is patterned sense-data. Developed ideas are built up by the mind and asserted to be revelatory of objects by which they have been consciously controlled. Is this Lockeian realism? There has at least been an advance.

The fundamental postulate of critical realism is, then, that patterned and correlated sense-data can mediate just the kind of knowledge of the physical world we actually possess according to science. The claim is there and it does not sound absurd. The content of perception contains a *translation* of the gross structure of the external world, and theory pushes this translation farther. But never do we intuit the very stuff of the physical world. Knowledge has its inevitable limitations. It is the form of reality, so to speak, not reality itself which is grasped by the human mind. But I would not reify this *form* in an Aristotelian way. The implications of this view for naturalism are obvious. It undermines the crude type of materialism. I do not think that it is ordinarily realized that perception is a mixture of sense-data and knowledge and that the fusion of data and knowledge encourages the intuitional idea of knowledge and masks the proper view. I think that neo-realism deceived itself at this point and that pragmatism, though more wary as to the difference between sense-data and knowledge, assumed the impossibility of carrying through epistemological dualism and stressed instrumentalism too blindly.

Let me summarize the way in which critical realism meets the traditional objections to representative realism. First, the physical object is not inferred but is affirmed. In this the critical realist is objective from the beginning. Second, the critical realist admits that he cannot compare his knowledge of the thing with the thing; but he never pretends to do so. Instead, he believes on sufficient grounds that his knowledge grasps much of the nature of the external object and that this knowledge is founded upon the communication with the thing which his data offer. This position is more than semeiology. In knowledge we get a grip on reality.

In the third place, the outlook of critical realism is far more subtle than the crude notion of the likeness of object and idea as cause and effect respectively. It relegates the relation between data and object to the *causal condition* of knowledge and examines as distinct the claim of knowledge and its content.

Thus critical realism has outflanked Berkeley by developing a more exact conception of the nature of knowledge, while admitting all that is valid in his attack upon Locke. We gain knowledge of the physical thing, itself, and we discard the metaphysics of a substratum in which copyable qualities inhere. Epistemological dualism of this type meets all the traditional problems in a direct and unsophisticated way. I am not afraid to say that neo-realism will find in it all that it has been contending for in the way of a stress upon analysis and order and the knowledge-claim. The pragmatist, also, will find the recognition of his biological setting and his denial that sense-data are, as such, knowledge. But if my defense of epistemological dualism holds, he must retract his criticisms of epistemology. *Both neo-realism and pragmatism built their doctrines upon the assumption that it was impossible to carry through a valid type of epistemological dualism.* That was what they had in common. They have made their contributions but these can be accepted and related by critical realism.

One word in conclusion upon the mind-body problem. I wish only to show the approach which critical realism suggests. The organism is the object of scientific knowledge, and in this knowledge must be included physics, chemistry, biology and psychology. Is there a *second object* called mind? I do not see that there is. The mind-body problem consists, therefore, only in working out the proper meaning for mind and in showing that there is nothing in the knowledge gained by the physical sciences which logically excludes the realm of the subjective, or psychical, from the organism. I have carried this argument through in detail in several places and so will not repeat it here. My conclusion is that there is no logical connection between epistemological dualism and metaphysical dualism.

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DISCUSSION.

The Dilemma of Darwinism.

Natural selection is an ambiguous principle. It offers an incomplete theory of life which, if completed in the way its language suggests, becomes irrational. The dilemma has been noted from the first. The present essay aims to restate it briefly.

The customary formula—the natural selection of fortuitous variations—names a phenomenon, variation, and its outcome, 'selection'. It asserts that from among any variations presented by new individuals of a type, those only are 'selected', that is, taken up into the type, which reappear in offspring. As to how it happens that any so reappear the principle is silent. Its emphasis is upon the familiar fact of premature death among organisms displaying heredity and variation.

Although void of new content, the principle was far from barren of new content. Aside from the incompleteness of selection as a theory of life, the achievement of Darwin may be compared to that of Copernicus who reformulated in simpler terms the same phenomena of planetary motion that had been described with equal truth but in a more complex way by Ptolemy. Like the Copernican system, the principle of selection by reformulating familiar facts revolutionized men's thoughts throughout a whole domain of inquiry. It offered within its limits a totally new explanation of the adaptation of living organisms to the conditions of their life.

It is often apparent that, had a certain trait of a certain organism been lacking, the organism could hardly have lived to maturity under existing conditions. Before Darwin this fact had commonly been explained on the theory that such a trait was an essential element in the type. Darwin suggested instead that there might have existed similar organisms lacking the trait who had died without leaving descendants. The idea was original with Darwin, and simultaneously with Wallace, but was not new to the world. It appears in the doctrine of Empedocles (fifth century B.C.) that perfect animals are produced by the extinction of the imperfect; and is included under the doctrine of St. Matthew's Gospel, "For whosoever hath

(*e.g.*, a favorable trait) to him shall be given, and he shall have more abundance (*e.g.*, offspring); but whosoever hath not (*e.g.*, who lacks the trait in question) from him shall be taken away even that he hath (*e.g.*, life)."

A veil was at once lifted from the history of life. Instead of a number of narrow lines of descent constituting fixed species, the past world of living organisms spread out into a vast nexus of types merging into one another by countless intermediaries. So simple, so enlightening and yet so totally unsuspected a turn of thought was a cardinal example of the power of genius to find diamonds by the wayside.

The question of origin remained outside the scope of the new viewpoint. A doctrine of selection is a doctrine of outcome, not of origin. Suppose certain organisms existing under certain conditions. Why, when the conditions change, should any variations at all appear in new individuals capable of securing the continued life of the type?

The word 'fortuitous' in the formula of selection suggests the answer. Instead of using it figuratively to mean "occurring by laws unknown," we may take it literally to mean "occurring without law." A law is the negation of a possibility. The law of gravitation, for example, asserts that matter which does not attract other matter according to the inverse square does not exist. Variations occurring without law are variations embodying all possibilities. One such possibility is the variation needed for the survival of a given type under given changed conditions; and the principle of selection on the new interpretation of the word 'fortuitous' seems to account for its appearance in that case.

Far from it. To assert that the variations of living beings are literally fortuitous is indeed to assert that all possible variations are actual, but it is not to assert that any given variation is actual at any given time and place. Perhaps in the history of some distant globe the type recurs and with it the variation that would have helped it here; but that fact does not avail a denizen of earth. What is needed is that every possible variation should be illustrated by the organisms composing the type at any given time and place: plainly an extravagant hypothesis and one which a moment's thought proves irrational. However great the number of organisms composing a type at any time and place, it is finite, while the number of possible variations is infinite. Whatever variations the actual organisms presented, others are still imaginable. The formula of selection based on

chance denies in the word 'variations' taken historically, what it affirms in the word 'fortuitous' taken literally. It is in contradiction with itself.

Thus ends the effort to bring the question of origin within the scope of the principle of selection by the literal interpretation of the word 'fortuitous'. It might have been expected so to end. Evidence points to the exclusion of possibilities and the effort to admit them all on evidence is antecedently irrational. The question why under any given change of conditions there are any survivors of any given existing type of life cannot be answered rationally by invoking chance. The Darwinian principle and the discoveries it has inspired have immensely extended our notion of the past of life, beyond the pre-Darwinian notion of fixed species; but in turn this wider range of life has its own fixed limits. The doctrine of special creation, become a doctrine of general creation, finds its old place vacant.

These two points of view, the limited and the unlimited, correspond to the two possible final answers to the question of the origin of things. No question of origin admits of a final answer of fact. For of any given other fact which we may assign as origin the question may always be repeated. What is the origin of this other fact? Yet the mind has two ways of escape from the endless sequence. Asking whence anything comes, it may answer either "Everywhence you can name", or "Nowhence you can name." These two are the sole final answers to the question of origin. One is the hypothesis of evolution, the other that of creation. Each leaves no further question open. Evolutionary origin is origin in everything you can think of, and to ask the origin of everything you can think of is to expect to think of something else than everything you can think of, which is absurd. Creative origin in turn is origin in nothing you can think of, and to ask the origin of nothing you can think of is to have no question before the mind. The mind itself becomes the object of its own search.

It is the mind itself that rewards our search on the evolutionary theory also. No powers of observation can keep abreast of the capacities of the mind to conceive of possibilities. In any universe as seen by the finite minds there must always be possibilities lacking, always observable laws. At best finite minds could observe such things only as lasted long enough to be noted. Moreover, comprehension itself is the act of framing laws; knowing is law-giving. Briefly, a reign of law is the necessary aspect of its absence. This

evolutionary idea is a sublime one and liberating to the thoughts. All the vast mass of human knowledge may be but an exploration of the face of chaos. The orderly universe we know may be but a figment of our finitude.

The other final answer to the question of origin remains as an alternative. Law is the necessary face of chaos. True; but the proposition cannot be simply converted. Chaos is not the necessary substance of law. Reality itself may be a realm of banished possibilities. Such is the theory of creation, the other final answer to the question of origin. If we pursue the question, we shall ultimately come to something whose origin is nowhence we can name.

These two final answers, Evolution and Creation, possess, *prima facie*, a precisely equivalent logical standing; but *prima facie* only; and for two reasons. The notion of evolution from everything is not incompatible with any evidence; but it is irrational to expect any evidence to look toward it. Moreover, the attempt to make a consistent conception out of the notion itself encounters a logical difficulty. When worked out apodictically, the actuality of all possible combinations of the characters of things appears a logically contradictory conception.[1] On the other hand, in the theory of creation from nothing we are dealing with a logically consistent idea, that involved in negating the relation of product and source between a given phenomenon and any given other. Further we accept the result of evidence as expressing reality itself. On both accounts the theory of creation from nothing stands as the sole tenable answer to the question of ultimate origin.

The conclusions of this discussion are as follows:

(1). The principle of selection is a partial reformulation of known biological fact, covering the fate of variations, but not their genesis; (2). In the attempt to complete the principle by a fortuitous theory of the genesis of variations, it becomes irrational.

Finally, the theory of evolution may perhaps be rationally held; but any evidence counts against it, and it leads into a tangle of contradiction which must first be unravelled. In any event, the theory of creation from nothing alone harmonizes with any view that finite beings can ever attain of the all of things.

[1] The argument referred to is that of Charles S. Peirce, to whom William James ascribed the original suggestion of the philosophy of Pragmatism. It is given in the fifth of his papers on "Illustrations of the Logic of Science," published in the *Popular Science Monthly* in 1877 and 1878.

At the outset the doctrine of selection was greeted by at least a tacit recognition of the dilemma—truism or fallacy. Huxley is reported to have said that his first idea on hearing of Darwinism was, "How stupid not to have thought of that before!" It seems indeed stupid never before to have suspected that the fact of premature death must have a meaning indefinitely greater than is expressed in the saying "Whom the gods love die young," or than was accorded it even by Malthus. John Stuart Mill records in his Essay on Theism that all he cared to say about Darwinism was "It is not so absurd as it looks." This was true since it is absurd only when stretched to bursting by the evolutionary admixture. The faint praise of these two preëminent minds was prophetic of the estimate which the future will place at once upon the immense generalization simply presented in the Darwinian principle and upon the imposing nullities of evolutionary ratiocination that have since sheltered themselves under the reputation of a great naturalist.

Postscript.

The doctrine of natural selection has just been recalled to the attention of magazine readers in America. The late John Burroughs, in his essay, "A Critical Glance Into Darwin", printed in the *Atlantic Monthly* for August, 1920, wrote that Darwin "has already been shorn of his selection doctrines as completely as Samson was shorn of his locks;" and Professor C. C. Nutting has since as vigorously denied the claim in an essay entitled "Is Darwin Shorn?" printed in the *Scientific Monthly* for February, 1921.

In agreement with the first conclusion of the present essay, Burroughs assumes that a complete theory of life demands a doctrine of the genesis of variations as well as of their fate. Selection "cannot give the wing to the seed, . . . or the scale to the fish; but it can perfect all these things." In agreement with the second conclusion above, Burroughs repudiates, as Darwin did, the illogical notion that the history of life on this planet can be explained by selection from variations arising independently of law. Speaking of cause and effect he asks, "Is law in this sense ever suspended or annulled?" But he holds that to call variations 'fortuitous' is not enough, even if we mean by that term "governed by laws unknown" as Darwin did. According to Burroughs, they exemplify also Design: "they are adaptive from the start." Thus he adds something to Darwin's

selection doctrines; rather fits a crown to them than shears them off. He leaves the unknown laws intact by which Darwin thought variations arose, but assumes besides a "Cosmic Mind" acting through them.

Professor Nutting, for his part, prefers Darwin's doctrines unadorned, and thinks that other naturalists do also. Variations, he holds, are fortuitous purely and simply, in the metaphoric Darwinian sense of "occurring by laws unknown."

Possibly Burroughs's crown will never become visible to Professor Nutting and others; but certainly the wig of literal fortuity which still to many people obscures Darwin's theoretic temples will eventually be known to all for the false hair it is.

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REVIEWS OF BOOKS.

The Concept of Nature. Tanner Lectures delivered in Trinity College, November, 1919. By A. N. WHITEHEAD. The University Press, Cambridge. 1920.—pp. viii, 202.

This book is a welcome sequel to the author's *Enquiry concerning the Principles of Natural Knowledge,* and it goes far toward realising the ideal of a comprehensive philosophy of nature. The electromagnetic theory of relativity, which has met with such a favorable reception among the physicists and mathematicians, certainly involves a new philosophy of nature, but most of the students of that theory have naturally been more interested in the scientific revolution it carries with it, than in its philosophical implications. It is fortunate that a person so well equipped from the side of mathematics and physics as Professor Whitehead is, should set himself the task of working out the philosophy of nature required by the theory. Professor Whitehead has evidently read widely and profoundly in recent philosophy, and the results are seen in almost every page of this work. It is therefore inevitable that a book from such an author, who comes as near as it is possible to come to combining knowledge of scientific detail with that of mathematical and philosophical theory, should be of the greatest importance. Whether the view he presents proves to be ultimately acceptable or not, it will form the starting point for subsequent labors in the field, and in this sense, the work is epoch-making.

Such a work is impossible to outline in a short review. I shall therefore not attempt to give to those who have not read it an idea of what it contains. I shall rather pick out some points for discussion, assuming that those who read this review have already read the book.

Professor Whitehead frankly declines to go into the metaphysical aspects of the problem, and he does not discuss epistemological questions. He merely assumes the existence of knowledge, as indeed he has the right to do, without inquiring why knowledge should be. In fact, he says that the question as to the why of knowledge is insoluble —this is of course an epistemological position; but it is not argued. He says: "We are endeavoring in these lectures to limit ourselves to nature itself, and not to travel beyond entities which are disclosed in sense-awareness. Percipience itself is taken for granted. We consider indeed conditions for percipience, but only so far as those conditions

are among the disclosures of perception. We leave to metaphysics the synthesis of the knower and the known. . . . The immediate thesis for discussion is that any metaphysical interpretation is an illegitimate importation into the philosophy of natural science. By a metaphysical interpretation I mean any discussion of the how (beyond nature) and of the why (beyond nature) of thought and sense-awareness. In the philosophy of science we seek the general notions which apply to nature, namely, to what we are aware of in perception. It is the philosophy of the thing perceived, and it should not be confused with the metaphysics of reality of which the scope embraces both perceiver and perceived. No perplexity concerning the object of knowledge can be solved by saying that there is a mind knowing it. . . . The recourse to metaphysics is like throwing a match into a powder magazine. It blows up the whole arena. This is exactly what scientific philosophers do when they are driven into a corner and convicted of incoherence. For natural philosophy everything perceived is in nature. We may not pick and choose. For us the red glow of the sunset should be as much part of nature as are the molecules and electric waves by which men of science would explain the phenomena. It is for natural philosophy to analyse how these various elements of nature are connected. In making this demand I conceive myself as adopting our immediate instinctive attitude towards perceptual knowledge which is only abandoned under influence of theory. We are instinctively willing to believe that by due attention, more can be found in nature than that which is observed at first sight. But we will not be content with less. What we ask from the philosophy of science is some account of the coherence of things perceptively known. This means a refusal to countenance any theory of psychic additions to the object known in perception. For example, what is given in perception is the green grass. This is an object which we know as an ingredient in nature. The theory of psychic additions would treat the greenness as a psychic addition furnished by the perceiving mind, and would leave to nature merely the molecules and the radiant energy which influence the mind towards that perception. . . . What I am essentially protesting against is the bifurcation of nature into two systems of reality, which, in so far as they are real, are real in different senses. One reality would be the entities such as electrons which are the study of speculative physics. This would be the reality which is there for knowledge; although on this theory it is never known. For what is known is the other sort of reality, which is the byplay of

the mind. Thus there would be two natures, one is the conjecture, and the other is the dream" (pp. 28–30).

"Now I assume as an axiom that science is not a fairy tale. It is not engaged in decking out unknowable entities with arbitrary and fantastic properties. What then is it that science is doing, granting that it is effecting something of importance? My answer is that it is determining the character of things known, namely the character of apparent nature. But we may drop the term 'apparent'; for there is but one nature, namely, the nature which is before us in perceptual knowledge. The characters which science discerns in nature are subtle characters, not obvious at first sight. They are relations of relations and characters of characters. But for all their subtlety they are stamped with a certain simplicity which makes their consideration essential in unravelling the complex relations between characters of more perceptive insistence. The fact that the bifurcation of nature into causal and apparent components does not express what we mean by our knowledge is brought before us when we realise our thoughts in any discussion of the causes of our perceptions. For example, the fire is burning and we see a red coal. This is explained in science by radiant energy from the coal entering our eyes. But in seeking for such an explanation we are not asking what are the sort of occurrences which are fitted to cause a mind to see red. The chain of causation is entirely different. The mind is cut out altogether. The real question is, When red is found in nature, what else is found there also? Namely we are asking for an analysis of the accompaniments in nature of the discovery of red in nature. . . . the wave theory of light has not been adopted because waves are just the sort of things which ought to make a mind perceive colours. This is no part of the evidence which has ever been adduced for the wave-theory, yet on the causal theory of perception, it is really the only relevant part. In other words, science is not discussing the causes of knowledge, but the coherence of knowledge. The understanding which is sought by science is an understanding of relations within nature" (pp. 40–41).

"The primary task of a philosophy of natural science is to elucidate the concept of nature, considered as one complex fact for knowledge, to exhibit the fundamental entities and the fundamental relations between entities in terms of which all laws of nature have to be stated, and to secure that the entities and relations thus exhibited are adequate for the expression of all the relations between entities which occur in nature" (p. 46).

It would seem as if the accomplishment of this task, even in a very tentative and provisional fashion, should be welcomed as a great achievement; but doubtless many philosophers will find that the very statement of the problem involves many metaphysical assumptions. Let that be granted. A man has the right to make such assumptions, and if he does make them, and expressly recognizes that he makes them, and then proceeds to develop the consequences of such assumptions, taken in connection with the findings of fact made by the scientific explorers, he has done a big task if he has done it well. One should not cavil when another chooses to make different assumptions from one's own. For myself, it seems that Professor Whitehead's assumptions are very reasonable; indeed it would be hard to find more sense packed into a little more than twenty pages, than is to be met with in the second chapter, "Theories of the Bifurcation of Nature".

Professor Whitehead's treatment of significance also is especially satisfactory. For him the basis of significance is the "disclosure of an entity as a relatum without further specific discrimination of quality. . . . Thus significance is relatedness, but it is relatedness with the emphasis on one end only of the relation" (p. 51). According to this view, an "entity merely known as spatially related to some discerned entity is what we mean by the bare idea of 'place'", and the "concept of 'period of time' marks the disclosure in sense-awareness of entities in nature known merely by their temporal relations to discerned entities" (pp. 51–52). This is a logical use of James' 'fringe'.

According to Professor Whitehead's interpretation, "Nature is a process. As in the case of everything directly exhibited in sense-awareness, there can be no explanation of this characteristic of nature. All that can be done is to use language which may speculatively demonstrate it and also to express the relation of this factor in nature to other factors. It is an exhibition of the process of nature that each duration happens and passes. The process of nature can also be termed the passage of nature. . . the measurable time of science and of civilised life merely exhibits some aspects of the more fundamental fact of the passage of nature. . . . Also the passage of nature is exhibited equally in spatial transition as well as in temporal transition. It is in virtue of its passage that nature is always moving on" (pp. 53–54). In other words, such concepts as 'space', 'time', 'extension', as used by Whitehead, 'position' in space, 'period of time,' 'continuity', are all abstractions from the fact that nature is moving on.

These abstractions exhibit features present in that fact, and are thus not mere fairy tales; but they must not be construed as presenting separate and separable characters whose accidental union makes nature. Nature is not built up of logical elements, but logical elements are obtained by discrimination and abstraction from nature. This I take to be Professor Whitehead's fundamental contention, though perhaps he would object to the way in which I have stated it. If I am right in my understanding of him, again it seems that he is attacking his problem in the only hopeful way. There may be criticism in detail of his results, but such criticism should not imply any dissatisfaction with his starting point or his general method.

The general result that he obtains presents us with a fascinating world-view. Nature is marching on; that is, events are continuously happening. An event never happens again. There is never any reversal in this process. But an event is characterised, and the characters involved are recognised in other events. These recognisable characters are objects and relations. The irreversibility of the stream of events is the passage of nature, which we may here call the sequence of nature. In nature there are no alternative sequences. But sequence is not all that we mean by 'time'. In 'time' events not only follow other events and precede still others; but they also are simultaneous with yet others. Now while there are not alternative sequences in nature, they are alternative simultaneities. Hence, if we mean by time a system of relations which includes both sequence and simultaneities, then there is not just one time in nature. There are many times, or as Professor Whitehead calls them, many 'time-systems' or 'families of durations', a 'duration' being a slab of nature characterized by simultaneity and also exhibiting passage. Or, to use Professor Whitehead's own language, the unity of a duration "is expressed by the concept of simultaneity" (p. 53). I take that it that for him 'simultaneity' is something ultimate and unanalysable. Einstein *defines* simultaneity by assuming the constancy of the velocity of light *in vacuo,* and by using a system of light signals to synchronise clocks; and then events which happen in any two places in any system at rest are defined as simultaneous if the clock readings at these two places are identical. But Whitehead finds simultaneity as a property of certain wholes of nature, such wholes being durations.

Whitehead's definition of a family of durations need not be quoted here. The point to be noted is that durations of different families intersect; and if in each family a class or series of durations be se-

lected with proper defining characteristics, which class he calls a moment, the locus of intersection of moments of two families is a 'level', which is the analogue, in the moment, of a plane in the timeless space of the classical tradition. Levels intersect in 'rects', the analogues of straight lines; and rects intersect in 'puncts' or 'event-particles', the analogues of points.

Every event occurs in every family of durations; but in each different family it has different simultaneous associates, taken as a whole. However, there is a sub-class of simultaneous associates which it has in either of two families of durations. Such families of associates have relations to each other which furnish the basis for our conception of a plane in timeless space. By following out this line of thought, we arrive at the conclusion that 'space' is a conceptual derivative from the fact of the passage of nature. It corresponds to an *aspect* of the passage of nature, but there is no such thing as a *merely* timeless space.

The metrical relations between the different families of durations, when we have derived 'time' and 'space' from them in their interrelations, are substantially expressed by the now famous transformation equations of the special theory of relativity. The whole discussion of this subject presupposes a four-dimensional geometry.

The very brief statement of what I take to be Whitehead's view is necessarily unintelligible, except on the supposition that the reader is fairly familiar with the text of the work under review. Whether it is a correct statement I do not dare to say; it is at least a brief statement that expresses my understanding of the text. If this understanding be correct, I am now in a position to bring forward one query the answer to which may be decisive as to the satisfactoriness of the whole view.

Does not Professor Whitehead's definition of 'position' (pp. 92 and ff.) expose him to exactly the same sort of criticism that he has himself urged with such telling force against certain views of temporal congruence (pp. 137 ff.)? There he says that the prevalent view is that if we take time-measurements "so that certain familiar velocities which seem to us to be uniform are uniform, then the laws of motion are true. . . . Suppose that with some expositors we cut out the reference to familiar velocities such as the rate of rotation of the earth. We are then driven to admit that there is no meaning in temporal congruence except that certain assumptions make the laws of motion true. Such a statement is historically false. King Alfred the

Great was ignorant of the laws of motion, but knew very well what he meant by the measurement of time, and achieved his purpose by means of burning candles. Also no one in past ages justified the use of sand in hour-glasses by saying that some centuries later interesting laws of motion would be discovered which would give meaning to the statement that the sand was emptied from the bulbs in equal times. Uniformity in change is directly perceived, and it follows that mankind perceives in nature factors from which a theory of temporal congruence can be formed. The prevalent theory entirely fails to produce such factors."

Now let us turn to Professor Whitehead's view as to the meaning of 'position'. "Position is the quality which an abstractive element possesses in virtue of the moments in which it lies. The abstractive elements which lie in the instantaneous space of a given moment *M* are differentiated from each other by the various other moments which intersect *M* so as to contain various selections of these abstractive elements. It is this differentiation of the elements which constitutes their differentiation of position" (p. 92). Cannot one say that King Alfred was ignorant of intersecting families of durations, but knew very well what he meant by the position of the camp of the Danes? No one in past ages justified the use of methods of locating position by saying that some centuries later Professor Whitehead would discover intersecting families of duration and thus would give meaning to the statement that something has such and such a position in space. Why does not Professor Whitehead's theory compel the admission that there is no meaning to position except as certain assumptions as to intersecting durations give a meaning to it? Is not such a statement historically false? Would not the natural view, on the contrary, be that position in space is directly perceived, and that it follows that mankind perceives in nature the factors from which a theory of position can be formed? Now mankind does not directly perceive the existence of different families of durations. No scientist, with all his training in powers of observation, has perceived such things. They are apparently signified by some observations made by scientists; but surely such things can hardly be the perceived factors in nature, which can give meaning to judgments of position.

If this criticism be a fair one, then it holds as well against Professor Whitehead's account of the meaning of perpendicularity, and perhaps against the way in which he takes the whole system which he

constructs. It is a great accomplishment to construct a philosophy of nature which shall do justice to the facts on which the theory of relativity is based; but is it not going too far to say that such a philosophy alone can give us meanings for position, perpendicularity, timeless space, and various other concepts that we as a race have been using for centuries, before the theory of relativity was ever thought of? This criticism, if valid, would not invalidate Professor Whitehead's general theory; it would only invalidate the claim made for it that it alone, of all extant theories, gives meaning to certain current and practically justified conceptions.

I am not sure that I have understood Professor Whitehead aright. On so many points where at first I had thought I had found him wrong, I have come after study to revise my judgment. It may be that further study will necessitate a revision here. But up to the present it appears that the above criticism is justified.

The book is not easy reading. It is very difficult reading for a man who has not had much mathematical training, and perhaps most philosophers have not had much. But one of the merits of the theory of relativity is that it requires us to polish up our mathematical equipment. But so far, it seems to me that the greatest philosophical achievement of the theory of relativity is the fact that it has brought forth a work of such profound philosophical importance as *The Concept of Nature*. Every philosopher should not only read it, but study it; and when he does, he will undergo a searching of heart. The prestige of the author will secure for him many readers among men of science—they will inevitably revise their old conceptions; and from the fact that in this book philosopher and scientist will have to meet, much good will come, at least to the philosopher.

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Spiritual Pluralism and Recent Philosophy. By C. A. RICHARDSON. The University Press, Cambridge, 1919,—pp. xxi, 335.

Contemporary critics of idealism should read this book. Whatever its effect on their metaphysical theories it could not fail to enlarge their over-limited conception of idealism and to convince them that idealism is not bound to take either one of the two shapes in which they are wont to attack it, to wit, a subjectivism derived from Berkeley and an impersonal monism of the Bosanquet type.[1] And

[1] For a recent instance of criticism of this sort, cf. S. Alexander, *Space, Time and Deity*, Vol. I, pp. 5–7.

idealists, in particular personal idealists, should read the book for the concreteness of the detail in which Mr. Richardson describes and argues for his spiritual universe. The volume, as the writer tells us in his introduction, consists of a "series of essays" written in an "endeavor . . . to establish a certain ontological hypothesis—spiritual pluralism." The titles of the essays indicate the scope of the book and the concreteness of the material with which the writer deals. The first, on "scientific method in philosophy and the foundations of pluralism" and the substance of the fourth on "the notion of a deterministic system" are republished from this REVIEW (May, 1918, and January, 1919), while the third on "the philosophical problem raised by the Weber-Fechner law" appeared in the January, 1919 number of *Mind*. The remaining essays discuss "certain criticisms of pluralism"—in particular Pringle-Pattison's and Bosanquet's; "the intensity of sense-data"; "immortality"; and finally "subconsciousness and certain abnormal phenomena". For all their variety of topic, the essays, as the writer truly says, "form the development of a single coherent line of thought" (p. xv).

In the form in which Mr. Richardson conceives and supplements it, spiritual pluralism involves and implies the following positions: (1) "Reality comprises selves alone differing simply in mental development, though the diversity is indefinitely various" (p. 9). The organic world is made up of "individuals differing only in degree from ourselves" (p. 52), whereas inorganic matter "may be regarded as comprising individuals of an extremely low order of mentality, who therefore exhibit the minimum of spontaneity and the maximum of habit in their reactions [and] are thus particularly susceptible of an almost complete description in general terms" (p. 53). . . ." Experience consists in action and reaction between self and other selves" (p. 9). (2) This interaction, "whereby subject is linked to subject and the many made one" (p. xxi) implies the existence of "a single universal entity in which the many exist" (p. 250). (3) The basis for this personalistic hypothesis is the realization of one's own existence. "Each of us knows that *one* self exists (p. 9). . . . We cannot speak simply of the existence of thoughts and feelings. There is always the implication of 'one who feels and thinks'" (p. 20). The Humian conception of self as a series of mental phenomena really implies "the existence of the very entity which it is attempting to dispose of" (p. 20). And (4) "the existence of at least one self being granted we proceed to assume the existence of other

selves. This assumption is . . . justifiable, for it in no way conflicts with the facts" (p. 21); it is "most valuable for it at once opens to us an immense fresh store of knowledge by description, in addition to the knowledge we have through our own immediate sense-experience" (p. 22). (5) The personalistic hypothesis affords an explanation of the facts of experience more satisfactory than that of any other theory (pp. 30, 38 f). Even the physicist's entities—luminiferous ether and the material particle, for example (p. 13)—are "merely constructions . . . based on individual perceptions" (pp. 6, 46); whereas "the data of sense, the indubitable concrete facts," are always given to a subject (p. 21) and the fundamental categories of science may and indeed must ultimately be conceived in personal terms.

This skeletonized account of Mr. Richardson's basal teaching is necessary to the somewhat more detailed study which follows, of certain of his more characteristic doctrines, namely: (1) his comparison of spiritual personalism with realistic doctrine; (2) his conception of the body-mind relation; and (3) his interpretation of the facts of abnormal psychology.

1. "The final synthesis," the author asserts, between the new realism (or scientific method[1]) and spiritual personalism "consists . . . in a recognition of the fact that each is necessary to the complete fulfilment of philosophic purpose, and in a determination of the . . . domain and limitations of each" (p. 4). "Scientific method," or the neo-realistic point of view, is characterized in two-fold fashion. It "lays stress", in the first place, "on the objective side of experience. It investigates the object of experience, not in relation to the subject, but considered *per se* and therefore in abstraction from the subject" (p. 16). It is, in the second place, a 'conceptual' and 'symbolic' description of actual experience. Mathematical continuity, for example, the legitimate though abstract and artificial conception of the 'objective side of experience' as a compact series of discrete sense-data, is a symbolic and inadequate representation of that 'indivisible unity', the individual experience (p. 23). And scientific causality, or the generalized statement of observed sequences, is a highly conceptualized representation of causality in the "true meaning" of the term, namely "the realization of our own efficiency as active individuals" (p. 37). Both because of its exclusive concern with the objective side of experience, and because of its conceptual character,

[1] Mr. Richardson uses the two terms almost interchangeably. Cf. pp. 1, 4 ff.

neo-realism falls short of ultimacy as a metaphysical system. For first, "the failure to take the existence of the subject . . . into account in the analysis of experience . . . leads to the inevitable result that certain most important characteristics of existence"— facts of the moral life, for example—"are entirely overlooked or regarded as invalid conceptions" (p. 17). And second, "the essential privacy of concrete individual experience can not be comprehended in a descriptive formula" (p. 26). Indeed, contrasted with these categories, continuity and causality, which may be interpreted either scientifically or personally, are the purely personal categories of means and end, or purpose—categories which "are only significant in application to a universe containing individual subjects of experience" (p. 51). Mr. Richardson concludes, as he began, by accepting neo-realistic categories simply as practically useful in the attempt to represent conceptually the object of experience "so far as it can be thus represented" (p. 49). "Keeping in mind," he says, "these limitations" of the scientific method, "its critical and constructive value in its own field is apparent" (p. 55). On the other hand we must energetically oppose the assertion of "the supporters of the new scientific method . . . that [spiritual] pluralism cannot be true because the conceptions on which it is based conflict with their results" (p. 16).

2. To the spiritualistic pluralist, according to our author, a man's body consists in three sets of sense-data,—first, the visual and tactile sensations essentially similar to those which constitute his body as experienced by other people; second, the "musculo-motor and organic sensations . . . to which . . . there is nothing corresponding in the presentations of other people" (p. 193); finally, certain sense-data—observations of the brain, for example—"which may be perceived by other people under suitable conditions, but which are never perceived" but only inferred by him.[1] "The relation of this group of sense-data to the individual subject whose body it is, is a presentational relation" (p. 194). Hence the solipsist interprets all three sets of sensations as "purely subjective modifications or states" of the subject (p. 196). But the spiritual pluralist, like the realist, rejects solipsism "on grounds of *a priori* improbability and philosophical sterility" and postulates "a ground of our sense-data in existent entities other than ourselves" (pp. 196–197). For the

[1] For a similar account of the body, in terms of Spiritualistic pluralism, cf. a paper by the present writer, "The Personalistic Conception of Nature," this Review, March, 1919, XXVIII., pp. 135–138.

spiritual pluralist these other entities must be subjects, or selves, since all sense-data must be regarded as the appearances to a subject "of the existence of other subjects", the manifestation of its interaction with them (pp. 249, 319). "The body is such an object or complex of sense-data, regarded as peculiarly our own" both because "some or other of its elements are invariably presented to us" and also because "certain of its elements (organic sensations, for example) have a character which is quite unique" (p. 199). And the subjects of which our body is the appearance are interpreted by Richardson, who here follows Leibniz and Ward, as a group of subjects (or monads) subordinate to the "dominant monad . . . commonly called the 'mind' of the organism" (p. 200). It follows that "no statement of the relation of body and mind in terms of relations of the kind distinguished in the object of experience"—for example, in terms of causal relation—can be considered "satisfactory," since "we are here dealing with existent entities," not with "phenomenal objects" (p. 201). In somewhat more detail: "the instinctive reaction of the subordinate monads," of which the body is the appearance, may be conceived as the ground of "the bodily reflexes in which the dominant consciousness is not involved" (p. 208). And in this sense "the body may be regarded almost as the tutor" of the mind (p. 208). Yet the mind, or dominant self, "eventually attains to a higher level of experience than its subordinates" and "acquires a more and more complete control over the body" (p. 209). Indeed, "after a certain maximum is reached the presence of the body becomes in many respects a hindrance rather than an aid to the attainment by the mind of higher levels still, and the bond gradually loosens" (p. 209). . . . "But we have no reason", in Mr. Richardson's opinion, "to believe in the complete cessation of these powers [of the mind] after death. . . . Nor does the acquisition of a new body seem to be a necessity," though it is a possibility, "of the future life" (p. 242). The "profoundly intimate" relation which is "realized" between body and mind, though "ultimately indefinable", may be called the "'immanence' of the dominant monad in the subordinate monads" (pp. 212–213). And "mind immanent in the body" interacts "as *a whole* with the environment" (p. 218), which of course, on the theory of spiritual pluralism, itself consists of subjects of experience.

3. Mr. Richardson introduces his discussion of subconsciousness and abnormal phenomena by anticipating the "possible objection

based on the ground of lack of evidence for the phenomena. . . . No doubt," he says, "trickery has been widely practised. But one can only say that the body of evidence now produced and attested by men trained to scientific methods of experimentation and criticism of the highest order of precision is so overwhelming that anyone who pretends to an open mind cannot help but accept [it] . . . as being *in general* of the same order of certainty as other more ordinary phenomena investigated by science, whatever may be true of any *particular* case" (p. 247).

Richardson's purpose throughout is to show that the "facts thus accepted" are describable and, to greater or less degree, explicable in the terms of his spiritual pluralism. He begins with 'ultraliminal impressions'. These he characterizes as impressions that modify 'the presented whole' though incapable of becoming the focus of consciousness; and he explains them as "the manifestation or appearance to the subject concerned of the vast majority of other subjects which go to make the universe." When this interaction (of subject with environing subjects) is not intense enough to be manifested as sense-impression-above-the-threshold-of-consciousness, its outcome is the ultraliminal impression (p. 251).

At the other extreme, abnormal perception or clairvoyance, "the perception of objects in circumstances in which they would not ordinarily be perceived" (p. 283), is "simply the manifestation of the subject's interaction with certain other subjects under somewhat unusual conditions (p. 286). . . . The difficulties generally felt [in regard to abnormal perception] are not," Richardson declares, "real difficulties at all. For the ground of perception, whether normal or abnormal, is the interaction of the percipient subject with other subjects. Now subjects are not in space, so that difficulties such as those of distance are not really what they seem. No doubt certain spatial correlations of sense-data are the manifestation of the noumenal conditions necessary, in general, for that type of interaction between certain subjects which is the ground of perception. But it does not follow that these conditions are the only sufficient ones. For . . . since the ground of the interaction of the many is one,[1] it follows that each subject acts and is acted upon by every other. . . . The action of others upon him, who are, so far as their ordinary phenomenal manifestations are concerned, hidden or at a distance, is manifested by ultraliminal sense impressions. If, for any reason,

[1] Cf. pp. 515–6, below.

some of these become infraliminal, abnormal perception of distant or hidden objects occurs" (p. 285).

The "perception of human apparitions" (or phantasms) differs in origin from the abnormal perception of inanimate objects. The abnormal perception of distant or hidden objects is due primarily to the abnormally concentrated and directed attention of the perceiver. The consciousness of phantasms, on the other hand, is brought about by the activity of the agent—in other words, of that subject of whom the phantasm is the manifestation to the perceiver (p. 289).

Telepathy, finally, "must be carefully distinguished from abnormal perception" in that, here "the object presented to the recipient" (or perceiver) is not the manifestation of another subject or self "but an image similar to an impression or image presented" to this other self, the telepathic agent (p. 297). "Evidently," Mr. Richardson continues, "telepathy is explained by the immanence of a single concrete entity in the individuals composing the world. But . . . such an entity [which] must be postulated to explain any interaction between individuals . . . will not suffice to account for the particular form which telepathy takes. Both in telepathy and in perception (whether normal or abnormal) the activity of one individual influences that of another, but [in abnormal perception] . . . we have *reciprocity* of action between agent and percipient [whereas in telepathy] we have rather *community* of action between agent and recipient" (p. 299).

The author concludes that "broadly speaking", in a universe constituted by "a plurality of . . . spiritual agents, in virtue of the immanence in them of a single entity," the abnormal phenomena "we have been considering" are not only "in every case susceptible of interpretation and explanation" by the hypothesis of spiritual pluralism but also "rather of a type to be expected than to be regarded as bizarre and dissociated from ordinary life" (p. 325).

To turn from summary to comment: In the reviewer's opinion, Mr. Richardson has made an important contribution to the contemporary discussion of personalistic philosophy. He vigorously enforces, in the first place, the cardinal advantage of the personalistic metaphysics: the fact that "it attempts to put everything in terms of things [namely, ourselves] whose nature we actually realize and which may therefore be simply indicated without the necessity of formal conceptual specification. . . . The assertion of the existence of the self," he continues, "is not an assumption" (p. 63); it is rather

"the central and unique fact of our existence" (p. 56).[1] Hence, he rightly argues, since a self "certainly" exists, no hypothesis which denies or ignores its existence "can explain the universe [or] even completely describe it" (p. 16).

Mr. Richardson furthermore analyzes acutely the conception of this self or subject which is for him "the central fact of the universe" (p. 58). The self as he conceives it, is first of all (1) "the subject of experience" (p. 8), that which attends or cognizes (p. 187), feels and is active (p. 139), that to which objects are presented (p. 92). A self is, further, (2) "essentially individual, for it is unique" (p. 11). Indeed, "subjects and their experiences are the only true individuals" (p. 30). (3) "The self," in the third place," combines . . . the principles of identity and change. In spite of change I realize myself to be the same individual that I once was" (p. 43). "In a somewhat analogous way (4) . . . the individual subject [is] an entity transcending space and time. His existence can only be specified as a whole; it is neither punctual nor instantaneous" (p. 42). In every case, Mr. Richardson adds, in which any proposition relating to the subject has a "spatial or temporal reference" this reference is "entirely to the object of experience" (p. 44). The self or subject is, finally, (5) contrasted with the 'logical conception', as concrete and (6) with the mere 'appearance', the sense-datum, as an existing entity.

Mr. Richardson's treatment of contemporary criticisms of 'spiritual pluralism' is, once more in the opinion of the present writer, both discriminating and conclusive. Thus, he effectively argues that neo-realism arbitrarily limits the domain of philosophy in ignoring the existence of the subject of experience (p. 56); he points out that Bosanquet's criticism of the spiritualist's account of consciousness is "largely vitiated by the fact that he adopts an attitude which appears to tend very strongly to [the] Cartesian dualism of mind and matter" (p. 71); and he argues that one of Pringle-Pattison's criticisms is due to a misconception of the spiritual pluralist's account of law (pp. 75 ff.), and that the other ignores the conception of the unity which is, for Richardson, ground of the interaction of subjects with each other (p. 79 f.).

But in spite of the effective dealing with the criticisms which he recognizes, Richardson does not answer all the questions which his

[1] Cf. pp. 19, 46, 58, 61, *et al.*

'hypothesis' raises. The final paragraphs of this review set forth and discuss some of the difficulties which he ignores.

1. To begin with a minor criticism, Mr. Richardson is not justified in referring habitually to his system as 'pluralism', omitting the prefix 'spiritual'. He says, for example, that "the spiritualistic hypothesis, namely that the beings whose appearance we perceive are other subjects of experience . . . constitutes pluralism" (p. 104). But surely, both the dualism of Descartes and Locke and the neo-realistic doctrine of existent and subsistent entities are rightly described as forms of pluralism. Only confusion can result when a term of such wide connotation, applicable to a whole class of varying theories, is appropriated to the exclusive use of one among them.[1]

2. It is even more important to note that Richardson's philosophy is not even a spiritual pluralism. From the very start (p. xx) he admits "the necessity of supplementing spiritual pluralism by some principle of unity." And the 'principle of unity' turns out to be a 'concrete entity' necessary to explain that interaction of subjects of experience which, according to spiritual pluralism, is the very heart of experience. "The existence of the Many," Richardson repeatedly asserts, "consists in their interaction with one another but the condition of the possibility of this interaction is the immanence of the One" (p. 300). Between spiritual pluralism of this type and personal absolutism of the right wing Hegelian or the Roycian type, there is certainly nothing to choose. Mr. Richardson even says definitely that "the Many are not self-existent" though he adds at once "but neither are they merged in the One so as to lose all individuality." This, of course, is precisely the contention of Royce. Only forms of absolutism which conform to the oriental type deny the individuality of the Many included in the One; and Royce shows explicitly how the individuality of each included, interacting subject may be conceived as the expression of one unique purpose of the including One.

The truth is that Mr. Richardson has said too little (or too much) about this single, concrete entity. The attentive reader cannot agree with him that "the determination of its exact nature is unnecessary for the matter in hand" (p. xxi). On the contrary, it is imperatively necessary to know whether the immanent One is or is not to be conceived as a self. If as a self, of which the many selves are members, it follows inevitably that we are dealing with an ultimately monistic,

[1] In *The Realm of Ends*, Ward still further limits the meaning of 'pluralism' applying it to non-theistic spiritual pluralism.

not pluralistic, form of spiritualism. But if, on the other hand, this underlying concrete entity, demanded by the existence of the interacting selves, is conceived as itself other than a subject of experience, the genuinely spiritualistic character of Richardson's universe disappears.

3. A criticism of a different sort must be made of Richardson's repeated assertion that "we cannot *know* the self" (p. 19). His grounds for this Kantian limitation of the conception of knowledge he states in various ways. At first it seems to him obvious. "Evidently," he says, "the subject or knower cannot be an object of knowledge" (p. 14, footnote). A little later he argues the point: "The concrete self", he says, "is the *knower*. Knowing," he proceeds, here in agreement with the neo-realists, "is a relation between two entities so that evidently the subject cannot know itself" (p. 19).[1] And again he insists that the awareness of self "cannot be subsumed under any one of the three types of knowledge proper—knowledge by acquaintance, knowledge by description, and knowledge of logical truths" (p. 14). To the reviewer this restriction of the term knowledge seems artificial and misleading. To assert, as Mr. Richardson asserts, that the self is "a unique, supremely intimate fact" (p. 14), and then to deny that it is known, seems nothing less than a verbal quibble. Curiously enough there is at least one passage in which Richardson also indirectly refers to the subject's awareness of itself as knowledge. "No entity other than myself," he says, "can be given to me as an object of knowledge in such a way that I realize what it is in its actual essence. We cannot in experience *know* anything else as it really is in itself" (p. 68). This statement is at once qualified by the reminder that not "even the self is given as *an object of immediate knowledge* in experience," but the significant implication of a knowledge of self remains.

It is essential to add that Richardson's denials of self-knowledge are accompanied by the most unequivocal insistence on our awareness of self. "We have," he says, "the central and unique fact of the 'realization' of our own existence" (p. 19). And this realization is an immediate certainty, a direct awareness, not an inference or deduction or conclusion. "The existence of the subject," he says, "may certainly be inferred—immediately inferred, indeed, from every single fact of experience—[but] there is, in addition, the far more

[1] Cf. p. 202, footnote 2.

important central and unique fact of our experience, namely, the concrete realization of our own existence" (p. 56).

4. A kindred difficulty concerns the place, in the author's epistemological system, of those other selves or interacting subjects to which he makes such constant reference. Are these other selves, we ask, the object of our knowledge? No, for a subject is knower, not known. Are they 'realized'? No, for only my own experience is realized. Are they then objects of experience? No, for only sense-data or constructions based on sense-data, are experienced. As a matter of fact, Mr. Richardson at many points ignores this unsolved problem, contenting himself with the assertion that these interacting subjects exist. Most often he states that "pluralism makes the assumption of the existence of other selves" (p. 58), though he says in one place, that "the assertion of the existence of other people is not, strictly speaking [an assumption] but rather the first step in the application of the pluralistic hypothesis to the explanation of the facts of experience" (p. 63). But he never offers such a psychological analysis of 'assumption' as would equate it with terms 'knowing', 'realizing' and 'experiencing'. His closest approach to a solution of the problem is in the implication that we "realize *indirectly,* as it were, the nature of any other entity . . . when this entity is essentially similar in certain respects to ourselves" (p. 202, footnote). But this conception is fraught with difficulty. For to describe a case of realization as indirect is covertly to rob the word of its essential meaning, namely, direct consciousness of our own existence, already characterized as a 'unique fact' (p. 19).

5. A final group of difficulties centre in the conception, common to Richardson with Ward, of 'experience' and, in particular of the 'object of experience'. One would expect that a spiritualist of Richardson's type would regard experience as the fundamental character or attribute of the subject, or self. And, indeed, we may find in his pages traces of this simple conception. He says, for example, that "we are essentially experiencing subjects. Our existence consists entirely in our experience" (p. 163). And, more concretely, he asserts that "the life of any being such as ourselves consists in sensations, feelings, desires, thoughts and acts," and adds, "all these we group together under the term 'experience'" (p. 187). This comprehensible doctrine of experience as the sensing, feeling, desiring and thinking of any self is supplemented, not set aside, by a second defini-

tion. "The individual experience", Richardson now asserts, "consists in the interaction of the subject with other subjects" (p. 112); and again, "the living experience of the subject consists actually in his interaction with other subjects" (p. 70). Thus conceived, a self's experiencing—its perceiving, feeling, or willing—really is its relatedness, or else its relating of itself to other selves.[1]

But Mr. Richardson's formal definitions of experience introduce another conception—that of the object of experience. Experience becomes a duality of subject and object. "The fundamental fact," he says, "is the unity of the individual experience which comprises a duality (p. 71) . . . for in it are distinguished two fundamental factors. A subject who attends or cognizes and an object which is attended to or cognized" (p. 187).[2] This definition, it may be observed, would be entirely compatible with the truly spiritualistic conceptions, already formulated, of experience as a self's consciousness and of consciousness as inter-relation of self with other selves, provided only these other selves or subjects were regarded as themselves the objects of experience. Thus interpreted, the definition of experience as duality of subject and object would amount to the conception of experience as interaction of one self, the subject, with others, the object-selves. But Richardson is hampered by the conventional unwillingness to regard a self both as subject and object. Accordingly, he strictly limits the application of the term 'object' to the sense-object. His 'object of experience' is explicitly described as a complex of sense-data or, else as a 'construction of sense-data' constituting some 'unit of the world of physics' (p. 59). The crucial difficulty with this theory lies in its uncritical adoption of the essentially realistic conception of the 'sense-datum'. For to the spiritualist there can be no sense-datum, except the sensation, or 'sensing', admittedly a character of the self. Thus, through the introduction of this *tertium quid,* the object or complex of sense-data, the spiritualistic conception as, concretely, a self's sensing or thinking or feeling which constitutes its inter-relation with other selves, is transformed into the artificial conception of experience as consisting "essentially in the presentation of an object to a subject" (p. 92).[3]

[1] Cf. p. 112.

[2] Cf. pp. 18, 71, 167, 329, *et al.*

[3] Cf. a discussion, by the present writer, of "The equivocal position of the presentation in the psychology of James Ward," *Psychological Bulletin,* 1921, pp. 429–432.

It is perhaps permissible, in conclusion, to deprecate a certain narrowness in the writer's outlook. An unsophisticated reader might readily be left with the impression that Leibniz, Ward, and Richardson himself are virtually the only adherents to the personalistic form of idealism. Reference to the allied doctrines of Fechner and of Royce, to name no others, would have enriched the book while throwing into stronger relief the considerable individual contributions of its writer.

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Reconstruction in Philosophy. By JOHN DEWEY. New York, Holt and Co. 1920. 213 pp. and index.

Not only professional students of philosophy but everyone who takes a thoughtful interest in the possibility of reconstructing any of the traditional structures of civilization which are visibly breaking down, is profoundly indebted to the invitation of the Imperial University of Tokyo to Professor Dewey to give the lectures which comprise this little book. The book is an attempt to interpret and to make articulate the deeper and only half conscious strivings and impulses which have made our present western civilization differ from the civilizations of antiquity and of the middle ages. The aim which is expressed in the prefatory note, "to exhibit the general contrasts between older and newer types of philosophic problems rather than to make a partisan plea in behalf of any one specific solution of these problems", is abundantly achieved, and with a lucidity and directness which philosophical writings, including Dewey's earlier writings, seldom exhibit. Of philosophic argument, in the familiar sense, there is very little. "See what has been going on," the author might say, "in our life and society since the collapse of feudal and authoritative ways of living and of thinking. I will show you the ideas which really move modern men and modern societies, the motives and aspirations which have come to the surface with ever increasing frequency in the actual life of men. Can you, as philosophers, continue to do your professional thinking as if all these forces and currents meant nothing, or as if they were simply aberrations, or as if they were irrelevant to the business of philosophy?" And when one attempts not only to see what manner of thing it is that has been transforming civilization in modern times, when one attempts to appraise the fruits of the modern revolution in science, industry, and govern-

ment, where shall one take his stand? Shall we estimate our modern world in the light of a standard which was formulated by Plato or St. Thomas, or shall we inquire whether modern civilization is fulfilling those desires and needs which arise out of the life of modern men? The point of these lectures will be quite missed unless one sees that Dewey proceeds throughout according to the second of these two alternatives. It is assumed that the modern mind really wants and requires a different order of things from that which satisfied the mind of ancient and medieval man, of the only men, at any rate, who figured at all in the older civilizations. The whole book is merely an analysis of the varying and discrepant ways in which the modern individual has gotten or has failed to get what he really wants in the several regions of his life. In science and in political democracy, in the control of nature and the mastery of technique, much, very much, has been accomplished. But in the wider and deeper regions of industry, in the daily economic tasks of the common man, in the life of imagination, in religion, art, and above all in philosophy, the logic of the modern ideal is checked and distorted.

What, then, is Professor Dewey's interpretation of the modern mind, and how do the real aspirations and temper of the modern world differ from those of the ancient and medieval worlds? His central thesis may be thus expressed: The modern democratic impulse means, at bottom, a single thing. It implies a sense of the continuity of human values and human interests, a continuity which renders obsolete all traditional distinctions between moral and economic, higher and lower, spiritual and material, between ends and means, between lofty ideals and prosaic matter of fact, theory and practice, aggressive control and esthetic appreciation. That the classical tradition in philosophy has arisen out of some one or more of these dualisms, Dewey shows in a manner both brilliant and profound. Traditional rationalism and empiricism have assumed that reason is outside experience and above it. Rationalism appeals to such a reason to supply assured principles for knowledge and for conduct; empiricism, distrusting such a reason, leaves the world pulverized into sensations and impressions. It is these feudal and heirarchical differences in the dignity and the status of social classes, of human interests, of the various aspects of experience, which inevitably result in stripping of all inherent significance the regions lower down in the scale, and in relinquishing them to the exploitation of any interested forces. This is why our industrial life is so empty of moral, *i.e.*, human interest, why

traditional philosophy is so remote from the human problems which are acute, why the life of imagination, of art and religion, is so sterile, and why education is so largely conceived as a matter of 'culture', contrasted with everything practical and vocational. Our 'higher' values become vapid and sentimental, and our 'lower' prosaic interests become brutalized and are handed over to the devil. Dewey analyses instance after instance of this with an acumen and understanding which are beyond praise. If anyone can read this book and not be quickened into a searching analysis of his own appreciations and judgments, he is incurably blind or stolid.

Especially noteworthy is the account of the historical origin of this cleavage between "an abiding communal framework of imagination", "traditional emotionalized belief", and "common sense knowledge of nature out of which science takes its origin." Here are two sorts of mental attitudes and mental products which tend to dwell apart because, in ancient Greece, they became the possession of separate social classes. It is this dualism which became fixed in the traditional dualism between the contemplation of final, absolute truths, and the pragmatic control over the forces and processes comprising our world. It is just this discrepancy with all of its implications which modern science and democracy have called in question, although the full philosophical articulation of this democratic motive is not dominant in the main currents of modern thought. Mr. Dewey would wish, I take it, to be true to the spirit and the logic of the deeper democratic impulses of the modern mind, and to suggest to us a philosophical method which deliberately rejects these ancient dualisms.

Where, then, does he lead us? There are two broad alternatives which confront anyone who desires to interpret the democratic attitude, the distrust of authoritative class distinctions. The easier thing to say is that since the traditional preoccupation with the interests of contemplation, the esthetic attitude, the life of philosophical imagination and classical culture has stood in the way of men's practical, technological and prosaic interests, therefore, in the modern revolt, there shall be no recognition of anything save the attitude of control and activity. The other alternative, equally true to the democratic temper, would be to reject indeed any objects of contemplation and enjoyment whose possession relegates to an inferior status and hence degrades the 'practical' common interests of men. But cannot new outlets for men's imagination, for the life of art, religion and social experience be discovered—or better, invented—which will be genu-

ine objects of appreciation and at the same time dignify and ennoble the whole circle of practical interests? Professor Dewey is not unmindful of this latter alternative and, indeed, the most significant thing about this book is the hint of a persistent desire to formulate the modern democratic impulse so that the esthetic attitude, the life of imagination, can become the possession of all men. I, at least, do not interpret this book as setting forth a philosophy of pure activism. Now that polemical necessities of the modern pragmatic movement are much less than they were twenty years ago, it is greatly to be desired that whatever possibilities there are of regarding the esthetic, religious, and spiritual values of life as the fruition of men's practical activities rather than as contrasted with them, should be exploited to the full. This book offers only hints in this direction, but they are of interest and importance. There is the distinct avowal that "there is no more significant question before the world than this question of the possibility and method of reconciliation of the attitudes of practical science and contemplative esthetic appreciation" (p. 127). When the author asks "Can it, *i.e.*, human experience, organize itself into stable courses or must it be sustained from without?" he is really asking whether our modern life can so organize itself that genuine human objects of appreciation can be provided which will satisfy the esthetic interest. Dewey's rejection of reason as a norm imposed upon experience from without does not lead him to ignore the necessities of stability and of genuine objects of appreciation. Or put it in this way: the human function which, in the classical tradition was assigned to Reason comes to be performed by experience itself. But the function remains. Indeed, Dewey distinctly implies that the very purpose of the pragmatic and 'aggressive' attitude is so to control and reconstruct our world as to make it something worthy of appreciation and enjoyment. Only such enjoyment must be a common and social experience, and it must grow out of and be continuous with the world of practical achievement. It is nothing given once for all, so perfect and so secure that it is always on the defensive against the inroads of a changing and growing world.

The fusion of logical and historical analysis, the use of historical generalizations as to the essence of older civilizations, and the correlation between social structures and theoretic concepts is always beset with certain dangers which, I suspect, are not wholly avoided even by so consummate an artist and master as Dewey. There are aspects, for instance, of feudalism and of medieval life which hardly fit into

the framework of the analogy between the classical, Platonic tradition and the feudal hierarchy of discrete classes and values. Social radicalism, certain implications of an organic political theory, group autonomy and social pluralism, as set forth by Troeltsch, Gierke, Carlyle, Duguit, and Beer, provide the basis, in the Middle Ages, for some at least of our modern democratic ideals and attitudes. And there is—to mention another matter—a direct historical continuity between the rationalism of Descartes and the ferment of the eighteenth century and the French Revolution which is passed over in silence in Dewey's account of modern rationalism. But these dangers of historical illustrations and analogies are incidental to the main theme. This book remains a monumental achievement which one would like to have read and reread by every college student, every thoughtful adult, every statesman and legislator at the present time.

GEORGE P. ADAMS.

THE UNIVERSITY OF CALIFORNIA.

NOTICES OF NEW BOOKS.

Psychologie du Raisonnement. By EUGENIO RIGNANO, Directeur de la Revue internationale "*Scientia.*" Bibliothèque de Philosophie Contemporaine. Paris, Félix Alcan, 1920.—pp. xi, 544.

The scope of this book is broader than the title suggests. The author finds that in order to deal analytically with this supremely complex mode of the mental life it is necessary to have viewed in passing every mode of intermediate complexity, all the way down to the ultimate mental elements. The book is therefore a system of psychology. Again, besides describing reason, the author also classifies and evaluates its types. This leads him incidentally to support Comte's positivistic condemnation of metaphysical speculation; to dip into logic, and the philosophy of mathematics; and to discuss both the pathology and the development of the intellectual powers.

The elements of mind are 'affective'. Mind, in other words, is essentially teleological, rather than mechanical. It exhibits those general characteristics of finalism which distinguish the organic world: memory or 'specific accumulation'; choice, or the openness of alternative paths to a determinate end-result; and self-conservation, or the fundamental tendency of each individual to retain or return to its own proper physiological state. The '*tendances affectives*' bear the burden of explanation throughout the book. These are defined as organic tendencies, expressing themselves in non-mechanized movements, and felt subjectively as desires, appetites or needs (pp. 1–2). It is the dominance of one of these affective tendencies, for example, that determines the unity of consciousness. The so-called unconscious is made up of complete sensory processes whose associated affective tendency is inhibited (p. 73). Attention is a state of suspense, due to the antagonism between a driving and a hindering affective tendency (p. 49). Similarly, vividness, as distinguished from quality and intensity, is a function of the quantity of nervous energy consumed, which, in turn, is traceable to the operation of an affective tendency (p. 87).

Reasoning itself is distinguished from the mere succession of ideas by the persistence of an affective tendency, with its three-fold function of excluding, "evoking" and choosing. This accounts for the resourcefulness and unity of thought. Its logical quality, on the other hand, is safeguarded by the presence of attention in the above sense; by the presence, that is, of a secondary affective tendency, which acts as a retarding and corrective agency. The primary tendency, if left to itself, would leap impetuously to its end, would forget integral parts of the lesson of experience, and would attribute to certain experiences ideas really derived

from others. The secondary tendency, in other words, is the protagonist of *the disagreeable facts*, and it is especially needed in reasoning where the facts are not present to speak for themselves (pp. 131–133). The comparative absence of this secondary factor marks the reasoning of animals, which is intuitive and concrete, rather than reflective and abstract (p. 143). Concepts arise from affective grouping; that is, from the common capacity which objects otherwise different have for satisfying a given tendency (p. 151). Rational classification, in other words, is essentially teleological. Concepts being formed, they are then represented as schematized, and the operations of reasoning are thus simplified and rendered capable of wide extension (p. 194). They constitute an imaginative anticipation of the lessons of experience.

The author finds confirmation of his general account of reasoning in an examination of mathematical reasoning; and gives a detailed discussion of the psychology of symbolism, traced through the four phases, 'direct', 'indirect', 'condensation' and 'inversion'. Mathematical reasoning does not differ from other reasoning except in the degree of its abstractness, the multiplication of specialized symbols, and the prolonged and sustained effort which it requires. Like other reasoning, it discovers new facts or new relations among phenomena by thinking things in new juxtapositions and combinations (p. 282). Logistic, on the other hand, is a mere cataloguing of the products of other sciences, and can at best attain to the rôle of an "international steno-ideographic system of transcription" (p. 281).

With the genuinely creative reasoning which culminates in mathematics, the author contrasts what he calls 'intentional reasoning'; that is, reasoning whose results are determined in advance by desire (p. 285). Both 'dialectical' reasoning and metaphysical reasoning are, according to our author, essentially of this type. The syllogism is a contrivance through which by singling out an attribute (the middle term) we can place an object in the class where we want it (p. 289). Metaphysics is an attempt to conceive the world *as a whole* as we want it (p. 311).

Types of mentality are classified as 'intuitive' and 'logical', 'romantic' and 'classic', 'bold' and 'timid', 'imaginative' and 'erudite', 'visual' and 'auditory', 'constructive' or positivistic and 'intentional' or metaphysical.

Much space is devoted to the pathology of reasoning. The peculiarity of dreams is attributed to their non-affective character; their evanescence and incoherence being due to the absence of a primary affective tendency, and their illogicality being due to the absence of the secondary or corrective tendency. The presence of a strong primary tendency without the secondary tendency accounts for the combination of coherence and illogicality in one type of insanity—the 'mono-affective' type (p. 443). The

defect here is a lack of equilibrium. Mania and dementia, on the other hand, are conditions of incoherence due to the weakness or absence of affective tendencies altogether.

In the concluding discussion of conscious and unconscious reasoning the author argues for the interesting thesis that consciousness, instead of being an intrinsic character of psychic states, is a relation in which one psychic state or group stands to another, as in somnambulism (pp. 507–508).

The book is well documented and abounds in illustrations and applications. Its style is involved and awkward, but its thought is clear—possibly at times too clear, in the sense of over-simplifying topics such as 'truth' and 'logicality'. The plan and scope of the book give it very genuine value. It is a straightforward attempt to deal descriptively with the 'higher processes' of the mind. It undertakes to find descriptive equivalents of the honorific and critical categories which have been traditionally employed in this field. Especially interesting is the attempt to bring together, in such commensurable descriptive terms, the standards of the logician and the standards of the psychiatrist—on the general assumption that bad reasoning is bad reasoning, whatever the territory in which it occurs. Another undoubted merit is the author's recognition of the intimate relation between the intellectual and the motor-affective sides of mind, and his courageous attack upon the consequent difficulties. Finally, the book has the value of a sustained and consistent defense of a general philosophical position. It is a straightforward and clear-cut positivism, brought up to date and armed with the most modern weapons.

RALPH BARTON PERRY.

HARVARD UNIVERSITY.

Anhang zu Kuno Fischers Geschichte der neueren Philosophie. 3. Band. Gottfried Wilhelm Leibniz, Leben, Werke, und Lehre. Von Dr. W. KABITZ, a. o. Professor an der Universität Münster. Heidelberg, Carl Winters Universitätsbuchhandlung, 1920.—pp. 709–780.

This is a separately published appendix to that part of Kuno Fischer's well-known volume on Leibniz which deals with the celebrated German philosopher's life and works. The author, Professor Kabitz, is favorably known through his book, *Die Philosophie des jungen Leibniz,* which appeared in 1909, and which was discussed in the pages of this REVIEW. The Appendix contains biographical, historical and bibliographical material, notes and comments, supplementing and correcting Fischer's text, and is an example of the patient industry of German scholarship. It has become the fashion to decry the Teutonic *Gründlichkeit;* but, after all, any work that is worth doing is worth doing well. True, it is not a matter of great moment to us whether or not Leibniz followed Boineburg to Mayence in the spring of 1677, or later; and yet if it has been stated that he did—and he did not—there is no reason why the error should not be corrected.

It is the business of historians to be exact; and the Germans are not alone in their eagerness to hunt down all the facts in the life of a great personality; and Leibniz is big enough to justify whatever efforts may be made to find out all about him that can be found out. We are interested in his family, in his education, in his career as a jurist, diplomat, librarian and scholar, in the noted men whom he met and with whom he corresponded, and in all the many projects with which he busied himself. And if a scholar offers to enlighten us concerning all these things, we naturally expect him to tell us *was gewesen ist.*

Besides, it must not be supposed that Professor Kabitz's investigations are concerned with mere petty details; there is much in the Appendix that will prove of interest to the historian of philosophy—for example, the discussion of the personal relations and attitude of Leibniz to Spinoza which have been described by some writers as not at all creditable to Leibniz; the account of his controversy with Newton regarding the discovery of the differential calculus, and of Leibniz's efforts in the direction of establishing learned societies. There is also a brief but good discussion of the most important books dealing with Leibniz's philosophy, which have appeared since the publication of Kuno Fischer's volume.

FRANK THILLY.

CORNELL UNIVERSITY.

Thought and Expression in the Sixteenth Century. By HENRY OSBORN TAYLOR. New York, The Macmillan Company, 1920.—Vol. I, pp. xiv, 426; Vol. II, pp. 432.

Readers of *The Mediaeval Mind* and Mr. Taylor's other books on the ancient world and the middle ages have welcomed with keen interest the appearance of these volumes. This welcome is perhaps all the more hearty and spontaneous because the book is not entitled 'The Renaissance' and because that sonorous word, which has become a little irritating from much repetition, is seldom or never used by the author. "My purpose," he says, "is to give an intellectual survey of the sixteenth century. I would set forth the human susceptibilities and faculties of this alluring time, its tastes, opinions and appreciations, as they expressed themselves in scholarship and literature, in philosophy and science, and in religious reform. Italian painting is presented briefly as the supreme self-expression of the Italians.

"The more typical intellectual interests of the fifteenth century also are discussed for their own sake, while those of the previous time are treated as introductory. I have tried to show the vital continuity between the prior mediaeval development and the period before us" (p. vii).

The scope of the work is shown by the titles of the five books into which it is divided: Book I, "The Humanism of Italy"; Book II, "Erasmus and Luther"; Book III, "The French Mind"; Book IV, "England";

Book V, "Philosophy and Science." Under the last heading there are the following chapters: "Aristotle, Platonism, and Nicholas of Cusa"; "Leonardo Da Vinci: Anatomy, Physiology and Disease"; "The Revolution in Astronomy and Physics"; "The New Philosophers" (Telesio, Campanella, Bruno, Bacon); "Forms of Self-Expression: The Sixteenth Century Achievement."

The book sustains the author's reputation for sound scholarship and historical insight and gift of expression. It is difficult to think of any other work which gives so comprehensive and accurate a picture of the interests and achievements of the sixteenth century. And one of the chief merits of the treatment is that the continuity of that century, both with those which preceded it and those which followed is preserved. In emphasizing the connection between thought and its expression the author enables us to understand the vital unity of the historical development. "One thinks of the transmitted influence of the past, whether remote or proximate, as knowledge and suggestion, as intellectual or emotional or social material to be appropriated and made further use of. It is well to think of it also as flowing on in modes of expression, which constitute the finished form of the matter, whether the form lie in language or in the figures of plastic art. Thoughts and emotions cannot pass from one time to another save in modes of their expression. And the more finished and perfect, the more taking, the more beautiful, the form of expression, the more enduring will be its influence and effect" (p. ix). It was the perfection of form which the sixteenth century attained by using and working upon the heritage transmitted to it that constituted its chief glory. "Moreover, looking to its effect upon succeeding times, one also realizes that this effect still lay in the excellence and power of expression. . . . It was not the new content of thought, or the emotional increment, that was to impress the sixteenth century upon the future; but the influence lying in its expressional power and charm and beauty" (Vol. I, p. 386).

J. E. C.

Cornell University.

The Idea of Progress. By J. B. Bury. London, The Macmillan Co. First Printed 1920, Reprinted 1921.—pp. xv, 377.

After an introductory résumé of the views of Greek, Roman and Mediaeval writers on progress, Professor Bury considers the interpretations of universal history of Bodin and Le Roy. A chapter is then devoted to Francis Bacon and another to Cartesianism, the latter dealing chiefly with Jansenism as represented by Pascal, but ending with a very cursory discussion of Leibniz. Then are outlined successively the views of Tassoni, Saint-Sorlin, Perrault, Fontenelle, Saint-Pierre, Montesquieu, Voltaire, Turgot, the Encyclopaedists, the Economists, Rousseau, Chastellux, Mercier and Condorcet. At this point in the exposition the author

intersperses two chapters dealing with English and German speculations on progress, Godwin being chief among the Englishmen discussed, and Herder, Kant, Fichte and Hegel among the Germans. He then returns to France, "the nursing-mother of ideas," and expounds the views of Cousin, Jouffroy, Guizot, Saint-Simon and Comte. Brief chapters on the French Revolution of 1848, the "Exhibition of 1851" and "Progress in the Light of Evolution" are added, the last, of course, dealing with the views of Darwin and Spencer. Then follows a short Epilogue and an Appendix of valuable notes to the text arranged by chapters. The volume closes with a good index.

The title is a misnomer. It leads one to expect a discussion of the idea of progress in general, whereas one finds an historical survey of the belief that civilization will continue to advance indefinitely in future. "To speculate how theories of progress may be modified by recent philosophical speculation, lies beyond the scope of this volume, which is only concerned with tracing the origin of the idea and its growth up to the time when it became a current creed" (p. 348). And the precise content of the idea whose growth is traced is succinctly stated: "You may conceive civilization as having gradually advanced in the past, but you have not got the idea of progress until you go on to conceive that it is destined to advance indefinitely in the future" (p. 7).

It is this limiting of the content of the idea—a limitation which rigidly excludes the concept of a non-temporal, logical development as well as the notion of a progress of the individual human being from lower to higher types of experience—which justifies Professor Bury in writing: "The preponderance of France's part in developing the idea is an outstanding feature of its history" (p. xi). In truth, practically the whole book is a sympathetic discussion of the philosophical movement in France, culminating first in the writings of the Encyclopaedists, but reaching a second and higher culmination in Positivism. Indeed, the book could just as appropriately have been entitled *Positivism and its Precursors*. And Professor Bury obviously agrees with the general philosophical position of this succession of thinkers, even though he does make some trenchant criticisms of Comte, and rejects the theory that the idea of progress is ultimate. This explains his prejudice against every theory of progress based upon a metaphysical theory differing from Positivism, a prejudice which comes to sharpest expression in his too brief chapter entitled "German Speculations", and appears as a deep-seated antipathy, begotten by misunderstanding, in his evaluation of Hegel's contribution to the idea.

In less than fifteen pages of introduction the author attempts to prove that the ancients not only did not have, but could not possibly have had, an idea of progress. One of the main reasons given is that "the instinctive pessimism of the Greeks" as expressed in their theories of "Moira, of degeneration and cycles, suggested a view of the world which was the

very antithesis of progressive development" (pp. 17 and 19). Here Professor Bury confuses two entirely different questions: (1) Did the Greeks believe that civilization is advancing? and (2) Did they have an idea of what is meant by progress? The fact that the Greeks advanced a theory of degeneration proves that they had some idea of what is meant by progress. For how could anyone think that civilization is going backward without having some idea of what going forward means? Professor Bury later devotes a whole chapter to the question, "Was Civilization a Mistake?" in which he discusses Rousseau's theory of regression, simply taking it for granted that a theory of regression belongs to the history of the idea of progress. Is it not pertinent to ask why the degeneration and cycle theories of the ancients do not belong to its history for the same reason that the theory of regression belongs to it?

In any case, Professor Bury has here raised an interesting question of fact about ancient thought which can not be adequately answered in the short space allotted to it in his book. Harnack's suggestion that the Platonic notion of a demiurge, and its later development into the Philonic and Neo-Platonic idea of divine powers intermediary between God and man, is an idea which functioned for the idea of progress in ancient thought, and really anticipates the later conception, seems to me to show far more philosophical insight than Professor Bury's very brief discussion of this fascinating historical problem. It may well be that in its groping after truth the human mind reached the idea of a progressive temporal development of civilization by bringing this type of speculation down from heaven to earth, so that these intermediary powers and ultimately even God himself (I think of Dr. Alexander's new theory of Deity and of the conception of God of Pragmatism) are far-off stages in the unfolding of Time, and are really future stages in the development of human beings and their institutions. If something like this has taken place, it would seem that a logical conception of progress must underlie, after all, every idea of a purely temporal development.

Professor Bury, however, is not friendly to religious conceptions and regards the idea of providence as a superstition to be eradicated before the idea of progress could gain recognition. "The undermining of the theory of providence is very intimately connected with our subject; for it was just the theory of an active providence that the theory of progress was to replace; and it was not till men felt independent of providence that they could organize a theory of progress" (p. 73). However, he nowhere examines the question of the relation between the idea of providence and that of progress. He does not even attempt a demonstration of the incompatibility of the two conceptions, but simply assumes it to be a fact. This anti-theological bias makes it difficult for the author to be fair to writers having a religious conception of the world.

A reference to Burke's *A Vindication of Natural Society* (p. 182) is misleading in that it leaves the impression that the author was actually attacking organized society, whereas the truth is that he was ironical, intending his argument as a *reductio ad absurdum* of Lord Bolingbroke's defense of natural religion (Deism).

Yet in spite of these limitations and defects, Professor Bury's book will repay reading. It contains lucid and valuable discussions of thinkers whom students of philosophy should know. He quotes more than is necessary, but his quotations are usually apposite. The book is interesting reading because aptly and felicitously expressed.

In the Epilogue Professor Bury turns prophet. "A day will come, in the revolution of centuries, when a new idea will usurp the place of the idea of progress as the directing idea of humanity. Another star, unnoticed now or invisible, will climb up the intellectual heaven, and human emotions will react to its influence, human plans respond to its guidance. It will be the criterion by which progress and all other ideas will be judged. And it too will have its successor" (p. 352). Will the attainment of this new idea which is to supplant the idea of progress mean that the human race has progressed? This is a question which not only Professor Bury, but all other devotees of progress, who have not fallen under the spell of the 'illusion of finality', might well ponder. For if they answer it affirmatively, the theory of the relativity of the idea of progress is contradicted, but if they answer it negatively, they take a position not far removed from the much-maligned cycle theory of the ancients.

DANIEL SOMMER ROBINSON.

UNIVERSITY OF WISCONSIN.

The Secret Happiness or Salvation through Growth. By EDMOND HOLMES. New York, E. P. Dutton & Company, 1921.—pp. x, 360.

The reader will examine a book with such a title in the fear of being insulted by some fantastic half-thinking. He will be surprised and gratified to find this book is full of clear thinking and lucid expression. The author challenges the reader's attention from the first page to the last with a kindly, humane purpose which he happily expresses as "the higher agnosticism—the faith that is so secure that it does not ask to be formulated" (p. viii). Secrets of happiness are usually shouted in the street as patent medicines are sold at the fair. This secret of happiness comes with the persuasive force of the still small voice.

Part I is an analysis of the passing of the feudal order. In feudalism the hope of happiness centers in externality and force. Part II undertakes the more difficult task of interpreting modern science, especially modern biological science, in other than feudalistic terms. Externality is written large in scientific discussion and research. Force is the god of "heredity and environment." Faith in the validity of the internal categories rests

upon our success in showing the limitation and insufficiency of the external ones of science. Reason must be reconciled with intuition. Here is a major philosophical problem and it is discussed in a novel and brilliant manner by the author. The argument is cumulative and persuasive. Part III elaborates the idea of growth as the process of realizing potentialities. In order to conceive these potentialities as other than external, recourse must be had to the idea of interpenetration of the individual and the universal. At this point in the argument some form of the 'concrete universal' makes its appearance. "When we say that the true life of man is 'buried' we mean that what is real in the individual life is the life beyond individuality, the life of nature in her unity and totality, the life of the All. To realize that life, to realize his oneness with the eternal, changeless soul of Nature, to realize that his inmost soul is her soul, that his true self is her self—to realize this supreme truth, not as a formula, nor as a proposition, nor even as the central idea in a system, but as the central fact of his own being—to realize it by living it, by growing into oneness with it, by being embraced by it, by being absorbed into it—this (if he could but know it) is the ideal end of man's existence and the central purpose of his life" (p. 215). Part IV examines in greater psychological detail what it means to grow in feeling, thought and conduct, and inferences are drawn concerning the aims and practices of education. Part V concludes the book with the author's description of the happy man. He who would find happiness must seek it through the self-effacement of love. Selfish desire must be burned away in cosmic passion.

The meaning of the book is familiar to lovers of Plato, Spinoza, Kant and Hegel. The detail is modern, interesting and persuasive. The age-old questions recur at the end: Why seek to be happy? Is self-denial an insincere mask of self-assertion? How may one save his life by losing it? Is the individual lost in the universal? Is the author's formula for happiness universal—*i.e.*, may all men be happy through absorption in cosmic love, or are there individual differences that make some men most happy in hate and malice?

H. G. TOWNSEND.

SMITH COLLEGE.

Some Modern Conceptions of Natural Law. By MARIE T. COLLINS. Lancaster, Pa., and New York, Longmans, Green & Company, 1920.—pp. vi, 103.

This work is a critical study in contrasts within the field of present-day idealistic metaphysics. Idealists are divided into two groups: (1) 'psychological' and (2) 'logical'. The psychological group, represented by the writings of Ward, Royce and A. E. Taylor, endeavors to interpret the world in terms of mind on its presentative side—*i.e.*, in terms of sensation, feeling and impulse, with a marked tendency to treat the individual center of subjective consciousness as ultimate. For this group, reality consists

of a society of spontaneous centers of consciousness, and, in particular, natural law is the mode of behavior of these conscious subjects. That is to say, Nature is conscious, free and purposive, with a certain general tendency away from chaos and chance, and toward order and progression. This general tendency, and also a large number of special tendencies, are capable of being expressed statistically, and the laws discovered by scientists are to be regarded as statistical expressions of gradually established habits of intercourse in a panpsychical society constituted by free individuals.

The logical group, represented by the writings of Bosanquet, interprets reality in terms of mind understood, not as a number of individual centers of consciousness, finite, subjective, unanalyzable and ultimate, but as something universal and objective, a principle of direction immanent in the whole universe and developing as the principle of its development, a certain organization of the facts of experience exemplified not only in centers of subjective consciousness, but also in the inanimate world, and especially in social, supra-individual institutions. On this view, what we call natural laws are the expression of mind, not as sensory or conative, but of mind as logical principle, the principle of determination by the whole. Scientific laws express the relation of parts to one another, determined in their significance by reference to the concrete whole in which they function. In physics and chemistry there remains a certain residual datum which is external to the mind's activity; in the social sciences, in the laws of the state, in art and religion, mind "has come home to itself, and knows itself as mind." In this realm, the kingdom of values, where the world of sense is transfigured through interpretation, mind and nature work as one harmonious whole, an organization of mechanism and teleology, of relations and values, a systematic totality, a genuine universe of law. Thus interpreted, law is the relation of all the particulars in the universe, taken together and determined by the nature of the universe as a whole.

The work is not a mere study in contrasts, but the author criticizes, sharply and severely, certain presuppositions and certain consequences of the psychological view. A number of 'contradictions' are pointed out as inherent in this view. Thus, it is insisted that to construe the real in terms of conscious processes (instead of regarding mind and nature as complementary aspects of the whole) is to treat all law as derivative and contingent, and to elevate indeterminism and chance, the antithesis of law, to the rank of first principles; to make conation and not cognition the central feature of mind is regarded as a "basic inconsistency" in a view which accepts certain of the premises of rationalism, and eventually the whole position is reduced to solipsism, if not something worse.

Idealists attempt to interpret reality in terms of mind. But mind can be understood in two senses, the one more subjective and psychological, the other more objective and logical. To contrast these two senses, to

exhibit clearly the differences which arise as one follows the one path rather than the other in metaphysical construction, is a task which is legitimate, important, and timely; and in this task it cannot be denied that the author has largely succeeded. But there appear to the present reviewer to be certain deficiences in the method followed. In the first place, the author exhibits a certain over-confidence in the fascinating art of manipulating concepts. For those who do not like panpsychism it is, no doubt, sufficiently amusing to pen up Messrs. Ward, Royce and Taylor in corners labeled 'subjective idealism', 'solipsism', 'a single point of experience', and to pierce them with shafts feathered by an ingenious dialectic. But is not this result reached by arbitrary selection of certain elements in their writings, and by arbitrary neglect of the more 'logical' elements which they all three share with Bosanquet? And in the second place, is not the main contrast between 'subjective' and 'objective', between psychology and logic, somewhat over-emphasized? Surely we are, each one of us, individuals, finite centers of consciousness, and 'subjective' elements, matters of sensation, feeling, and impulse, do play a major part in our lives. At the same time, in spite of this, we do feel some of the force of a logically harmonious system, and, under the sting of certain problems which can not be solved at the sensory level, we do try to develop a philosophy in which 'objective' and logical methods are at least prominent. Is not this true even of panpsychists? To the present reviewer it seems that the writer who accepts the main position of Bosanquet should recognize that all groups of idealists, facing the same facts of experience, are constructing a theory in which the elements shared in common far outnumber the differences, and that the metaphysical hypotheses as to the ultimate nature of the universe offered by panpsychists and by "speculative philosophers" are not necessarily opposed in such a sense that the one must be true and the other must be false.

RUPERT CLENDON LODGE.

UNIVERSITY OF MANITOBA.

Bergson and His Philosophy. By J. ALEXANDER GUNN. New York, E. P. Dutton and Company, 1920.—pp. xxi, 190.

This thoughtful small work by Mr. Gunn, who is a Fellow in the University of Liverpool, makes one more addition to the already long list of books on Bergson, running at present well beyond a score of titles in English alone. It is put forth "in the hope that it may be useful to the general reader and to the student of philosophy as an introduction and a guide to the study of Bergson's thought." The author keeps to his aim of exposition in a number of chapters on the now familiar topics of the Bergsonian philosophy, change, perception, memory, the relation of soul and body, time, the freedom of the will, evolution, and the method of intuition. There is an opening chapter on the life of Bergson, chronicling

the main events of Bergson's academic and literary career, and three further chapters at the close dealing with the ethical, political and religious implications of the Bergsonian doctrines, and attempting some appraisal and criticism of the philosophy as a whole. That this part of the book necessarily contains mere indications goes without saying.

A substantial part of the total space (pp. 148–182) is devoted to a carefully compiled bibliography containing a list of Bergson's own writings, chronologically arranged, a list of books and articles dealing directly or indirectly with Bergson, and, finally, a list of the English translations of Bergson's writings. For the English-speaking student of philosophy the bibliography may well prove one of the most useful parts of the book, as it is, along with Mr. Pogson's collection in *Time and Free Will*, Johnston's *Contribution to a Bibliography of Henri Bergson*, and Meckauer's list in his *Der Intuitionismus und seine Elemente bei Henri Bergson*, one of the most comprehensive and (with the exception of three or four very weak pieces) carefully selected Bergson bibliographies published.

Mr. Gunn writes an unaffected and agreeable style, and his book may be recommended as a comparatively simple and capable introduction to Bergson's own more difficult works.

E. C. Wilm.

Boston University.

The following books have also been received:

A History of Psychology. By George Sidney Brett. Second and third volumes. London, George Allen and Unwin; New York, The Macmillan Company, 1921.—pp. 394, 322.

The Group Mind. A Sketch of the Principles of Collective Psychology with Some Attempt to Apply Them to the Interpretation of National Life and Character. By William McDougall. American edition. New York, G. P. Putnam's Sons, 1920.—pp. xvii, 418.

Sociology and Ethics. The Facts of Social Life as the Source of Solutions for the Theoretical and Practical Problems of Ethics. By Edward Cary Hayes. New York, D. Appleton and Co., 1921.—pp. viii, 354.

The Truths We Live By. By Jay William Hudson. New York, D. Appleton and Co., 1921.—pp. x, 308.

The Thirteen Principal Upanishads. Translated from the Sanskrit, with an outline of the Philosophy of the Upanishads and an annotated bibliography. By Robert Ernest Hume. London, The Oxford University Press, 1921.—pp. xvi, 539.

The Reign of Relativity. By Viscount Haldane. London, John Murray, 1921.—pp. xxiii, 430.

Le Problème Moral et la Pensée Contemporaine. Par D. Parodi. Paris, Félix Alcan, 1921.—pp. 301.

La Conquête du Bonheur. Par Jules Payot. Paris, Félix Alcan, 1921.—pp. 279.

Introduction Générale à l'Étude des Doctrines Hindoues. Par RENÉ GUENON. Paris, Librairie des Sciences Politiques et Sociales, 1921.—pp. 346.

L'Énergie Universelle. Par CHARLES DUTOIT. Paris, Félix Alcan, 1921.—pp. 104.

Nos fils seront-ils enfin des Hommes? Notes d'un Éducateur Spiritualiste. Par ROBERT NUSSBAUM. Paris, Félix Alcan, 1921.—pp. 115.

Mécanismes Communs aux Phénomènes Disparates. Par MICHEL PÉTROVITCH. Paris, Félix Alcan, 1921.—pp. 279.

Introduzione Allo Studio delle Opere di Benedetto Croce. Note Bibliografiche e Critiche. Per GIOVANNI CASTELLANO. Bari, Gius, Laterza & Figli, 1920.—pp. 302.

Tommaso Campanella. Per C. DENTICE DI ACCADIA. Firenze, Vallecchi, 1921.—pp. 304.

Il Vero Interiore. Appunti di Estetica. Per GIUSEPPE CIACCIO. Sarzana, Rolla e Canale, 1921.—pp. 124.

Georg Wilhelm Friedrich Hegel—Phänomenologie des Geistes. Herausgegeben von GEORG LASSON. Zweite Auflage. Leipzig, Felix Meiner, 1921.—pp. cxvi, 541.

Die Prinzipien der Physikalischen Optik. Historisch und erkenntnispsychologisch entwickelt von ERNST MACH. Leipzig, Johann Ambrosius Barth, 1921.—pp. x, 443.

SUMMARIES OF ARTICLES.

[ABBREVIATIONS.—*Am. J. Ps.* = *The American Journal of Psychology; Ar. de Ps.* = *Archives de Psychologie; Ar. f. G. Ph.* = *Archiv für Geschichte der Philosophie; Ar. f. sys. Ph.* = *Archiv für systematische Philosophie; Br. J. Ps.* = *The British Journal of Psychology; Int. J. E.* = *International Journal of Ethics; J. of Ph., Psy., and Sci. Meth.* = *The Journal of Philosophy, Psychology, and Scientific Methods; J. de Psych.* = *Journal de Psychologie; Psych. Bul.* = *Psychological Bulletin; Psych. Rev.* = *Psychological Review; Rev. de Mét.* = *Revue de Métaphysique et de Morale; Rev. Néo-Sc.* = *Revue Néo-Scolastique; Rev. Ph.* = *Revue Philosophique; Rev. de Ph.* = *Revue de Philosophie; R. d. Fil.* = *Rivista di Filosofia; V. f. w. Ph.* = *Vierteljahrsschrift für wissenschaftliche Philosophie; Z. f. Ph. u. ph. Kr.* = *Zeitschrift für Philosophie und philosophische Kritik; Z. f. Psych.* = *Zeitschrift für Psychologie und Physiologie der Sinnesorgane, I. Abtl. Zeitschrift für Psychologie.* — Other titles are self-explanatory.]

Jules Lachelier. E. BOUTROUX. Rev. de Mét., XXVIII, I, pp. 1–20.

It is especially true of Lachelier that one cannot know him by his writings alone. His pupils learned that philosophy is not a completed science; so little so that even its basic principles are open to question. Lachelier's early concern, at the École Normale, was to preserve the reality, the originality, and the independence of the mind. Unlike Cousin, Lachelier held that basic principles must be demonstrable, and a study of Kant convinced him that the point of departure in this demonstration was the Kantian phrase:— "The *I think* must accompany all my representations, otherwise they would not exist for me." And thought demands that the universe be one, harmonious, active, perhaps even spiritual. Lachelier's second study—the first being entitled *Du Fondement de l'Induction*—considered the proposition that real Psychology and Metaphysics are the same. That is to say, thought really is, in so far as it involves its objects by a synthetical process opposed to analysis, which is only secondary. Psychological phenomena are real only if there exists a sensory consciousness of which they are the work and the projection; this sensory consciousness is based in turn on an intellectual one which creates the order of the world. And absolute existence can demonstrate itself only directly, that is, by the discovery of the operation by means of which thought postulates itself and gives to itself its principles of action. Lachelier distinguishes three forms of the mental life—the scientific, the aesthetic, and the ethical—which are ultimately parts of one continuous system. In reëstablishing the necessary bonds both between science—the authentic expression of our knowledge of the world,— and philosophy, and between religion—the origin of our highest form of experience,—and philosophy, Lachelier revealed anew to philosophy its infinitely rich perspectives and possibilities.

H. R. SMART.

A propos de l'Évolution de la Pensée Juridique Contemporaine. G. DAVY. Rev. de Mét., XXVIII, I, pp. 49–75.

Questions relating to the basis and method of law occupy much more attention today than they did twenty years ago. And among the present-day publications on these questions that of M. Gény, *Méthodes d'Interpretation et Sources en Droit Privé Positif,* holds an important place. The Napoleonic Code implied the universal and absolute value of the Law; once it had spoken, no more could be said; it alone could qualify or regulate; one did not even imagine the necessity of an interpretation. As Montesquieu said, "The judges . . . are only the mouthpieces which give expression to the words of the law". And Robespierre taught that in a state possessing a constitution and laws no jurisprudence had any place. Thus the spirit of absolute legality became classic and no philosophy of the law was considered necessary. But, as M. Gény points out, the constant transformation of society has forced a reconsideration of the principle both on practical and philosophical grounds. How grant liberty of interpretation while preserving inviolate the letter of the law? M. Gény is an ardent partisan of the traditional conceptions of the law. He would respect its intensity, while limiting its extent. To complete the law by other means but not to transform it into something else; to maintain judicial liberty but not to sacrifice the authority of the Code—such is M. Gény's solution. From what source other than the statute (*loi*) may one then demand a revelation of the law (*droit*)? For M. Gény the answer is, from "free scientific research", and to a lesser extent from custom—reduced as nearly as possible to jurisprudence. The former source will reveal the moral, psychological, social and political principles upon which all law, to be sound, must be based. Custom and jurisprudence are to collaborate with the law, not by opposing its fundamental principles, but by adapting and completing them, such adaptation and completion to issue finally in periodic codifications. In comparing the views of M. Gény with those of his critics, what conclusion may one reach? First, M. Gény is wrong in insisting upon a strict interpretation of the statute; only by introducing flexibility into the letter of the law is its adaptation to daily life achieved. Secondly, as for the danger of subjectivism connected, M. Gény fears, with jurisprudence, M. Lambert and Salielles have shown that, when enlightened by the text of the law and seconded by custom, it is possible for the judiciary to function with far greater objectivity than could a free interpreter of "natural (*i.e.*, rigid) law". In short, only in the supple clay of daily jurisprudence, more especially of comparative jurisprudence, is outlined the ideal which tomorrow will be fixed in the marble of the law.

H. R. SMART.

Les Facteurs Kantiens de la Philosophie Allemande de la Fin du XVIII^e^ et du Commencement du XIX^e^ Siècles. V. DELBOS. Rev. de Mét., XXVIII, I, pp. 27–47.

The First Principle as identity of subject and object (Schelling). For Fichte the first Principle is the Self—not the empirical, but the unconditioned, absolute, and intuitively recognized Ego. And opposed to the type of idealism based upon this Principle Fichte finds, in the doctrine of Spinoza, a dogmatism positing Substance as a First Principle. To Schelling fell the problem of overcoming the opposition between Fichte's idealism, and Spinoza's realism, *i.e.*, between subjectivism and objectivism, while at the same time retaining the subject as a starting-point for critical philosophy. Schelling, however, became more and more convinced that there exists, correlative with the principle of knowledge, a system of nature; a system, not as in Fichte's idealism a subordinate product or instrument of the mind, but self-sufficing and self-explaining. What could be more different from this view than Kant's doctrine that the "possibility of a real science of nature rests entirely on the law of inertia"; and that hylozoism, the contrary of this law, is the death of all true natural science? Yet there were in Kantian philosophy conceptions and tendencies pointing to Schelling's position. Such are the doctrine that the understanding is the law-giver of nature, and the idea that between the mechanistic universe and the moral world a relation may be established by means of the mediating notions of beauty and finality. But in the unity thus established Kant did not imply a direct passage from the one world to the other; the principle of mechanical causation could not explain life. Schelling adopted Kant's notion of finality as a concept of the understanding, but went beyond Kant in applying it to the living organism as well as to inanimate nature. The finality in nature rests, for Schelling, upon the unity of nature and mind. The First Principle, then, is Reason—complete overcoming of the distinction between Ego and non-Ego. And the great question is to explain how this productive activity of Nature determines itself in its products.

The First Principle as Infinite Thought (Hegel). It is the problem just mentioned which confronted Hegel. Schelling's manner of deriving particulars from his Absolute Hegel finds arbitrary and artificial, just because the Principle itself is abstract and stripped of all differences. The Absolute, according to Hegel, must be understood as a spontaneous power of differentiation and realization. So our grasp of the Absolute cannot depend upon a sudden intellectual intuition but rather it results from a rational genesis, a development, dialectical and conceptual, according to the law of the identity of the rational and the real. What are the relations between Hegel's doctrine and critical rationalism? The dualism of Kantian philosophy, as marked by the contrast between concept and reality and by

the subjugation of theoretical to practical reason, was for Hegel a sign of its insufficiency. Nevertheless, Hegel recognized the great constructive value of Kant's philosophy and realized that Kant's real teaching prepared the way for a re-union of the principles he had previously torn apart. The critical philosophy, in common with empiricism, based all knowledge upon experience. But the objectivity of Kant's system is still tainted with subjectivity, in that thoughts, though universal and necessary determinations, are no less surely *our* thoughts. This because Kant made his *Critique* too exclusively preliminary and exterior; in reality thought has not to examine itself independently of its development and of its concrete operations; it is in exercising itself that it discovers its meaning and its limitations. In the categories, in the theory of the ideas of reason, and in the doctrine of the antinomies Kant caught glimpses of the real significance of reason but allowed himself to be stopped short or turned aside from the ultimate goal. Before all, Hegel teaches, one must distinguish between mere understanding and rational thought. From the former spring finite and mutually exclusive determinations; from the latter arises the affirmation contained in the passage from finite terms to their opposites and in their final conciliation. Infinite or speculative thought is determined only in that it is at the same time determining; thought of which the determinations are its own determinations—which by positing the limit abolishes the imperfection inherent in it.

H. R. SMART.

A Behavioristic View of Purpose. RALPH BARTON PERRY. J. of Ph., XVIII, No. 4, pp. 85–105.

Behaviorism in general represents a return to the Aristotelian view that mind and body are related as activity and organ. In modern terms this means that the mental life consists of those performances of an organism that immediately involve the exercise of its nervous system. Psychology differentiates from physiology by attending to the grosser facts of organic behavior, particularly external and internal adjustments by which the organism acts as a unit rather than by attending to the more elementary constituent processes, such as metabolism. Defining the organism in terms of the functions of the central nervous system, we must look for the 'mind' somewhere between stimulus and act. To the untrained observer there is a hiatus between stimulus and response. The introspectionist regards the mind as something that *supervenes*, or hovers about the hiatus. The behaviorist regards the mind as something that *intervenes* as an arc or circuit of the general causal nexus. The elementary unit of behavior will be a movement induced by a stimulus. An act of mind will be a response; and a state of mind will be a disposition to respond. In answer to the objection that 'consciousness' is thus left out, the behaviorist will deny having omitted any facts and will affirm that he only abandons a

theory which has proved unsatisfactory, viz., the introspective *theory* of consciousness. "The behaviorist has emphasized the failure of the introspective theory to yield results comparable to those obtained in kindred sciences, and proposes to try another." Introspection does not present mind as such; its method is at bottom only an analysis of *objects of cognition*. Its failure is most pronounced in the sphere of the will and the affections where there is now the greatest demand for light. Münsterberg, rigorous introspectionist as he was, recognized the fact that the will introspectively regarded is not the real will at all. In the motor-affective field of the mental life, almost every recent advance has resulted from abandonment of the introspective method. Two new conceptions of human conduct have come into vogue: (1) the unit-instinct, (2) the 'complex'. Both are essentially dispositions, and exist whether exercised or not. When exercised, they are activities and are properly describable only in terms of characteristic organic environmental changes. The instinct and complex are thus first of all organic dispositions, or systematic arrangements in the physical organism which condition specific modes of performance. From their points of similarity we obtain a more fundamental conception which may best be termed *set* or *determining tendency*. In the light of this conception we may interpret those characteristic modes of human behavior such as acting interestedly, purposely, or rationally. A constant feature of human conduct is a serial order of prepared responses. Most human action instead of being born *de novo* at the moment of performance merely passes from an implicit or partial state to an explicit or complete state. The organism is ordinarily in a state of being committed in advance of performance. Whether the determining tendencies are congenital or acquired, they do exist and give to human behavior its characteristic form. Furthermore, in proportion as the organism is unified and functions as a whole its behavior is incapable of being translated into simple reactions correlated severally with external events. Indeed, the most recent developments in physiology, psychology and psychiatry have emphasized the extent to which the organism is integrated, so that any particular deed is to be accounted for in terms of the state of the organism itself rather than in terms of the incidence of an external stimulus. This conception of purpose may be further confirmed by the two ideas associated with the traditional view of human conduct: (1) the subordination of means to ends; (2) determination by the future.

J. H. GRIFFITHS.

The Independent Variability of Purpose and Belief. RALPH BARTON PERRY. J. of Ph., XVIII, No. 7, pp. 169–180.

Although there is no purpose without cognition, we are not justified in slurring the difference between the two terms by using them interchangeably. The reciprocal influence of interest and belief can be properly under-

stood only by a preliminary analysis of the terms themselves. Belief may remain unchanged amid fluctuation of interest, and, conversely, interest may remain fixed while belief varies. The difference between interest and belief will be better understood by considering a common constituent which with one qualification becomes interested action, and with another qualification becomes belief. Such a common constituent is 'supposition'. It is essentially an anticipatory set which determines both the response and the occasion on which the response shall be applied. The stimulus or situation which brings the response into action may be conveniently termed 'index'. Thus in the formal judgment the so-called 'subject' is the index, the so-called 'predicate' is the response, and the fact whose presence or absence determines the judgment to be true or false is the complementary environmental condition or 'object'. In a judgment formulated verbally the so-called 'subject' ordinarily *instructs* the organism to which it is addressed. It localizes or sets the attention, and determines what stimulus shall serve as index. Truth and error, as relative to the intent of a judgment, qualify an anticipatory set as regards *its fitness to meet a specific occasion*. Truth and error are inapplicable to an ambiguous situation. Bare supposition thus has functional relations necessary to determine truth or error. Supposition is further qualified as (1) a belief, or (2) a purpose. "A belief is a supposition to which one has committed oneself." Every supposition has a degree of belief since all supposition is action, and action which precludes other action. A purpose requires the presence of a supposition, which ordinarily will have assumed the form of a belief. And a belief becomes a purpose only when the anticipatory response in which it consists is *in demand*. "The belief correlates the anticipatory response with a specific occasion; the purpose subordinates it to a determining tendency. In the case of purpose the determining tendency and the component belief are so related that one can be inferred from the other." Here the alleged impotence of reason becomes apparent. Purpose and belief, again, are reflectively distinguished by reference to motor-affective meanings and cognitive meanings. "Motor-affective meaning is the existing response or its completion in so far as these require no further development of the stimulus; cognitive meaning is projected response correlated with a future series of objects which may or may not be presented." Hence motor-affective meaning is infallible while cognitive meaning is fallible. Moreover, the interplay of interest and cognition is apparent from their independent variability. (1) Belief remains fixed while purpose varies. (2) Purpose remains stable amid variability of belief. (3) A converse relation may hold between belief and purpose.

J. H. Griffiths.

We give below a list of articles in current philosophical periodicals:

THE JOURNAL OF PHILOSOPHY, XVIII, 14: *Ralph Barton Perry,* The Cognitive Interest and its Refinements; *Kenneth Sylvan Guthrie,* Rejoinder to Mr. Boas' Attack on Guthrie's *Plotinus.* 15: *S. L. Pressy,* Empiricism versus Formalism in Work with Mental Tests; *A. J. Snow,* A Note on the Rôle of Mathematics in Physics. 16: *John M. Fletcher,* Geneticism as a Heuristic Principle in Psychology; *E. L. Schaub,* The Annual Meeting of the Western Division of the American Philosophical Association; *Durant Drake,* Philosophy as Work and Play.

MIND, XXX, 119: *G. C. Field,* Faculty Psychology and Instinct Psychology; *Alfred Sidgwick,* Statements and Meaning; *P. Leon,* Literary Truth and Realism, The Aesthetic Function of Literature and its Relation to Philosophy; *Joshua C. Gregory,* Realism and Imagination; Discussion, *C. A. Strong,* The Meaning of "Meaning".

THE AMERICAN JOURNAL OF PSYCHOLOGY, XXXII, 3: *H. G. Bishop,* An Experimental Investigation of the Positive After-Image in Audition; *S. L. Pressey,* The Influence of Color upon Mental and Motor Efficiency; *M. Yokoyama,* The Nature of the Affective Judgment in the Method of Paired Comparison; *Sarah D. M. Austin,* A Study in Logical Memory; *H. B. English,* In Aid of Introspection; *C. Braddock,* An Experimental Study of Cutaneous Imagery; *S. Tung,* The Integration of Punctiform Cold and Pressure; *M. Winfield* and *C. Strong,* The Hering Color-Blindness Apparatus and the Normal Rayleigh Equation; *W. A. Thalman,* The After-Effect of Seen Movement when the Whole Visual Field is Filled by a Moving Stimulus.

THE BRITISH JOURNAL OF PSYCHOLOGY, XII, 1: *C. Lloyd Morgan,* Instinctive Behaviour and Enjoyment; *B. Muscio,* Is a Fatigue Test Possible?; *C. Rodrigo Lavin,* A Preliminary Study of the Reproduction of Hand Movements; *F. Aveling* and *H. L. Hargreaves,* Suggestibility with and without Prestige in Children; *Edward Bullough,* Recent Work in Experimental Aesthetics.

JOURNAL OF EXPERIMENTAL PSYCHOLOGY, IV, 1: *Harold E. Burtt,* The Inspiration-Expiration Ratio during Truth and Falsehood; *F. A. C. Perrin,* An Experimental Study of Motor Ability; *F. L. Wells, C. M. Kelley, Gardner Murphy,* Comparative Simple Reactions to Light and Sound; *Samuel W. Fernberger,* An Experimental Study of the "Stimulus Error".

THE INTERNATIONAL JOURNAL OF ETHICS, XXXI, 4: *Victor S. Yarros,* Contemporary American Radicalism; *Émile Boutroux,* The Immediate Future; *Henry Nelson Wieman,* Personal and Impersonal Groups; *Claude C. H. Williamson,* Progress; *John M. Mecklin,* The Philosopher as Social Interpreter; *Benjamin Ives Gilman,* Death Control; *E. A. Burtt,* Present-Day Tendencies in Ethical Theory.

THE JOURNAL OF RELIGION, I, 4: *Peter G. Mode,* Revivalism as a Phase of Frontier Life; *Kenneth Saunders,* Some Significant Aspects of the Theology of Buddhism; *Edgar S. Brightman,* The More-than-human

Values of Religion; *Morris S. Lazaron,* The American Jew: His Problems and His Psychology; *James H. Leuba,* Religious and Other Ecstasies; *H. W. Wright,* What Alternatives Can Religion Present to the Will of Modern Man?; *Harry F. Ward,* The Moral Valuation of Our Economic Order; *Ernest F. Scott,* What Did the Idea of Messiah Mean to the Early Christians?

THE HARVARD THEOLOGICAL REVIEW, XIV, 3: *George Foot Moore,* Christian Writers on Judaism; *Ernesto Buonaiuti,* Ethics and Eschatology of Methodius of Olympus; *John Wright Buckham,* American Theists.

REVUE PHILOSOPHIQUE, XLVI, 7–8: *V. Basch,* Le maître-problème de l'esthétique; *Fr. Paulhan,* La perception de la synthèse psychique; *P. Dupont,* Éléments objectifs du monde matériel; *H. Piéron,* La notion des centres coördinateurs cérébraux et le mécanisme du langage.

REVUE DE MÉTAPHYSIQUE ET DE MORALE, XXVIII, 2: *L. March,* La méthode statistique en économie politique; *J. Moret,* Les prix et la théorie générale de l'équilibre; *R. G. Hawtrey,* La situation monétaire européenne; *Ch. Gide,* La consommation; *A. Aftalion,* Le rythme de la vie économique; *E. Barone,* Les syndicats (cartels et trusts); *Augé-Laribé,* Le rôle de la terre et des forces naturelles dans l'économie moderne; *Ch. Rist,* L'épargne; son mécanisme social et psychologique; *Max Lazard,* Le travail humain; son utilisation et sa rémuneration; *Dugé de Bernonville,* L'orientation professionnelle: l'adaptation de l'ouvrier à la profession.

RIVISTA DI FILOSOFIA NEO-SCOLASTICA, XIII, 2: *Amato Masnovo,* Gli albori nel neo-tomismo in Italia; *Emilio Chiocchetti,* La religione e il cristianesimo nell'idealismo attuale di G. Gentile; *Clemente Baeumker,* Pietro d'Ibernia maestro della gioventù di Tommaso d'Aquino e una sua disputa alla presenza del re Manfredi.

RIVISTA DI FILOSOFIA, XIII, 1: *G. Gentile,* Arte e Religione; *G. Calò,* La Scuola, lo Stato et le Classi sociali; *V. Cento,* Linee d'una teoria generale dei rapporti fra Chiesa et Stato.

ZEITSCHRIFT FÜR PSYCHOLOGIE UND PHYSIOLOGIE DER SINNESORGANE, LXXXVII, 1–2: *Erich Becher,* W. Köhlers physikalische Theorie des physiologischen Vorgange, die der Gestattwahrnehmung zugrunde liegen; *Georg Marzynski,* Studien zur zentralen Transformation des Farben; *E. R. Jaensch,* Über die Vorstellungswelt der Jugendlichen und den Aufbau des intellektuellen Lebens; *Edith Gottheil,* Über das latente Sinnengedächtnis des Jugendlichen und seine Aufdeckung; *E. R.* und *W. Jaensch,* Über die Verbreitung der eidetischen Anlage im Jugendalter; *Alfred Gosser,* Über die Gründe des verschiedenen Verhaltens des einzelnen Gedächtnisstufen. 3–4: *E. R. Jaensch,* Über Grundfragen des Farbenpsychologie; *Bernhard Herwig,* Über den inneren Farbensinn der Jugendlichen und seine Beziehung zu den allgemeinen Fragen des Lichtsinns; *E. R. Jaensch,* Über Kontrast im optischen Anschauungsbild; *Bernhard Herwig* und *E. R. Jaensch,* Über Mischung von objektiv dargebotenen Farben mit Farben des Anschauungsbildes.

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THE NEW INTUITIONISM OF DR. RASHDALL AND DR. MOORE.

IF we examine the worth of any action, we may do so from two points of view. We may take it simply as the cause of certain results and valuable only in proportion to the value of these results; or we may regard it as an end in itself, which may be the means to a further end, but which is valuable, none the less, independently of any such consequence. This distinction is recognised by alternative interpretations of the function of Ethics. "Ethics is sometimes considered as an investigation of the true Moral laws or rational precepts of Conduct; sometimes as an inquiry into the nature of the Ultimate End of reasonable human action—the Good or 'True Good' of man—and the method of obtaining it."[1] It is from this dual function that the great distinction between different types of ethical theories arises. As Dr. Bertrand Russell, in an essay largely based on Dr. G. E. Moore's *Principia Ethica,* expresses it: "The moralist . . . being primarily concerned with conduct, tends to become absorbed in means, to value the actions men ought to perform more than the ends which such actions serve."[2] The philosopher, on the other hand, "bent on the construction of a system, is inclined to simplify the facts unduly, to give them a symmetry which is fictitious, and to twist them into a form in which they can all be deduced from one or two general principles,"[3]—principles which, as a rule, place value in the end sought rather than the means employed. It is to some

[1] Sidgwick: *The Methods of Ethics,* Introd. § 2.
[2] *Philosophical Essays,* p. 51.
[3] *Ibid.,* p. 50.

extent true that extreme views of this nature may be held with regard to the things that are good or bad, in themselves, and not merely on account of their effects,[1] but, none the less, the distinction between an action that has intrinsic worth and one which is only a means to an end follows almost immediately upon the distinction between means and ends. We have only to look at the 'end' from a slightly different angle—as the result of a given act—to see that when we become 'absorbed in means' we are confining our attention to the action by itself, whereas, when we look to the end, we emphasize the effects of which it is the cause, whether these correspond to 'proximate and intermediate purposes,' or to the 'ultimate ends of life.'[2] That all actions have this double significance as both means and ends is not in dispute. Where moralists disagree is in estimating the importance to be attached to each aspect of the action, the Formalist asserting that "the usefulness or fruitlessness of the good will can neither add to nor take away from"[3] the intrinsic value of an action—that the end can never justify the means—while the utilitarian holds that good conduct is always "a means to other things which are good on their own account,"[4]—that the means can only be justified by the end to which it leads.

There seems to be so much to be said for both these theories, however, that it is not surprising that an attempt should be made to show that we are not forced to accept one to the exclusion of the other, but that the gulf between them can be bridged, and the best of both combined in a single theory. There may be, as Plato suggested, "another class of things which we value both for their own sake and for their results."[5] The New Intuitionism or Ideal Utilitarianism claims to be such an attempt. Dr. Moore and Dr. Rashdall aim at constructing a system which will unite the merits of Formalism and Utilitarianism, giving expression to the truth which each contains, and thus enabling us to reach a position from which, as Dr. Rashdall puts it, "we can no longer recognise an

[1] *Op. cit.*, p. 50.
[2] *Ibid.*, p. 51.
[3] Kant, *Fund. Princ.* (Abbot), p. 10.
[4] Bertrand Russell, *op. cit.*, p. 4.
[5] *Republic*, Bk. II, 357.

absolute distinction between means and ends,"[1] but will be able to appreciate the importance of both.

Either Formalism or Utilitarianism, taken by itself, must, if followed consistently, involve the denial of moral value to something which we recognise as good. As Dr. Rashdall points out, Formalism gave us "reason to believe that the very choice of the right and rational course for its own sake was itself a good, and the greatest of all goods."[2] But, on the other hand, it seemed equally true that "the Utilitarians were right in saying that actions are right or wrong according as they tend to promote or diminish universal well-being."[3] It would appear, however, to be necessary for them to admit, along with this assertion, the "impossibility of constructing a logically coherent system of ethics without the assumption that the reasonableness of an act is a sufficient ground for its being done;"[4] yet this admission seems untenable in view of the suggestion it contains of "the crude and absurd theory that the morality of an act can be determined apart from its consequences."[5]

Such an unsatisfactory jumble of conflicting views is sufficient by itself to make us recognise the truth of Dr. Moore's contention regarding this fundamental question of the comparative value of means and ends—that "to settle the one question is *not* the same thing as to settle the other,"[6] that however complete an account we have given of the moral worth of the consequences of an act, our task is not finished unless we have also explained its intrinsic goodness, and, conversely, that to show a means to be good in itself is not enough—we must also explain the value of the end to which it leads. Ethical theories in the main seem to be one-sided: moralists do not realise that the questions with which they have to deal are such that it is impossible to consider either means or ends as valuable in abstraction from each other.

It would naturally follow that an action can no longer be properly

[1] *Theory of Good and Evil*, Vol. I, p. 94.
[2] *Ibid.*, p. 100.
[3] *Ibid.*, p. 100.
[4] *Ibid.*, p. 101.
[5] *Ibid.*, p. 216.
[6] *Principia Ethica*, p. 24.

regarded as having a double aspect—that its consequences can no longer be distinguished from the end to which they are the means. Both writers, however, seem to retain the distinction, though they no longer hold that it is absolute. The demand for the recognition of intrinsic value is to some extent justifiable. "A correct answer to any of [the questions of morality] involves both judgments of what is good in itself and causal judgments."[1] "Because no act can be good or bad without reference to consequences, it does not follow that its morality depends wholly upon these consequences."[2] "Some means may no doubt have no value beyond conducing to a further end; but many, nay most, of the acts which do conduce to further ends have a value (positive or negative) of their own."[3] As soon as the admission of intrinsic value is thus combined with the Utilitarian doctrine of extrinsic value, however, the question of how the two sets of values are related arises. Is it not possible that the value of the act may always exceed that of its results or *vice versa?* Is there not in any case the risk of conflict between one value and another? "Which is the worse . . . so much suffering [due to speaking the truth] . . . or so much untruthfulness?"[4] Here there seems to be an opposition between the intrinsic and extrinsic value of truth-telling, and the only solution is to take both as elements which go to make up the goodness or badness of the act. There may be a conflict between them—"It remains true that truth is good, and speaking an untruth an evil; but like other goods truth may have to give way to greater goods; lying is always an evil, but it may be the less of two evils."[5] This position is not simply a re-statement of the possibility that the law of veracity may clash with another moral law, a criticism to which the old Intuitionism of course lay open. What seems to be indicated is a relation of compatibility or incompatibility—of mutual support or mutual opposition—between the extrinsic and the intrinsic values of an action.

[1] *Op. cit.*, p. 24.
[2] *Theory of Good and Evil*, Vol. I, p. 96.
[3] *Ibid.*, p. 97.
[4] *Ibid.*, p. 92.
[5] *Ibid.*

Such a theory assumes that the value of means is commensurable with the value of ends—that the two can represent as it were different positions—positive or negative—in a quantitatively similar series. But this is to ignore and conceal the really vital question at issue between Utilitarian and Formalist—whether means or ends are to be the criterion of value, not because one or the other is more valuable in a given case, but because one is always qualitatively superior in value. Even if the 'paradox' that "the value of such a whole [composed of parts good, bad and indifferent] bears no regular proportion to the sum of the values of its parts,"[1] considered independently, be admitted, we seem no nearer a reconciliation of Utilitarianism and Formalism on this issue. It is still necessary to show that intrinsic value is such that it can be added to or subtracted from extrinsic value and *vice versa*. Otherwise it may equally well be held that before an action could have any value as a whole each of its aspects, though qualitatively distinct, must have positive moral value. The whole may be such that all its parts must contribute to its worth—it may not be possible to obtain a really valuable whole by taking the surplus of the positive value of one part over the negative value of another. A single part of negative value—or even an indifferent element—might unconditionally destroy the value of the whole.

In spite of this admission of intrinsic value, however, both writers seem to draw more from Utilitarian than from Formalistic sources. When Dr. Rashdall, for example, following Sidgwick, specially distinguishes the three axioms of Prudence, Benevolence and Equity, and further describes them as possessing "the clearness and definiteness and freedom from self-contradiction which other alleged intuitions so conspicuously lack,"[2] it might appear that he was about to emphasize the Intuitional aspect of the theory. But this is not really the case, for almost immediately he declares that "the acceptance of these axioms does not make in favour of the kind of Intuitionism which it is the object of this chapter to examine; for these are precisely the axioms

[1] *Principia Ethica*, p. 27.

[2] *Theory of Good and Evil*, Vol. I, p. 90.

upon which Utilitarianism itself is based."[1] These axioms do not in fact help to incorporate a genuine intuitional element in the new theory. They can only guide us in the application of knowledge we have already gained in some other way. It may be self evident that "I ought (where it does not collide with the greater good of another) to promote my own greatest good, that I ought to prefer a greater good on the whole to a lesser, and that I ought to regard the good of one man as of equal intrinsic value with the like good of anyone else."[2] But I can only do this if I already know what good is, and this the axioms do not tell me. Knowledge of what is good must apparently be derived, not from the intrinsic prudence, benevolence, or justice, but from the consequences of an act and its "tendency to promote a universal good."[3] There may be self-evident value in justice for its own sake; but I can only act justly if I know what results will follow my action, and this knowledge involves an appeal to the consequences which is essentially Utilitarian in character.

Similarly in Dr. Rashdall's definition of Ideal Utilitarianism[4] no suggestion is made of any intuitive element, and the same holds of his illustrations of "how the moral judgments implied by the special virtues, and in particular by those which are *prima facie* most unutilitarian, are explainable upon the supposition that all moral judgments are ultimately judgments as to the value of ends."[5] What has already been noticed in connection with the principle of veracity, holds equally of the section on suicide, for example. The conclusion is that the consequences are the final court of appeal. There is nothing in the difficulty we find in explaining such acts as suicide, to make us doubt that, although morality ultimately rests on judgments of value, and such judgments may approve action taken at the dictates of a feeling, still "no moral judgment can be considered final in which the moral Reason has not contemplated all the foreseeable consequences of an action before passing its judgment of value."[6]

[1] *Op. cit.*, p. 91.
[2] *Ibid.*, p. 185.
[3] *Ibid.*, p. 91.
[4] *Ibid.*, p. 184.
[5] *Ibid.*, p. 184.
[6] *Ibid.*, p. 213.

Dr. Moore's account of expediency is similarly based on a Utilitarian principle. "Our 'duty' is merely that which will be a means to the best possible, and the expedient, if it is really expedient, must be just the same. We cannot distinguish them by saying that the former is something which we ought to do, whereas of the latter we cannot say we '*ought*'."[1] The distinction between duty and expediency is held to be invalid. "Whatever is expedient is always *also* a duty, and whatever is a duty is always *also* expedient."[2] "The only fundamental distinction is between what is good in itself, and what is good as a means, the latter of which implies the former."[3] Thus both duty and expediency must be defined as means to good, though *both may* be also ends in themselves. It is, however, only if they are already means to goods that they seem to be recognised as possible ends in themselves. But thus to deny the distinction between duty and expediency is not only to reduce to a mere question of words one of the central doctrines of Intuitionism, but also to invalidate even the qualified admission of intrinsic value which we have already noticed in Dr. Rashdall. For an action which has any value in itself must to that extent be right, irrespective of any question of expediency.

But there is a further distinction between Formalism and Utilitarianism which demands notice before we can adequately decide how much New Intuitionism incorporates of what is vital to either. If we consider in particular the opposition between Rationalism and Hedonism, we find that each of them, as well as selecting one aspect of an action as that in which alone its value resides, offers an account of the supreme good in terms of which that value must be estimated. Corresponding to the value of means we have the sanctity of the moral law based on *a priori* judgment of Reason—the worth of our actions "cannot lie anywhere but in the *principle of the will* without regard to the ends which can be attained by the action."[4] Hence it follows that "Moral conceptions cannot be obtained by abstraction from any

[1] *Principia Ethica*, p. 167.
[2] *Ethics* (Home University Library), p. 172.
[3] *Principia Ethica*, p. 168.
[4] Kant: *Fund. Princ.* (Abbot), p. 16.

empirical, and therefore merely contingent knowledge."[1] Hedonism, on the other hand, finds a peculiar relation between 'pleasure' and 'good'. The value of an action is to be calculated simply in terms of the pleasure or pain which can be attained by its performance. Further, the hedonist, from the nature of the theory, must base his judgments of moral value on empirical evidence. "According to the [utilitarian] doctrine, right and wrong, as well as truth and false-hood, are questions of observation and experience."[2] There is as close a connection between utilitarianism in morals and empiricism of the J. S. Mill type in metaphysics, as between Kant's 'good will' in ethics and the doctrine of *a priori* judgments of reason.

We must ask, then, what attitude New Intuitionism adopts on this question of the supreme good and the method by which it is to be apprehended. It seems clear in the first place that, as far as the Rationalist criterion of 'good' is concerned, the decision that the authority of the moral law may be over-ruled by other considerations, empirical in nature, means that that criterion is virtually discarded. We are no longer able to define the supreme good as the good that conforms to moral law. We cannot pronounce acts to be right or wrong simply in the light of an *a priori* standard of value. While it is admitted that " in the judgments as to the value of different kinds of good we encounter *a priori* or immediate deliverances of the moral consciousness of precisely that kind to which the term Intuition is commonly applied,"[3] it is none the less held that this is not enough. "It is the essence of Intuitionism to suppose that rules of action —statements not of what ought to *be,* but of what we ought to do—are in the same sense intuitively certain. . . . These judgments are not self-evident and cannot be taken as ethical premises, since . . . they are capable of being confirmed or refuted by an investigation of causes and effects."[4] This, we are told, is a great advance. "The moment the intuitive or *a priori* truth is put in this new form, the irrationality and unworkableness of

[1] *Op. cit.,* p. 28.
[2] Mill: *Utilitarianism,* Chap. I.
[3] *Theory of Good and Evil,* Vol. I, pp. 91 f.
[4] *Principia Ethica,* pp. 148–9.

the old intuitional system disappears. We are not forbidden to calculate consequences. Certainly we must trace the bearing of an act upon universal Well-being; but in our εὐδαιμονία, truth-speaking, or rather the truth-speaking and truth-loving character, finds a place."[1] But this is a meagre concession—instead of the old Intuitionism which was "supposed to lay down invariable *rules* of conduct," we have intuitions which "relate to *ends,* to the relative value of different elements in human well-being."[2] These elements include both intrinsic and extrinsic values—the relation between which is apparently to be intuitively determined in individual judgments of value, and not in accordance with universal unconditional principles.

But New Intuitionism, while discarding the supreme good of Rationalism, is no readier to define good in Hedonistic terms. Dr. Rashdall and Dr. Moore are equally emphatic in their opposition to the identification of the pleasant and the good. Utilitarians are "wrong in thinking that the Well-being of a rational creature consists simply in pleasure, and in pleasure measured quantitatively."[3] "There is no meaning in saying that pleasure is good unless good is something different from pleasure."[4] "What I wish to maintain is that even consciousness of pleasure is not the sole good. That, indeed, it is absurd so to regard it. . . . The supposition [that it is so] is due to a neglect of the same distinctions which have encouraged the careless assertion that pleasure is the sole good."[5] The pleasure-pain criterion with the 'comprehensive formula'[6] it offers, is as definitely rejected as the intuitionist's unconditioned good.

It is natural, therefore, to ask what New Intuitionism proposes to substitute for the 'supreme goods' it has thus abandoned. The answer to this question seems most readily to be found in the light of the new criterion of moral value which the theory suggests. Moral judgments are not based on a single standard of

[1] *Theory of Good and Evil,* p. 92.
[2] *Ibid.,* p. 91.
[3] *Ibid.,* p. 100.
[4] *Principia Ethica,* p. 14.
[5] *Ibid.,* p. 91.
[6] *Cf.* J. S. Mill, *Utilitarianism,* Chap. I.

goodness but on the relative importance assigned, first, to the extrinsic values respectively, and, second, to the different elements which may be included in extrinsic value. Leaving aside intrinsic value, meantime, we have, it would appear, a series of goods, none complete or final in itself, which may possibly be the results of a given act. Both pleasure and goodness are recognised in this series, though neither is allowed to rank supreme. "We can give no account of '*the* good' without breaking it up into various 'goods';"[1]—goods which may include "knowledge, culture, enjoyment of beauty, intellectual activity of all kinds, and the emotions connected with these things,"[2] as well as virtue and pleasure. From an apparently indefinite variety of such goods, some higher and some lower,—though it is difficult to see what this distinction actually means—it is impossible to select any one good as supreme. Different goods, and different combinations of goods—must be allowed to compete with one another, and that good, or combination of goods, which, for the time being at least, seems to have most value, ought to be chosen.

There is, however, the further complication that certain things are good in themselves, and that this intrinsic goodness must be recognised and allowed for before our value-judgment can be complete. "In each case we must decide which is of the greatest worth—the speaking of truth . . . or the life which my lie will save, the injustice that it will prevent. . . ."[3] We seem to be left with the enormously difficult problem of deciding the value of an action, regarded as possibly both intrinsically good (or bad) and good (or bad) as a means to a variety of other things, without having any defined standard of what is good.

It is true that these various goods are not always regarded as entirely independent. "No one element in the good can be unaffected by the relation into which it is brought in the consciousness of the person enjoying it with the other elements in that good. . . . The ideal end or good for man is not a number of

[1] *Theory of Good and Evil*, Vol. I, p. 220.
[2] *Ibid.*, p. 191.
[3] *Ibid.*, p. 194.

goods lying side by side . . . but a particular kind of life in which various elements are harmoniously combined."[1] Such a harmonious blending however seems to be inconsistent with a much more fundamental doctrine of New Intuitionism explicitly stated by Dr. Moore, namely that 'good' is indefinable. Further, it seems impossible to expect to reach this 'ideal'—the whole which is to combine individual goods as its parts—unless we have some knowledge of its nature. If the various 'goods' are really elements in or parts of '*the* good', we must maintain that, while knowledge of the whole implies knowledge of the part, it is equally true that knowledge of the part implies knowledge of the whole. The two may interact on and condition one another, but neither can precede the other. "The ideal moral judgment," says Dr. Rashdall, "implies a conception of the ideal good for society as a whole, but we could have no ideal of what is good for society as a whole unless we had a power of pronouncing that this or that moment of conscious life is good or bad."[2] In this analysis, however, the emphasis is thrown on the particular judgment. We are expected to distinguish individual 'goods' as elements in 'the good' without any principle by which to recognise them, not only as separate entities, but as each and all related to 'the good'. We are given no conception whatever of the moral ideal by which our particular judgments have to be "progressively corrected."[3] As Dr. Rashdall himself points out, the whole is more than the sum of its parts,[4] and this 'more' must, it would seem, be known, before the parts can be recognised as such and adequately interpreted.

On this point Dr. Moore reaches a similar conclusion to that of Dr. Rashdall, except that he, with greater consistency, makes no attempt to introduce such a unifying principle or ideal. For him the 'ideal' is merely that which is good in itself in a high degree. His thesis is that 'good' is indefinable, though 'that which is good' is not. "Nobody can foist upon us such an axiom

[1] *Op. cit.*, p. 220.
[2] *Ibid.*, p. 96.
[3] *Ibid.*, p. 96.
[4] *Ibid.*, p. 220.

as that 'Pleasure is the only good' or that 'The good is the desired.'"[1] 'Good' is a simple notion, indivisible and unanalysable. But nothing which is not 'complex' can be defined—can have its real nature described. Therefore 'good' cannot be defined. All we can do is to discover the good, 'that which is good,'—the substantive, not the adjective,—by finding out to what other substantives the adjective 'good' will apply. Once this is done, we may further discover other adjectives that will apply to the same substantive. "It may be full of pleasure . . . it may be intelligent: and if these two adjectives are really part of its definition, then it will certainly be true, that pleasure and intelligence are good"[2]—but not that either of them can be substituted for good. We thus reach a position from which we can recognise certain 'goods,' but can never get any nearer knowing what 'the good' is. As soon as we try to define it, we find ourselves committing the 'naturalistic fallacy' of defining a thing otherwise than by analysing it into its parts.

By thus abandoning alike the *a priori* categorical imperative and the pleasure-pain formula, and offering nothing in exchange, New Intuitionism compels us to view every act as an isolated unit and to decide every issue as it arises simply on its own merits. But some guiding principle behind the separate events and decisions of our moral life—some independent standard by which to judge the merit or demerit of alternative lines of conduct—seems to be required. Such a criterion, however, demands a knowledge of what is good not in this or that situation only, but in all situations. Without such knowledge, we seem to be driven in the direction of ethical scepticism. As Dr. Bertrand Russell points out: "No such general proposition [regarding what is good] can be proved by considering the *meaning* of 'good,' and no such general proposition can be arrived at empirically from experience, since we do not know the whole of what does exist, nor yet of what has existed or will exist."[3] New Intuitionism, accordingly, as we have seen, abandons the attempt to reach any such

[1] *Principia Ethica*, p. 7.
[2] *Ibid.*, p. 9.
[3] *Philosophical Essays*, p. 11.

general proposition. As far as any permanent standard or defined principle is concerned we seem unable on this view to avoid the conclusion that, except in particular situations, "complete suspense of judgment in this matter is the only rational attitude."[1] We can arrive at no philosophic theory of 'the good' either in itself or in relation to human life.

But from the practical point of view New Intuitionism is still open to the criticism that, unless it can show us the method by which we are to recognise and deal with different 'goods', it has not solved the problem of what is right even in particular situations. In other words, the question, What ought we to do? still demands an answer. In view of the combination of intrinsic and extrinsic values in the new theory, it would be expected that the intrinsic value of the various goods is to be intuitively apprehended, in accordance with Formalistic teaching. This is to some extent the case—"Nobody supposes that, when I see a man sticking a knife into another, it is necessary for me to calculate the effect of the act upon the lives of all human beings, present and future, before I condemn the proceeding. I say at once, 'This pain is bad: therefore the infliction of it is wrong.'"[2] But a further complication arises when we are told that it is not only intrinsic value that is intuitively known,—that while "the intuitions of the Intuitionist disregard consequences; ours relate precisely to the value of different kinds of consequence."[3] But this does not help us when we remember that all intuitions—presumably of extrinsic as well as intrinsic values—are subject to revision in the light of a fuller knowledge of extrinsic value which is not intuitively apprehended at all. "There would be little objection to the claims which the Intuitionist makes for his intuitions, if only he would admit that they are subject to appeal, . . . *a conscientia male informata ad conscientiam melius informandam.*"[4] But here the empirical methods of Utilitarianism seem to have the last word. "To ask what kind of actions we ought to perform,

[1] *Op. cit.*, p. 15.
[2] *Theory of Good and Evil*, p. 94.
[3] *Ibid.*, p. 92.
[4] *Ibid.*, p. 95.

or what kind of conduct is right, is to ask what kind of effects such action and conduct will produce," and "the question what things are related as *causes* to that which is good in itself . . . can only be answered by . . . the method of empirical investigation."[1] Our intuitions, it would seem, are untrustworthy guides, only of temporary use till more adequate information can be obtained. They are, however, better than nothing—"it is not the existence or even the relative and partial validity of such judgments that is disputed, so much as their finality."[2]

Apart from the failure of such an argument to reconcile the intuitive and empirical methods, it seems open to the criticism that, unless we have some standard by which to judge them, the attempt to estimate the value of the consequences of an act is doomed to failure. It seems to require us to trace an infinite causal series before we can fully determine the value of a single act. If each act is to be treated as a separate problem and judged, in the end, by its consequences, we cannot avoid the necessity of either postponing judgment upon it till we can examine all its complex and far-reaching results, or of running the risk of doing what will afterwards be discovered to have been wrong. It is useless to argue that we must limit our scouting to the foreseeable consequences, for, having no standard by which to judge them, we must consider them, in turn, in the light of more remote effects, at present unknown, of which they will be the causes. At the best we must always have an uneasy doubt that some result will appear unexpectedly, to destroy the value of our act. At the worst we shall either refuse to do anything at all for fear of what the consequences may be, or else we shall go to the opposite extreme and be ready to embark on any course of action, however reckless, in the belief that as we cannot tell what an act will involve, it does not very much matter what we do. The attempt to base our moral life on a series of isolated judgments seems to lead to disaster. It is useless to regulate our conduct by the knowledge that various things may to some extent and in some circumstances be good—we must try to tell wherein their actual goodness lies. The task

[1] *Principia Ethica*, p. 146.

[2] *Theory of Good and Evil*, p. 95.

of Ethics, rightly viewed, would seem to be to discover what 'the good' is. To give up this task as hopeless is not to solve the ethical problem but to shirk it on the ground that it is insoluble.

It may, indeed, be urged that all human activity, intellectual as well as moral, is handicapped by lack of knowledge of what is really good in any sphere. Our inability to foresee the consequences of our actions may lead to a view of life as "purposive without foresight." "The individual investigator and thinker works in the dark, as it were. He does not know the place which his work occupies in the chain of development, at least not the relation it bears to future events. It may give rise to new problems and new notions in other minds, but he cannot foretell their nature."[1] The answer to this argument, in the intellectual sphere, is that the thinker does have some knowledge of the direction in which he intends to go. He has before him some ideal, however vaguely defined, which acts as a regulating and controlling force. He recognises that one thing will be useful and another useless according as it helps or hinders him to achieve the end he has in view. Similarly, it might be argued, there is for each of us a moral ideal, or standard of goodness, by which every action must be judged. The unifying feature present in all 'goods'—pleasure, virtue, culture and the like—is simply the contribution that each of them makes to the attainment of this ideal. Any such view, however, is incompatible with New Intuitionism. "We could give no intelligible account of the good," says Dr. Rashdall, "except by regarding it as a combination of goods."[2] But we have seen reason to believe that, just for this very reason, New Intuitionism gives us no intelligible account of 'the good' at all, but leaves us to regard it as a vague, shadowy something-we-know-not-what. The question arises, therefore, whether the view that 'the good' is a combination of 'goods' can be justified, and, if so, in what way.

Dr. Moore's treatment of the subject, with its emphasis on the "naturalistic fallacy," raises at the outset questions regarding the nature of judgment and definition which make his ethical theory

[1] Paulsen, *Introduction to Philosophy*, p. 204.

[2] *Theory of Good and Evil*, p. 220.

clearly dependent on his more general philosophical position. Dr. Rashdall, on the other hand, expressly postpones his discussion of the relation of metaphysics and morals, on the ground that "the controversies which range round the words 'Utilitarianism' and 'Intuitionism' can be understood and discussed almost without reference to metaphysical problems."[1] Yet in the same sentence he recognises the need for relating ethics to metaphysics—"the ultimate question of Moral Philosophy—the meaning and nature of the ideas 'good,' 'right,' 'duty'—is after all the ultimate question of all Philosophy, and involves all the others."[2] And, again, "it is impossible that our views on the ultimate problems of Ethics should not be influenced by our attitude towards Reality as a whole, or that our view of Reality as a whole should not be influenced by our attitude towards Morality."[3]

Despite the similarity of their ethical theories, the metaphysics of Dr. Rashdall and Dr. Moore show a wide divergence, the one tending more or less to an idealistic, the other to a realistic position. Leaving aside, therefore, the question of how far it is possible for the same ethical theory to harmonise with different metaphysical positions at all, we may enquire whether idealism or realism in metaphysics is the more appropriate correlate of New Intuitionism in Ethics. Since the relation of metaphysics and ethics cannot be one-sided, the ethical implications of the one being as important as the metaphysical implications of the other, we should expect to find that the ethics which corresponds to realism or idealism, whichever is most in harmony with New Intuitionism, should show a close parallel to the ethical theory itself.

We may consider, in the first place, the doctrine of the objectivity of good, on which great stress is laid both by Dr. Rashdall and Dr. Moore. "One and the same action cannot be both right and wrong," and in asserting its rightness or wrongness we are not "merely making an assertion about some man's feelings or opinions."[4] "It remains true . . . that the moral judgment pos-

[1] *Op. cit., Preface,* p. vi.
[2] *Ibid., Preface,* p. vi.
[3] *Ibid.,* Vol. II, p. 193.
[4] Dr. G. E. Moore, *Ethics,* p. 132.

sesses a universality of objectivity which cannot be ascribed to mere sensations or to the judgments of perception founded upon them. . . . The very heart of our moral conviction is that there is something which every rational being, in so far as he is rational, must recognise as intrinsically right, that that something must be the same for all persons under the same conditions, and cannot be dependent upon the subjective caprice of particular persons."[1] This, as Dr. Rashdall points out, is in clear conflict with any sensationalist or Empiricist theory of knowledge. But he would further hold that an Idealist metaphysics harmonises with it. "A position much more favourable to a cordial acceptance of moral objectivity is reached when, from admitting the activity of mind in the recognition of the objects of our knowledge, we pass on to the view that these objects exist only for mind and have no reality of their own apart from mind."[2]

Belief in the objectivity of good, however, seems to harmonise with a realistic as well as with an idealistic metaphysics. This is particularly clear in the case of Dr. Moore's treatment of the relations of the beautiful and the good and of his view of aesthetic value. "It has been even more commonly supposed that the beautiful may be *defined* as that which produces certain effects upon our feelings; and the conclusion which follows from this—namely, that judgments of taste are merely *subjective* . . . has very frequently been drawn."[3] "The question, whether [a thing] is *truly* beautiful or not, depends upon the *objective* question, whether the whole [of which it is an essential element] is or is not truly good, and does not depend upon the question whether it would or would not excite particular feelings in particular persons."[4] Dr. Moore's ideals—the pleasures of human intercourse and the enjoyment of beautiful objects—depend for their validity on a realistic theory that not only affirms direct perception of sense-objects, modified, it may be, by the possibility of error, but also claims an equal, independent objectivity for moral and aesthetic values.

[1] *Theory of Good and Evil*, Vol. I, p. 151.
[2] *Ibid.*, Vol. II, pp. 197–8.
[3] *Principia Ethica*, p. 201.
[4] *Ibid.*, p. 201.

Further, the view that good is objective agrees with the account of "the realistic implications of the types of action involved in the pursuit of the ethical and aesthetic ideals" as described from the metaphysical standpoint. The objective character of the evil and ugliness which exist in the world is recognised. "In combating ugliness [the artist] feels himself to be combating no mere psychic state either of his own or of another consciousness." "Buddha and Christ, Luther and Lincoln were actuated by a flamingly vivid perception of the evil about them. . . . They were neither sentimentalists nor optimists, but realists, imbued with a grim and poignant appreciation of actualities."[1] Along with this emphasis on the objectivity of evil—and presumably also of good—in the material world, there is an "equal necessity for all creators to recognise the *subsistential reality* of the ideals themselves of goodness and beauty." "Beauty and goodness are the permanent possibilities of enjoyment as truth is the permanent possibility of apprehension."[2] This approximates very closely to Dr. Moore's statement of the "ultimate and fundamental truth of Moral Philosophy,"—"that it is only for the sake of these things [pleasure of human intercourse and enjoyment of beautiful objects]—in order that as much of them as possible may at some time exist—that any one can be justified in performing any public or private duty."[3]

But the closeness of the relation of realism in metaphysics to New Intuitionism in Ethics is further illustrated by two principles emphasized by Dr. Moore as the "principle of isolation" and the "principle of organic wholes," respectively. Here no idealist interpretation seems possible. 'Good,' we are told, is like yellow; simple, unanalysable and therefore indefinable. Now it may be true that yellow is simple and ultimate—that it just means yellow and nothing else whatever. It may also be true that everything which is yellow does not mean the same thing as yellow. But it does not follow that yellow is indefinable unless we deny it all

[1] *Mind*, April, 1921 (N.S. Vol. 30, No. 118), "The Ethical and Aesthetic Implications of Realism," by W. P. Montague and H. H. Parkhurst, pp. 174–5.

[2] *Ibid.*, p. 176.

[3] *Principia Ethica*, p. 189.

subjective character and also hold that it cannot be defined in terms of its relations to ourselves or even to other colours and other objects generally. It is just because of similar insistence on the objective nature of 'good' that it also is held to be indefinable, and the consequent difficulty of knowing what is 'the good' arises. As Dr. Bertrand Russell points out, "My Good is a phrase capable of many different meanings."[1] The egoist, for example, will hold that it "must *always* be an agent's positive duty to do what is best for *himself* . . . what will conduce most to his own 'perfection,' or his own salvation, or his own 'self-realisation.'"[2] The utilitarian will point to the general good; others to the law of loving our neighbor as ourselves, and so forth. Thus there is an endless series of competing ideals, each claiming to embody 'the good'. But, none of them can really do so, according to New Intuitionism, for each and all have a personal relation, more or less intimate, to the individual and his experience. By the principle of isolation, however, anything so related cannot be known to be good until it has been considered in complete abstraction. "In order to arrive at a correct decision [on the question of what things have intrinsic value] it is necessary to consider what things are such that, if they existed *by themselves,* in absolute isolation, we should yet judge their existence to be good."[3] We are thus led to the conclusion that 'the good' must exist altogether apart from human thought, feeling or will.

The position of idealism, even as interpretated by Dr. Rashdall,[4] is essentially opposed to such a view. Everything, it would object, seems to involve so much beyond itself that it could have no value at all in isolation. Dr. Moore's own ideals, except on a realist interpretation, imply more than mere states of consciousness and demand the existence of beings with instincts and nervous systems similar to our own. Objects, it may be held, are valuable to us mainly because of their relations, and not simply because of

[1] *Philosophical Essays,* p. 41.
[2] Dr. G. E. Moore, *Ethics,* p. 229.
[3] *Principia Ethica,* p. 187.
[4] *Theory of Good and Evil,* Vol. II.

their isolated existence. If value is to be assigned to things in isolation only, it would seem as if everything must have the same value. So long as it remains isolated it cannot be compared with anything else. Strictly speaking, it cannot even be related to the individual for whom it is valuable. Having isolated all objects, and having no standard by which to judge them except an undefinable 'good,' we cannot apparently ascribe to them any value whatever.

The principle of isolation, however, depends on the more fundamental doctrine of 'organic unities'. "The part of a valuable whole retains exactly the same value when it is, as when it is not, a part of that whole. If it had value under other circumstances, its value is not any greater, when it is part of a far more valuable whole; and if it had no value by itself, it has none still, however great be that of the whole of which it now forms a part."[1] This, of course, must be maintained if it is to be held that a part may be valued in isolation. Dr. Moore, however, uses it also to distinguish between "means to" and "part of" the whole. Parts are such that they remain equally valuable with or without the whole; means have no meaning or significance apart from the end to which they lead. Such a distinction, however, seems to be meaningless except on a basis of realism. It implies some theory of external relations which do not affect the nature or the value of the objects related. For the Idealist, however, the very idea of part implies a given relation to the whole and a mutual dependence and interaction between the two. A part without a whole is an impossibility—it is no longer a part, and its value being dependent on its relation to the whole must be correspondingly altered. From this it would follow that the value of the 'elements' which go to compose the 'complex whole' or good, cannot be determined apart from knowledge of 'the good' itself. Their value as means can be estimated only in the light of a known end: their value as parts in relation to a known whole. In other words, 'goods' can only be known in proportion as 'the good' is known—we are

[1] *Principia Ethica*, p. 30.

brought back to the very position which it is the thesis of New Intuitionism to deny.

But if the implications of New Intuitionism, as expressed in the principles of isolation and of organic wholes, are incompatible with an Idealist philosophy, they are simply extensions, on Realist lines, of the theory of the objectivity of good. Ethical and aesthetic ideals would remain unaltered even if there were no one to perceive them, in the same way that, for the Realist, the number 7 is a prime number, always equal to $5 + 2$, irrespective of the existence of any percipient mind, and was neither created by nor dependent on the individual discovering or knowing it, but existed as much the day before Pythagoras's theory of numbers as did America the day before Columbus arrived there. This is closely analogous to the doctrine of the non-essential character of relations as is expressed in the principle of isolation. Similarly, "as permanent possibilities of apprehension have a nature and structure that is quite independent of whether or not they are actually perceived, so equally the permanent possibilities of enjoyment have a nature and structure that is quite independent of whether they are realised."[1] The ethical implications of Realism in metaphysics thus seem to be almost identical with the conclusions of New Intuitionism, on the question of 'the good'. It is explicitly recognised that we must decide what is right for each situation considered in and by itself—that we must abandon the search for an ideal 'good,' and content ourselves with a series of transient and fluctuating "specific ideals" empirically discovered. There are, it is true, eternal truths "whose status is independent of their recognition by any mind divine or human," yet, when it comes to a practical decision, "the truths of essence are as difficult to discover as the truths of existence, and the realist's assurance of the absoluteness of duty is in no way incompatible with a dubiousness as to what is his specific duty in a given situation."[2]

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[1] *Mind, loc. cit.*, p. 176.

[2] *Ibid.*, pp. 182–3.

THE DEFINITION OF INDIVIDUALITY.

THAT the concept of individuality is the central issue involved in any question of modern culture, from whatever point of view approached, would seem to be beyond dispute. It has been one of the strongest influences in human life since the time when man attained the first degree of self-consciousness, and some form of the notion seems to be an element in the idea of organic being as such. To trace the history of the conception as it has affected thought and life to the point where it has attained its central position, would be a significant achievement, if it were possible. It would show, I think, along with its constitutive relation to most things that are felicific, also a tendency to abnormal overgrowth which is responsible for many things that are destructive or preventive of human welfare. One clear result of modern philosophic thought is that the notion of individuality lies at the bottom of all practical interests. One variation of the notion has laid the foundation not only for the vast achievement of natural science, but has also indicated the material basis upon which the external aspects at least of political, social, and industrial structures have been erected. And there are hints that upon the conception of individuality, when modified and built out in directions which do not clearly appear as yet, when once it becomes fully and deliberately clear in its meaning, there will be formulated the plan of the system of values which is to give a fuller and finer order within the chaos of political and moral relations. One of its forms is the perhaps still prevailing 'individualism' of the last two centuries, which seems fairly well to have fulfilled its purposes and to stand now in the way of ideas better fitted to present conditions. It was scientific and practical in its nature and purpose, naïve, innocent, and enthusiastic in its outlook, and seems never to have succeeded in making fully explicit the logic upon which it rested. The latter obligation was assumed by the recent 'idealistic' movement in

philosophy which had its origin in the systems of Kant and Hegel. The results obtained appear to indicate some rather fundamental changes to be effected in the logical and practical structures which have been erected upon the basis of the old individualism. At any rate this later philosophic movement has taken seriously the logic of individuality, and questions the outcome of the older forms of the doctrine.

The question that appears to be most pertinent in this movement is, What, in its elementary logical characters, is meant by the individual, or abstractly, by individuality? That is, it is a question of definition, not specifically of terms merely, but one of delineating with such clearness as is possible the essential properties of the individual considered as the type of the real. This has been done quite fully by the advocates of one type of individuality, but in the main the meaning of the term seems to have been assumed as self-evident or so simple as not to call for efforts at definition. Some of the meanings are to be got at therefore only by a study of the implications of language, a method which is not peculiarly conducive to clearness or to agreement. But it has seemed to me that, since the 'facts' are and remain the same for all types of theory, the better mode of approach is to inquire as to the various points of view from which individuality has been discussed. These seem to be three, although the phenomena are so complex that it is difficult to prevent them from running into each other in all sorts of ways. There is definition of the individual first, in terms of distinctness, or what it *is not,* or rather, what is *not it;* second, in terms of its content, or what *is* involved in it; and third, in terms of intent, or what *may be* in it, or what is *meant* by it. I propose to examine these definitions not so much with reference to the formal logical necessities of implication contained in them as with reference to the concepts of the institutions of practical life whose forms and functions depend upon the notion of individuality, whatever the type of definition that is given to it.

1. The first of these types of definition probably represents the indefinite and nebulous notion implied in practical interests, and, in so far as it has any degree of formulation, rests upon the

sense outlines of perceived objects as the latter appear in action rather than to thought. This is the meaning indicated by the etymology of the word, that which is indivisible, or which presents itself to sense as undivided or with a solid or unbroken front. Undividedness, expressed in generalized terms as indivisibility, is a later and somewhat refined theoretic entity, one which, as apprehended with a positive reference, perhaps comes to be given logical value in the idea of unity. Thus both the positive and negative aspects of the word appear in its lowest or what seems to be its most original meaning. This is the mere designative use of the word, and will be found to be an element in all definitions. But with the original perceptive fact at the basis of the experience, the term seems to concentrate its meaning upon the visible outlines of physical objects, or upon those sensuous experiences which have as object the spaces and qualities that intervene between physical objects as perceived. In this way a given blur of feeling would be made to stand as an object over against another complex of similar sort, and the part of the experience which becomes most important might easily be the indefinite emptiness which serves as a line of demarcation between them. The significant aspect or phase would be, first, the outlines or limits of an object, and next the environs or contours apprehended as feelings held vaguely and undefined, or, as what is not the object in mind.[1] It is conceivable that the idea of negatives, or even that of the contradictory, may have grown out of some such simple experience. But in any case the idea of individuality as distinct or exclusive is not necessarily committed to negatives, although the emphasis upon distinctness has led in most discussions to a negative characterization, but may imply quite as well its positive aspects. And the use in this connection of 'distinct' as negative in intention seems to be grounded in an assumption like that of Hume's, that the distinguishable as distinct in perception is separable in the sense of separate and 'different from' the object. It is a failure to distinguish 'different within' from 'different from,' a fallacy which the idealistic doctrine of the 'other' does not always escape.

[1] Cf. Bradley's doctrine of the 'background,' *Appearance and Reality*, 2d ed., p. 92.

A fallacy similar to this seems to inhere in the 'positivist' method of natural science in its reliance on the method of difference and the negative instance. Analysis of phenomena turns out to consist in the breaking up of the given into the greatest number of simple parts, the end being to get each part different, quantitatively, at least, from every other part, and isolated from all other parts, the assumption being that a given fact is intelligible only when seen as an analytic or segregated many, and that intelligibility depends upon its object being as small and as empty, *i.e.*, as void of quality, as possible. Thus the method of difference continues the process of separation to the point where elements can be distinguished only by being given different numbers, or by being given separate places in the numerical series. They are then recognized as being not different at all, that is, they are interchangeable, one counts for as much as the other, which means that it is not the elements that differ but only their designations, the abstract symbols by which elements are represented. The elements as real have disappeared, and the matters of real fact to explain which was the problem with which the process began, have been left entirely out of the account. Thus the attempt to find individuality by reduction of fact to simplicity ends in abstraction, the attempt to give positive character to the idea of nothing.

Empirical philosophy undertakes on the same method to lay down the logical structure of theory upon which practical interests may rest. It starts out with the idea that human beings and their interests, with the possible exception of the directions in which the latter tend to be expressed, are all alike, indistinguishable, except as to their numerical aspects, which, as we have seen, leaves what is real in the facts behind. It is a rather severe vengeance, setting out with the idea of individuals as distinct and numerable, that it should end with the result that they are indistinguishable—"each to count for one, nobody for more than one." But it shows beyond question that the individual, as used in the language of dogmatic individualism, and as depending upon scientific method, is a meaningless abstraction; and that the method of difference, when interpreted as a stripping off of posi-

tive qualities, destroys not only the qualitative nature of the real, but negates all relations among reals upon which qualities depend, thus destroying the real as a positive conception and leaving only a bleak negation—the not-this, not-this . . . which is a case of negative premises or of the fatuous infinite judgment. Two illustrations from widely different periods may take the place of further discussion. When early Christianity, under the necessity of defending itself against Hellenistic metaphysics, adopted as its function the saving of souls instead of that of establishing the kingdom of God, the resulting conception of the individual was one whose essential character was that of distinctness, and the question of 'personal identity' later became serious. On the one hand was the human individual, lost, strayed from the fold, fallen away from God, meek, lowly, as nothing in the sight of the Lord, a mere abstract nothing requiring the grace and the infinite power of God to give him a real status. On the other hand was the corresponding abstraction, big, blank, far separated from human contact, unapproachable, unspeakable, the abstract absolute nothing of 'negative theology.' As a consequence of this sort of individualism the main problems of life were misapprehended, and instead of a serious doctrine of human relations, there grew up the fanciful vain imaginings of mediaeval theology. Distinctness of individuals led to individualities conceived of as so far apart that a hierarchy of mystical beings was necessary to mediate between them; the blanks between individuals were filled with *other* individuals, the infinite process; the result being the development of the vast mediatory machinery of the church and the dogma that salvation is possible only through the offices of the church. It had therefore the characteristic result that, starting from subjective individualism or particularism, it ended with abstract universalism. Another instance of a similar process of abstraction is the individualistic philosophy of Spencer. The individual considered as distinct becomes a mere center of forces, its relations to other centers being centrifugal and negative and exclusive, the very type of pure mechanical force. So the real individual can in the end be only what is left, a 'residue'; one may say that it is the real which the Spencerian method never suc-

ceeded in making contact with. Its relations are therefore negative and dispersive, one term being 'against' others. The state, as with other corporate reals, denied the characters of individuality, becomes the representative of superior force on the occasion of a deadlock of individual forces, showing its highest form and function when there is least of it, and when it does nothing. And the result is the pathetic notion that the individual attains his highest end and contributes most to the social 'order' when he pursues his own ends regardless of the interests and purposes of others.

Thus this naïve and practical conception of individuality described above is rarely to be found with any adequate definition. Some attempts at definition are discoverable in the history of law and politics, and in the discussions of personal identity in theology. It is the more or less half-conscious principle that governed the development of modern democratic states and of modern social and industrial organization. It represents the same motive as that which becomes more or less explicit in the method of science, and as a political and social and industrial shibboleth took some degree of form in the party cries of 'freedom,' 'equality,' 'democracy,' etc. It began to be recognized as a problem in the discussion of these practical relations and resulted, in its political aspects, in a modified form of the very old doctrine of natural rights. It found sympathetic recognition in the tendency toward democracy in religion which had been more or less unconsciously operative since Bruno, a reaffirmation of what was perhaps more clearly articulate in the formulation of Christian doctrine during the early centuries, but which had been overshadowed during the middle ages by the *étatisme* of the Church. Through the discussion which attempted to lay down a philosophy for the political and social motives dominant in the eighteenth century, the prevailing interest in man led to the analyses of human nature contained in the psychological treatises of the period. These were the work of the 'psychologists' in political theory, the authors of the 'natural theology' with their genius for 'facts', and the 'empirical' moralists. The question then became one of the *content* of individuality.

2. Thus Locke, Hume, Paley, Adam Smith, and their successors in British and French thought, undertook to lay bare the whole furniture and equipment of the human individuality, raising deliberately the question of the nature of the structure of the 'self,' those with religious and moral interests entering somewhat irreverently into the very depths of the 'soul.' Their object was to spread out to the view of the scientific intelligence *all* the details of the content that could be found and isolated and described, to state the whole case as one of 'matters of fact.' The result was the famous catalogues and classifications of the machinery of the inner life, the idea being that a complete account would be given if and when every detail of experience was set off from and over against every other, with the aggregate taken as a whole. So Hume, when looking into his own self, could find only particular states following each other serially and longitudinally or disposed spatially, and, disregarding the 'habits,' 'dispositions,' and 'tendencies to expect', found no self other than the states taken singly or in aggregate. Some issues of the matter-of-fact procedure were 'atheism' in religion, or a rather positive and blatant disbelief in the type of individuality held by the conventional church attitude of the time; the abandonment of faith in metaphysics; and, in the moral and political and legal theory of Bentham, J. S. Mill and Austin, a relapse into the common-sense attitude for which the individual is the plain man of affairs, the physical and psychological man. Once more, and consistently with the underlying scientific attitude, the individual is simply a 'matter of fact,' the fact in this case being simply the common-sense living and striving human being.

The individual is thus defined from the point of view of what he *is*, of what of fact there is in him that can be set apart and disposed to critical review. Individuality is thus taken for granted; a presupposition more or less unconsciously taken over from the uncritical practical attitude. The purpose to define the individual from the point of view of content becomes, when examined as to its logical implications, largely a matter of exhausting the *extent* of the conception. That is, the definition is extensional, its reference is to the number and diversity of facts to which the term

applies. It thus applies only to the external qualities of the individual, in spite of the psychological terms in which the descriptions are expressed. The mental facts recounted imply no more of unity in the individual life than did the outward facts of property and the machinery of government which were the concern of legal and political theory. The whole mass of the theory of human nature was then external and quantitative, which is to say negative, and this is true in spite of the tiresome analyses of the feelings and 'propensities' which make up the body of the ethical literature of the time.

This doctrine is therefore open to the logical criticism that quantitative conceptions in general have to face. The scientific optimism involved in an empirical or matter-of-fact philosophy imposes a too vigorous confidence in the method of agreement. In the search for fact and in the building up of the edifice of knowledge by continuous accretions of new elements, 'and' becomes a fundamental category. It thus ignores altogether all question of significant ends, and for this reason fails ever to reach real universality; such ends as are involved are limits, and limits are to be approached only through quantities, *i.e.*, negatively. Facts then are all alike, are homogeneous throughout, are classified with reference to the absence of difference, which, by the way, is also itself a difference; and the result is once more the abstract qualityless homogeneity which can only be conceived as spread out in space with its various loci numbered—they could not be named—because they represent no real objects. For the ethics representing this type of philosophy the individual is primarily the aggregate of states of feeling, the addition of the aggregates gives the grand total of a sum of happiness as end. From the political theory it is learned that the individual attains his end by increase, and by making the most of his isolated self he contributes most to the good of the whole. And the famous theory of population is concerned with the increase or diminution of the number of individuals. From the point of view of the prevailing legal theory all are 'equal' before the law.

There is no purpose here to deny the tremendous practical consequences for the development of the instruments to human wel-

fare which came from this individualistic movement. These conceptions have possibly done more immediately, at least, toward making life interesting and significant than whole ages of philosophy that rests upon unimpeachable principles. What is denied is that they rested upon principles that were in any sense clearly or adequately defined. And what does not rest upon adequate principles is finally wrong. The argument is intended to show that the underlying ideas of the period were altogether confused, that the period, while confessedly resting its destiny on the reality of the individual, had no clear or worthy conception as to what individuality implies. The individualism developed in this period, and still appealed to as the justification for the types of legal and political theory and institutions presupposed in contemporary politics, has no ground in the facts and is logically inconsistent at many points. Persistence of this misapprehension of the nature of individuality is responsible for the political and industrial confusion now so much lamented and so little understood, and I suggest that deliverance from the confusion will come, if at all, through a conception of individuality more in accordance with the facts of life and more consistent with the formal demands of thought. An outline of the new individualism is already to hand in contemporary theories of logic.

3. Individuality is also defined from the point of view of its meaning, and meaning is not essentially a matter of content. We have seen that 'individualism' defines individuality by 'differentia' or extensionally or dispersively, and thus confuses it with the particular. It is therefore a quantitative conception and its correlative categories are matter and force. The individual is, finally, the organism, and the 'social organism' is a mechanical arrangement of parts whose contact with each other is by impact and whose 'interests' are material. Their relations in political life are governed by 'checks and balances' and in moral life by the sense of obligation conceived negatively in terms of restraints and 'sanctions.' Its "ideal system of Law ought to aim at Freedom, or perfect mutual non-interference of all the members of the community, as an absolute end."[1] What mutual non-inter-

[1] Sidgwick, *Methods of Ethics*, 7th ed., p. 444.

ference can mean in a system governed by mechanical law I find extremely difficult to conceive, and I feel obliged to decline to believe that such an idea ever did or can control the purposes of human life. The definition by intension is an attempt to give form and substance to the element of universality in the individual and so to render its particularity or factual aspects real. Plato accomplished this result, in his educational rather than in his political theory, and his work has not been altogether lost. Plato's thought has influenced us through the popular idealism of religion, unconscious and inarticulate as his influence has been, and has had more real formative power than the bombastic individualism we have avowed, and it is perhaps responsible for such degrees of 'order' as have been achieved. But the real meaning of individuality has come to clearest expression in what has taken the name of modern logic. It seems to me, however, that the negative and separatist tendency inherent in 'individualism' is not as yet completely overcome. We have seen that the attempt at extensional definition failed because of its artificial reduction of its problem to terms of quantity and space and discontinuity. It will appear that definition by intension will have its troubles with time and continuity and identity, and these difficulties are pretty much of the same sort as those involved in extension. It has remained for Bradley and Bosanquet to indicate the method by which these difficulties may be overcome, and they have attained this end, it seems to me, by going behind the conceptions of space and time and externality to a type of category more intimate with the life of experience.

Space and time are of course not unreal. For scientific purposes, whether practical or formal, they are necessary. That is, when the object of purpose is the existent, they are indispensable and, in their way, real. And they *are* existents on much the same grade as other objects of scientific interest. They are substances in that they stand under the structure of ideas when the latter are constitutive of 'fact', and are themselves as such and in so far of the same tissue with the given. And they are individual, undivided, indiscerptible, as are objects in any other form or in any other case. But they are also particular in that they cannot

lead beyond themselves in any other way than by repetition of themselves, thus giving 'the infinite in time and space' as the ultimate of the analytic motive. They therefore negate each other, set themselves over against each other, become the manifold which, so long as thought takes them as its presupposition, cannot reach the universal and can never therefore define the real. The ultimate real, that is, the real as constituted by its principle, cannot be expressed in terms of time or space, or of both at once. Questions of ultimate origin in time are then unintelligible, for the reason that time alone and of itself is never the whole reason for a thing; for the same reason the locus in space of an object is not determinable because space alone is not the whole of the conditions of an object's reality. And partial determination is what is meant by abstraction; which ought to clear up some of the difficulties of 'relativity.' As to objects being 'given' in space and time, it seems necessary to say that there are other dimensions of reality which must be considered before we reach the universality that makes an object real. Of course objects are thus given, but not as real, only as abstractions in thought which serve as the basis of practical motives. Individuality, then, is the veritable beneath the spatial and temporal characters of things, and the attempt at its definition in those terms states only its formal characters, which, in the absence of what it means, are abstractions. The weakness of experimental logic and the logic of action is just the false assumption that time, process, 'tendency,' are matters of intension, that they carry meanings, while they represent merely the instruments of approach to meanings.

But there is a difficulty here also for the theory of transcendence, which, it is to be feared, is to some extent a veiled statement by way of interpretation of what is really quantitative difference: the this becoming its other involves all the fallacies of time and process. The 'other' is what is not this, or is beyond this, or outside this, or what the this becomes; such language at least leaves the doctrine open to misinterpretation. It seems to stand on the analogy of undertaking to build up through spatial and temporal relations a whole out of parts or atoms, or elements or what not, so long as parts are regarded as other than each

other. It is an attempt to think real objects on the analogy of their manufacture in the arts, an attempt which, with the correlative effort to construct objects out of growth processes or temporal relations, was responsible for many of the logical troubles of Aristotle.

It is the avoidance of this constructionist or productivist fallacy which gives such great significance to the work of Bradley and Bosanquet. The positive method employed is what might best be called that of aesthetic creation, an idea which has nothing in common with making or with action in the exploited sense in which the latter term is now so widely used. As a method it recognizes the fact that when intension or meaning is taken as a collocation or fusion or interpenetration of qualities we are still on the ground of extension, and will have difficulties with time and process, space and *quantum*. Even mechanism deals with qualities, quality is the essential medium through which the relations of materials, as uses and functions, are either made intelligible or are taken advantage of practically. And it makes little difference how far qualities are rarified by abstraction so long as they maintain their consort with the spatial and temporal or perceptual aspects of things. Things are not universalized, *i.e.*, realized, through their actual or virtual qualities alone; it is not a question of the qualities *of* things but of the principle *in* things. Intension is not therefore specifically a matter of qualities, but of intention or principle. With the question as to whether principle may be known independently of the experience of the qualities of objects, I am not here concerned; the question is one of the criterion of the real, not of its genesis; a question of fact, not one of how the facts came to be.

What, then, is the principle of Individuality? The criticism given above indicates that we cannot lapse into the negative attitude for which the principle of individuality is "just that condition of being for itself and on its own account."[1] Rather "Individuality is what its world, in the sense of its own world, is."[2] I should like to begin with what to my mind is least satisfactory

[1] Hegel, *Phenomenology of Mind*, Eng. trans., London, 1910, Vol. I, p. 289.
[2] *Ibid.*, p. 295.

in the doctrines of Bradley and Bosanquet. Taking their characteristic and oft-repeated terms we find individuality defined as 'self-subsistent,' 'all-inclusive,' 'self-dependent,' 'immediate,' 'perfection,' 'completeness,' 'unity,' 'harmony,' 'wholeness' and by a great number of other terms both descriptive and appreciative. It is true that no doctrine can be fairly criticized by reference to isolated terms, and it is recognized that in both authors perhaps all of these terms are qualified in various ways. I think, however, that without extended quotation it is possible to discover two widely different attitudes represented in the list of terms. These two attitudes are more or less discordant and indicate a worse and a better side in the general doctrine. In the one case, a number of expressions place the essence of individuality in the exclusive or discriminatory characters of things. "Its inmost being is, and must be, infected by the external."[1] And again, "That which is individual or absolute claims to be self-sufficing; that is to say, to be an Identity which determines and is determined by its own differences, but is not dependent on anything outside itself."[2] Similar statements can be found throughout the writings of both authors. It seems that the characters that determine individuality from this point of view are such as exclude something, or set it off from or distinguish it from something, which in the practical relations of human beings, becomes the assumption that men are necessarily opposed to each other, that their interests are necessarily exclusive and competitive. This form of argument seems to me to be based on the analogy of the space relation in one of its aspects, and in the other, when it places emphasis on consciousness and experience, to imply the solipsistic uniqueness of mysticism. Thus completeness, perfection, self-dependence, all-inclusiveness, self-subsistence, however internal or subjective may be their content as consciousness or experience, still that content seems to be a matter of extent, of denotation, and they all find their ultimate in some form of abstraction, with the exception, noted above, with reference to harmony in its aesthetic sense. The whole vast structure of Ab-

[1] Bradley, *Appearance and Reality*, 2d ed., p. 246.

[2] Bosanquet, *Logic*, 2d ed., Vol. I, pp. 135–136.

solutism then seems to be, so far, exclusive and negative in character, to fall apart by its own dividedness, and to take the form of one vast 'infinite' judgment, the infinite not-this, not-this, . . . Nothing—the Absolute as the hypostasis of the principle of negation. Distinctness is not, I should urge, the differentia of individuality as the real; it is rather the practical formula by which *individualities* are organized into functional wholes, which are also individual, and implies that individuality has already been defined positively. It is not negation that is real, but the *negative,* the *instance;* and though the instance may be negative, its negativity is a matter of the principle of its apprehension and not of the law of its constitution; its negativity is *one* element in its existence, but it is not its individuality. Then just as 'objects' are not determined in space and time, as being inadequate to their whole nature, so they are not determined by their distinctness, which seems to be the meaning of inclusiveness, completeness, etc. And, though the suggestion is hazardous, it seems that Professor Bosanquet's doctrine, when stripped of the machinery of a negational logic, which, it is agreed, is essential to the formal basis of individuality, as carried over and applied to the intensional aspects of the real, may have merely taken for granted the current 'individualism' with all its strength and weakness.

But a very different account must be given of Professor Bosanquet's doctrine of the individual as an aesthetic whole, of the real in terms of harmony or proportion or logical stability. The real as principle is not the complete, not the finished as done and cut off, however dynamic we may try to conceive it, but the harmonious as satisfying, as not raising any questions as to what *it* is or is not, nor any question as to what anything else is or is not. And it is this once assumed—one could wish it were more adequately and less formally stated—together with the concrete instances drawn from the field of art and the aesthetic experience generally, that makes the contact with Plato and gives the doctrine its final value, a value which is in part obscured by his formal logic. His *logic* of individuality approaches too near the individualism that has made mockery of the prevailing political

and social and legal theory. But his religious and aesthetic principles point to a new day in the practical relations of men.

In the first place an aesthetic whole is not complete in the sense that it is finished, or determined internally or externally by metes and bounds as distinctness and inclusiveness imply. It is not necessarily dynamic or 'growing' in the sense of a balance of contending motives. It is essential to its nature that contention is not there, no balanced tension of centrifugal and centripetal forces such as characterized the hard logic of the Stoics. It is possible that it cannot be said in positive content terms what is there; perhaps it can only be designated. "*Our* individuals, so far as imperfect, do depend on designation for the recognition of their uniqueness. And this is a conclusive proof that they are not and cannot be genuine individuals."[1] In any case the difficulty of avoiding the existential implications of content seems to give a sort of Hobson's choice between a negative definition with its infinite form and the more or less mystical attitude implied in the assumption that it can only be designated, with its corollary that meaning cannot be expressed. In this case logic will have to come to terms with rhetoric, a consequence that is preferable to a logic formalized by negation. These difficulties seem to me to result from the analytic assumption that in dealing with the real we must break it up into subjects and predicates, terms and relations, ultimately into atomistic 'not-thisses.' Then 'unity' is of course the only recourse, either with its inevitable wooden process of fitting things together in extensional or negative forms or in saying them together with rhetoric. But the doctrine of aesthetic unity, which is outside the necessities of formal logic, does not involve any such mechanical process of building up, and avoids the constructionist fallacy. Between the terms-relations muddle and the mystery of the 'non-relational'[2] or 'super-relational' there is a third possibility. The distinction between the internal and the external is another case of the extensional or content fallacy.

As analysis of terms and relations the account given in *Ap-*

[1] Bosanquet, *Logic*, 2d ed., Vol. II, p. 261.

[2] Bradley, *Truth and Reality*, p. 176.

pearance and Reality may be taken as final, at least until new meanings are involved. They are not distinguishable even on the ground of a distinctionist or analytic logic. When relations are external they are terms; when they are internal they fuse with qualities, and since qualities are regarded as private appurtenances of terms, the whole situation becomes one of content. This brawl of atoms the aesthetic experience avoids. The contents of individualities are mutual and are therefore intents. That is, contents cannot, when considered as carrying meaning, be regarded as exclusive and repellent, or distinguished from each other by any line that can be drawn between them. The very attempt to distinguish them involves other contents as meanings intervening among them and leads to the contradiction that meanings are disposed linearly in the form of process which, by its nature, becomes infinite. There is no contradiction then in saying that the same meaning may be essential to what in their external aspects are to be regarded as distinct individuals, and it would be correct to speak of this situation as a fusion, or interpenetration, or overlapping, if it were possible to divest these terms of their connotation of uniqueness and extensional otherness. But this is a weakness of language and does not bind the intellect to space, as Bergson thinks. And it is experienced fact that identical elements of content are common to different individuals. As such they become intents, universals, and as without any specific point of incidence, which merely means that they are not particulars, they are public to all forms of individuality to which their quality adapts them. The individual as exclusive and private is the atom; it has existence *only*, it is a methodological device which comes not of its own virtue but as a dead Hamlet to the throne of the real. Individuals are not then distinct, it is a common life that we live; the real is the common. This is the Plato that is struggling under the weight of form in the doctrine of Professor Bosanquet. This he recognizes, but grudgingly it seems, for he appears to restrict mutuality to the higher spiritual functions, or to "things that are not diminished by being shared—such as kindness, beauty, truth."[1] But Plato

[1] *Social and International Ideals*, London, 1917, p. 12. But see also *Prin-*

seems to have asked, What is it that is diminished by being shared? Having adopted the principle of individuality which consistency compels, he consents to go all the way, and violates the principle only in the unfortunate mistake of subordinating individuals to individuals in the case of slavery. Here again it is concrete fact which is more convincing than any argument except that which constitutes or finds principle for the fact. Just how am I distinguished from another person? By my organism? But that is hardly I; it is the 'clothes-philosophy' of individualism. By my interests or purposes? But which of these do I not share with any one who happens to care? And these are certainly not diminished by being shared. By my property as the instrument to my purposes? But what *real* end is accomplished by 'private' property, or how can property *in use* be private? There is no use that does not become 'public' by confluence with the uses of other persons. These are the matters that make up the content of the practical sciences, and I suggest that their most urgent need is for the principle upon which individuals are determined, in other words, the principle of individuation. I *am,* when 'principled,' just the synthetic mutuality or publicity of objective purposes which I recognize in my friends. When they and their interests are destroyed my life becomes mere extensional existence. This self-identification is the type of the aesthetic, the religious, and the moral experience. I identify myself, when I am principled, with some publicity as a cause. I may exist without intent, I may even act and know and still remain unrealized by any principle, but I am not then a 'man.' That is, without mutuality of interest I am 'unprincipled'—the principle of individuality is mutuality or publicity. And it is tragic that this fact is at present being most fully recognized outside the 'learned sciences of human relations.'

What then is the status of distinctness and privacy with reference to the individual? The doctrine of individuality is committed to the conception of degrees within the real, to the propo-

ciple of Individuality and Value, p. 58, where types of individuality include a great business organization, the economic life of a great city, and the moral life of a society, when viewed from the point of view of an active participant.

sition that individuality is the real in a variety of related stages and forms. These stages and forms are all identified by the principle of mutuality which gives to each stage or form its significance or intent. This principle might be called the concrete universal if universality can be relieved of its extensional and negative implications. Individuality is principled by mutuality. This, I take it, is what is meant by the insistence on unity, which gets so often and so grossly mistaken for harmony. There may be unity of extent or content which in the abstract is the formal condition of order as an identity of differences, but which has little in common with a harmony or mutuality of intent which is the principle of the real. Unity is likely to be abstract and external and superimposed, as compared with even the lowest forms of voluntary mutuality of consent which gives form to practical organizations of persons, such as a club or even a gang. The problem is to avoid absolute identity or abstract universality, and the means of avoiding it is, in connection with individuality, the device of distinction or privacy. Distinction, whether it is called difference, negation, privacy, or whatever, is an abstraction like extension. As being completely uncolored by meaning it qualifies only space and time. In any other connection it is a pragmatic entity, its being lies in its utility, and as a convention it is unprincipled by the real. It is useful for practical purposes. It has no power to constitute the real as has mutuality, but it has proportioning or distributive reference to the real. It can tell us where, within the tissue of the real as mutual or interpersonal, conventional marks of division may be drawn off to facilitate the placing or the giving of relative values to the various degrees of intent. That is, the problem of distinctness is a practical problem, one that does not directly involve 'nature.' It is one of drawing artificial boundaries within the actual, to put it negatively. Or it is one of displaying the positive lines of interrelation, the *liaison* which slurs together the many and various types of individuals within the individual. If there are degrees of reality, and if the real is individual, then 'distinct individuals' is a contradiction in terms. These types, the physical, the organic, the personal, the corporate in its many forms such as the social, religious, political,

national, are not realized through difference or distinction; distinction is the practical device which will enable us to grasp the principle of mutuality of intent upon which some degree of order may be effected in the affairs of men "with regard to the Ideas." Distinctness is not the logical differentia of individuality, but the practical formula by which individuals find their station and function within the complex of inter-individual relations which constitutes an individuality of higher degree. Its function is, once individuality has been positively realized through its principle of mutuality, to differentiate practically among the many forms which individuality may assume. It distinguishes individuals as to their degree-forms within individuality, but it does not set off individuality from what it is not. Individuality has no 'other.'

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PHILOSOPHY AND PROBABILITY.

THE philosophical foundation of probability is generally considered, even by the ablest writers, 'an obscure and contentious topic, in which exact agreement is not to be expected.'[1] But obscurity and contentiousness in this field mean more or less obscurity and contentiousness everywhere, for philosophy and probability lie at the foundation of all things human.

Philosophy and probability, as I understand them, imply each other, and are only different phases of the one underlying system that covers all things. Philosophy views the universe from the standpoint of the unity, the continuum, The First Cause, within which all things are differentiated by us in thought, and therefore to us in belief; while probability is engaged in establishing and maintaining consistency in our thoughts about the different things in the unity. But unity implies consistency as between the parts or phases, and consistency presupposes unity. Accordingly, we can not satisfactorily study philosophy and probability apart from each other.

A significant clue to the solution of our difficulties may be found in the nature and meanings of words. The dictionary defines each word in terms of other words;—and, again, defines each of these other words in terms of still other words;—and so on, until, if we go far enough, we get back to our starting point. But when this circuit has been completed we have better ideas not only of the first word but of every other word in the circle. Armed with these better ideas, we may repeat the circuit, every time with better results. Excursion out of self with return to self always gives better ideas both of self and not-self.

It follows that we never know the meaning of any word with certainty and completeness. And so, often, we must use many words where it seems one would do. But perhaps we cannot

[1] See the *Encyclopædia Britannica et. al.*

find the one suitable word; possibly there may be none such established by usage.

Again, we may start as well with any other word in the circle. The final result will be the same. The only difference will be where attention begins and stops. The word on which attention rests is the word that is now being determined, defined, in relation to the other words. And so, no matter which word attention is resting upon, the other words, or their meanings, are implicitly in the background as the basis of the determination. But the background in consciousness, or sub-consciousness, is as necessary as the foreground under attention. And in all thought background and foreground continuously change places. So there is for me no *primum cognitum*. If I knew only one thing I would not even know that.

Again the process is an evolution. If I determine the first word in terms of the other words, each one of the latter presents a different view of the unity embraced in the first word, thereby, in attention, differentiating the unity of the first word into various parts or phases; differentiating the continuum into a manifold in attention, yet at the same time integrating the manifold back into the continuum in reflexion. And if this process obtains in interpreting the meanings of words, it must obtain also in respect to the things themselves in so far as we can know them.

Let us note that into this process, which is the process of all thought, there enter three correlated factors as one indivisible unity:—first, the element of generality; second, the element of individuality; third, the active element of thought in which the generalities are predicated in propositional forms of the individuality, and the individuality determined as a particular case under the generalities.

And this is true no matter how completely determined the individual may be, or how broad the generality may be. For while a proper name, as an unmeaning name, does not *per se* connote any generalities, yet in fact to me it connotes and denotes all that I know about the individual sought to be designated, that is to

say, all the generalities that I in belief attribute to the individual.

In a court of law, for example, laws and cases and judgments imply each other and constitute a unity. Laws have no meanings aside from the possibility of cases. A case is a case only as and to the extent to which it is determined as a particular case under laws. And neither laws nor cases have any meanings aside from judgments that predicate the laws of the cases, and determine the cases under the laws. Nor has a judgment any meaning aside from laws and cases.

Suppose I am asked to tell all that I know about some individual thing. I begin at once to describe it in general terms. I tell what I believe (not what I know, but what I believe) to be its substance and its quantity, and I mention as many as I can of its qualities, and relations, and causes and effects, and determine it as well as I can in respect to times and places. And this general form covers all that I can think, imagine, believe, know, experience, about this or about any other thing. Other things may have different substances, quantities, qualities, relations, causes, effects, and be determined in different times and places, perhaps, but the fundamental organic form of all descriptions is the same. Here, as always, we encounter the three correlated factors composing the organic unity of all thought, namely:— first, the intellectual general descriptive factor; second, the sensuous particular individual-thing factor; third, the active factor of Will, in which in thought, imagination, belief, knowledge, experience, in propositional forms, expressly or impliedly, directly or indirectly, mediately or immediately, actually or potentially, the general descriptions of the intellect become applied to the individual things of sense, and these thereby become determined as particular cases under the general descriptions of the intellect.

The general notions that we use in telling all we know about a thing, namely, Quality, Relation, Number, Time, Causation, Space, Substance and Quantity, may be called the Categories of the Intellect. These constitute a structural organic living unity, which we may call the Scheme of the Categories of the Intellect, and which may be arranged in the following form:

THE SCHEME OF THE CATEGORIES OF THE INTELLECT.

	SUBJECTIVE			
LOGICAL	Quality	Relation	Number	MATHEMATICAL
		Time		
	Relation	Causation	Relation	
		Space		
	Substance	Relation	Quantity	
	OBJECTIVE			

Both in principle and in names, our list of categories differs from Aristotle's and from Kant's and from others. The names are of course unimportant. But the list itself must cover those fundamental notions in terms of which we describe things to ourselves, and thus in terms of which we have experience. Out of the categories arise all descriptions.

Moreover, I cannot think of or define or understand any one category except in terms of itself and the others as in one scheme. All I can do is to exhibit the scheme, and point to the place each category occupies in it. I cannot think of substance, for example, except as substance possessing quantity, and qualities, and as determined in relations to other substances, in time or place, and possibly liable to change under the influence of causes. I thus define substance in terms of itself and the other categories, going around and around in a circle, as many times as I please. At the same time, the express definition of one category becomes the implied definition of all. For the definition of one establishes the whole scheme. Which one is being defined is a mere matter of attention. For in going around the circle I may direct attention to any one, thereby bringing it temporarily into the foreground, but only temporarily. Reflexion soon forces the foreground and the background to change places.

The categories accordingly are not classified lists of things. All the categories may apply to the same thing. Nor is one category a genus under which, as such, the others are species. On

the contrary, the relations of the categories to each other is that of a structural organic living unity, which is the basis of all descriptions and therefore of all things in so far as we can think, imagine, believe, know, experience, them.

Thus we may in thought combine as many descriptions or things as we please, and we may call the combination one description or one thing. And, conversely, we may divide a description or a thing into as many parts or phases as we please and we may call each part or phase a description or thing. The fact that the dictionary defines each word ultimately in terms of itself and of all other words is a particular case under the universal fact of the structural organic unity of intellect, and of intellect and sensibility and will, and of the interplays between attention and reflexion, in the applications to things.

We use the word, 'descriptions,' to indicate the intellectual phase of all thought, which intellectual phase, itself, presents many different phases, such as adjectives, common nouns, verbs, adverbs, concepts, ideas, logical or mathematical signs, symbols of quantities or operations, variables, rules, principles, and generalities of all sorts, under which in thought or other forms of experience we may determine individual particular cases. Conversely, descriptions constitute particular phases of these phases.

The individual particular cases so determined we call things. It is evident that descriptions themselves may and do become to us things, when by us determined as individual particular cases under other descriptions. We think of abstract things, immaterial things, general things, imaginary things, ideal things, as well as of concrete things, material things, individual things, etc.

All thought, as I understand it, is a structural organic unity, composed of the interactions of intellect and sensibility and will. Directly or indirectly, mediately or immediately, actually or potentially, each thought predicates some of the descriptions of the intellect, of some of the things of sense, and determines some of the things of sense as particular cases under some of the descriptions of intellect, in propositional forms, more or less probable, according to the agreement of such propositions with other

beliefs at the time, touching the things in question and other related things, namely, the evidence.

Thought is always imagination, and may become belief. When I imagine that a description applies to a thing, that imagination becomes belief if, after investigating the evidence, I become convinced that the description does apply in fact. Imagination, hypothesis, must precede every belief. For the belief must agree with other beliefs, namely, with the evidence;—and, before testing this, I must hypothetically imagine the truth of the proposition. When however the evidence is very convincing, I am apt to forget it, and to look upon the conclusion, not as a conclusion from evidence, but as self-evident, an objective fact, as if independent of the subjective, an immediate datum of consciousness, a direct immediate intuition of reality, as if independently of all ideas. I then call my belief by the name of knowledge. Knowledge is thus belief in which attention is temporarily fixed on the conclusion as if it were a self-evident fact independent of evidence, which of course it never is. Knowledge reverts to belief as soon as in reflexion we restore the evidence.

Some philosophers seem to hold that we are able to apprehend reality, whether subjective or objective, through direct immediate intuition, with absolute certainty and completeness without the intervention of any ideas whatever. I do not think I have any such power. I admit that in many cases the evidence is overwhelming, and that the conclusions that I draw are very rapid and very convincing, especially when I stand, as some say, face to face with reality. I admit that in such cases my attention is apt to become wholly fixed upon the conclusion, not as a conclusion, but as a self-evident fact in itself, and that I am apt to give it a certainty, a completeness and an independence that does not belong to it in fact. But, on the contrary, I am quite sure that when I have a direct immediate intuition of reality, what actually passes in my mind is the following. I analyze the unity, the continuum, into the intellectual general descriptive ideal phase and the sensuous individual particular real thing phase;—the intuition is the belief that the the descriptions, the ideas, truly determine the thing, the reality. And this belief is an hypothesis,

and conclusion, supported in my mind by the evidence, namely by all else that I believe at the time, according to the connections with the case. An intuition is an accepted conclusion from evidence, in which however attention is now on the conclusion, not on the evidence.

By virtue of the structural organic unity of the scheme of the categories, and by virtue of the structural organic unity of intellect, sensibility and will, it follows that all thought, imagination, belief, knowledge, experience, must take the form of evolution.

For example, because I can understand substance only in terms of itself and of quality, relation, number, time, causation, space, quantity, etc., it follows that the objective continuum determined by me under the subjective category of substance becomes, in that very act and by virtue thereof, differentiated into a manifold of different objective substances, under the limitations of quality, relation, number, time, causation, space, quantity, etc;—yet at the same time integrated back into the continuum through the category of substance. Likewise time becomes differentiated into times; space, into spaces, etc. And so with each category. And so the objective continuum of The First Cause becomes differentiated into the manifold of objective secondary causes and effects, through the limitations of quality, relation, number, time, space, substance and quantity;—yet integrated back into the continuum through the category of The First Cause as immanent in all.

In accordance with this principle, the unity, the continuum, of all experience becomes differentiated into the manifold of intellect and sensibility and will; and the intellect becomes differentiated into the categories; and the objective continuum of each category becomes differentiated into its objective manifold through the limitations of the other categories under the structural organic analytic unity of the scheme as a whole;—and these manifolds respectively become integrated in reflexion back into their respective interlocking continua; and these different interlocking continua become integrated back into the original continuum of all experience. And thus it is that we view the march of events as many evolutions within one evolution, one system, one universe, The Cosmos, the many held together as one under the category of

Substance, Reality, Pure Being, and arranged in systematic order under the category of Causation.

This logical analysis of experience is confirmed by what we know of its genesis. If, in memory, I go back to my earliest childhood, and try to recall how my experience began, I find as a fact that my conscious life began in a confused continuum becoming differentiated through illy defined shifting uncertain outlines into a growing manifold. There were certain vague general ideas, descriptions, imperfectly determining individual things, as different from each other, yet as all in one universe. No one of these different phases of experience was to me the *primum cognitum*. There was to me no *primum cognitum*. I did not first know the continuum and then the manifold, nor *vice versa*. I did not first have the general ideas, general descriptions, and then discover the individual things, nor *vice versa*. I knew the continuum only in the manifold and the manifold only in the continuum, the descriptions only in the things, and the things only in the descriptions. There was one experience composed of many experiences, one evolution composed of many evolutions, one description composed of many descriptions, one thing composed of many things. I knew the one only in the many, and the many only in the one. As the process of evolution proceeded, and still proceeds, each thing, as it becomes more and more specifically defined through descriptions, becomes more and more clearly discriminated from other things, yet more and more closely related to them through common descriptions. And each description, as it becomes applied to more and more things, becomes better and better defined and discriminated from other descriptions, yet more and more closely related to them through the things that they cover in common. But the definition of any description is never either complete or certain. So, the determination of any description and therefore of any thing is never complete nor certain.

Descriptions are related to each other both analytically through the structural organic unity of the scheme of the categories, and also synthetically in limited universes through inductions. But neither analytic nor synthetic determinations can ever become absolutely certain or complete. For I do not know the categories as

abstract innate ideas independent of each other or of sense. I know the categories only as I realize them in sense; for intellect, sensibility and will constitute a structural organic living unity. But I can never finish applying the categories to the infinity of sense, and so I can never complete my knowledge of the categories. But even if I could in fact sever the categories from sense I could never know them with absolute certainty or completeness, even analytically, for each depends for its meaning on itself and the others. All I could do would be to assign hypothetical meanings arbitrarily to one, and then to another, and so on, to see what hypotheses seemed to fit the whole scheme *inter sese* the best, a process that would have no end, until all possible hypotheses were exhausted.

And if I can never determine descriptions with absolute certainty and completeness *inter sese,* I can never determine or know things with absolute certainty or completeness; for I know things only in terms of descriptions. But things are doubly problematic. For not only does indeterminateness attach to the descriptions in terms of which I know things, but it is always questionable whether I apply the right descriptions to the right thing.

We have been chiefly concerned so far with the philosophical intellectual unity of all experience, the continuum, as differentiated into the categories, or at least with experience as viewed from that standpoint. Let us now turn to the sensuous individual phase of experience. The two views will of course agree if we push the inquiry far enough.

Each experience of my own is a change of some sort. If my attention does not change from one phase of a thing to another phase of the same thing, or from one thing to another thing under the same description, if time ceases to flow, if things cease to move, if causes cease to act, if all things sleep or die, my consciousness, my experience, sleeps or dies along with them. Change is to me the indispensable condition of experience.

But in order that a change should be a change to me, I must know something about it. To know something about a change, I must determine it as a particular under the general idea of change,

and must have a reason for determining it as the particular sort in question rather than some other sort.

But what is the general idea of change? Change is one idea, yet one idea composed of many. Change means change in the qualities or relations of one substance to other substances in time or place under the influence of a cause. Change involves all the categories as one scheme.

It thus appears that Change is the composite idea, the continuum, that binds the categories together in a unity, which unity becomes differentiated into a manifold through the limitations of the individual categories. And this is the plain reason why all life, all sensations, all consciousness, all experiences, are changes. All conscious life depends on the structural organic unity of the scheme of the categories, the general idea of Change, under time and causation, realized as particular changes in sensibility.

What occurs when, in the most direct immediate intuition possible, I apprehend in knowledge some objective individual real thing?

The experience will be to me an individual change determined by me under the general idea of change as a particular case, a particular experience, discriminated from other experiences by specific differences attributed by me in belief to it, yet united to other experiences through the continuum of all experience. My belief in the specific differences must be supported by the evidence, namely, by agreement with my other beliefs at the time.

But change, as we have seen, means change in the qualities or relations of one substance, as compared with other substances, in time, or place, under the influence of a cause, etc., thus involving all the categories in one description, for the scheme of the categories as a unity means change. Under the category of time the experience will relate, implicitly at least, to time past and present and future, memory and perception and prediction. Under the category of causation, the experience will relate to the causes and the effects of the experience. So all experiences will be implicitly involved in the present experience. And the extent to which, and the manner in which, I relate the present experience to other experiences, past, present and future, determines what

the present experience in question is to me, and how well I know it. Attention may be directed toward any one of these different phases of the experience. All other phases are then in the background, perhaps deep down in sub-consciousness, yet operating as the background in respect to which the foreground is determined in attention. Without the background there can be no foreground.

It is to be noted also that I give different names to the experience according to the particular phase or phases of it that are under attention at the time, and according to what categories or what other experiences I relate it to in thought. If I confine attention to myself and to the painful or pleasurable features of the change, I call the experience a feeling. If I regard the change in myself as caused by an external object I call the experience a sensation. If I fix attention on the object supposed to be the cause of the sensation, I call the experience an external perception, perhaps an intuition, of the object. If I fix attention on myself as determined under the circumstances, I call the experience an internal perception, or consciousness. Likewise the same experience may be to me an emotion, or a sentiment, or a passion, or a memory, or a perception, or a prediction, or a resolution, or otherwise, according to the manner in which I determine it under the categories and derived descriptions in relation to myself, or to other things, or to my family, or to my tribe, or to my nation, or to humanity, or to my Creator.

Any thing that I direct attention to becomes thereby to me the object of thought. And as I may direct attention to any phase of any experience, so any phase may become to me object. I myself, or the sensations in my mind, or the descriptions under which I determine the subject matters, or the thoughts in my mind that connect the descriptions with the subject matters, or the physical external causes believed to have caused the sensations, any of these, or any other phases, may become to me the objects of attention and therefore of experience. But as attention is usually directed toward the physical objective thing rather than to my own states or the modes of my perception, unless these are markedly pleasurable or painful, the word object, when

used without qualification, usually means the physical objective thing supposed to have caused the sensation.

The subjective and objective are not to be regarded as exclusive and contradictory of each other, but they necessarily imply each other and are the mere different phases of all thought, imagination, belief, knowledge, experience, whatever. I am just as much object to myself as any thing else is objective to me. For my knowledge of self is descriptive, general, imperfect, problematic, changing, unstable, and exactly of the same form as is my knowledge of so called objective things, whether physical or mental. Likewise the objective universe is known to me only in terms of subjective general descriptions, in exactly the same way that I 'know myself.'

In the intuition of a thing I do not first perceive the thing and then discover later that it has a description. Nor do I first know the description and then go on to discover that the description attaches to the thing. Neither the description nor the thing is to me the *primum cognitum*. The intuition, if we wish to call it by that name, is in fact an evolution of the unity into the description and the thing as one, a differentiation and an integration of the description and the thing, an experience that must agree with other experiences. An experience is at once an evolution into the subjective description and the objective thing, even if that thing is myself, or my own ideas, thoughts, processes. In all self consciousness I myself am the 'object' of the experience.[1]

Sensation and perception imply each other, and are mere different phases of the one experience. Neither is prior. But attention may be first on one and then on the other, one being in the foreground, the other in the implied background. A sensation is not to me a sensation until I objectify myself in thought as the substance undergoing the change, experiencing the sensation as

[1] Since each experience is always an evolution into the general description and the individual thing, there is always an ambiguity in the meaning of the word 'thing'; for thing may mean (1) the thing in itself, as if it could be separated from its description, the idea; or (2) thing may mean the thing as determined under the description, the idea. The latter, namely the thing as determined under the idea, is the only way we know the thing at all. The thing in itself is to us a void formless abstraction, undetermined.

effect, under the influence of another substance, the cause, which cause is not-self. The determinations must be expressly or impliedly under all the categories, as one scheme. I can never know causal relations, for example, between self and not-self or between any things, unless these causal relations are at the same time accompanied with other determinations in respect say to quality, or time, or space, etc., and *vice versa*. I know, I become aware of, my sensation in and by virtue of that very act by which I determine it as possessing certain qualities and as determined in certain relations, and as an effect, and therefore as a sign, evidence, description,—and therefore as a perception of the cause. Conversely, I know, I become aware of, the cause (the object) in and by virtue of that very act by which I determine it as possessing certain qualities, and as determined in certain relations, and as a cause, and therefore as a sign, evidence, description, and therefore as a perception of the effect (my sensation). I no more infer the description of the cause (the object) from the description of the effect (the sensation) than I infer the description of the effect (the sensation) from the description of the cause (the object). In fact, whichever phase of the experience I fix attention upon becomes to me from that standpoint 'object.' And what I really do is to fit these and all other descriptions to these and all other things so that there will be as little conflict as possible in the totality.

It follows then that no sensation, and therefore no object, is presented to me, until I by my own act, interpret and re-present the presentation to myself in terms of the categories. Presentation and re-presentation, cognition and re-cognition, imply each other, and are mere different phases of the one universal system.

I am to myself both cause and effect. However, I am to myself a secondary, not a First Cause. I actively perceive, yet I am forced into this activity, through the conservation of energy, as a secondary cause. I do not know that I am about to perceive, in fact I do not know that I have the sensation, until I have actually converted the sensation into a perception. Through sensations presented, I am thus forced into perceptions, even though the perceptions be active interpretations, re-presentations, on my

part. It is impossible for me to separate the fact of a change from the thought of the cause of the change, or to separate memory, perception and prediction from each other. The perception of the change in self in relation to not-self is a simultaneous perception of self and not self, a simultaneous perception of the subjective and the objective, and time past, present and future. The knowledge of self and not-self is one, yet descriptive, general, incomplete, uncertain, merely probable, in respect to all specific determinations. I can never be absolutely certain that any of the specific allegations that I make about myself or about any thing else are exactly true as alleged. I do not know myself absolutely as a thing in itself any more than I know objective things as things in themselves.

Each experience may be symbolically expressed in the form of a synthetic real proposition of the universal type, $G = GS$. This equation means that the subject matter given or assumed under the generic imperfect description G is now found to be more specifically described as also GS. All, every, each, this, a random G, will be found to be GS. All, every, each, this, a random man, will be found to be man-mortal. The descriptions G and GS, man and man-mortal, are equal in that they determine and apply to the same subject matter, thing or things. For purposes of probability the best interpretation is that a random G will be GS. If all G's are in fact GS's, then a random G will always be GS. But if some G's are GS's and some not, then some random G's will be GS's and some not. The probability that a random G will be GS will depend partly on the relative numbers in the species GS and G-not-S.

Expressing more fully some of the silent implications in the synthetic real proposition, it may be put in the form, $G = GABC$, in which G represents the generic imperfect description under which the subject matter is given, or assumed; A represents the group of specific differences believed to apply; B represents a definite group of descriptions in mind the applications of which are in doubt; and C represents an indefinite, perhaps infinite, group of descriptions, the details of which of course are not in

mind, any one of which, however, may hereafter be found to apply.

The distinction between, and yet the unity of, the description and the thing is forced upon us, not only by the nature of experience itself which at the same time differentiates and integrates them, but also by the fact that I can never complete the description. Thus the thing is thought of as remaining the same while the description varies. Again, these same facts give us the ideas of the Absolute and the Infinite. We think of the thing as absolute, independent of our perception of it, because our perceptions are never complete. And we think of the Infinite because the description may be infinite in intension, and because the number of cases included under a description may be thought of as infinite in extension.

And so all experience depends on evidence, namely the connections with all other experiences. Each proposition is evidence touching all others. Each proposition is in one sense a mere hypothesis, imaginary, tentative, held in abeyance, to be tested by comparison with all other hypotheses, beliefs, according to their probabilities and connections with the proposition in question.

Because I can never be absolutely certain that the thing given or assumed under the generic imperfect (questionable) description *G* falls also under the more specific description *GS*, I am forced to imagine, and at liberty to believe, on satisfactory evidence, that the *G* is *G*-not-*S*. This is the idea of Freedom. So Probability and Freedom necessarily imply each other and are mere different correlated phases of experience. Experience is impossible without both Probability and Freedom.

When I say that I am, and that I think, imagine, feel, act, etc., what do I mean by 'I'? I mean that part of the universal Substance, First Cause, which I consider to be myself, and which is known to me, in so far as known to me at all, in terms of and under the limitations of those confluxes of imperfect incomplete descriptions that I apply in belief to my supposed self. In the same way, by the physical objective thing before me, I mean that part of the universal Substance, First Cause, which I consider to

be the physical thing, and which is known to me, in so far as known at all, in terms of and under the limitations of those imperfect incomplete descriptions that I apply in belief to the said supposed physical objective thing. I am as truly object to myself as the physical objective thing is object to me.

Just as we are content, often, to define each word in the dictionary in terms of its proximate synonyms, and to rest there, without defining the synonyms and without completing the circle and returning to self, so attention tends always to stop short and to stick in the manifold in differentiation, and to suppress the tendency of reflexion to return back to the continuum in integration. So whatever phase of experience attention is occupied with, that phase we are apt to think of as the reality. Usually we fix attention on the physical thing, and call it the reality (Realism). Occasionally we fix attention on the subjective descriptions in terms of which we determine the physical thing. We then think of the subjective descriptions as the reality (Idealism). Sometimes we fix attention on ourselves as the agents having the experience. We then think of ourselves as the realities and of the external world as an illusion (Skepticism). So in all intuition we think of the physical thing as the reality, or of our subjective ideas of it as the reality, or of ourselves as the realities, according to the emphasis of attention. But each such onesided interpretation is in unstable equilibrium. Reflexion, soon or late, will force attention to other phases of the experience, whereby the foreground and the background will change places; for in fact these necessarily imply each other, and are mere different phases of the one experience. In the most direct immediate intuition possible, there must, I think, be some activity of reasoning, some adjustments to self and environment, some distinction between self and not-self, some idea of who and what and where I am, as well as some reconciliation of this intuition with other intuitions.

Again, some hold that reasoning is from the absolutely known to the equally unknown. If by the absolutely known is meant the certainly and completely known, it seems to me no reasoning from such premises is possible. For the conclusion is always an express or implied function of the evidence, consolidating the evi-

dence into one conception, developing the implications, eliminating what is not wanted, interpreting the results in limited universes of discourse, and applying it to the subject matter. The conclusion thus throws as much light back on the evidence as the evidence throws forward on the conclusion. But if the evidence is already completely and certainly known, in an unlimited universe, no further light can be thrown on it, no conclusions can be drawn from it, it is a thing in itself, absolute, unrelated, isolated. What is known under one description must be given, assumed or known, under some other description. What I know now specifically as *GS* must have been given, assumed or known, already, either more specifically as *GSA*, or less specifically as *G*.

There is a tendency in many quarters to regard the conclusion as outside of and apart from the evidence and the evidence as outside of the conclusion. The two are supposed to be connected together by certain mysterious links called, perhaps, postulates, first principles, laws, major premises, the uniformity of nature, etc. To my mind these mysterious links, if they exist at all, are parts of the evidence itself and must enter expressly or impliedly into the functional form of the conclusion as effectively as any other parts of the evidence. Always the conclusion is a function of the evidence, but the functional relations may be and generally are obscured on the surface through the eliminations in practical life.

The tendency of attention to suppress reflexion is natural, and in practical life useful, where quick action is imperative, and where there is not time to reflect, or to take account of the results of reflexion. But it is the business of Philosophy to give due weight both to attention and to reflexion, for Philosophy has leisure to recognize the continuum as well as the manifold.

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APPEARANCE AND REALITY IN THE THEORY OF RELATIVITY.

TO one who is neither a mathematician nor a physicist has come more and more the feeling that in the intense atmosphere of strangeness and amaze which drifts about the progress of the doctrines of Einstein with their subversion of commonsense beliefs—for the people suffer a reverent shock, as beholding two worshipfuls who mutually blaspheme—there is a fairly constant element of natural but unnecessary misunderstanding. I do not mean that the expounders of relativity have deliberately misinterpreted their thesis or resorted to the easy arts of the stage magician, or even that in the words of the more careful there is more than a human modicum of illegitimate statement. I have no competence to criticize their technical procedure and I receive their conclusions with profound admiration and interest. I do mean, however, that these conclusions are received as meaning what the words would mean in present commonplace acceptation, and lend the tremendous prestige of modern science to philosophical interpretations almost contrary to what seem to me their real implications. It is commonly believed that physicists and mathematicians, by some form of the esoteric magic shrined in laboratories, have scientifically proved that there is no real space or time, that lengths incontinently grow and diminish with motion, that clocks mysteriously but precisely alter their rates, that nothing can possibly go faster than a certain curious but definite number of miles a second, and that some straight lines are not as good as they might be. With the relativity of our senses we are all familiar, but now our 'real' world, with regard to which our senses so often deceive us, becomes likewise unstable; and those who bring the new tidings say no word to allay our perturbation. And how should we expect them to diminish the wonder of their discoveries?

Wonderful they are; but, unless I am fondly mistaken, their philosophic value is as a warning of humility to science, not as a

demonstration of the falsity of commonsense. The essence of the matter seems to be that, inasmuch as physics is a science of measurements, and since all measurements are relative, *i.e.*, a matter of ratio, and are moreover not magically registered measurements but achieved by some form of instrument, therefore the influence of the instrument must itself be included or allowed for in the ratio; and further that, inasmuch as no unit of measurement but itself is measured, our ratios can be objective only in the sense of being in terms of the instrument or means of measurement which our situation in the universe urges upon our agreement as the most convenient constant. But so far to forget the initial truth that physics is a science of measurement and hence necessarily relative as to deny the existence of anything stable to be measured is radically unnecessary. Whether there is absolute space, time, or motion, I am sure I do not certainly know; but I do know that if there be, still measurement of them would be as relative as Einstein demonstrates.

We are told, when we find difficulty about the relativity of time, that we must rid our minds of 'subjective ideas.' Now this in a sense is true; but in another sense it precisely puts the shoe on the wrong foot. It is true if we use 'subjective' as opposed to the 'objective' which has the scientific sense of communicable, mutually exact, intelligible. But commonsense more normally opposes 'subjective' to the 'objective' which refers to the 'real thing,' the substantive part of the universe which is the 'object' of my perception but is independent of my peceiving it; and it is just this idea of which I must for the time rid my mind if I am to think along with Einstein. When the ordinary man says that two clocks synchronized will remain so unless defective or interfered with in their working, he means the real clocks as they are apart from any observation. His idea of the clocks is subjective and his idea of a real time is subjective, but the essence of each is that the object thereof is purely objective. When, now, the lecturer on relativity says that synchronized clocks moved apart will get out of step, he means that as measured from any particular point they will register differently. But it needs no scientific wizard come from the laboratory to tell us this. We know it

well with regard to sound, and a moment's reflection will grant it with regard to measurement by sight; and that measurement must proceed by some medium no one is apt to deny. Only if a clock synchronized with mine and transported rapidly hence were to continue in step, would I begin to have fears for the time-keeping accuracy of one or the other. The theory of relativity goes further than this, to be sure, as to "the crazy old church-clock and the bewildered chimes"; but so far we need no consternation; and this is the essence of the matter, the rest being an admonition to the physicist to stick to the relative times and not bother about which is right since there is no way for physics to find out.

What in brief is now told the physicist is: Since your measurement involves the transmission of light, the formula must take account thereof. This is not a mere matter of 'correction' for the instrument, but of realizing that some ratio of measurement must be accepted just as a point of reference is accepted, and of accepting the experimental evidence for the independence of the velocity of light—its constancy not as a velocity through the ether but its constancy for all our measurements of it regardless of our motion. This last means that for us the velocity of light interposes between us and any independent discrimination of quantities of time and space. It is the challenging part of the theory.

The culminating paradox of the theory in its "special" form is the thesis that the velocity of light is the maximum velocity, that there can be no greater. Now it seems at first curious that a theory of relativity should eventuate in a statement of an absolute; and there is perhaps no other point in the doctrine so repugnant to commonsense as that one may say: So fast shalt thou go and no faster. The conclusion is deduced with full mathematical rigor from the postulates. But it is deduced because it is assumed in them, and means no more than that any greater velocity would be, in the accepted physical scheme, immeasurable. All that is really said by the theory is that the speed of light is the greatest speed which we can by any human experiment measure or be aware of; many things in the universe there may be going at a greater speed; but for physics they are as if they did

not exist. If we were all to lose our sight and begin our construction of physics anew, might not the velocity of sound become the maximum, constant for all observers, another Einstein have to work out new formulas, and Newton's laws much sooner cease to be accurate? It is difficult, to be sure, in imagination to clothe ourselves with the belief that sound is a universal velocity and possible criterion of real motion, or to divest ourselves of the recognition that that familiar air whose passage by us we so directly perceive is the medium of sound; but might not a race born blind conceivably postulate the one and fail to associate the other? And if we were to acquire a new sense, operating at a distance by means of a propagation more rapid than that of light, that velocity would be the maximum, the Einstein formulas would most conveniently be translated into its terms, and Newton's laws would be sufficient through a higher range of values. In short, all measurement must ultimately be in terms of sense; that sense which works with least friction, interference, or retardation is best accepted as our constant; empirically it seems mandatory; and, having been accepted, it must be incorporated in any really exact statement of measurement.

I see no reason to doubt that Isaac Newton, who was no stranger to the principle of relativity, would have readily assented to the statement that his formulations were meant of the real object, which could be reached with a minimum of temporal error by light; and that when dealings were had with velocities approaching that of light, the error would become appreciable and would have to be allowed for. The contention of the relativists is that, since the 'correction' must now be accepted as universal and inscrutable, we should take the measurement and not attempt to go behind the returns.

We are told that velocities can no longer be simply compounded. A resolute commonsense would retort that velocities are actually simply compounded, but that our measurement must take account of the means. If there is a real external movement, it may go serenely on by simple Newtonian compounding; but it is manifestly impossible for measurement to be at once at the point of reference and on the way with the moving object, and

any message returning from the object must come by natural means and not by instantaneous magic.

Perhaps the basic portion of the theory of relativity is that dealing with time; and it is significant that this should be developed out of a doctrine of simultaneity, *i.e.*, of the measurement of time. Now the chapters of Einstein's book, *Relativity*, dealing with simultaneity, are the portion where the reader who is not a physicist most feels relieved of the bewilderment of unfamiliarity and assured of his lack of complete agreement. Consider the illustration by which the relativity of simultaneity is arrived at.[1] Simultaneity has been defined as a property of events occurring at points A and B so that an observer at the midpoint M between them visually perceives them at the same time. Now suppose a train of length AB, coincident with the line AB at the time of the events at A and B but moving toward B. By an observer at the midpoint of the train the events will not be perceived simultaneously. Hence, it is concluded, "events which are simultaneous with reference to the embankment are not simultaneous with respect to the train, and *vice versa*."

Let us fully grant the case as put. Commonsense would never deny it,—would maintain, indeed, that the observer at M, the midpoint of the train, being not at the midpoint between the events when he perceived them, would expect them to appear non-simultaneously if he believed them actually to have occurred simultaneously. Einstein would, of course, answer that M' is at the measured midpoint between A and B on the train, that the events occurred at A and B, and that according to his definition, the same events both are and are not simultaneous according as one is on the embankment or the train. And if we insist that the train has moved in the meanwhile, the retort is that the definition says nothing about motion, and that there is no way to be sure which has really moved, train or embankment. Now this is quite true, and throws us back on the definition. Commonsense would probably first assent to the definition given as a fair empirical test of simultaneity; but after consideration of the subsequent illustra-

[1] Einstein, *Relativity, the Special and General Theory*, English edition, 1920; chs. viii, ix.

tion, would claim the right of adding the proviso that the system in question must be at rest relatively to the medium of communication through which the observation is obtained. If, for instance, the observers on the embankment and on the train each had arms long enough to feel the events at A and B, then, regardless of the time involved in the physiological transmission from A and B to M and M' (if the right and left systems worked alike), and regardless of the relative movement of train and embankment, the events would appear simultaneous for both or neither. Or if runners were dispatched at equal speed from A and B on the train and on the embankment, the runners from opposite directions would either meet or not meet at M and M' regardless of the then relative positions of those two points. And if sound were taken as our means of communication, no fundamental difficulty would arise, since we would stand by the evidence of the system at rest with respect to the air and correct for the other. The difficulty in the definition as given, and taken simply as an empirical test of simultaneity, lies in the sole reliance upon light, the speed of which relative to an observer has priorly been postulated by Einstein to be unaffected not only by the movement of the source relative to the medium, but also by the movement of the observer. Such being the case, commonsense would be quite satisfied with light as a test of simultaneity only in a system absolutely at rest—and this, of course, we can never determine. Now, since sight is incomparably our fastest sense, and for physics largely our only available means of observation, and since, therefore, we do well to agree—if, indeed, we are not forced to agree—with Einstein in accepting light as the fundamental measurement whereby other velocities of communication must be discriminated; we are driven to confess that our commonsense concept of simultaneity has no place in the accurately computable stuff of physics. Commonsense can then only say: So much the worse for physics. We have no absolute measure of simultaneity. Simultaneous events would appear simultaneous to me if my senses acted through space without lapse of time. Since that is not so, simultaneity can not be strictly ascertained, and the degree of possible approximation will vary with the in-

tervening distance and the relative motion involved. Einstein quite properly replies that for physics as a science of measurement such a concept is of no direct value; and he accordingly defines something which can be measured and calls it simultaneity.

Now this he has full right to do, and for physics it doubtless must be done. Where the commonsense reader disagrees is as to the dogmatic statement that beyond this, simultaneity can have no meaning for anyone. Along with many scientists, Einstein assumes that the absolute and unique requirement of a definition is to "supply us with the method whereby he can decide by an experiment whether or not" any given instance is an instance of the thing defined, that the only function of definition is diagnostic. For physics this may be so, but only because physics is purely diagnostic,—because within a science of measurement the prescription of measurement gives also the essence of the concept. But the relativists explicitly refuse to confine their definitions to their subject. "As long as this requirement [of exact measurement] is not satisfied, I allow myself to be deceived as a physicist (and of course the same applies if I am not a physicist), when I imagine that I am able to attach a meaning to the statement of simultaneity. (I would ask the reader not to proceed farther until he is fully convinced on this point.)"[1] Who can be so absolute as a relativist?

The failure to discriminate between the commonly accepted fact of the constancy of the velocity of light through the ether, and the hypothesis which results from holding steadfastly to this and to the principle of relativity at the same time has been the cause of much confusion on the part of readers of the literature of relativity. That the velocity of light in free space is independent of the motion of the source is not an original and startling postulate of Einstein's; yet readers are apt to accept this as the meaning of his explanation of the Michelson-Morley experiment, and some of the expounders themselves explicitly give it as such.[2] In that statement there is nothing paradoxical or

[1] *Op. cit.*, p. 26.

[2] *E.g.*, E. E. Slosson, *Easy Lessons in Einstein*, pp. 13 f.

repugnant to current ideas. It is true, indeed, of wave motion in general. And so far is it from accounting for the failure of attempts to measure the motion of bodies relative to light that it was an assumption accepted by Michelson and Morley, and the negative results of that experiment might be accounted for as well by denying the assumption as by extending it as did Einstein. For if we give up the ether and say that the measured velocity of light is independent neither of the motion of the source nor of that of the observer, then, obviously, the Michelson-Morley experiment, in which source and observer were travelling together, would give no evidence of change in the apparent velocity of light due to the motion of either one;—any more than a baseball thrown with equal force back and forth in a closed car would go slower in the direction of the motion than against it. Einstein properly names this received hypothesis of the constancy of the velocity of light in a vacuum as one of the two principles out of which his theory sprang, because of its apparent incompatibility with the other principle, the classic principle of relativity. It does not seem, however, if I may venture to contradict Einstein himself, that there is any logical repugnance here, any more than with sound; unless we accept the ether as an absolute and universal frame of reference, or interpret the principle of relativity as denying the possibility of detecting not merely absolute motion but motion apparently absolute for us,—that is, motion with respect to our field of observation as a whole. After that, to be sure, such an experiment as that of Michelson and Morley, would, if successful, upset the principle of relativity. But that experiment gave negative results only; and Einstein accounted for that *dénouement,* not by denying the postulate as to the constancy of the velocity of light on which it was based, but by a daring extension of it whereby the measure of the velocity of light in space is asserted to be independent not merely of the motion of the source but of the motion of the point of observation. This apparent extension is in reality an interpretation necessitated by holding to both apparently repugnant principles at once. Now the principle of relativity is *a priori* safe from disproof so long as we have to do with relative velocities. It is only when with light we seem

to come upon a measurable velocity which is a constant as regards space in general, that we can apprehend the possibility of detecting the motion of a body relative to that constant velocity and, from that, its absolute motion. It is in the resolute adherence to the principle of relativity and to the hypothesis of the constancy of the velocity of light in space that Einstein's uniqueness lies. There seems only one possible reconciliation if both these theses be maintained,—namely, that the velocity of any body relative to the velocity of light is indeterminable, that the velocity of light is the same for all observers regardless of their velocities.

This seems absurdly paradoxical; and from it arise all the relativities of space and time necessary to adjust it to a stable body of measurements. And yet my mind, tainted as it is with "metaphysical reasonings," has the impression that this postulate, paradoxical as it at first seems, need not be left so baldly objectionable to commonsense as most relativists glory in making it, and can, at least in great part, be justified quite apart from its services or necessity to mathematical physics. For it results from the privileged position of sight as our most rapid sense, and its paradoxicality arises from considering light under analogy to lesser velocities which are measurable from above. Or let me put it thus. The doctrine actually came into being to account for the negative results of the Michelson-Morley experiment. I well remember the difficulties I had to understand the dismay those results caused. If the ether were simply a natural medium, why should motion relative to it be dignified as absolute motion? And if the ether were defined as the absolute frame of all things, how should we ever hope to make empirical acquaintance with it? But, passing that by, a plain man who had been made to understand the experiment would probably have said that the apparent explanation was that the earth was absolutely at rest—itself the center of the universe. Why not? There is no insuperable *a priori* objection. But, apart from other experimental difficulties (*e.g.*, the aberration experiments), such a result would be repugnant to all modern scientific prepossessions. Now, actually, Einstein's explanation amounts to just this *plus* a qualification and an extension. Not only the earth but every point of obser-

vation is at rest relatively to the ether; or rather, to light, since the ether now becomes a mere imaginative supererogation. That is, every point must always seem at rest for observation. For light, relative though it may or must be in its own nature, is for us absolute, since there is no wherewithal for us to measure it. Yet if we were to acquire a supersense, might not light lose its privileged position, an actual medium—not that extraordinary metaphysical somewhat, the home and solvent of all difficulties, the ether—be discerned as its locus, and its velocity behave itself as other properly supervisible velocities? But then our new messenger would have assumed the rôle of master of relativity.

But what of the 'general' theory? Does it not overthrow the postulate as to the constancy of the velocity of light? It rather dispenses with it. In the general theory we are no longer concerned with direct empirical measure of speed and direction, but with the inferential ascription of 'events' to their position in a four-dimensional continuum of space-time. Into it the velocity of light is *aufgehoben* as into a sort of Bradleian absolute. It suffers acceleration, at least in the matter of direction, in the curvature of its path due to the distortion by gravitation of the space it travels. Our point of view in the general theory must be, not merely purely kinematic and descriptive as in the special theory, but purely descriptive in a more rigorous, non-historical, sense. Time infects our geometry, not oversees it; and force becomes merely its own spatial-temporal manifestation. As a motion physically too rapid to be followed by sense may physiologically be given to us as a completed line, so a light-velocity, too unorthodox to be recognized by the special theory, may in the polymorphous space of the general theory appear as a line which Euclid would denounce as crooked; but, just as in the special theory our measured times and spaces see to it that all light velocities are the same, so in the general theory the space through which that particular line extravagates, having profited by the labors of Lobatchewsky, Riemann, Minkowski, and Gauss, who have taught it much virtuosity since Euclid, sees to it that the line is a geodesic, is a straight line for that type of space. In short: 'materialistic' physics out of the void invoked the ether to bear

the contradictions of our indubitable relativity; the special theory of Einstein banishes the too mythic old god, but the inscrutability of all motions relative to light must undertake the expiatory task; the general theory absorbs all into a liquescent geometry which distorts itself in unbaffled security of refuge.

Commonsense has built itself a world to live in; and physics, dealing with the measurement of the quantitative relations of experience, at first accepted that world as an abiding-place for its measurements; but gradually and properly has retrieved attention from that real, objective, and accurately inaccessible world in the interest of its own measurements. The strangeness of the contemporary theory of relativity lies in this: that, whereas Newtonian science accepted—assumed—as the stable elements of measurement, a rigid unit of length and a rigid unit of time and would have to allow where necessary for inaccuracies in the use of these units; Einstein, dealing with a world wherein these corrections are inconveniently frequent and obtrusive if not strictly incapable of elimination, gives up the rigid units of real space and time, and assumes as basic unit, in the special theory the velocity of light whereby space and time units are arrived at, and in the general theory the immediate geometrical relation of events in the four-dimensional continuum of space-time from which the velocity of light is itself derived after the analysis of space and time. That is, Einstein's endeavor is 'critical' in the Kantian sense; an effort to absolve all need for 'sceptical' correction in reaching real, objective units—hypostatized units?—by a vigorous redescent to the actual primitive of measurement. The ancient principle of relativity will *a priori* guarantee that on this basis uniform natural laws will be independent of their mode of expression—will manifest invariant relations through appropriate transformations no matter what the standpoint of measurement. Now, as Dr. Murnaghan has suggested in his egregiously acute essay on the subject,[1] this is an attempt through relativity to

[1] "The Quest of the Absolute," in *The Scientific American Monthly*, March, 1921; reprinted in J. M. Bird, *Einstein's Theories of Relativity and Gravitation*, pp. 276 ff.

reach absoluteness—by admitting universal relativity to secure invariance of relation within the scheme. Just so the Kantian criticism, by exhibiting the phenomenality of the understanding, sought to guarantee phenomenal science. The ordinary physicists, with the absolute motion in the ether, have played the rôle of the 'dogmatists'; Michelson and Morley, that of Hume waking the master analyst from his dogmatic slumbers. Einstein, however, more courageously idealistic than Kant, leaves no thing-in-itself in the background; and as a physicist he is doubtless right, —Kant himself excluded it from science. But is the metaphysical—*i.e.*, the commonsense—question of reality so summarily settled?

Beneath all the postulates so much debated of the Einstein theory are the determining essence of physics as a science of measurement and the fundamental methodological principle of parsimony—both in the form of Occam's razor and in that of the rule of convenience for the purpose in hand. It may well be that for physics 'real' time and space are *entia praeter necessitatem* and that Einstein's formulations are an advance in final ease over all others. The principle of parsimony is equally known to the constructions of commonsense and metaphysics; and it may well be that for commonsense, whose aim is not accuracy of measurement but the achievement, as a background of consciousness, of a universe in which it may act and think and feel and be as far as possible at home, real time and space are not *entia praeter necessitatem*. There is no contradiction until physics assumes the arrogance of a metaphysical lawgiver. This vicious extension of the results of the principle of parsimony within a definite field is not altogether foreign to Einstein himself, and in many of his expounders it is much more obtrusive. The positivism of a century ago, itself a metaphysical assumption, returns in the dazzling armor of the most abtruse physics and mathematics. We are told: "We may indulge in abstract metaphysical speculations to our heart's content, if we be metaphysically inclined; we may not attempt to impose the dicta of metaphysics upon the physical scientist. . . . In order not to be metaphysical, we must eliminate our preconceived notions of space and time

and motion, and focus our attention upon the indications of our instruments of observation. . . . Whether . . . it leads us to valid conclusions, or . . . to false ones, metaphysical reasoning is something to avoid." Amen! if this be the advice to physicists when working quite within physics; but it comes with exceeding ill grace from one who has just pronounced: "This argument would be perfectly valid, if there *were* real times and distances; but there are not."[1] If we must indulge in metaphysical conclusions, why be so superior to metaphysical reasons? And we do not need to master the intricacies of the physics and the mathematics to be pursuaded that, in general, no emphasis on relativity of measurement, either the ancient relativity of object to perception or the newer inter-relativity of objects as measured, no matter how elaborate or mathematically validated, can be pertinent to disprove existence or even the desirability as a pragmatic metaphysical postulate of something stable which is measured.

The mathematical formulations by which Einstein has made possible the strict extension of the classic principle of relativity to the whole realm of physics are the work of genius and are of the very greatest importance in the unification of physical theories of time and vastly differing velocities. His doctrine, moreover, is of startling pertinence to the recognition of the essentially explanatory rôle of physics and the relative character of knowledge. But it severs itself from the real world of commonsense, not devours it; and has no necessary effect upon the belief in one real time, one real space, and real motion,—concepts which are as irrelevant to physical measurement as physical measurement is to them. Nor, if we may broaden our 'special' into a 'general' thesis, can any of the more philosophical theories of relativity—in ethics, logic, epistemology, or metaphysics—which like Einstein's are theories of measurement, claim, for all their value and validity as theories of measurement, to be disproof of commonsense realism and absolutism, which rests upon grounds prior if not necessarily antecedent to all measurement. We have ever with us the new mythologists, who, having roused spirits, or postulated a finite god, or suffered an ecstasy, think to exhibit the

[1] Bird, *op. cit.*, pp. 29, 110, 106.

realities of metaphysic and of religion and to expunge the aloofness of the ultimate; behind them troop the subtler relativists, who, having compassed an equation, demonstrated a ratio, and ascribed a number, proclaim oblivion to all that that is numbered or that cannot be numbered.

"What? Must I ever be on the way? Whirled by every wind, unsettled, driven about? O earth, thou hast become too round for me!

"Like tired dust have I fallen asleep on mirrors and window-panes.

"With thee have I broken up whatever my heart revered; all boundary stones and statues have I o'erthrown.

"Where is my home? For it do I ask and seek, and have sought, but have not found it. O eternal everywhere, O eternal nowhere, O eternal-in-vain!"

There was of old another sage whose glory, it is sung, was to have burst the flaming bounds of time and space and laid bare the causes of things. His real intent therein was to free us from the gods. And though the gods lived on and will live in spite of Epicurus, mechanism did free the explanations of science from ulterior interference. Our present far-voyager more literally bursts the bounds of time and space, for his intent is to free us from those very realities themselves. And though they may live on in his despite, he may yet deserve the gratitude of science in having freed that accurate world of relations from the ghosts of irrelevant reality.

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REVIEWS OF BOOKS.

The Unity of the Organism, or the Organismal Conception of Life. By W. E. Ritter. Two volumes. Richard G. Badger, Boston, 1919.—pp. 398, 408.

These volumes urge a conception of living things that is denominated *Organismalism,* as opposed to one characterized as *Elementalism.* The two views are thus contrasted on the first page: "According to the one the organism is explained by the substances or elements of which it is composed: while according to the other the substances or elements are explained by the organism." The obviously extreme form of 'Organismalism' set forth in the last clause is not however defended: the author's thesis is stated on page 24 as follows:

"The organism in its totality is as essential to an explanation of the elements as its elements are to an explanation of the organism."

In the author's opinion the theory and practice of a large proportion of the workers in biology are not in consonance with this thesis: it is his ambition "to clear the conception of the 'organism' taken alive and whole, of the vagueness that has hitherto enveloped it, and make it as clear, as serviceable and as indispensable to science as . . . any other fully accredited and unescapable biological entity" (vol. I, p. 25). Just how much concretely, does he mean by Organismalism, and how far will working biologists assent to the views presented? How far and on what grounds will there be dissent?

Much of the work is devoted to criticism of Elementalism, and the entire presentation is mingled with discussions, largely polemical, of matters relating to the method and object of science. Here we attempt only to disengage and comment on the positive contentions in support of Organismalism, arranging them in a partially graded series of more or less independent propositions.

1. The parts of the organism work together to produce unified results: they are integrated in their action. The larger part of the work is a *resumé* of the concrete facts that demonstrate this to be true: the author goes in some detail over embryological development, the chemistry of the organism, protoplasm, cells, anatomy, and genetics, displaying throughout the working together of all parts to produce an organic unity, the living organism or individual.

It appears to the reviewer that all this must be, and is, admitted by all enlightened students of biology, including those that Ritter classes as elementalists: Loeb himself, the arch-elementalist, has written a book on the Organism as a Whole, in which many of these correlations of parts are set forth. It is a familiar observational fact that the muscles, nerves, and skeletal parts are so constituted, and work so together, as usually to move the body as a unit, all parts facilitating movement of a particular sort or in a particular direction. As Ritter shows in detail, parallel statements can be correctly made for all the different systems, not only when each is taken by itself, but when all are taken together: they tend on the whole toward a unified result. It is true that one cannot 'explain' them completely unless he takes note of that fact, if to 'explain completely' means to know a thing in its relation to the rest of the universe: these are demonstrable relations.

Ritter's condensed review of this field is of great value: I know of no attempt to make so complete a picture of the integrated interrelations of all parts, and particularly of the relations of the different systems to each other, making use of the modern researches in all these fields. Particularly suggestive are the discussions of the Protozoa in comparison with the Metazoa; and of chemical integration. The account is however not presented in a simple objective way, as a picture emerging of itself from the joint and several researches of workers in all fields of biology, as would appear most fitting and natural to the reviewer, but is largely admixed with criticism and condemnation of the investigators that have made the picture possible.

2. But Ritter is not satisfied with the proposition that the parts are coördinated in their activity; this is admitted by the merest elementalist. In advancing beyond this, he bases himself on the principle (sometimes called the principle of creative results) that in the organism, as in all chemical compounds, the components when united, or organized, produce something that did not exist in the parts taken separately, that could not be predicted from knowledge of these parts, nor known in any way except by observing that they actually occur in the combination. Like alcohol or water, an organism has characteristics which its components have not. Ritter applies this principle through all gradations: union of elements to form compounds yields new characteristics; union of compounds to form cells yields new characteristics, and so of union of cells to form organs, and all the way

up to the complete organism, which has characteristics not existing in any of its parts: it is an 'objective entity' not found in the components.

This general principle is I believe rather generally admitted for chemical compounds; at least all must admit that it holds practically, in the sense that the characteristics of compounds cannot as a matter of present fact be predicted or deduced from a knowledge of the components taken separately. Its extension to the higher grades of organization in organisms will doubtless arouse some question; to the reviewer, however, this extension appears logical and in consonance with observation.

3. Among the new characteristics thus appearing in the organism are those denominated conscious, the psychic. This appears to the reviewer, as to Ritter, a statement of fact, requiring recognition; a growing proportion of biologists—perhaps practically all that have devoted thought to the matter—would assent to it: consciousness and its differentiations are properties of the organism on the same footing in this respect as the distinctive properties of chemical compounds. Where there is dissent, it appears based on considerations extraneous to the observational study of biology.

Ritter discusses extensively consciousness and its differentiations in relation to the rest of the organism, discarding 'parallelism' as inadequate; he sets forth in his last chapters (likewise published as a separate work), in accordance with the above, what he calls 'An Organismal Theory of Consciousness.' This is formulated as follows:

"All the manifestations which in the aggregate we call Life, from those presented by the simplest plants to those of a consciously psychical nature presented by man and numerous other animals, result from the chemical reaction between the organism and the respiratory gases they take, oxygen being almost certainly the effective gas for nearly all animals. An essential implication of this proposition is that every living individual organism has the value. chemically speaking, of an elementary chemical substance" (II, p. 286).

Many pages are devoted to argument for the two propositions embodied in these two sentences. Oxygen is held to play some special part, diverse from that of other simple chemicals, in producing consciousness. This coincides with the experimental fact that exclusion of oxygen at once abolishes consciousness; but as having any farther significance the reviewer has not found the argument particularly

illuminating. The proposition in the second sentence of the above formulation is dealt with in connection with our next subdivision.

4. Logically subordinate, but important in his scheme, is Ritter's argument for the diversity of all organic individuals. Here are summarized facts as to the objective diversity, when carefully examined, of all individuals even of the same species: Ritter brings this into relation with the subjective non-identity of conscious individuals.

To all this great importance is attached; the unified entity resulting from the organization of the components is as diverse in every individual from that in all others as any chemical compound is from any other; each individual is as it were a different chemical.

The objective diversity, in somewhat this sense, of the individuals of higher organisms is I believe supported by observation and experiment, save perhaps in the cases of 'identical twins.' In lower organisms cases of this latter sort are however very numerous.

In his argument for the proposition in the last sentence of his formulation of the Organismal Theory of Consciousness, quoted above, Ritter maintains that since each individual is thus chemically diverse from any other, its reactions with the respiratory gases must produce consciousness diverse from that of any other: the consciousness of each is, as one might say, a different kind of thing from that of any other.

Students of biology that have not pursued this train of thought may be repelled by its conclusions. But I do not see that anything in observational biology negatives them, and if the 'principle of creative results' is accepted, it leads to these views.

5. That which results from the organized totality of the parts, but is not in any of the parts taken separately, "having characters wholly of its own" (I, p. 18), is precisely what we know as an individual, a person in the case of man: it is an "objective entity" known to us by observation: it is a simple unit: a single thing. Of this entity many further assertions are made, and it is in connection with these that other workers in biology will be most inclined to scent danger, to raise questions and to express dissent. "The entire organism . . . represented by the highest animals, especially man, is the *supreme* unity" (I, p. 26); the parts are "subordinate to the organisms" (I, p. 297); "subject to the organism" (I, p. 307); the organism presses "into service" certain of its parts (I, p. 190); it has "needs and abilities" (I, p. 48); "the muscle cells are *used by* the

living being for its needs" (I, p. 294); there is a "causal power of the whole organism over its parts" (I, p. 49); it "dominates" cell formation (I, p. 195); the organism "had also endowed" the cells with ability to contract (I, p. 295); the individual is "ultimate both as to structure and as to causal power" (II, p. 149); etc. etc.

One might get the impression from these and other passages (see particularly the note, p. 82, vol. I) that the organism is held to be separable from and set over against the parts, but this is not meant; it is elsewhere rejected emphatically (II, p. 149). The grounds for attributing to the organism-as-a-whole causal power over its parts are: (1) "Since each individual is to some extent different from every other, and maintains its individuality in full possession of these differences by its power of transforming foreign substance into its own substance, it is ultimate both as to structure and as to causal power in as deep and literal a sense as the material particles of which it is composed are ultimate" (II, p. 149; here Ritter alludes to what are commonly known as heredity and the power of assimilation); (2) The parts when organized into the organism-as-a-whole act diversely from the way they would if not thus organized; for experimentally doing away with this organization but leaving the parts induces diverse action. In these senses then the organism 'endows' its parts with their specific abilities, for without it they would not have these abilities; in these senses it 'dominates' them, they are 'subject' to it. Ritter holds that these things ought to be explicitly recognized and made use of in the work of science; he visits heavy condemnation on those that neglect them.

How would this alter current practice in science? Suppose we inquire why one organism moves in a certain manner, another in a diverse manner. This might be attributed, with Ritter, to the fact that the two organisms as unified entities are diverse; each is "ultimate in causal power." In current practice what would be done would be to attempt to discover, by analytical experimentation, what diversities in the components, and in the relations of the components, bring about this difference; by altering the components and their relations this can commonly be done. An organism that moves toward the light might thus be found to differ from one that does not in a certain disposition of light-sensitive substances; when this is altered, it no longer moves toward the light. The diverse action in the two cases would then be attributed to these particular diversities in the components and their relations; this attribution can be verified experimentally as often as desired.

This could all be brought into unison with Ritter's demands by asserting that when the arrangement of substances is altered, the organism-as-a-whole is altered, and that this still dominates the course of action. But the diversity of the components or of their relations is still, though now at one remove, the cause of the diversity of action which was the starting point of the investigation. The question is, whether there is any advantage in intercalating the organism-as-a-whole as a step between the alteration in the relation of parts on the one hand and the consequent alteration on the other.

To this I believe most workers in biology will answer that, while it may be edifying to realize, once for all, that diversity of components or of relation of components, results in diversity of the organism-as-a-whole, it is not as a rule worth while, nor practicable, to mention this in the presentation of experimental work or of causal research; that, truth though it may be, it adds little or nothing to the insight into any particular case of experimentally discovered relations. Certainly it would be intolerable for writer and reader if the organism-as-a-whole as determiner must be mentioned at every point where it truly is such, if we accept Ritter's point of view. In any concrete case whatever, it appears to me that any attribution of a phenomenon to the organism-as-a-whole as cause would have to be followed by attempts to discover how it happens that the organism-as-a-whole is of such a character as to yield this particular result; this would lead at once to study of the components and their relations; and it would be the experimental relations discovered between these and the final result that would constitute the meat of the discovery. To attempt to supplant this sort of investigation by final attribution to the organism-as-a-whole as cause is to shut off what constitutes the substance of science; it is refusal to be stopped by ultimate entities that gives us scientific knowledge. If we are not to stop at such attribution, it appears to play little or no part in our work.

How then are we to understand the assertions that the organism is *supreme,* that its causal power is *ultimate,* and the like? The reviewer finds it difficult to attach an experimental or observational meaning to these characterizations. 'Ultimate' the organism-as-a-whole is not in any experimental sense: what it is observationally and how it acts are determined by the nature of its components and the way they are put together. In reproduction it has been discovered that the materials of the two parts, egg and sperm, that by their union make the beginning of the new individual, may be sorted

and combined in various ways, giving in each case individuals diverse in 'causal power,' so that out of the same two sets of materials many individuals, diverse in their characteristics and behavior, may be formed; the dependence of the characteristics and behavior of the individual on the distribution and combination of these substances has been demonstrated in hundreds of different ways. These distributions and recombinations have been found to follow the rules of permutations and combinations commonly denominated chance: they constitute the rules of inheritance discovered in the last few years. When from the same pair of parents are produced progeny, some with red eyes, some with white, shall we say that the diverse colors are due to the different individualities of the two sets, or to the fact that one has received the chemicals ('genes') required for producing the red color, while the other has not? The same question arises when part of the progeny fly toward the light, while the other do not; the distribution and number in each case following the general rules of inheritance of the 'genes.' I am inclined to believe that in practice science will continue to remain elementalist to the extent of preferring the latter method of accounting for the facts. This will not imply any denial of the existence of the unified organism (as it appears to me in spite of Ritter's criticisms on this point that most present practice does not). It means simply that the organism as cause is not ultimate, but like other conditions, has other causes back of it, and that discovery of these gives more insight than the statement that the organism-as-a-whole is the cause of what happens.

It is further certainly not true that the organism is supreme or ultimate in the sense that it causes all to occur in the interest of organic unity. The parts often operate in such a way as to prevent or destroy the existence of a unified individual: devastatingly disordered growth occurs in cancer; the organism frequently takes into itself substances that are incompatible with its unified action or even with its existence; it gradually admits such changes in its substance that it must die. In that sorting over and recombination of the numerous diverse chemicals at reproduction, to which we have before alluded, combination of components frequently occur that cannot produce normal and unified individuals; monstrosities and all sorts of non-viable individuals occur: plants without chlorophyll, condemned to death as soon as the parental food is exhausted; individuals that cannot produce legs, or wings, or eyes, or still more essential parts, so that they cannot make more than the beginning of develop-

ment; individuals with supernumerary parts, parts so located that they cannot function, parts uncoördinated; bodies doubled, etc. Where appears the supremacy, the ultimateness of the individual, in these phenomena?

These facts as to the dependence of the characteristics of the individual on its components and on the way they are combined, and the production of non-unified, monstrous, non-viable individuals by many of the combinations formed, fit most awkwardly into a theory of the thoroughgoing unity, supremacy and ultimate causal power of the organism-as-a-whole, and it is perhaps not unintelligible that Ritter conducts a campaign against 'genetics,' which has brought these facts to light. Although he does not deny the facts briefly summarized above, he recognizes them grudgingly and he charges that "this [elementalist] philosophy more than the intrinsic importance of the objective discoveries is what has aroused the imagination and enthusiasm and stimulated the activity of geneticists" (I, p. 20). Twenty-five years ago our knowledge of the laws of heredity was recognized as practically zero; in no field was absence of scientific knowledge more painfully felt. The discovery of the proper method of bringing that immensely important field into science would appear amply sufficient to account for the arousing of enthusiasm and the stimulation of activity, whatever the theoretical bearing of the facts discovered. When a theory finds certain of the established facts unwelcome, it is an indication of the inadequacy of the theory.

Ritter's attitude toward genetics appears somewhat typical of his attitude toward many lines of work not his own; it is perhaps worth while to look into it a moment. Here as elsewhere the book appears to suffer seriously from a failure to grasp clearly the experimental point of view. The extended discussion of genetics is largely devoted to an attack on the theory that the chromosomes alone constitute the "material of inheritance"; that they are "the bearers of the hereditary qualities"; a theory that may be incorrect, but one the content of which appears to the reviewer so totally misapprehended by Ritter that his arguments have no bearing upon it. The theory means, in the minds of geneticists that support it as well of those that oppose it, that the chromosomes alone contain the substances by the diversities and recombinations of which diverse hereditary characteristics are produced in the different offspring,—while the remainder of the cell, indispensable though it be, plays a

part similar to the food, water and other necessary conditions of the environment: diversities in it are held not to produce hereditary diversities in the offspring. Whether the theory is correct or not is a purely experimental question; certainly the evidence for it is very strong for most organisms. Ritter's argument consists in setting forth in great length and detail the fact that the cytoplasm takes part in the formation of all the structures produced; a fact of course familiar to all students of genetics, but having no bearing on what they mean by the theory that the chromosomes are the bearers of the hereditary qualities. It might be argued of course that in meaning this they misuse words, but it is a pity to mistake difference of opinion as to linguistic fitness for one as to the facts of inheritance. To the reviewer the critical and condemnatory parts of these volumes appear much less valuable than the expository and constructive portions.

In sum, the reviewer anticipates that many biologists will be found friendly to the propositions set forth in our subdivisions 1 to 4, but that there will be much dissent as to the value of many of the matters set forth under 5; and that there is little likelihood of any considerable change in scientific procedure in view of the points made.

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Studies in Human Nature. By J. B. BAILLIE. London, G. Bell and Sons, 1921.—pp. xii, 296.

This book by the Professor of Logic and Metaphysics at the University of Aberdeen is made up of an Introduction and nine 'Studies' or essays with the following titles: (I) Anthropomorphism and Truth; (II) The Realistic Character of Knowledge; (III) Certain Non-Logical Factors in the Process of Knowledge; (IV) The Nature of Memory-Knowledge; (V) The Function of Emotion in the Consciousness of the Real; (VI) The Significance of Philosophical Scepticism; (VII) The Place of Philosophy in Human Nature; (VIII) Science and the Humanities; (IX) Laughter and Tears: The Sense of Incongruity.

The philosophical standpoint from which the book is written is indicated in a general way by the title of the book and by certain statements in the preface. "It is not the purpose of these papers," the author writes, "to defend or support any of the familiarly accepted theories, whether of idealism or realism. Human nature is far

more interesting and much more important than any theory, and on that account perhaps is tolerant of many theories. . . . We best avoid the defects of one-sided theories if we follow the path of what Sidgwick used to call critical common sense, and hold to the natural solidarity of human experience to which it clings. . . . The best service which philosophy can render at the present time is that of supplying a criticism of life." The different essays are all concerned with human nature in its theoretical aspects, but the author suggests a purpose to treat on another occasion of the problems of morality and civic institutions which the upheaval of the present time has forced into prominence.

Professor Baillie's discussions are characterized by great clearness and independence of thought. His book is no hasty production, but is marked by literary finish and gives evidence of wide reading and careful thinking. One may disagree in the end with many of the author's conclusions, but will scarcely fail to be stimulated and instructed by his acute analyses and his frank criticisms of philosophical systems. It is against idealism, especially as held by Mr. Bradley and Dr. Bosanquet, that he most often directs his attack; but he also sometimes finds occasion to point out the errors of pragmatism and modern realism in convincing terms.

It would not be altogether fair to the more constructive sides of Professor Baillie's work to say that the book is the expression of disillusionment with historical systems of philosophy. Nevertheless it is hard altogether to avoid this suggestion. Both in the Introduction and in the essay entitled "The Place of Philosophy in Human Nature," the defects and limitations of philosophy are emphasized. "This review of the want of unanimity between philosophers and the failure of philosophy to reach centainty on the main issues discussed, must give any candid mind ground for reflection concerning the claims of the philosopher to supply the final or the whole meaning of reality" (p. 81). "The philosophical mood has no better justification than any special instinct, or than any rare intuition. . . . When philosophers try to prove the problem of philosophy to be necessary in the sense that the very nature of humanity involves it, they are merely accentuating the importance of philosophy to themselves by saying that this is the special way a human mind works in their particular case" (p. 198).

It is fortunate that critics are never lacking to laugh at the philosopher's pride and to force him to moderate his pretensions. But

after all there is another side to the matter. May not a sense of disillusionment with systematic philosophy be the result of having cherished excessive or wrong expectations? One cannot legitimately demand the same type of demonstration in philosophy that one finds, for example, in mathematics or in biology. Is it not true that those who emphasize the failures of philosophers and the unconvincing character of philosophical arguments usually have in mind the demands of the logic of the special sciences? Taking this type of comprehensibility as their standard, they inevitably find that philosophy falls short. I believe that this explains to some extent at least Professor Baillie's judgments of the achievements of both historical and contemporary philosophy. And, closely connected with this point, his conception of philosophy as a construction of the abstract intellect leads him to describe it as an interest and activity that has no special prerogative but is coördinate with the activity of "any other special instinct." Since reason is a specialized function that comparatively few possess, philosophy must give itself no airs. As we shall see later, the doctrine of intellect or reason as "a specific activity of mind coördinate with others" is one of the central doctrines of the whole volume.

Another main point of emphasis that runs throughout the book is the conception of the individuality of the mind as "a global entirety." "Differentiation of its functions arises through its action and reaction on the world, but the integrity of the whole remains a reality, the primary reality, from first to last. . . . In actual fact we never lose sight of or ignore this solid integrity of the mind's life" (p. 18). I am not sure that I understand how this unity in specialization is conceived by the author, although I have tried to collate his statements on this point. The difficulty is in reconciling statements such as I have quoted with the frequently recurring insistence on the independence of logic exhibited by various non-logical aspects of the mind. "They require no assistance from intellectual procedure as such, and are not affected or governed by its peculiar laws" (p. 17). The clearest explanation of Professor Baillie's position is given on pages 34 ff., where referring to his own former difficulties, he says: "It seemed impossible to understand how the intellect could at once be taken as the only avenue to the intelligible, *i.e.*, mentally satisfying, apprehension of the real, and yet to hold that it was compelled to leave over a residium of the real as beyond its grasp. . . . When, however, one observes that the intellect is

from the first and in principle a mental operation consciously distinguished from, and even set apart by the mind itself in contrast to the other functions of the mind's life (more particularly the functions of feeling and striving), the difficulty in question disappears. For then it follows that it cannot expect to get the whole of the real world into its net, since it starts by being only a partial expression of the mind's life. The mind has other functions and other ways of approaching the real world, and no intellectual activity can be a substitute for these." But these different functions "are connected in their source and connected in their final purpose. They emanate from the one integral life of mind seeking at all costs and by all its operations to meet the call of the real world" (p. 37). "Each of these operations abstracts in order to achieve; but all are special expressions of the fundamental nature of the mental life, of which each is a particular form" (pp. 16–17). Emotion and volition are necessary to balance the achievements of thought. "When the mind is in possession of the resources and accomplishments of all of them, it reaches the highest level of its life. This consists in the restoration or reinstatement, at a higher level, of the primordial integrity of mind from which its being as an individual whole starts, and for the maintenance of which the enterprise and adventure of its experience are undertaken" (p. 38).

The different functions of experience have, then, an underlying identity which form the integral mind, and represent "the highest level of its life." But Professor Baillie's restriction of logic to a single abstract phase of mind makes it difficult to understand his conception of 'unity in difference.' It is admitted that at the highest level of the mind's life a fuller 'intelligibility' and 'satisfaction' are attained than is possible through the operations of the abstract intelligence. The question arises, then, has this 'intelligibility' no assignable order or form? Or, from the point of view of the mind, in what terms would the author have us conceive the 'globular unity' to which he refers? He rejects summarily as a confusion the concrete logic of Hegel and Dr. Bosanquet, while agreeing with them as to the limitations of what they call the logic of the understanding. But if the unity is to contribute to a higher 'intelligibility' it must transform the differences so as to make transparent their complementary relationships; it cannot be simply a common door through which they are all received. And in order that the result may not remain opaque, but become really 'intelligible,' the movement of mind that

restores the primordial unity and lifts it to a higher plane must proceed in accordance with principles that are capable of statement in universal terms.

Notwithstanding his distrust of logic, or perhaps rather because of it, Professor Baillie does not, then, seem to have succeeded in avoiding logical difficulties. When he comes to discuss the nature of knowledge, his analyses serve to emphasize the fact that knowledge is a possession of the individual mind, not something that is depersonalized and undergoes development on its own account; and also that it is not a mere play of subjective ideas but has a necessary relation to other minds and to a physical order. But again his distrust of logical theory prevents him from making clear how these apparently conflicting contentions are to be reconciled. Here, and in other discussions as well, one feels that while his results are true in substance and need to be borne in mind, they nevertheless lose something of their point and value from the failure to bring them into an organized system of relationship. In this respect one may compare Professor Baillie's attitude with that of his predecessor, Thomas Reid, whose 'philosophy of common sense' gave lustre to the chair of philosophy at Aberdeen in the eighteenth century.

The papers on "Non-Logical Factors in the Process of Knowledge," "Memory-Knowledge," and "The Function of Emotion in the Conscious of the Real," are careful and solid pieces of work, full of instruction and the interest of concrete illustration. The last mentioned seems to me a most valuable discussion of its subject in spite of my failure to follow the author's method of coördinating emotion and knowledge. The principle of the final essay on "Laughter and Tears" traverses ground that is comparatively unfamiliar, and makes, I think, a distinct contribution to the understanding of the subject. Laughter arises from a realization of the incongruence between the end and the process or means through which it is realized. In order that an object shall be a proper subject of laughter, its end must be maintained in spite of the incongruity and the object itself must not suffer permanent loss (p. 259). On the other hand, tears arise when the end is hoplessly defeated, but is allowed still to control the desire to possess it (p. 273). These general theses the author develops concretely with abundant illustration drawn from life and from literature. It is interesting to note the sharp distinction which he draws between intellectual apprehension and appreciation. As against Bergson's remark that "Comedy is

addressed to the pure intelligence," the writer maintains that laughter is not due merely to understanding. "The apprehension of a situation is presupposed in laughter; but in order that laughter may arise, the situation must also be appreciated, *i.e.*, must be judged in the light of an end to which the process or material, involved in the situation, stands in a certain relation of incongruity. The incongruity is an actual fact, so is the end, and therefore the appreciation is *bien fondu*, and is perfectly correct" (p. 290).

It is impossible to reproduce here in summary the conclusions of the author's various 'Studies.' The book raises a great number of fundamental issues in a fresh and original form, and will well repay careful reading. But the reader is likely, I think, to be frequently perplexed when he attempts to combine into some kind of coherent view the various statements of doctrine. This, however, may only add to the book's interest. The difficulty of which I am speaking is not due merely to the unsystematic form of the volume, in being made up of separate essays, though this has doubtless enhanced it. But it seems to have its source in the author's distrust of systematic philosophy, which has led him to fall back upon the convictions and prejudices of common sense when philosophical analyses and constructions are necessary. If one seeks further in order to discover the grounds of this estimate, one finds the explanation to lie in Professor Baillie's conception of logic, and the nature of the system it constructs. For him the logic of philosophy appears to be a fixed set of general rules rather than a system of universal principles. His protest is thus in itself quite intelligible and even legitimate—a protest really directed against the tyranny of rules, against claims of finality and complete systematic character on the part of any philosophic theory that would exclude the full reality of individual assertion and creative action. If one has so conceived the systematic character of philosophy, such a protest has its value and justification. But is it not possible that the difficulty has arisen from mistakenly regarding the logic of philosophy in terms of rules rather than of principles? There can be no tyranny in a principle so long as it is not converted into a rule; it carries with it no claim to finality, but from its very nature leads on to further development. If we have not so learned the great systems of philosophy, we have in great measure learned them in vain.

J. E. Creighton.

Cornell University.

Die Deutsche Philosophie der Gegenwart in Selbstdarstellungen. Mit einer Einfuhrung, herausgegeben von Dr. RAYMUND SCHMIDT. Erster und Zweiter Bande. Leipzig, Felix Meiner, 1921.—pp. viii, 228, 203.

These two volumes constitute a decided novelty in philosophical literature. Statements on the part of sixteen representative thinkers of any country—of the development, purposes and results of their thinking, as they see them, could under no circumstances be wholly lacking in interest. The appearance of such a collection in Germany at the present time is at once a welcome insight into the best German thought and feeling since the war, and a contribution towards the reinstatement of international culture. With the exception of Otto Spengler's *Der Untergang des Abendlandes,* it is in this respect the most illuminating book that has come into the present writer's hands.

Dr. Schmidt, the editor of the series, has succeeded in enlisting some of the most influential German writers in his enterprise—not without some difficulties, as one reads between the lines. The varied tendencies and contrasts in thought represented in the collection suffice to relieve the editor of any suspicion of personal or philosophical bias in their selection. The contributors to the first volume are Paul Barth, Erich Becher, Hans Driesch, Karl Joel, A. Meinong, Paul Natorp, Johannes Rhemke, Johannes Volkelt; to the second volume, Erich Adrickes, Clemens Baeumke, Jonas Cohn, Hans Cornelius, Karl Gross, Alois Hoefler, Ernst Troeltsch, and Hans Vaihinger. Other volumes are to follow.

The motive of the collection is the editor's conviction of the essential differences betwen philosophical and scientific method—the impersonality of the former, and the inevitable presence in the latter of a subjective and personal element. It is the indissoluble unity of *'denken'* and *'werten'* in all significant philosophy which makes such supplementation of technical studies by total reactions an indispensable condition of the understanding of the true inwardness of philosophical thought. Whatever one's view of this conception of philosophy, he can not fail to recognize the success with which the idea has been carried out. The practical difficulties in the way of its successful execution are sufficiently obvious. Dr. Schmidt is to be congratulated on the virtual absence of those elements of self-advertisement and of professional rivalry which one might have legitimately expected and feared.

Specific references to the war are rare and, which one exception, markedly restrained and general. Yet the effects of this untoward experience on German philosophy are unmistakable. A deepened tone, a greater seriousnesss, a turning from technicalities to the traditional problems of philosophy and in some cases to the traditional solutions of these problems, in short a preoccupation with what Sir Thomas Browne called the "magnalities"—all this is observable on every page. More specifically, one notes an intensification of ethical and social interest, a general movement towards metaphysics as such, an almost universal recognition of the centrality of the 'value problem,' and an increased impetus to the reaction to idealism already under way before the war. Doubtless an enterprise such as this has made possible the expression of general attitudes long maturing and hitherto kept in the background, but surely there can be no mistake in seeing in the war and its aftermath an agent which has precipitated tendencies long held in solution.

To the general reader the papers of Driesch, Troeltsch and Vaihinger will probably prove the most interesting. The famous biologist, since 1912 wholly given to philosophy, and now lecturing on logic and metaphysics at Bonn, furnishes a fascinating account of his philosophical system and its development. Ernst Troeltsch's account of his pilgrim's progress from mere historicity and psychologism, in matters of religion, to metaphysics, is not only one of the most interesting personal documents of our time, but is surely typical of the inherent logic of the philosophy of religion since Ritschl. Vaihinger's restatement of his positivistic idealism is not only interesting in itself, but also aids in the understanding of other contributors to the two volumes, such as Cornelius and Groos who are collaborating with him on the journal, founded in 1919, to further the "Philosophie des Als Ob." To the present writer, however, the most interesting papers are those of Troeltsch and Jonas Cohn, which, perhaps more than any others, represent what is distinctive in the development of recent German philosophy under the influence of Windelband and Rickert. In different ways both have passed through the psychological and epistemological stages of value theory into metaphysics. Nor is it wholly a matter of coincidence that for Cohn the great *desideratum* of his later years is a theory of dialectic as an organ of value theory, and that with this problem has come a renewed interest in Hegel; while for Troeltsch the solution of his problem of the validity of religious values "lies in the direction of Malebranche, Leibnitz and Hegel."

This drift to idealism is the most distinctive note of the two volumes taken as a whole. Some of it is a vague if general reaction against the exclusively scientific point of view. Some of it is a definite and conscious return to the heroes of German idealism long neglected. But for the most part it is that broader idealism that Windelband had in mind when in his lectures on *Die Philosophie in Deutschen Geistesleben des XIX Jahrhunderts,* he concluded with one on "Die neuen Wertprobleme und die Ruckkehr zum Idealismus." This return, instead of being arrested, seems to have been quickened by the war. Whatever the effect on German life and the German people as a whole, German philosophy, in so far as these volumes may be taken as an indication, not only recognizes that "wir auch in geistigen Dingen ganz anders sind als vor dem Kriege," but also understands where its true strength and inspiration lies.

WILBUR M. URBAN.

HANOVER, N. H.

NOTICES OF NEW BOOKS.

A Study in Realism. By JOHN LAIRD. Cambridge, England, Cambridge University Press, 1920.—pp. xii, 228.

This book, which deals exclusively with the problem of knowledge, aims to prove that there is nothing in connection with the process of knowing which invalidates knowledge. The author is a realist, and maintains as his thesis that we know things as they "really are." This thesis, so far as I can discover, is not supported by any affirmative argument, but is regarded as having been established in the event that the grounds which are commonly alleged for doubting the validity of knowledge can be shown to be false. The argument, therefore, pursues an indirect course, presenting as proof of its own thesis the disproof of that of its opponent. There is, then, no positive analysis of the phrase, "things as they really are." This concept, together with others basic to the argument, is adopted from popular and scientific thought, and is assumed to be so definite and unquestionable in meaning as to render investigation entirely superfluous. Thus the author overlooks the opportunity of making a metaphysical analysis at a crucial point, and spends his energy in an attempt to disprove subjectivism in philosophy.

Mr. Laird examines two main theses of the subjectivist, (1) that mental objects intervene between the mind and things, and (2) that the mind in the process of knowing objects contributes in part its own nature to them. In case either thesis be true, with a change in the process of knowing comes also a corresponding change in the thing known. But according to Mr. Laird, each thing has its existence wholly within itself. If it is to be known as it really is, it must be known by a process absolutely external to it: it must undergo no change. Thus in this instance realism is built upon the postulate, whatever is, is,—a postulate which is uncriticized, and which, although true, is so abstract as to be, in this and probably in every case, entirely barren of positive accomplishment.

The position of the author on the first point is that there are no mental objects to come between the mind and things. He seems to regard this assertion as now almost a commonplace; hence there is no need to dwell longer upon the subject than to say that his interpretation of perception, memory and imagery, is everywhere consistent with this position. In dealing with the second point, *e.g.*, that the mind contributes of its own nature in knowing, Mr. Laird is evidently on a fresh trail, which he follows with the eagerness of a discoverer. The essential feature of his discovery is that a distinction should be drawn between the processes of the mind in

constructing and those in finding. He does not deny that the mind constructs many things known—fancies, for instance—but he contends that when it does this it bears an entirely different relation to its objects from when it knows them. In mere knowing there is no constructing. It is accordingly the great contention of the book that in knowing we are simply 'finding' or 'discovering' the 'given.' Find, discover, given,—these are the key-words of the discussion. "*For* 'constructing,' where possible *read* 'finding'" enjoins Mr. Laird near the close of his argument (p. 201). In this connection he says, "It must be admitted that the contrast between knowledge as making and knowledge as finding, seems peculiarly hollow on its first aspect. . . . Yet realists must admit, I think, that this curt notice [the one quoted above] is one of the most compendious and one of the least inadequate ways of putting their main contention. . . . The consequences of this theoretical difference are very important indeed. . . . If knowledge is only fabricating, it is clearly idle to conjecture whether its fabric corresponds to any reality other than itself. . . . I make no apology for calling the reader's attention, once again, to a most elementary point. Even if knowledge is always a construction, this account of it would be incomplete. For knowledge implies the recognition or apprehension of constructions as well as the making of them. . . . Our thesis . . . is that anything which is known is *therefore* given. . . . That has been the principal contention of this book . . ." (pp. 201–203). Consistently with this, it is held that universals, principles, and values are not constructed when they are known, but are 'found,' their nature being unchanged by the process of knowledge.

Alfred H. Jones.

Brown University.

Collected Essays and Reviews. By William James. New York and London, Longmans, Green & Co., 1920.—pp. x, 516.

The editor, Professor Perry, says in his preface: "This volume brings together for the convenience of students thirty-nine scattered articles and reviews by William James. None of these has heretofore appeared in book form, and many have been lost sight of and forgotten. The present volume when added to those already published will render easily accessible nearly all of the author's significant writings." After reminding us that for over forty years, from 1868 up to within a few months of his death in 1910, James wrote essays, articles, and reviews almost continuously, the editor adds: "Among the periodical writings omitted from previous volumes are many which are of great value for the light which they throw upon James's own development and his relations with his contemporaries, as well as for their philosophical and psychological content. . . . In addition to these the present volume contains a number of reviews which were

originally published unsigned, and whose authorship has not heretofore been announced."

Posthumous publication is always rather a dangerous business: even when the deceased author's wishes are known, they cannot always be followed safely, and, in proportion to the fame of the author, there is a great temptation to print matter that is not worthy of his reputation. William James has been fortunate in this respect. Professor Perry's editorial work has been excellent from the beginning, and it is difficult to see how he could have managed the present problem better. Not an essay is included that is not still interesting from some point of view and the general impression of freshness is remarkable, considering some of the earlier dates. This is the one volume of James's published works which covers the whole period of his intellectual activity; as such, needless to say, it is the best of commentaries. For example, James's "Remarks on Spencer's Definition of Mind as Correspondence" (1878) shows how early he indicated his characteristic position. As Professor Perry remarks in a note (p. 43), "The central idea of this essay is the teleological character of mind. This idea may be said to be the germinal idea of James's psychology, epistemology, and philosophy of religion."

Naturally a large proportion of these essays and reviews deal with psychology. The long essay (70 pp.) on "The Feeling of Effort" (1880), originally printed in the *Anniversary Memoirs of the Boston Society of Natural History*, and partly utilized, with revisions, in the *Principles of Psychology*, is reprinted entire. As the editor points out, this is the author's earliest discussion of the will. Again, "What is an Emotion?" (1884), is reprinted from *Mind*. This was James's original statement of his theory, before he was acquainted with Lange's views. Naturally also James's "A Plea for Psychology as a 'Natural Science'" (1892) is reprinted from the *Philosophical Review*. These are only samples of the psychological essays.

Particularly interesting is James's review of Royce's *Religious Aspect of Philosophy* (1885), written in the days before he had hardened his heart against all possible forms of idealism. It is also interesting to have in its original form "Philosophical Conceptions and Practical Results" (1898), delivered before the Philosophical Union of the University of California, since this started the pragmatist movement. It is not inappropriate that the last paper reprinted should be "A Suggestion about Mysticism" (1910), written about six months before James's death.

ERNEST ALBEE.

CORNELL UNIVERSITY.

Mind-Energy: Lectures and Essays. By HENRI BERGSON. Translated by H. WILDON CARR. New York, Henry Holt & Co., 1920.—pp. x, 262.

In his preface Professor Wildon Carr says: "This volume of Lectures and Essays is an English edition of *L'Énergie spirituelle.* It is not simply an approved and authorized translation, for M. Bergson has gone carefully with me into details of meaning and expression in order to give it the same authority as the original French. . . . The principle on which the articles are selected is indicated in the title, Mind-Energy. They are chosen by M. Bergson with the view of illustrating his concept that reality is fundamentally a spiritual activity. A second series is to follow illustrating his theory of philosophic method." The titles are: "Life and Consciousness," "The Soul and the Body," "'Phantasms of the Living' and Psychical Research," "Dreams," "Memory of the Present and False Recognition," "Intellectual Effort," and "Brain and Thought: A Philosophical Illusion."

It is highly satisfactory to have an authoritative English version of M. Bergson's recent volume of collected lectures and essays, and the promise of a companion volume is also gratifying. As will be seen from the titles, the subjects treated are mostly those already familiar to readers of Bergson. These lectures and essays are sure to be read with interest by those already familiar with the author, as well as those who are mainly concerned to acquaint themselves with his general standpoint and method. Most of them are models of brief exposition and argument; but it would be a great mistake to suppose that they in any way take the place of Bergson's other works. The intelligent general reader might understand, in a general way, what the philosopher thinks about a number of subjects; but he would have only a very imperfect idea of Bergson's grounds for holding those views. Even the *Creative Evolution,* though admirable as far as it goes, will not take the place of a careful study of the *Essai sur les données immédiates de la conscience,* the approved English title of which is *Time and Free Will* (with the translated French title given as sub-title). M. Bergson is fully as difficult as he is interesting, and that is saying a very great deal. Most of the commentaries are singularly unhelpful, for when it comes to putting things as plainly as possible, M. Bergson can easily beat them all. The difficulties may be partly in the nature of things, but they are certainly also in the system itself. Perhaps the best of the commentaries is Professor Carr's own volume, *The Philosophy of Change;* but here, as often happens, the disciple seems less aware of the difficulties than the master. But even if one remains unconvinced to the end, after a real study of Bergson, one can at least have the consolation of knowing that one probably has learned as much philosophy as one could have done, with the same effort, in any other way.

ERNEST ALBEE.

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The Foundations of Character. By ALEXANDER F. SHAND. Second Edition. London, Macmillan and Co., 1920.—pp. xxxvi, 578.

A review of the first edition of this work was contributed by me to the PHILOSOPHICAL REVIEW, Vol. XXIII, pp. 561–565. The body of the text in the new edition contains only verbal changes, and an enlarged Index, without alterations in paging or in arrangment of chapters. However, forty pages of material have been added in three Appendices, which are respectively entitled: "Of Impulse, Emotion and Instinct"; "Of Two Opposite Tendencies of Joy and Sorrow"; and "Of the Antagonism of Joy and Sorrow, and the Distinction between Desire and Love."

The appendices also contain a chapter on the 'expansive tendency' of Joy, prompted by an article by Professor Boyce Gibson. They also correct two common misconceptions of Mr. Shand's interpretation of character. (1) There are "three principal systems of the mind to which all its behavior properly so called is due, those of our [instinctive] Impulses, Emotions and Sentiments, and in relation to one or other of them everything else in the mind tends to become organized. They form an ascending series in which the end aimed at becomes progressively more general and comprehensive in correspondence with an increasing complexity of organization" (p. 533; cf. p. 460). (2) Nor does 'desire' constitute another system, separate from the other three (as I supposed in the review referred to above). The prospective emotions of 'desire' are derivative, and not on a level with the primary emotions. The system of 'desire' is a good deal like the sentiment of 'love'; but there are differences. Mr. Shand's view of 'desire' on the whole is more like that advocated by Professor McDougall in the fourteenth edition of his *Social Psychology,* third supplementary chapter, than like the view therein attributed to Mr. Shand.

WILLIAM KELLEY WRIGHT.
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The following books also have been reviewed:

Studies in Christian Philosophy. By W. R. MATTHEWS. Being the Boyle Lectures, 1920. London, Macmillan & Co., 1921.—pp. xiv, 231.

Essays and Addresses on the Philosophy of Religion. By Baron FRIEDRICH VON HÜGEL. New York, E. P. Dutton & Co., 1921.—pp. xxii, 308.

Readings in Philosophy. Compiled by ALBERT E. AVEY. Columbus, R. G. Adams & Co., 1921.—pp. xii, 684.

A Defense of Philosophic Doubt. A New Edition. By the Rt. Hon. ARTHUR JAMES BALFOUR. New York, Geo. H. Doran Co.—pp. x, 356.

The Works of Aristotle. Translated into English under the Editorship of W. D. Ross. Vol. X, Politica, By BENJAMIN JOWETT. Oeconomica, By E. S. FOSTER. Atheniensium Respublica, By FRED'K G. KENYON. Oxford, The Clarendon Press, 1921.

A Treatise on Probability. By JOHN MAYNARD KEYNES. London, Macmillan & Co., 1921.—pp. xiv, 466.

The Rational Good. By L. T. HOBHOUSE. New York, Henry Holt and Co., 1921.—pp. xxiv, 238.

Common-Sense Ethics. By C. E. M. JOAD. New York, E. P. Dutton and Co.—pp. xvi, 208.

Moral Theory. By G. C. FIELD. New York, E. P. Dutton and Co.—pp. x, 214.

Jivatman in the Brahma-Sutras. By A. GUHA. Calcutta, The University of Calcutta, 1921.—pp. 230.

The Rhythm of Life. Based on the Philosophy of Lao-Tse. Edited by L. CRANMER-BYNG. New York, E. P. Dutton and Co., 1921.—pp. 90.

Personality. By ARTHUR HEATH. Oxford, The Clarendon Press, 1921.—pp. viii, 160.

Psychology. By ROBERT S. WOODWORTH. New York, Henry Holt and Co., 1921.—pp. x, 580.

Quintilian. Vol. II. With an English Translation by H. E. BUTLER. (The Loeb Classical Library.) New York, G. P. Putnam's Sons, 1921.—pp. vi, 532.

Proceedings of the Aristotelian Society. Vol. XXI., 1920–21. London, Williams and Norgate, 1921.—pp. iv, 246.

Theories of the Obligation of Citizen to State. By MELVIN GILLISON RIGG, 2d. Philadelphia, University of Pennsylvania Press, 1921.—pp. 76.

A Study in the Theory of Value. By D. W. PRALL. Berkeley, University of California Press, 1921.—pp. 111.

Georgius Gemistus Pletho's Criticism of Plato and Aristotle. By JOHN W. TAYLOR. Menasha, Wis., The Collegiate Press.—pp. viii, 100.

Russian Dissenters. By FRED'K C. CONYBEARE. (Harvard Theological Studies, X.). Cambridge, Harvard University Press, 1921.—pp. x, 370.

La Philosophie de l'Organisme. Par H. DRIESCH. Traduction de M. Kollmann. Paris, Marcel Rivière, 1921.—pp. xii, 235.

Histoire de la Philosophie allemande. Par EMILE BRÉHIER. Paris, Payot & Cie., 1921.—pp. 160.

La Pensée de Nicolas Machiavel. Par FRANÇOIS FRANZONI. Paris, Payot & Cie., 1921.—pp. 334.

La Vita Dello Spirito. Per ARMANDO CARLINI. Firenze, Vallecchi, 1921.—pp. 228.

La Vita e L'Opera di Angelo Camillo De Meis. Per AUGUSTA DEL VECCHIO-VENEZIANI. Bologna, Nicola Zanichelli, 1921.—pp. xxiv, 335.

Scritti Varî. Publicati in occasione del sesto centenario della morte di Dante Alighieri, per cura della Rivista di Filosofia Neoscolastica e della rivista Scuola Cattolica. Milano, Società Editrice "Vita e Pensiero," 1921.—pp. viii, 192.

NOTES

George Trumbull Ladd, D.D., LL.D., professor of moral philosophy and metaphysics, *emeritus,* in Yale University, died at his home in New Haven, August 8, 1921. Professor Ladd was born in 1842 and was, therefore, in his eightieth year at the time of his death. For some months previously he had been suffering from illness. But his intellectual vigor remained unabated and he continued to interest himself in thought and in affairs to the end.

Professor Ladd came of old New England stock, tracing his descent on his father's side back to Elder William Brewster and Governor Bradford. He himself was born at Painesville, Ohio, in the Western Reserve, and received his collegiate education there, graduating from Western Reserve College in 1864. His theological training was gained at Andover Theological Seminary with the class of 1869. The next ten years were given to the active work of the Christian ministry, especially 1871–79, which he spent as pastor of the Spring Street Congregational Church, Milwaukee, Wisconsin. In 1879 he exchanged the pulpit for the professor's chair, serving until 1881 as professor of mental and moral philosophy at Bowdoin College and lecturer on church polity and systematic theology at Andover Seminary. In 1881 he was called to the professorship of mental and moral philosophy at Yale.

With his entrance on the Yale professorship Professor Ladd began the most productive period of his career. While still a pastor, he had established his lifelong habits of investigation and composition. The results now appeared in a remarkable manifestation of productive activity. In the development of the Yale department and the training of graduate students, in his thought on educational questions, in his varied and abundant authorship, Professor Ladd soon displayed the qualities characteristic of his intellectual temperament: broad and sound scholarship based on unremitting study, sympathy with the methods and the results of modern critical inquiry, and yet firm confidence that constructive conclusions necessarily follow from thorough reflection. His first books were devoted to theological subjects, *The Principles of Church Polity,* 1882, and *The Doctrine of Sacred Scripture,* 1884. Translations from Lotze's *Dictate* began, 1884–87, the long succession of philosophical and psychological writings. In 1887 appeared also the major work, *Elements of Physiological Psychology,* which proved of so great value to the earlier students of the "new psychology" in English-speaking lands, and which the author had the satisfaction of issuing in a revised edition in 1911, with the collaboration of Professor Woodworth of Columbia University. Seven

years later, 1894, a like elaborate treatise, *Psychology, Descriptive and Explanatory,* completed the writer's discussion of the empirical science of mind. Meanwhile, Professor Ladd had commenced the publication of his philosophical conclusions in systematic form. In 1889 he published the useful *Introduction to Philosophy. The Philosophy of Mind* appeared in 1891. *The Philosophy of Knowledge* followed in 1897, *A Theory of Reality,* 1899, *The Philosophy of Conduct,* 1902, *The Philosophy of Religion,* 1905.

In addition to his work as professor and author Professor Ladd fulfilled important engagements at home and abroad. In 1895–96 he conducted the Graduate Seminary in Ethics at Harvard University. In 1892 and 1899 he lectured in Japan, and in the latter year at the University of Bombay as well. He was president of the American Psychological Association, 1893, and the American Philosophical Association, 1904. These activities were continued, moreover, after his retirement from the Yale professorship in 1905. In the following year he served as lecturer at the Western Reserve and at the University of Iowa. In 1907 he once more visited Japan, receiving at the close of his lectures the gold medal of the Imperial Educational Association and the second class of the Order of the Rising Sun, of which the third class had been granted him in 1899. In 1908 he was again at Western Reserve, as lecturer in the College for Women. In 1911–12 he was vice-president of the Section of Psychology and Anthropology of the American Association for the Advancement of Science. He continued his authorship also into the closing years, publishing a number of volumes on a considerable variety of subjects. Among these, besides the new edition of the *Physiological Psychology,* the series which summarized his philosophy in popular form, may be mentioned: *What Can I Know?* 1914. *What Ought I to Do? What Should I Believe?* and *What May I Hope?* 1915, *The Secret of Personality,* 1918. Finally, Professor Ladd took an active part during the Great War in the discussion of the questions and principles which the conflict involved. It needs hardly to be added that his convictions and his words were always in favor of the cause of the Allies. He defended also the position and the claims of Japan against those who were disposed to question them.

A. C. ARMSTRONG.

WESLEYAN UNIVERSITY.

The twenty-first annual meeting of the Philosophical Association will be held at Vassar College, Poughkeepsie, N. Y., December 28–30. The President for this year is Professor W. H. Sheldon of Yale University.

The Psychological Association will meet at Princeton University at the same time. The President of this Association is Professor Margaret Washburn, of Vassar College.

At the twenty-first annual meeting of the Mind Association Professor S. Alexander, of Manchester University, was elected President for the year 1922. It was agreed to hold a joint meeting with the Aristotelian Society and the British Psychological Society at a convenient time in July, 1922.

We give below a list of articles in current philosophical periodicals:

THE JOURNAL OF PHILOSOPHY, XVIII, 17: *William E. Ritter,* The Need of a New English Word to Express Relation in Living Nature, I; *Truman Lee Kelley and Lewis M. Terman,* Dr. Ruml's Criticism of Mental Test Methods. XVIII, 18: *Henry Bradford Smith,* A Spirit Which Includes the Community; *William E. Ritter,* The Need of a New English Word to Express Relation in Living Nature, II. XVIII, 19: *C. I. Lewis,* The Structure of Logic and its Relation to Other Systems; *D. W. Prall,* The Esthetic Heresy. XVIII, 20: *Horace M. Kallen,* America and the Life of Reason, I; *Edwin B. Holt,* On the Locus of Teleology, A Rejoinder.

THE INTERNATIONAL JOURNAL OF ETHICS, XXXII, 1: *B. M. Laing,* Aspects of the Problem of Sovereignty; *Rupert C. Lodge,* Plato and the Moral Standard; *John Dashiell Stoops,* The Will and the Instinct of Sex; *M. C. Otto,* The Moral Education of Youth; *Ethel B. Sabin,* Mistaking America; *Frank Chapman Sharp,* Is there a Universally Valid Moral Standard?

THE MONIST, XXXI, 3: *M. Picard,* The Production of Psychic States; *Emile Boutroux,* The Essence of Religion; *Edmund Noble,* Does "Evaluation" Explain?; *J. E. Turner,* General Nature of the Conditions Which Determine Development; *J. E. Fries,* "Relativity"; *Raphael Demos,* Memory as Knowledge of the Past; *Albert R. Chandler,* The Æsthetic Categories; *Joshua C. Gregory,* Thought and Mental Image, Art and Imitation—A Parallel.

THE JOURNAL OF RELIGION, I, 5: *Rufus M. Jones,* Psychology and the Spiritual Life; *Edward Scribner Ames,* The Validity of the Idea of God; *William Ernest Hocking,* Is the Group Spirit Equivalent to God for all Practical Purposes?; *Yu Yue Tsu,* Present Tendencies in Chinese Buddhism; *William E. Hammond,* The Economic Struggle Within the Ministerial Profession; *R. W. Frank,* Democracy and the Church.

THE AMERICAN JOURNAL OF PSYCHOLOGY, XXXII, 4: *E. G. Boring,* The Stimulus-Error; *A. K. Whitchurch,* The Illusory Perception of Movement on the Skin; *C. C. Pratt,* Some Qualitative Aspects of Bitonal Complexes; *G. N. Hartman and D. L. McDonough,* On Arterial Expansion; *E. B. Titchener,* Functional Psychology and the Psychology of

Act, I; *Pierce Butler,* Church History and Psychology of Religion; *A. McDonald,* Death-Psychology of Historical Personages.

The Harvard Theological Review, XIV, 4: *Gustav Kruger,* Literature on Church History, I, Early Church History.

Mind, N. S., XXX, 120: *C. D. Broad,* The External World; *S. Alexander,* Some Explanations; *P. Leon,* Literary Truth and Realism, The Æsthetic Function of Literature and its Relation to Philosophy (II); *F. C. S. Schiller,* The Meaning of "Meaning."

The Journal of Nervous and Mental Disease, LIV, 1: *H. de Jong,* Essential Limitation and Subdivision of Idiocy on a Comparative-Psychological Basis; *Philip R. Lehman,* Analysis of a Conversion Hysteria Superimposed on an Old Diffused Central Nervous System Lesion. LIV, 2: *Lawson G. Lowrey,* Notes on the Psychiatry of 1895 and 1915; *Lloyd H. Ziegler,* A Study of Patients Subject to Convulsive Seizures. LIV, 3: *Milton A. Harrington,* Belief and Mental Adjustment; *T. Soda,* On the Viscosity of the Cerebrospinal Fluid.

The Psychological Review, XXVIII, 3: *His American Students,* In Memory of Wilhelm Wundt; *J. A. Melrose,* The Structure of Animal Learning; *Frances Theresa Russell,* A Poet's Portrayal of Emotion. XXVIII, 4: *H. B. English,* Dynamic Psychology and the Problem of Motivation; *Howard C. Warren,* Psychology of the Central Nervous System; *Augusta F. Bronner,* Apperceptive Abilities; *A. B. Wolfe,* The Motivation of Radicalism; *G. M. Stratton,* The Control of Another Person by Obscure Signs.

Journal of Experimental Psychology, IV, 2: *Walter R. Miles,* The Pursuitmeter; *H. E. Burtt,* Further Technique for Inspiration-Expiration Ratios; *C. L. Hull and L. S. Lugoff,* Complex Signs in Diagnostic Free Associations; *F. L. Wells, C. M. Kelley, G. Murphy,* Effects Simulating Fatigue in Simple Reactions, *Karl M. Dallenbach,* Subjective Perceptions.

Bulletin de la Societe Francaise de Philosophie, XXI, 2: *Lawrence J. Henderson,* La Finalité du Milieu Cosmique.

Revue de Métaphysique et de Morale, XXVIII, 3: *E. Durkheim,* Définition du socialisme; *J. Lindsay,* Le Système de Proclus; *E. Rigano,* Une nouvelle théorie du sommeil et des rêves; *J. Nicod,* La géometrie des sensations du mouvement; *E. Gilson,* Descartes en Hollande.

Logos, IV, 2: *J. de Menasce,* Essai d'une theorie du langage; *L. Limentani,* Roberto Ardigò; *A. Alliotta,* L'idealismo gnoseologico; *G. Della Valle,* I metodi della teoria del valore.

Rivista Filosofia, XIII, 2: *L. Valli,* Lo Spirito filosofico delle grandi

stirpi umane; *E. Buonaiuti,* Filosofia e religione nella cultura contemporanea; *A. Pagano,* L'Intuitizione intellettuale come momento dell' atto del giudizio; *F. A. Ferrari,* Molteplicità di direttive e unità di progresso nella storia della filosophia.

ZEITSCHRIFT FÜR PSYCHOLOGIE UND PHYSIOLOGIE DER SINNESORGANE, LXXXVII, 5 and 6: *A. Prandtl,* Die psychische Leistungsfähigkeit bei wechselnder Disposition; *Hans H. Keller,* Experimentelle Beiträge zur Lehre vom Wiedererkennen; *Imre Hermann,* Über formale Wahltendenzen.

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