Volume VIII. *September, 1899.* *Whole*
Number 5. *Number 47.*

THE PHILOSOPHICAL REVIEW.

KANT'S A PRIORI ELEMENTS OF UNDERSTANDING (III).

BEFORE dismissing the transcendental deduction, it seems advisable to bring together, in a brief form, the leading features of the estimate and criticism made in the preceding articles. To begin with the ultimate ground of the deduction, with the original unity of self-consciousness, there can be no reasonable doubt that this ground or unity is the supreme condition of all experience; and that doctrine is to-day accorded a place in the psychology of different philosophical schools. Kant's distinction between the original unity of self-consciousness and empirical self-consciousness on the one hand, and inner sense on the other, belongs for the most part to what is historical in his system, and, like the one-sided rationalism out of which it grew, is now largely obsolete. This, however, remains of Kant's somewhat scholastic refinements: That the objective unity of apperception is not my consciousness of self as a unity, but that underlying unity which would abide even though I were conscious of self as a plurality. For there could be no consciousness of self as a plurality except in and through a comparing and combining consciousness, which as such must itself be a unity. Kant's objective unity of self-consciousness is a principle of knowledge, not a deliverance of consciousness. It is an epistemological condition, not a psychological observation.

Secondly, there is no knowledge or experience without a synthesis of perceptions, which, as Kant rightly saw, is dependent upon

the original unity of self-consciousness. But this synthesis is also dependent upon other conditions independent of the percipient, which Kant, following his *a priori* bent, unfortunately overlooked,[1] greatly to the prejudice of that part of the truth which it is his merit to have put in the foreground.

Thirdly, the synthesis of experience being dependent upon several conditions, we can determine what the functions of self-consciousness in its production may be, if at all, only by reflection upon experience and elimination of all the other conditions. Kant's determination of these functions as twelve, corresponding to the batch of logical judgments, has no other foundations than the rationalistic dogma that the business of self-consciousness is to judge, the arbitrary definition that judging is the reduction of a manifold to objective unity, and the scholastic prejudice that formal logic had made a perfect analysis of the judgment. By a mere survey of thought alone, the rational epistemologist would make out the functions of thought in our experience. The scientific epistemologist will attribute to the spontaneity of thought that residuum of our experience which, after experiment and measurement, he cannot demonstrate to be contributed through the medium of sense.

Fourthly, the functions of self-consciousness, along with the other conditions of synthesis in experience, must be accepted as ultimate facts. They cannot be vindicated. They may be *gewiesen* but not *bewiesen*. The functions of self-consciousness, the supreme condition of experience, are the modes in which we interpret existence as it is given to us. To ask what right (*quid juris*) they have to such an office is to ask why intelligence is

[1] Riehl (*Philos. Krit.*, I, 365) comes to the rescue of Kant in this connection, but with much the same result as other well-meaning friends in similar cases. Treating of the "synthesis of reproduction in imagination" in the introduction to the transcendental deduction of the first edition of the *Critique*, Kant said (89–90) that apart from "the foundation *a priori* of a necessary synthetical unity of phænomena," the reproduction of phænomena in imagination (*e. g.*, in empirical association) would be impossible, for the "faculty of empirical imagination would never find anything to do that it is able to do, and would remain, therefore, within our mind as a dead faculty unknown to ourselves." Riehl paraphrases this thoroughly Kantian doctrine thus: "Were there no regularity in objects, that is, in what is *given* to consciousness (not what is produced by it), our *understandings* would not develop but remain, etc."

constituted as it is and not otherwise. From Kant's own higher point of view of the categories, as activities or functions of the understanding and not mere notions (even though *a priori*), there is no sense in the problem of Kant's transcendental deduction at all; and if, when he began that deduction, he had had that insight into the functions of understanding or self-consciousness in the generation of experience which he won through elaborating it, he too would have found the deduction unnecessary, provided also he could have shaken off the rationalistic prejudice that sense-experience is not a condition of synthesis. But in the absence of that terminal insight, Kant was forced, as we have seen, into the deduction by the crude cast of his inherited rationalistic problem: How can self-originated notions in my head have real validity for the entities of the outside world?

Fifthly, there is nothing absolutely universal and necessary in experience. Even though understanding itself supplied *a priori* the principles of the relation of phænomena (as it does not), nothing but a rationalistic prejudice would lead one to regard these as less contingent than the phænomena themselves; and Kant has signally failed to show how such *a priori* contributions of the understanding could endow the given materials of sense with universality and necessity. Kant does not solve his problem, and his problem is a self-made one. But both problem and solution are superseded by the conception of a unity of self-consciousness as supreme condition of synthesis in our experience. As experience must be accepted as it is given, though it may be dissected into its elements, so the causal relation in experience has no other claim to validity than the fact that it is given. Its dignity, its universality and necessity, its *a priori* origin in the understanding, are all surviving fictions of rationalism. Causality is a postulate, first suggested by the consciousness of self as agent, by which we seek to interpret the given facts of nature. It is no subjective form we impose upon the world in the absence of objective ground, in regard to which imposition it might be asked: *Quid juris?*

Sixthly, there is no proof that the twelve categories represent the functions of judging. Our exposition of Kant's derivation of

them has shown how untenable and even absurd that derivation is. Three modes of judging find expression in the categorical, hypothetical, and disjunctive propositions; and the three corresponding categories of substantiality, causality, and reciprocity are the only categories that could make any pretensions to be based on real functions of judgment, and even their claim cannot be admitted.

Seventhly, that there is no knowledge apart from sense-impressions is universally admitted. That a dissection of the operations of intelligence in the cognition of things should be supposed to tell us anything about things themselves is incredible. What Kant offers as *a priori* knowledge of nature has turned out, so far as yet examined, to be mere tautology, or generalization from experience.

Eighthly, the schematism of the categories, whereby the pure notions of the understanding are translated into their equivalents in time, which serves as mediator between notions and perceptions, has no *raison d'être* except Kant's arbitrary (though historically conditioned) opposition of sense and understanding. In principle, the schematism is really rendered unnecessary by the conception of the categories as functions of the mind, rather than as notions in it. And in execution it is capricious and artificial to the last degree.

Ninthly, of those *a priori* judgments about nature, which, according to Kant, understanding produces by translation of its pure notions into time, all have collapsed under our examination except the analogies of experience. If further criticism should show these to be untenable (as we shall find), nothing will be left of Kant's transcendental deduction, or indeed of the entire *Analytic*, except the demonstration of the presence in all experience and knowledge of the activity of a unitary self-consciousness. This is no doubt a truth of the first importance. But we are little aided, nay, we are the rather impeded, in the apprehension of it, by threading deviously the obscure images through which Kant, following the lead of a rationalistic *Zeitgeist*, was conducted to its discovery. Here, indeed, is our new world. But the reasonings of its Columbus are not the best proof of the fact.

It now only remains to consider the analogies of experience.

And for the sake of brevity we shall confine ourselves to the principles of causality and substantiality. These are not only more important than the principle of reciprocity, but, as we have found more than once, they constitute the two foci of the *Critique*. And no injustice will be done by the omission, as the third analogy is impossible without the other two, and the criticism of these may easily be transferred to that.

The analogies of experience, it will be remembered, are the *a priori* principles which result from the reflection (if this optical metaphor may be used) of the pure categories of the understanding, or functions of the original unity of self-consciousness, into the universal form of all experience, which form is time itself. They express the *a priori* time-relations (as these are constituted by the functioning of self-consciousness) into which all objects of sense must necessarily fall. And the principle of our first analogy is that "in all change of the objects of sense, substance is permanent, and its quantum in nature is neither increased nor lessened." The proof, which has been given in the preceding exposition, was, briefly expressed, to the effect that we could have no consciousness of simultaneity and succession, and consequently, no experience, unless beneath the changes of phenomena lay something permanent as their relating ground, that is, as ground of their order in time (which time, being itself unperceived, is incapable of giving).

But the whole ground and *raison d'être* of this analogy is undermined by the simple consideration (patent enough to everybody but an imperviable *a priori* transcendentalist bent on the 'construction' of experience) that though a combining and comparing unity of self-consciousness is the supreme subjective condition for the perception of events as simultaneous or as successive, the circumstance whether it shall perceive them as simultaneous or successive is not determined by that self-consciousness (whether through gazing in the subjective mirror of substance or in any other way) but is predetermined for it in the given arrangement of the experience forced upon it by the objective world. Kant's argument rests on that ultimate yet baseless assumption, that the whole *analytic* order or synthesis, and con-

sequently the temporal order of our experiences, is a creation of the mind. With the fall of that rationalistic prejudice, the entire argument becomes unnecessary, if not meaningless. Kant thinks that understanding, or the spontaneity of mind, functioning as the mode of substance, must determine the temporal order of events, because time itself, as *a priori* and unperceived form of passive sense, cannot determine the order of its contents. The alternative, that with the contents their arrangement is also *given*, never occurred to this experience-constructing rationalist!

But even on his own *a priori* grounds there is much to question in Kant's proof. It has the great defect, to which Laas has also called attention,[1] of assuming as already known, the existence of permanent substances in the change of phenomena, adding only that the substance is 'the object itself' while the changeable is merely a 'mode' or 'determination' of the object. But, what is still more serious, this assumption of an abiding substrate of phænomena cannot render possible the determination of events as successive or simultaneous, for which purpose alone it is here assumed. Ignoring the fact that the time-arrangement of events is given to us, and not made by us, Kant concludes, that since this arrangement cannot be determined in relation to time itself, which is unperceived, it must be determined by means of a substrate, which in a manner represents empty time, or is the thought equivalent to it. This substrate is absolutely permanent being. But how will this help us to make those determinations of events as simultaneous and successive? We are carried away from time to existence. And even if we were not, substance is as little perceivable as time; and if the latter was made impotent by being a mere thought, the former has precisely the same defect. Nay, in the schematism of the categories, it was only through translation into time that substance was to receive a sensuous realization. How then can it here be maintained that, though time cannot assign simultaneity and succession to its contents, because it is not perceived, yet substance can do so, though substance is not perceived, and stands for an aspect of existence

[1] *Kant's Analogien der Erfahrung*, 65.

wholly disparate from time and its modes of succession and simultaneity?

Nor is the thesis of the first analogy helped out by Kant's other proof. This thesis sets out with the assumption that our apprehension of any sensible complex is always successive, and the argument consists of the assumption that the indispensable condition for distinguishing in this subjective succession what is objectively simultaneous from what is objectively successive is that a permanent unchanging something underlies the stream of change. Now whether consciousness is serial in the absolute sense here assumed, can be settled only by experiments in the psychological laboratory, and these, I believe, so far tend to confirm the popular view that up to a certain limit we may apprehend at one and the same moment a plurality of phenomena. Were this established beyond all doubt, there would be no need of Kant's 'substance' for differentiating objective simultaneity from objective succession. But granting the initial assumption that consciousness is serial, how will the abstract notion of substance enable one to say that part of the subjective series is an objective co-existence, and part of it an objective succession? Kant has no answer beyond the mere assertion. From his standpoint, the thing had somehow to be done, and, from his standpoint, nothing but understanding functioning as the categorical judgment, that is through substantiality, could do it.

In fact, it is Kant's *a priori* bias alone which leads him to assign to the notion of substance a function which it cannot discharge. Drop that bias, and it becomes evident that to ask why some things are sequent and others co-existent is to ask the absurd question, why they are what we find them to be.

But the particular root of this evil is the rationalistic assumption that the notion of substance has an *a priori* origin, that it is a spontaneous product of the mind which makes experience possible. The fact is, as has been already hinted, that substance, in Kant's sense, is no part of our ordinary experience at all. The notion of *thing* is a constituent factor in our experience, and we have already seen how it originates from the projection of the apperceptive activity of the ego into those involuntary sense pre-

sentations which have a spatial unity and a temporal coherence. And the ordinary consciousness does not expect to find these things, or any part of them, abiding and unchanging. On the contrary, it conceives of them as coming into existence and going out of existence, and never dreams of an unchanging substratum of which those changes are only modes of existence. Certain experiments, it is true, have led the modern scientist to revise the popular conception of thing, or to abandon it for the hypothesis of the indestructibility of matter, or the conservation of energy; and it is counted one of the great achievements of the science of the last half century that, mainly by the discovery of the correlation of certain forces, it has turned this hypothesis into a verified theory. And as a matter of history, not only has the popular consciousness always lacked the Kantian conception of substantiality, but when the philosophers and scientists of earlier centuries spoke of substance, they conceived it rather through the attributes of simplicity and activity. It is true that many of those earlier thinkers had conjectured that the quantity of matter in the universe was constant. But the conception was so alien, even to educated men, that most of the efforts of the alchemists, for example, rested on the contrary assumption. Yet it was the chemistry which grew out of alchemy that, perhaps more than any other science, contributed to the dissolution of the popular illusion. Chemical combinations showed that the constituents never lost their weights, and chemical analyses that combinations would yield up their constituents unchanged. And similarly in every branch of natural science, investigators began with the popular conception of thing as a more or less individualized and fixed something, though still subject to change, and were forced to keep correcting it till, as Wundt admirably says, "they reached the metaphysical conception of a substance with constant attributes, which in itself is absolutely unapproachable through perception, but in its effects produces all phænomena that go to make up the web of external experience."[1] The notion of substance is not, as Kant supposes, an epistemological condi-

[1] *Logik* (1st edition), I, 485. Wundt's proof (490–493) of the permanency, etc., of substance from the constitution of space has, however, a truly Kantian *a priori* ring about it.

tion but a scientific hypothesis. One can have experience without it, but we need it for the scientific interpretation of objects, that is for interpreting them otherwise than they are immediately given to us in experience. It is thus capable of indefinite develment and enrichment, yet like every other scientific conception, it can never altogether throw off its hypothetical character. Both points were overlooked by Kant.

Passing from the first to the second analogy, we find a line of argument which is open to criticisms similar to those just made upon the principle of substantiality. The principle of this analogy is, that "all changes take place according to the law of the connexion of cause and effect." And its proof is that the *a priori* causal connections make experience possible, by first enabling us to distinguish between a subjective flow of impressions, and an objective sequence of events. "This takes place by the understanding transferring the order of time to the phænomena and their existence, and by assigning to each of them as a consequence an *a priori* determined place in time."[1] But for this *a priori* synthesis (in this case causal) of the understanding, the presentations of sense would never take on the character of objectivity and objective relation. "It is, therefore, always with reference to a rule by which phænomena, as they follow that is, as they happen, are determined by an antecedent state, that I can give an objective character to any subjective synthesis (of apprehension); nay, it is under this supposition only that an experience of anything that happens becomes possible."[2]

This proof from 'the possibility of experience' is one with which readers of the *Critique* are familiar enough. Whatever its value in general, it may be met in the present case by showing its irrelevancy. That experience is impossible without the principle of universal and necessary connection between events in time, is disproved by the simple observation that this principle is itself the late product of intellectual development, and, being formerly absolutely unknown, it is not even to-day an element in the experience of the vast majority of mankind. Nor can it be said that it operates in them unconsciously, since otherwise men could

[1] III, 181 (175). [2] III, 178 (171).

not distinguish objective coexistence from objective succession, or either from the flow of subjective impressions. For it must be held, as in the similar case of substantiality, that our presentations contain in themselves the signs of their objectivity, which it is our business alone to interpret. Understanding, functioning through the principle of the hypothetical judgment, is powerless to determine objective sequence; it can only read what is given to it through inner and outer presentations. Temporal succession is simple, and the consciousness of it is primitive. We do not need the notion of causality in order to explain our consciousness of the relations of time. But we do need these temporal relations as motive, occasion, and perhaps ultimate warrant for the notion of causality. Causality, as defined by Kant, is really a differentiation of the more general consciousness of time, which includes both regular and irregular, causal and casual connections; and Kant was nearer the truth in the schematism of the categories, when he took the time-consciousness as a datum for the exhibition of causality, than in the proof of the second analogy of experience, where the notion of causality is made the condition of our consciousness of time, or of objective sequence.

But even on Kant's own ground, the proof of the principle of the second analogy is far from convincing. On the contrary, it is made up of a tissue of assertions, which at best are mere assumptions. That all apprehension is successive, is the starting point, and as we have already shown, in dealing with the first analogy, this mere dictum cannot be accepted, and is probably false. Similarly with the assumption that perceptions themselves contain no hint of their arrangement in time. Surely a vision not obscured by the *a priori* bias, must recognize that the order of events in time is *given* to us with the events themselves. That we put a universal and necessary (and therefore according to Kant, objectifying and objective) time-order into a matter in itself absolutely indifferent is a supposition that has no probability in itself, has no warrant in fact, and originates only in a rationalistic depreciation of sense experience and a corresponding exaltation of creative understanding. But even if it be granted that we are the source of such objectification of sequences of ideas, and that

we objectify by means of a rule, and that this rule rests upon a concept of the understanding, what reason is there for supposing that this must be the particular concept of causality, or that function of judging through ground and consequence which gives rise to the hypothetical proposition. Might it not, as Riehl suggests,[1] be rather the notion of the unity and continuity of time? For such a notion, excluding as it does the supposition of an interval of empty time, makes it necessary that events perceived should follow one another immediately. At any rate, it is not easy to see how the mere notion of dependence, which is all the category of causality contains apart from time, should be the ground of the determination of a necessary succession in time. Kant has been much lauded for undermining Hume's derivation of causality from customary experience of sequence by his great discovery that the *post hoc* already implied the *propter hoc*. But Kant fails to establish this antidote to Hume. And when he goes on to acknowledge, much to the vexation of Schopenhauer, that "the succession in time is the *only empirical criterion* of an effect with regard to the causality of the cause which produces it,"[2] he arouses a suspicion that sequence in time is, as Hume supposed, the entire content of the causal relation.[3] But whether causation is exhausted by *post hoc* or not, there can be no reasonable doubt, as the acute Maimon long ago demonstrated, that our consciousness of the succession of events is not dependent upon the notion of causality. But Kant's entire argument is built up on that foundation.

Kant differs from Hume, not because he sees in causation more than succession, but because he holds the causal relations of the world of experience to be the reflex of nontemporal relations of thought, just as Leibniz held them to be the reflex of transcendent things in themselves, whose kingdom is where time and space are not. So much of Hume's doctrine as was consistent with this *a priori* bias, Kant readily accepted. But his sense of the 'dignity' of cause forbade the supposition of its empirical origin. "If this were so," he exclaims in the midst of his re-

[1] *Philos. Krit.*, II, 252.
[2] III, 183 (178).
[3] See Laas, *Kant's Analogien der Erfahrung*, 194.

peated proofs of the second analogy, "the rule which the concept supplies, that everything which happens must have a cause, would be as accidental as experience itself. The universality and necessity of that rule would then be fictitious only, and devoid of any true and general validity, because not being *a priori*." [1] It would be difficult to find a clearer exhibition of the animating motive of Kant's argument. The causal principle, he says, is *a priori*, a universal and necessary contribution of the understanding to experience; therefore, the time-order, in which it is supposed to manifest itself in experience, is also determined by the *a priori* synthetic functioning of the understanding. But it is a mere assumption that the causal principle is *a priori*; a mere assumption that such (supposed) category of dependence has anything to do with determining references in time; a mere assumption that sequences in time are not *given* to us, forced upon us, instead of being *made* by us. Nay, the opposite of every one of these assumptions is not only probable, but almost certain. They arose in Kant from that old leaven of rationalism. Erroneous as they undoubtedly are, they serve, however, to give exaggerated emphasis to the important discovery of Kant's, that, apart from the synthetic unity of self-consciousness, nothing, not even an inseparable association of perceptions, could generate in us the conception of causality. Kant's error arose from relying exclusively on this subjective condition of knowledge, to the total neglect of the objective factors. And this is the more regrettable as there would be no self-consciousness at all apart from temporal and spatial perceptions, though these, on the other hand, could not originate in the absence of a capacity for sensation and movement. Kant sees everywhere the dependence of the lower forms of perception and intellection upon the higher, but nowhere the equally real dependence of the higher upon the lower. The only apology for him is that, though real knowledge implies both factors and their mutual conditioning of one another, the subjective factor, as Mr. Ward has observed, is "always a step ahead. We find *again* without us the permanence, individuality, efficiency, and adaptation we have found *first of all* within."[2]

[1] III, 178 (171–72).

[2] Art. 'Psychology,' *Encyclopædia Britannica*, Vol. XX, p. 81.

The two terms, cause and effect, indicate what reflection also proves, that, in the original and popular conception of causality two notions are implied: an agent and its action or effectuation. Like the notion of thing or substance, and design or adaptation, the notion of causation originates in the anthropomorphic tendency of human thought. Certain temporal and spatial relations among our presentations furnish the occasion, and indeed the ultimate ground, of our personification of them and imputation to them of activity and efficiency. And the whole movement of science and philosophy to which man is impelled by the contradictions latent in this primitive mythology consists, as I think Mr. E. B. Tylor has somewhere suggested, in restricting the range, and intensifying the content, of this germinal interpretative principle of personality. Not that our knowledge can ever altogether cease to be anthropomorphic. Yet science can and does set aside the mythical analogies of primitive thought by experimental investigations which those provisional analogies themselves make possible. And by turning causality, which, as personification of self-activity, originally connoted the efficiency of objective agents, into a law of time-sequence, it has escaped in this connection the naïve anthropomorphism of savage philosophy. Yet it is proper to observe that 'the metaphysical question regarding the ultimate nature of the universe,' which science with its quest of order and sequence is not called upon to touch, can only be solved, if at all, on the supposition that the macrocosm we perceive on the outside answers to the microcosm which in self-consciousness we know through and through. Through growing knowledge of the world, the content of self-consciousness is ever being enriched. Yet, at every stage, self-consciousness is the key wherewith we interpret the world.

But to return to the specific question of causality. In its origin we have seen the causal conception results from the projection of the self and its activity into the things of the external world. But such a conception proved inadequate, with the growth of science, for the interpretation of nature. And scientists, while retaining the old name, substituted for the conception of an agent or thing producing actions the quite different conception of

events related together through time. The primitive complex of causality was differentiated into a metaphysical element, the notion of force, and an empirical element of later development, the notion of a temporal order or connection in natural occurrences. This revolution in the conception of causality was inaugurated by Galileo's discovery of the after continuance of the effects of motions produced by impact and gravity. The facts were shown to be in conflict with the scholastic maxim, *cessante causa cessat effectus*, which was founded upon the older interpretation of causality. And the essential positive achievement of Hume was to domicile in philosophy the new conception of cause and effect as events temporarily related, which had already been established in the experimental sciences: that there was no *necessary* conjunction, so far as we could perceive, between any one event and another, Hume rightly maintained. But that all causal inference was therefore illusory nobody should venture to assert; as, from that fact, and from an absurd theory of the origin of the idea of causation, Hume too hastily concluded. We may say with Kant that the 'universality and necessity' of natural laws would be gone, but not that they would therefore be "devoid of any true and general validity." And the causal principle itself—"every event must have a cause"—will of course sink to the level of a postulate, though a postulate which all experience verifies. It is scientific or philosophic dogmatism alone which ever lifted it above that solid ground of verification. Ordinary consciousness or experience is indifferent to the maxim, because *its* causal principle is a very different one, namely, the projection of what the ego experiences in acting and being acted upon into the objects and movements of the external world. If the scientific consciousness is unable to represent the causal relation in any other form than that of succession in time, it will also find on reflection that there is no warrant for holding any succession to be necessary, or any event necessarily connected with any other.

The metamorphosis of the original anthropomorphic conception of causality, under the influence of experimental science, into the conception of insubstantial events temporally related to

one another, which Hume first introduced into philosophy, was appropriated by Kant and invested with the dignity and authority attributed by rationalism to *a priori* principles, at the head of which Kant gave it an exalted place. That the principle cannot be extracted *a priori* from the pure category of dependence, or from that function of judging which finds expression in the hypothetical judgment, we have already seen. But there is, it may be observed, an element of truth in Kant's contention. The logical principle of ground and consequence, though not the generating source, may be conceived as the far-off ideal to which the new conception of causality is striving to subordinate the laws of nature. The one deals with a relation of thought, the other with a relation of events. And since the time of Descartes, Galileo and Hobbes, the aim of physical science has been to bring all the events of nature under laws which can be necessarily deduced from mathematico-mechanical first principles. And from such data the astronomer is now able to infer and predict the character of future events, with the same certainty as the logician demonstrates conclusions from given premises. This ratiocination is also possible and effectual in other branches of applied physics; and within recent years chemistry has been turned into a branch of deductive science. Owing to the complexity of their subject matter, biology and psychology remain for the most part experimental sciences, though here and there open to the application of mathematics. Were, however, the ideal of modern science realized, and all events of nature reduced to a web of connections and dependencies, we should have before us a complete analogy to the subordination of consequence to ground in logical thought. But even then, there would be no other relation than that of analogy between logical thinking and the ordered succession of cosmic events.[1]

Kant's theory of causation, therefore, is left without a basis, when his unfounded rationalistic assumptions are put aside. Of the whole *Analytic*, little remains to us at the close of our examination. It turns out that the deduction and schematism of the categories,

[1] For a different view, akin to Kant's, see Wundt's *Logik* (1st edit.), I, 547–552.

with the *a priori* principles founded thereon, including those of substantiality and causality, were but efforts, though the efforts of an intellectual giant, to perpetuate to future ages the essence of dissolving rationalism. For a time, indeed, they succeeded in galvanizing it into life. And the moving simulacrum, as everybody knows, made great stir in Germany and elsewhere. But fact, which Hegel calls the realm of contingency, has proved an environment unpropitious to the ghostly entity. And of it all there now remains as sole immortal principle, the unity of self-consciousness as supreme condition of all thought and knowledge. At any rate, in view of the criticisms here presented, it seems forbidden to accept any other doctrine of Kant's constructive theoretical philosophy. Of his practical philosophy this is not the place to speak. Nor, considering the results already reached, is there now any motive for a consideration even of that part of the theoretical philosophy (the *Dialectic*) which is devoted to the destruction of metaphysics. For this destructive criticism is built upon that constructive *a priori* philosophy which we have been forced to reject. And, in any case, Kant's *Dialectic* should be associated rather with his ethics and natural theology than with that constructive theory of knowledge which forms the immortal subject of the *Æsthetic* and the *Analytic*.

J. G. SCHURMAN.

CORNELL UNIVERSITY.

VON HARTMANN'S MORAL AND SOCIAL PHILOSOPHY, I. THE POSITIVE ETHIC.[1]

MY purpose in the two following papers is not so much to add another to the many criticisms that now exist of the errors and exaggerations of Hartmann's philosophy, as to try to point out in it elements of value for the philosophy of to-day. There are many things in this ethical philosophy that seem to me to have a high interest and importance. One of these is the exposition of what might be called some of the fallacies in the philosophy of social democracy. Then there is very much, I think, in Hartmann's writings that is calculated to revive and sustain the metaphysical impulse itself. In an age that is supposed to have substituted (if this be really possible) science and positivism for philosophy, he is one of the few writers who have the courage to act upon the eternal need of mankind for a metaphysic. While I shall not be able to do more than suggest the wealth of material for metaphysic that is lying ready in Hartmann's so-called (and imperfectly understood?) philosophy of the unconscious, I hope to be able to show, as one of its consequences, that the most fruitful ground for speculation at the present time is to be found in the facts and necessities of the moral life itself. At least we shall find that, while Hartmann sets out with the idea of discovering the supreme principle of all morality, or the supreme reality upon which morality itself may be made to depend, his results seem to afford fresh confirmation of the position that the facts and necessities of the moral life are themselves the *terra firma* of all science and all philosophy; that they are capable of sustaining not merely their own weight but that of all other facts and all other ideas. In my first paper, I shall endeavor to exhibit the successive steps and stages of the

[1] See a paper by the present writer in *Mind* (N. S., Vol. II, p. 188) on the *Epistemology of Ed. v. Hartmann*. Since writing this I have been occupied with my studies in Schopenhauer. There are many ways in which Hartmann tries to connect his philosophy with present thought and present tendencies. I have intended for some time to resume study of his system from this standpoint.

argument by which Hartmann is led to his rejection of the idea of social development as the supreme ethical standard. And, in my second, I shall treat of his metaphysic of ethics, and of what I must venture to call its instructive failures.

Hartmann's principal work upon ethics is what he calls a *phenomenological* study of the moral consciousness (*Phänomenologie des sittlichen Bewusstseins*[1]). Instead of writing out a didactic or formally complete work upon ethical laws and principles, he prefers to study the theoretical and practical workings of the different actual and possible standards of conduct in the order in which they present themselves in the life and thought of man, and by showing their inadequacy or adequacy to the fact of life, to indicate, at the same time, the nature of the supreme principle of practical philosophy. There are four stages of exposition and discussion in his ponderous book: (I) a presentation and examination, in all its forms, (A) of the Morality of Hedonism, and, (B) of Subjective Morality (the morality of feeling and taste); (II) a presentation and examination of Rational Morality, the Morality of Rational Principles or Norms or Standards; (III) a presentation and examination of the morality of *Sittlichkeit*, Social Morality, the ethics of the common good (the morality of the 'third' or 'positive' stage of human thought, to use the phaseology of Comtism), the morality of social citizenship, of Social Democracy, etc.; and, (IV) a presentation, somewhat more difficult and dialectic and mystical than that of the other three parts of the book, of Hartmann's own renowned morality of the Unconscious. It is my intention to outline and to estimate critically the plane of reflection that constitutes each of these four stages, although somewhat summarily in the case of the first two, for the reason that the classical ethical thought of to-day has passed away from mere hedonism on the one hand and the mere morality of principles (Kant, Reid, Butler) on the other. In the case of the third, we shall encounter reflections that should prove themselves serious to those who, conforming to the tendency of the hour, find the supreme eternal standard in the conception of social happiness or

[1] Published in 1879. Second edition of the same work in 1886, under the title, *Das sittliche Bewusstsein.*

the 'social end' or the 'common good,' and in the fourth (*next number of this Review — II the Metaphysic*) we find ourselves face to face with the speculative questions and results referred to above.

I. (A) To begin with Hedonism. As we read Hartmann, we cannot but see in both its logic and its history the seed and the fruit of inward contradiction and weakness. If in the quest after pleasure, we have recourse (as do Aristippus, Epicurus, Hobbes, Mill, Bentham and others) to the intellect to teach us what kind of pleasure we ought to seek, we are obviously in the position of seeking to *determine* pleasure rather than be *determined by* it. If, to atone for the imperfect balance in this life between our 'total pleasure' and our 'total pain,' we have recourse to the idea of a future life, we must admit that we have made the pleasure-consummation to depend upon the working of agencies (gods that make for righteousness or what not) whose existence and working must first be established on grounds other than those of our mere feelings and hopes. But if, with the free thought and the democratic optimism of to-day, we allow ourselves to substitute the idea of the future happiness of mankind on this earth[1] for the

[1] As is well known, it is in these three phases of the pleasure idea that Hartmann finds the three chief illusions of humanity. This is explained in his *Philosophy of the Unconscious*. In the first period of the illusory dream of humanity, it is thought that happiness can be, and has been (in the "Golden Age"), attained in the present, bright, joyous world, as it is; and that happiness therefore is a legitimate object of pursuit for the individual man. This is the idea of the 'old world,' of the 'classical world,' of the childhood of the world. In the second period of the same dream, happiness is thought to be something to be attained by the individual in a transcendent life after death. This is the idea of the 'youth' of the world, of the 'Middle Ages.' And in the third, happiness is thought to be ahead of us at some future stage of the world's history. This is the idea of Modern Times, of the 'manhood' or 'old age' of the world. We are accustomed to smile over this philosophy of 'disenchantment,' yet it is none the less true that the logical relations and foundations of these ideas is deserving of examination. That there is some relation between them may perhaps be inferred from the fact that many people of to-day openly profess to have passed from the second to the third. And I am afraid that the "most remarkable ingredient in the temper of our time" (Professor Sully—*Pessimism*, the preface) is no longer to be found merely in that "passionate sense of social wrong" which makes us wish for a better future of humanity, but in the fact that many thoughtful people are half wondering whether there is any more reality in the thought of the future happiness of mankind than there is in the thought of the future happiness of the individual. The conclusion to which we shall find ourselves tending after a study of the first part of Hartmann's ethic is that there most certainly is not. Of course it is *thinkable* that there may be as *much* reality in it—as much, and no more. Indeed the whole three ideas may be tenable together—but not apart from one another.

idea of personal immortality, we are soon confronted (as we shall see below) by the difficulty of choosing between the *happiness* of men and the *development* of men (or of the most deserving and most favored of men)—for development, as we know, is often purchased at the cost of happiness. Then the experience of life seems to be to the effect that people who set out with the idea of obtaining complete happiness or pleasure generally take refuge in some form of resignation or self-denial, in something that they claim to be 'higher' or 'truer' than mere pleasure.[1] Hedonism, as Hartmann reminds us, is apt to lapse into Stoicism or Cynicism or complete self-renunciation.

The bare fact that the first step towards sociability or social conduct involves some forms of self-denial is enough for Hartmann, as for many others, to condemn Subjective Hedonism—and is not all hedonism essentially subjective?—as a pseudo-philosophy of life. It is also for him condemned by the fact that it reposes on *optimism*, or the *naïve* self-affirmation and youthful confidence that has not eaten its 'first-sour grapes.' Believers in hedonism are, as it were 'philistines'; they think that pleasure and gratification will turn out to be just what they promise to be, with no aftermath of disappointment, *ennui* or humiliation. He, on the contrary, is convinced that all true morality reposes on pessimism,[2] or the recognition of the illusory character of many conscious aims and pursuits. While we may not believe in the logic that travels from the extreme of unreflecting optimism to the extreme of outspoken pessimism, we may be willing to concede to our author that an ethic which reposes on an uncritical attitude toward the object and claims of merely natural desire and impulse is no ethic at all. If we remind ourselves that 'egoistic hedonism' is, in actual life, rarely found utterly divorced from other moral or semi-moral considerations or pursuits, such as the desire of power or of culture or of social success and so on, it is still none the less true

[1] In *Blessedness*, for example, to take Carlyle's word. But indeed the world is so convinced of the truth of the 'Hedonistic' Paradox (that pleasure is best sought *indirectly*) that further reference to Mill himself, or Carlyle, or Emerson, or Goethe, or the Book of Job is doubtless unnecessary.

[2] The roots of Ethical Pessimism according to Hartmann are to be found in Kant—in Kant's rejection of Eudæmonism in all its forms.

that in subjective hedonism, as such, we cannot find a satisfactory philosophy of conduct. Hartmann, like most thoughtful people, is far from disparaging what he calls the *propaedeutic* value of hedonism ; indeed he emphasizes the fact that the quest of pleasure may tend to develop our reflective powers by compelling us to find those courses of conduct which bring true happiness. And with him, as with Schopenhauer,[1] the utility of reflection or reason consists in the fact that it renders man subject to the influence of ' abstract motives,' *i. e.*, considerations that are more than merely ' presentational ' and immediate, like the feeling for 'satisfaction,' and are '*re*-presentative' (to employ Spencer's phraseology) and indirect, drawn perhaps from ' first principles ' of the intuitive reason, or from speculation on the world of man and the world of matter.

(*B*) *Subjective* Morality, The Morality of *Subjective* Principles. This means the morality of taste, feeling and sentiment, the morality that reposes, so far as its norms or principles are concerned, on such things as æsthetic taste, the feeling for ' the mean,' the ' harmony ' of one's impulses and tendencies, the harmony of one's life with the fitness of things, the feeling after perfection (Wolff), or a rounded life (Goethe), the observance of the golden rule, the satisfaction of such instincts as piety, loyalty, love, dutifulness, etc., etc. Now, we may at once concede that it is not difficult to answer the question whether the æsthetic or the feeling element, that is undoubtedly present in all morality, can logically be made the supreme principle of conduct. *De gustibus non est disputandum.* If taste be made the criterion of moral conduct, and if the application to actual conduct of such principles as ' harmony ' and ' perfection ' and 'truth' be made to depend on the character or the intention of the moral agent (Aristotle and the Jesuits and Pascal saw clearly that it must), there can be no uniform morality among different persons. Any man, too, who does not find in himself the ethical sentiments contemplated by the morality of subjective principles may, as Hume saw, call into question the very existence of morality. And of one thing

[1] See my *Schopenhauer's System in its Philosophical Significance* (Scribners, 1896) p. 130, etc.

at least may we be perfectly certain. Neither æsthetic nor sentimental morality carries with itself any feeling of obligation. The feeling of taste speaks to us only hypothetically, suggesting that if a certain action is to create a feeling of satisfaction, it must be done in such and such a way; but it by no means categorically enjoins, as does *duty*, that everything in the world must subordinate itself to it. The truth is that æsthetic feeling recoils snake-like from what is devoid of taste, and never for a moment thinks of undertaking a warfare against the *ugly* or the *wrong*, for the simple reason, that all strife and warfare are, as such, foreign to delicacy of inward feeling. Our reasoning feelings are the only feelings that furnish us with the notion of objective validity; reason alone can give us the conception of compatibility or incompatibility with a definite canon or standard. In other words, æsthetic morality and feeling morality require to be supplemented and established by rational morality.

II. Rational Morality, Objective Morality, the Morality of Rational Principles or names or standards, is treated of by Hartmann in its two forms: (A) Heteronomous morality or the morality of external authority; (B) Rational morality—the morality of the internal reason as such. This distinction is perfectly familiar to the student of Kant. Kant bases ethical conduct solely on the authority of the reason or the rational will of the moral agent himself, in contra-distinction to any *pseudo*-authority of external circumstances or agencies or institutions.

(A) To begin with, as Hartmann suggests, an individual who is convinced of the conspicuous failure of the pleasure-idea as a guide in life may throw himself (as do thousands of men) on the mere authority of some code, or discipline, or agency, simply because it has the courage to proclaim itself authoritative; or he may throw himself (as does a strong man) on the authority of his own intuitive and regulative reason (or faith). Heteronomous considerations, *i. e.*, considerations that draw their binding force over the individual from some sources external to one's own inward consciousness of duty, may be easily disposed of at this stage of our argument. Interested, enforced, or customary morality must be replaced by conscious and free morality, by morality that

the individual moral agent can justify to his own reason as inherently reasonable.

(B) *Rational Morality* proper, is discussed by Hartmann under the following rubrics: the Morality of the Practical Reason (Kant), the morality of Truth (devotion to truth being, he thinks, the most immediate expression of the idea of *rational* conduct), the morality of Freedom and Equality, the morality of Free Choice (*libertas arbitrii*), the morality of Transcendental Freedom, the morality of Order, Law, Equity, etc. All these things represent, as he knows, the ideas of the eighteenth century, of the age of rationalism, of the *Eclaicissement*, when the free and newly awakened reason of the citizen-man made its apparently simple and summary demands upon the social order. As every one now recognizes, it is fairly easy to make for mankind the formal demands of rationality, and order, and equity; but the difficulty about these notions is not so much their formal simplicity and unimpeachableness and imperative immediacy, as their real content and meaning and possible interpretation. Formal principles, like freedom, rationality, and just recompense require to be reconciled with each other in the light of the conception of the *end* of life, of the end of man; and then the whole philosophy of evolution and of the unconscious (Hartmann's main contribution to the thought of the world) has made it apparent that there is a logic in the unconscious instincts of men which cannot be altogether expressed in terms of the formal notions of the understanding. Hartmann shows with the most admirable completeness, as to scope and detail, the truth of what, to most modern students of ethics is almost a truism, that the ethic of formal principles, the ethic of rationalism and of the autonomous reason, inevitably collapses into the ethic of the 'end,' the ethic of the conscious and the unconscious evolution that is at work in the world and in humanity. It is unnecessary to enter into the details of his argument. All students of the history of opinion know of the superficiality and the individualism of the ethics and the politics and the theism (nature-teleology) of the age of the Enlightenment, and it is of this that Hartmann is thinking in his condemnation of the morality of mere rational or

formal principles. For the sake of economy in space I refrain from further comment upon this point. Most students of philosophy know from Hegel and Green and Bradley, what is implied in the transition from 'formal' to 'social' morality (*Sittlichkeit*).

III. The Morality of the End—Social or 'Objective' Morality. When we look at morality as a 'property' of the 'social tissue,' as matter of social evolution and progressive human effort, rather than as matter of individual happiness and perfection, we find that the reflective thought of mankind advances from stage to stage by a kind of inward dialectic, comparable to the advances that the individual man finds himself compelled to make from the mere gratification of the 'pleasure-impulse' to the intellectual quest after a refined personal satisfaction or culture, and then to a voluntary or involuntary submission of his personality to certain rational and 'semi-objective' (as thwarting what is merely subjective) principles. The first thing that a 'free' or 'conscious' society[1] will seek or demand for itself is 'general happiness,' just as the first thing that a 'free,' 'conscious' individual will seek for himself is personal pleasure. In respect of this very point, it is here needless for us to think of the notorious difficulties that logically beset the transition from the idea of one's own happiness to the thought and the pursuit of the general happiness. It is sufficient to concede that the 'greatest happiness of the greatest number' is matter partly of creed[2] and partly of practice in our day. For one thing, Hartmann would say, the very pith and essence of the Social Democratic programme is just this general happiness idea; or, rather, "the Social Democratic programme is the necessary consequence and development of the kernel of the principle of universal hedonism." It seems to me a distinct help to social philosophy to have the matter formulated thus. It is only what has been called the 'democratic sanctions' of the pleasure-idea that has kept that idea alive in our day

[1] *E.g.*, The Constitution of the State of California proclaims in its first article that "all men . . . . have the inalienable right . . . . of, etc. . . . and pursuing and *obtaining* happiness."

[2] Professor Sidgwick, we remember, talks of the principle of utilitarianism as "the most certain of our intuitions" (*Methods of Ethics*).

after it has been punctured by nearly every writer of reputation on the logic of ethics.[1] Similarly, it is only the useful practical reforms that are advocated by the radicalism and social democracy of our day that have enabled them to hold a party together in nearly every modern country. But in reality the ultimate principle upon which the social democratic programme reposes is just as devoid of foundation as is the principle of hedonism itself. It is in fact the hedonistic principle in all its illusoriness. I do not know of any writer of the importance of Hartmann who recognizes this in such a frankly consistent way as he does. The illusory character of many of the ideas[2] and projects of social democracy seem to me to be best explained by the contention that they rest, in general, upon the fallacious philosophy of hedonism. Be all this as it may, no one, I think, could read Hartmann's fifty pages on the principle of social eudaimonism without being forced to admit that he sets forth, with considerable comprehensiveness and considerable dialectic power, the difficulties that beset the path of social democracy, or that cause it finally to substitute a belief in *development*,[3] and in the necessity of development, for its belief in (or dream of) general happiness. Many things that he points out are, it is true, perfectly obvious to students of the possibilities and the impossibilities of socialism, but they have not yet been so sufficiently incorporated into a philosophy of the life of to-day as to warrant their omission from this argument.

A belief in general happiness, he reminds us, can tolerate no such things as privileged social classes, privileged minorities, the furthering of the happiness of the few at the expense of that of the many, the existence of private capital, etc. When social democracy talks about a 'higher,' and a 'more human' and a

[1] *E.g.*, by Mr. Bradley in his *Ethical Studies*, by Professors Muirhead, Mackenzie, James Seth, Dewey and others.

[2] I do not wish for a moment to overlook the truth and nobility of the democratic principle that our pleasures are increased and enhanced by sharing them with others. I am simply working out the idea that if we do wish to benefit people, we shall come to require a more objective standard of *benefit* than the mere idea of 'pleasure-consequences' or increase of pleasure.

[3] Professor Alexander in many places in his book on *Moral Order and Progress* traces the logic of this transition.

'nobler' type of life than that of economic and social struggle it is indulging in phraseology that is not germane to its inmost wishes and desires. It is not so much 'higher' living that democracy wants as a heightened enjoyment of the good things of life, an absolutely equal division of all the goods that minister to enjoyment, after all resources, natural and artificial, have become the property of the state or community. Some of the consequences of social democracy would be, Hartmann continues, the levelling down of the service of all exceptional individuals to the grade of that of the average worker,[1] a fall in the quality and quantity of products for 'consumption,' a fall in the demand for the finer commodities of production (things that are "*caviare* to the general"), and lastly a decline of the interest in and the devotion to science and art and the higher pursuits of mind and life. The very existence, in fact, of culture is threatened[2] by social democracy for the reason that from the "dawn of history all real culture has rested upon minorities, and will continue to do so to the end of history." I am aware that this is stoutly and vehemently denied, that the culture of democracy has been claimed to be the only true culture. In reply, it may be said that the democracy of to-day, the democracy of England and America, is fortunately a very different thing from social democracy in general, and that social democracy in claiming the future for itself and its culture does not exactly comprehend that 'whereof it speaketh.'[3] History rarely presents to reformers and progressivists and 'expansionists' just that which they believed would be the natural outcome of 'movements' and 'programmes.' It generally presents to them new duties and new responsibilities, to which, to be sure, they may cheerfully rise, but which they did not perhaps actually foresee. Witness, for example, the drawbacks of the so-called Industrial Revolution that have made many

[1] Do we not see this in America in the tendency to measure the services of professional men and expert workers by the piece-meal or the *time* standard?

[2] M. Tarde, a writer not at all inclined to minimize the importance to philosophy of the social standpoint, emphasizes in a recent number of the *Revue de Paris* (Aug., 1898) the danger to democracy of the mere spirit of agitation for the sake of agitation. He seems to think that united resistance to the tendency of democracy to overturn intellectual and artistic ideals is a necessity of to-day.

[3] Cf. below.

'liberals' of to-day suspect the very existence of human progress, and witness again how the America of to-day finds herself confronted with unforeseen responsibilities that have arisen out of actions that were intended primarily to confer the benefits of freedom upon enslaved and oppressed human beings. But waiving the question of the *ability* of democracy to attain culture (a culture and chastening of the spirit will doubtless be forced upon it, in consequence of the perception of the fatuity of many of its catch words and conceits), let us remind ourselves of this one simple thing, true culture brings pain, the keenest kind of pain, indeed, increased sensitiveness, nervosity, unrest, repentance, the *Weltschmerz*. What will be the attitude of democracy to the pain that is incident to all true culture? How will it not blame as blind (or wilfully blind) leaders of the blind, its popular educators, its leaders, for not telling it about the pain of culture and the responsibilities that seem to render rest and happiness impossible? Social democracy believes at present in culture, for the reason that it imagines (and rightly so) that culture increases the range of its perceptions and interests and satisfaction, that it . . . 'ministers' to 'development.' But how long will it be before democracy will come to believe (as does the individual who has had 'experience' and 'sorrow') in 'development' and in 'culture of the spirit' more than it does in happiness? Does democracy believe in sacrificing happiness to development? Whether it does or does not it may be said with our author that 'development' and 'experience' with its hard lessons, and 'culture' are thrust upon humanity, irrespective altogether of its child-like belief in its divine right to seek and to find happiness. I beg to maintain, with Hartmann, that Social Democracy essentially cares more for happiness and enjoyment than for culture and development. Like many individuals, it has not yet been shocked by the formulation of its desires. Many of these mean stagnation and death and bestiality, as do many of the desires[1] of individuals. As matter of fact, the mere happiness of all would

[1] Of course I know, with Green, that desires cannot be said to be wholly 'natural,' but I am using *desire* in the popular sense as partly synonymous with impulse and want and passion.

be most surely obtained by returning to what Rousseau with his wonderful genius divined as a 'state of nature.' There are moments when we all feel the force of this truth, humiliating as it is.[1] As Hartmann puts it, the carrying out of the programme of Social Democracy would soon reduce humanity to a state of undifferentiated mediocrity and unrelieved uniformity and stagnation and brutishness. Democracy is already in certain countries crying out against the teaching of classical and 'culture' studies in the common schools, and what will it not do when it realizes that research into such higher (university) studies as comparative philology, speculative biology, scientific psychology, etc., etc., is claimed by scholars to be valuable only when removed as far as possible from the test of immediate practical utility and application.[2] Let any real scholar or investigator lay his hand upon his heart, and say whether he believes it to be possible, and whether, were it possible, would he desire it so to be, that the majority of men should become truly cultured and informed under the idea that they would thereby add to their immediate usefulness and enjoyment. If at this stage in our argument, it be said that it is not so much the culture of the head as the culture of the heart and character, the culture and development of mankind in general that democracy believes in; this is tantamount to confessing that democracy is compelled to *renounce its belief in hedonism for a belief in culture and development for its own sake.* And by suggesting even this much, Hartmann has, I think, disposed of the idea of the reality of the social democratic happiness principle as a possible ethical standard.

[1] See, *e. g.*, an article by Professor Mackenzie, in the *International Journal of Ethics*, January, 1899, on Progress, p. 197, "there is a good deal of plausibility in the contention that the life of a savage in his native woods is superior in almost all the important conditions of happiness, to that of the majority of the dwellers in the slums of our large cities."

[2] *E. g.*, a psychological scholar, like Professor Titchener, in a recent noteworthy article, *Postulates of a Structural Psychology* (*Phil. Rev.*, Nov., 1898) complains of having been obliged to sacrifice the scientifically desirable to the exigencies of practical purposes. Professor Münsterberg, too, in his recent article in the *Atlantic Monthly* (criticised in the *Psychological Review*), on the utility, or rather the inutility, of modern psychology to teachers, seems to imply a similar conception of the difference between pure science and methods of utilization.

To begin with, the struggle for 'development' and true culture does not require the happiness idea to support it. It is just as much a fact of human nature as is the search for happiness, and democracy believes in it on its own account irrespective altogether of its happiness- or unhappiness-producing tendencies.[1] It is as illusory to found the argument for culture and development on the greatest happiness principle as it is to base the argument for the general happiness on the tendency of every individual man to seek his own happiness. There is to-day, in every civilized country, a minority who are keenly conscious, in the very depths of their being, of the opposition between their belief in general happiness, and their belief in culture and development, and who, in their best moments, would, without hesitation, altogether sacrifice the happiness of humanity to its true education and development.[2] The growth and spread of education in our modern democracies will, doubtless, increase the size of these minorities until they become majorities powerful enough, perhaps, to convince mankind as a whole that happiness is obviously "not that for which we are here in this world." Be all this as it may, without doubt the chief reason of the existence of the widespread belief of to-day in general culture and development, is the *evolution philosophy* itself, as set forth by men like Leibnitz and Herder and Fichte and Goethe and Comte and Darwin and Haeckel and Spencer. What 'Darwinism' denotes is, as Hartmann has it, "the triumph, even in the realm of nature, of the historical view of the world over the unhistorical." We now look upon the development of mankind as an "integral part in the total development of the life on the surface of this planet," and can thus in our thought "bridge the yawning chasm that seemed to separate human [or cultural] development on the one hand from cosmic development [Kant, Laplace] on the other."

[1] In spite of what I have referred to as the prejudice of an ignorant democracy against mere 'culture' studies, we all know of the marvellous willingness of hundreds of men in America to 'endow' research along purely scientific lines. And if there are hundreds of such men, there are hundreds of thousands of young people who have a faith in the 'higher education' irrespective altogether of its effect upon their worldly (unworldly?) success, or upon their happiness ('increase of sorrow'), or even upon their health and vitality (incapacity to produce offspring, etc.).

[2] *Cf.* the saying of Christ: "I come not to send peace upon the earth, but a sword."

On the principle of evolution, the natural development of the physical and the organic world is only the prelude to the cultural activity of man as the 'Temple of the Idea' [*sic.* Hegel] in which the spirit of the world is ever attaining a more perfect consciousness of itself.

We are apt to think that in *this consciousness of a world-wide social order* the highest principle of morality is to be found, and that we have here substantially the outlook of Hegel for whom the realm of morality comes to be identical with the realm of 'objective spirit'—the realm that is expressed in the social usages and institutions and social progress of humanity. It is not, however, Hartmann insists, in a "self-mastery in the interest of the social autonomy," that the end of morality is to be found. A social world order is to him nothing in itself—merely the ideal of the self-perfection of humanity. It is itself only a means to a further evolution, the futherance of the real, objective, ends of the world-process. The end of the 'family' is by no means the welfare of its individual members, but the welfare of the 'community,' and the end of the community is not the welfare of its members but that of the province, and the end of the 'province' is not *its* welfare but that of the 'country,' and the end of the country is the welfare of 'mankind,' and the end of mankind is "something that takes us altogether beyond this present world." Thus to Hartmann, neither in the happiness, nor in the culture and development, nor in the social perfection of humanity, can the ethical end be found. With his perception that the welfare of any state always seems to be in clashing conflict with the welfare of another state, we may associate a reflection regarding what he thinks of as the welfare of humanity as different from the welfare of the races and peoples and divisions of the human family. In support of his contention that the latter is different from the former, we may reflect upon the apparent obstacle, that is to be seen in the very nature of our 'environment' (the surface of this earth), to a general development of *all* races and peoples and families of mankind into one greater humanity. The last dream of democracy—a general world-wide civilization with comfort and culture for all—is impossible; for this reason, if for no other, that the

surface of our earth is not calculated to foster or sustain a general and uniform level of civilization. It has an environment (the 'temperate' or more favored regions) for only one favored or dominant race. In the language of a well-known thinker on social evolution, it has "but one general environment" and not several equally good environments. "Attempts to preserve lower types of men, or to bring them into organic relations with higher types, tend to make a society *static*, and thus check its progress." "*The science of human progress must remain a study of the dominant race* in its most favorable environment."[1] In other words, everything seems to point to the conclusion that humanity will some day *exhaust* its environment on the face of this planet, so that changes in the nature of the earth, or the transplanting of men and races to a different environment, will have become a fundamental necessity. Verily, humanity has on this present earth 'no continuing city,' whether for happiness, or culture, or general development (the three things that men by the logic of their nature inevitably tend to desire).

(A) Now for some reflections on this whole line of philosophizing. Let us first think of the possible merits (logical and real) of the idea of social development as the ethical end, as the supreme standard that from the beginning has been our quest. These are recounted by Hartmann in the following manner: The end of conduct contained in the idea of social development is a reconciliation (α) of Individualism and Socialism; (β) of Heteronomy and Autonomy; (γ) of Hedonism and Evolutionism. And (δ) it is the highest vindication of the reality of the principle of development itself. (α) It is a reconciliation of Individualism and Socialism, because true social development includes what we might call objective perfection as well as subjective perfection. It includes, of course, the development of the whole personality as well as that of the intellect; and then, in the second place, it means the creation of social institutions and structures that crystallize and render permanent and also develop this subjective perfection. True social sentiments and feelings in their turn help to bring the individual to a greater perfection of character, at

[1] Professor Patten, of the University of Pennsylvania.—*The Theory of Social Forces.*

the same time that they increase the range of his interests or add to the ethical *content* of his life. (β) It reconciles Heteronomy and Autonomy; for the reason that social development at the same time that it is the logical or essential outcome of the democratic idea (and so nothing 'foreign' or 'external' to the true social consciousness, *i. e.*, an autonomous and not a heteronomous *end*), is also sufficiently far 'ahead' of the society of to-day as to constitute an *ideal*, something that society *strives after* rather than actually possesses. (γ) Then the idea of social development reconciles Hedonism and Evolutionism, because it seeks not the mere pleasure of the moment, but the pleasure that arises out of the highest development of the highest function and power of which man is capable. And, lastly, (δ) it is the highest vindication of the reality of the principle of development, because it suggests that the development of humanity cannot but be regarded as itself the preliminary to the realization of a still higher, a superhuman or cosmic end. There can be no higher or more real ethical end than devotion to the social development of humanity, as itself a means to the realization of some great cosmic purpose or end. In the end then of true social development, Hartmann finds the supreme ethical principle that we set out to seek.[1] At the same time, he finds in it (as an idea) some serious theoretical difficulties, the consideration of which leads him into the metaphysic of ethics.

(1) One of these has already been referred to—the difficulties of thinking of a general and uniform development of humanity as a whole. The welfare of the family and the clan resolves itself into the welfare of the community and the nation, and that of the nation into that of the international aggregate, or rather into that of the dominant or favored race. And is not the duty of that favored race to develop the welfare of humanity as a whole, and, if so, into what? Must not the ideal of the human race be connected with something superhuman? (2) Then the mere idea of *Sittlichkeit* or the social development of mankind is, as Hartmann suggests, a 'subjective' end, and not an 'objective' end. There must be objective ends, cosmical ends, which the ethical culture

[1] *Cf.* The beginning of this article.

of humanity must promote or be subservient to; otherwise we cannot get out of the logical circle of explaining *supra* true *culture* as subservient to objective development, and objective development as subservient to true culture. And (3) there is the supreme difficulty of the radical wilfulness or selfishness or wickedness of human nature. Hartmann speaks of this in the most explicit terms, and with the most serious intent. He first encounters it in the form of a certain perversity of indifferentism that may arise in the individual who has become convinced of the partial illusoriness of all the ethical ends that have, in a natural dialectic or order, presented themselves for his consideration. "It was an illusion for me to think that I would some day find myself happy . . . . an illusion to hope that I could make others happy . . . . an illusion that I allowed my self for a time to think that the development of the world must be *towards something*, and that my working *with* that process would accomplish a result of some sort. Everything—tragedy, comedy, energy, piety, virtue, vice, life, death—accomplishes, to be sure, something—but just *what?* Really, everything is just about as good or as bad or as indifferent as everything else!—*es ist Alles egal!*" Then, this very indifference and rebellion of the selfish will (diese *Auflehnung des Eigenwillens*) is claimed by our author to be *not anything "unusual or accidental or peculiar, but just the radical evil, the deep-seated root of wickedness"* (*das radicale Böse selbst, u. s. w.*), that is in every heart, although not revealed in all people in the same way. In regard to this idea of *radical evil*, it is enough, meantime, to say two things: (*α*) Even if, with Liberalism, we deny the existence in human nature of any inherently bad characteristics, and try to explain away *evil* by way of 'ignorance' or 'atavism,' or 'survival,' or 'imperfect environment,' the feeling of *illusion* about the real or apparent outcome of social evolution is quite enough of a difficulty at this stage. It constitutes a real *impasse* for the ethical or social philosopher. (*β*) The fact of evil will receive, in our second paper, separate mention as an integral element in Hartmann's philosophy of the unconscious.

Despite these and other difficulties, there are to-day many peo-

ple, and among them some of the finest spirits[1] of our time, who find in the thought of social development something large enough and real enough to give life a meaning. To further social development, we sometimes hear it said, 'at least helps matters on somewhat,' if it only help us to know and see the best or the worst as soon as possible. In regard to this, however, it seems possible that even wise people may have serious doubts about what will truly help or hinder society in its development.[2] For this and the many other reasons adduced by Hartmann, we must confess that the end of the *welfare and development of humanity* has *as such* no superior 'objectivity,' *no greater* reality than *the welfare and good and development of individuals.*

(B) Two courses are now open to us: (1) We may follow Hartmann in his attempt to think of a superhuman end to all human evolution. We shall do this in our second paper. (2) We may claim that a somewhat deeper conception of the relation of the individual to society might reveal a deeper correspondence between the aims of personal and the aims of social development than Hartmann has been able to exhibit. Or that, in short, with a deeper conception of morality itself, this very endlessness of the search after the moral ideal would perhaps disappear. This very criticism, however, will tend to establish itself as the outcome of an attempt to follow Hartmann in his search for some 'transcendental' end of all human development, some "dim, far-off event to which the whole creation moves."

(C) I wish to bring this article to a termination by the suggestion that Hartmann has done signal service to the speculation of to-day by breaking up what might be called the *apparent objec-*

[1] *E. g.*, the late lamented Professor Gizycki, of Berlin, or Dr. Stanton Coit with his formula (*Mind*, 1886), "Seek peace of conscience in devoting thyself to the welfare of mankind," or (to some extent) the late M. Guyau. This very idea of seeking 'peace of conscience' in devoting ourselves to others is the thing that I am anxious to hold up for study in this article. I think that Hartmann makes us feel that the pursuit of the social end must be grounded on something deeper than a desire to escape from the unrest of one's own soul.

[2] Herbert Spencer, as is well known, insists very strongly in his *Principles of Sociology* on the fact that the unnecessary multiplication of governmental and philanthropic agencies impedes the transition to a free ethical democracy. Foolish philanthropy, too, increases the difficulty of the social problem by its tendency to make people more dependent than independent.

tivity of the conception of *social development* as the supreme *end* of conduct—especially when that end is conceived (as it unfortunately is to-day by many thoughtful people[1]) as *in the first instance* merely the alternative to an 'exploded' or 'bankrupt' individualism, or a disappointed egoism, and then, secondly, as the mere idea of 'endless progress.'[2] What the world at present requires to learn is that the promotion of general happiness, or the furtherance of common welfare and development, is never even *intelligible* as a *conception* (not to say *feasible* as an *aim*) until a *personal* and *moral* conception of that happiness, or welfare, or development, or good, be first formed and firmly grasped. When *from the very necessity of our argument* we shall have returned to an essentially personal and moral view of the general development of humanity, we shall feel ourselves relieved from what (in a truly Hegelian way of thinking) we may call the 'false infinity,' the hopeless infinity, of the mere notion of *endless progress* or development, finding, as we may find, that perhaps the most immediate and the most positive thing that humanity can do for itself to further its *development*, is to remove from itself certain obstacles that are negative of true development. And with this partly unsuspected result, there shall have become apparent, more apparent at least than at the outset, the essential character of all morality as strong enough of itself to bear the weight of all reality and all speculation, as not needing, for its support, anything extraneous to itself and its own law of development.

W. CALDWELL.

NORTHWESTERN UNIVERSITY.

[1] *E. g.*, By Dr. Simmel, of Berlin. "*The overthrow of the individualistic point of view*"[italics mine] may be considered the most important and fruitful steps which historical science and the moral sciences generally have made in our time. *In place of the individual careers which formerly stood in the foreground of our picture of history*, we *now regard* social forces, rational movements, as *the real and determining factors.*"—*The Problem of Sociology.* A paper submitted to the Amer. Acad. Pol. and Soc. Science.

[2] It is not at all to be wondered at that a large section of humanity in the 'Great East' is utterly opposed to the Western idea of endless progress simply for the sake of progress. We can at least sympathize with the feeling that, if they are to be forced to have our 'progress, they should, *if possible*, use our experience to obviate that subjection of personality to material conditions which characterizes so much of the life of our large Western cities.

THE ABSOLUTE AS ETHICAL POSTULATE.

METAPHYSIC as a science, says Kant, concerns itself with the problems set by pure reason, namely, God, Freedom, and Immortality. As problems of philosophical enquiry Kant here happily names them in the order of their metaphysical significance. Yet despite the authority of Kant's name, and the traditional clinging to his classification, the problems of Freedom and Immortality are but minor aspects of the central problem of ethics. For, as concrete experiences, Freedom and Immortality are not the condition of the moral function, but the moral function of them. We may accept the facts of our moral experience: we do live *as if* we were free; we do live as if the wages of sin were death. But whether really free or not, destined to eternal life or not, the supreme ethical question is whether and how our life as we live it, our morality as we in our broken fashion construct and evaluate it, has any real significance and value, any justification in ultimate reality. The central problem of ethics, then, stated so as to include its aspects runs: In what kind of world are genuine ideals possible, and how are they fulfilled? Is there a genuine teleological world; what kind of world is it—how does it constitute and contain the reality and significance of our moral experience?

All the spiritualistic philosophies have their several answers to this problem; but it remained for the later idealists of this century to formulate the most consistent, if not the final, metaphysic of teleology. Since Hegel nothing was more natural or easier for the idealists, than harking back to Aristotle, to reconstruct the idea of immanent development in terms of universal consciousness. The world-ground, they say, like the Aristotelian God, is omniscient reason. The universe itself is a spiritual unity—self-created, self-contained, self-developing. Everything lives, moves, and has its being, in the closed circle of one spiritual life. The inherently complete life of the omniscient being is the only truly

teleological world. Physical law and necessity belong only to the broken and external aspects of the universe as we finite, merely self-conscious, beings try to understand and rethink it for our own life; finality and freedom, on the other hand, belong properly to the universe in its spiritual wholeness, as it is in and for omniscient reason. The truly teleological process, then, as spiritual monism formulates it, is a process which is ever proceeding out of itself and returning into itself—a development universal, immanent, original, spiritual.

It is the virtue of spiritual monism that it conceives the truly teleological world as one which eternally *has* a complete meaning, and that it represents completed meaning under a form of *consciousness* which possesses an original or immediate unity of idea and fact. It is the vice of spiritual monism that, harking back to Aristotle, it uncritically construes teleology in terms of immanent development, at the same time sublimating the idea of completed meaning (for which we shall hereafter use the word 'finality') as a category of omniscience. We submit, on the contrary—still aiming at a constructive synthesis in terms of spiritual monism—that the category of finality is neither a category of omniscient reason, nor, again, a category of the merely self-conscious reason in its theoretic or conceptual aspect; that development, whether physical or moral, has nothing to do either with the concept or with the nature of finality; and that development, even though sublimated as universal, immanent, and spiritual, does not belong to the universe itself in its conscious completeness.

We are not here concerned with the proof of the being of the Absolute. Our business is, first, to define the general nature of ultimate reality, and, next, to show how the constitution of reality creates the possibility and worth of our ideals, and fulfills them. The general thesis of idealism is that all reality is only as it is for thought, and that ultimate reality is a living whole of experience, spiritual through and through. Following the idealistic analysis of experience, we may say at once that all our knowledge is but knowledge *of* reality, and that reality itself, 'conforming' as it does, to our modes of feeling and thinking, is a

world of fact mediated by a system of thought connections, or necessary relations. But since by hypothesis the real world, the world of omniscient reason, is an immediately appreciated whole of experience, the categories of the merely self-conscious reason—the categories of externality, of relation and dependence—are in nowise applicable to the real world as it is in and for itself. The Absolute does not know the meaning of his experience as some "far-off divine event"; its meaning is not given or conceived as *part* of the appreciated content of the divine consciousness; its meaning *is* just the pulsating, appreciated content of omniscience itself. As one in a moment of supreme happiness does not and cannot know that one is happy (because the content of that moment is so absolutely immediate, or is just itself the happiness): so the Absolute, whose experience does not admit of mere mediation does not and cannot know—*i. e.*, represent—his experience as being complete: his experience immediately *is* all that really is.

The unity of experience which the absolute has or enjoys we may symbolize by the unity of the supremely happy moment: it is immediate fulness of conscious content. We, on the other hand, as external spectators, may merely *comment* on reality; the real world must have a definable constitution, must be an appreciated whole of experience. Yet, because the real world, from our conceptual point of view, must be postulated by us as existing completely in and for itself, it is not itself the truly teleological world. The real world does indeed constitute and fulfil ideals. But finality is a category of the human reason; and it is *our* world which is to be discovered *as having*—not as coming to have—a completed meaning.

That ultimate reality shall be at least omniscient is the postulate of the purely speculative reason. Concerned as we have been so far only for the merely logical truth and being of our world, it is enough if ultimate reality be simply a conscious whole; if omniscient reason, like Aristotle's 'Unmoved Mover,' be pure intelligence (*νόησις νόησεως*), passionless consciousness and existence (*θεωρία*). But since we know reality only in terms of our own experience, we must represent 'the fulness of

the Godhead' under the form of our richest and deepest experiences. Our world is not merely a world of *brute* facts which we may merely define or describe in terms of fixed relations; it is also a world of *appreciated* facts, a world of good and evil. The moral reason must make its postulate: Ultimate reality in its highest being must be passionate consciousness, constituting not only all reasons, but also all values. The absolute experience must contain not only the answer to every rational question, but also the fulfilment of all genuine ideals. Yet, on the other hand, because, as by hypothesis, the experience of the Absolute is eternally self-possessed and complete, his world is his eternal choice, and the best of all possible worlds. Here, then, again appears our paradox. How can it be that ideals are genuinely possible and concretely realized in a universe which forever has had a conscious completeness?

Popular theological philosophy noting that organic life, sensitive and conscious, is incomplete, but is always aiming at a definite end and progressing towards it, constructs finality in terms of development, and conceives the teleological or moral world to be one in which sensitive and conscious life is becoming perfected. Cosmic theism, *e. g.*, would, therefore, oppose spiritual monism and deny that genuine ideals are possible in the world of the Absolute. But to this the later idealism replies that the real and significant world-process must be one of which the meaning is originally complete; that, therefore, the ideal or moral order of the universe must not be conceived as an 'evolution,' in the ordinary scientific sense (for the evolutionary process, as a causal process, remains inherently incomplete and insignificant), but as an 'emanation,' *i. e.*, as the self-differentiations of an ultimate identical spiritual essence. This, however, is our commentary on reality: the real world must be a living, spiritual whole. The self-differentiations of the Absolute are not in and for the Absolute categorized or categorizable as either necessary or final. They are simply immediate, absolute experiences. Their real meaning, as in the case of the supremely happy moment, or better, perhaps, as in the case of our deepest æsthetic experiences, is just their factual existence.

Still, it may be submitted that the Absolute's conscious constitution and possession—choice—of just his world marks that world itself at least as the world of genuinely fulfilled ideals. We, of course, in whom reason is so relative, may ask why some other world was not, or might not have been, as significant to the Absolute. Either this is the question why God is God; or it is a question which is based on a false psychology of the relation of the self to his choices. In the first place, we can never ask the ultimate in explanation to explain itself. The Absolute, by definition, *constitutes* reasons and existences. The very factual existence of his world is its reason. In the second place, it is never true in the case of any spiritual being, finite or infinite, that the self exists apart as a mere form of consciousness, contentless. The self is, knows itself, only as the being with this or that conscious content. So, then, if we never know ourselves as mere selves, first existing and then choosing, but only as consciously possessed of an ideal,—*a posteriori* the Absolute whose experience is eternally self-possessed knows himself eternally only *as* the possessor of just *his* world. And because the world of the Absolute is originally experienced as real, all other merely conceivable worlds are originally experienced by omniscient reason as unreal—not experienced at all, not even conceived. We, however, who must conceive of other worlds as abstractly possible, also must conceive and describe the world of the Absolute as the *best* of all possible worlds. But paraphrasing Aristotle's formula for ultimate reality (*τὸ τί ἦν εἶναι τὸ πρῶτον*) the world of the Absolute in and for itself simply *is* what it eternally *was*, the one possible world.

To this eternal world, then, we must appeal for the truth and worth of *our* world and life. But we may not ask why some other world and mode of life, conceivably from the human point of view better than our own, was not more significant to the Absolute, and constituted by him as real, as part of his own experience. We may only ask why our world and mode of life are significant *at all*. If this is a genuinely rational question, the Absolute, as the living spiritual whole of which we are members, has the answer; has it, however, only as the inner fact of his life.

In the Absolute experience as such nothing, exists for a reason, but only *as* conscious reason. It remains, then, the active postulate of our inmost being that the Absolute, as constituting all reason aud values, must possess the fulfilled meaning—the worth —of our life precisely as the pulsating content of his own experience. For our life is not something that comes to his. Rather is his life from all eternity in ours: and we in our best and happiest moments, when the harmony of the vision and the will is complete, do but give him back his own,

> —"that mind and soul according well
> May make one music as before
> But vaster."

So much, then for the definition of the nature of the Godhead, and for the meaning of our postulate.

In view of all this, let us consider very briefly how and in what degree we are really free and immortal, and how genuine ideals are possible and concretely fulfilled. The Absolute, by hypothesis, is the original constitutive, all-inclusive consciousness. So that at once the Absolute is the active ground of our finite self-consciousness. First, then, our freedom is constituted by our very existence as selves. Psychologically, freedom has not the slightest thing to do with bare, merely conceived, possibilities of action. It has to do only with motives, with living, active ideals. No matter whence or what the data, or the external relations, of the moral life, an ideal in the active sense is always in its essence spiritual. One may submit that our consciousness, whatever its content be, is selective, motor, fatally so. This, however, is not to the point. For the question is not as to whether consciousness is inherently selective, *fatally* motor; but whether *consciousness* is selective and motor at all. If it is inherently selective, then the personal constitution and establishing of active ideals is insured. And if it is fatally motor the willing moment is purely the content of consciousness; and since nothing but an ideal can enforce or impede an ideal, one is 'determined' by nothing outside of the spiritual circle of one's being. I am free, then, first of all because I am, and because I look before and after and *know* myself *as* the being with this or that ideal.

Yet, on the other hand, am I free after all, seeing that I came into being from a world, which externally viewed, knows me not, and complicates endlessly my bodily and spiritual life, caring not whence I came or whither I go? I am indeed conscious that I am not a 'thing': and, therefore, I am sure of my freedom in the psychological sense. Further, presupposing that the world which environs me were spiritual, but standing in an *exclusive* relation to myself, I should be all the more sure of my freedom in the psychological sense. For then both the external and the internal determinations of my life are spiritual. That which independently precedes me, and that which follows from me personally, is still in a somewhat broken fashion one chain of spiritual causation. But by hypotheses the life that environs me is *inclusive* of my own, and has from all eternity entered into my own. Now the life of the Absolute is constituted as one of the freedom of reason, because determined by nothing outside of the inner circle of his being—and that circle is all that really is. Fundamentally, then, as the life of the Absolute enters into ours, so the freedom of his life constitutes, enters into, the freedom of our life. But our lives have freedom and spiritual significance only in so far as we choose genuine ideals, only in so far as our morality on its inner side passionately *reaffirms the ideals of the Absolute.* This identity of our moral experience with that of the Absolute, consciously meant by us as such an identity, and appreciated by the Absolute as such an identity, is its eternal and concrete fulfilment.

Yet we must never forget that just because the divine life is in ours, consciously identical *pro tanto* with ours, both private self-realization and self-abnegation logically are unreal ideals. The only genuine ideal is active cooperation on our part with the mind and will of God. The divine mind and the human, as they are logically one mind, are morally one only as they are one will and triumph together. We may and often do create ideals. We can, however, never create genuine ideals; we may only adopt and reaffirm them. So far, then, as we will in our human way that what ought to be alone shall be, so far as we will that the good shall be triumphant, and that evil, though existent, shall be defeated, we are adopting and reaffirming what is the active life of the

Absolute, the eternal triumph of good and the defeat of evil. This is the only genuine moral freedom and fulfilment of human ideals.

As regards immortality we have nothing to offer here but criticism, somewhat negative or agnostic. This is all the more necessary, because the idealists themselves still cling to the traditional conception of immortality, and to the traditional argument for it. This traditional and popularly conceived immortality is but a species of moral longevity. Even the 'eternal life' of the Christian religion, as vulgarly conceived at least, is but a species of deathlessness. It is somewhat nobler than the life of departed spirits in Hades, as the Greeks viewed the life after death, in that it is one of song and praise. But the popular and Christian ideas of immortality have not the slightest *a priori* warrant. The popular demand for immortality is purely a private and special subjective demand. More philosophically conceived, immortality represents the condition of complete moral progress: Only in the eternal life to come shall the effort and pain of our moral life become, in Aristotle's phrase, an ἐνέργεια ἀνεμπόδιστος, fully natural and perfect activity. This ideal, while certainly a desirable end, and powerful over the heart and imagination, from the point of view of our postulate, has not the slightest *a priori* warrant. It remains, like the purely homely or popular demand for immortality, simply an ideal powerful over the heart and imagination. We may substantiate our doctrine in very few words.

Some idealists (Professor Royce, *e. g.*, in his *Conception of God*) quite unfairly put the problem of immortality in the form of a paradox. By hypothesis, in and for the Absolute, there are no genuine ideals unfulfilled. Seemingly at death, however, my aim as mine is unfulfilled. I would be perfected, but death apparently destroys my moral ego. On the other hand, from the Absolute point of view, I shall be perfected; but if I shall be, then again my moral ego ceases. It is, seemingly, moral death in any case. I demand immortality, and yet immortality, if insured, shall destroy my demand for eternal life. My full and perfect activity shall cease in a frozen perfection.

We do not hesitate to submit that this way of putting the problem is a *petitio principii*. From the point of view of spiritual

monism finite beings are but partial functions of the Absolute. Fragmentary then, though in their degree real and significant, our selthood and experience shall remain forever. Our moral experience, we saw, is real and significant in so far as we adopt and reaffirm genuine ideals; namely, the active, passionate content of the life of the Absolute. To be sure, we embody these ideals in a temporal series of outer acts. But what has life or death to do with the *reality* of the embodiment? It is not by what we call moral progress that genuine ideals are fulfilled—for our progress means only that we are repeatedly or in a greater number of situations reaffirming moral reality—but by the fact that we are moral at all, in any moment of time. Death, which is only an external cosmological process, and like any other process, a more or less significant fact to the Absolute, has nothing to do with the significance and reality of our moral experience, as an inner process. The individual's aims, in so far as they are merely his, are forever unreal. But any fragment of genuine moral experience has the only worth it can have in and for the Absolute experience. Whether the individual's days be few, or whether he live again in another world, *he* is just as mortal or immortal as he *can* be, *i. e.*, so far as he, by his active cooperation with the mind and will of God perfects the life of the Absolute. But who the saved shall be passes human ken—Philosophy cannot answer, and the Absolute will not. Yet this is not, as it may appear, a hard doctrine. Rather it calls for the most strenuous endeavor. For the postulate of the moral reason is that the Absolute possesses the meaning of our human life precisely as the appreciated content of his own life, and that his life is perfected thereby. He rejoices in our triumph, and sorrows in our defeat; and that triumph or defeat is eternally his. The truly moral and religious aim of the finite individual is to triumph *with* the Absolute, as one will, in the victory of Good and the defeat of Evil. Our life may be tragical, but only in this way shall it be spiritual. Perchance, too, we may win immortality.

What now, to conclude, is the teleological world? and of what unity of consciousness is finality a constructive category? The truly teleological world, we have said, is one which must be con-

ceived as having, not as coming to have, a completed meaning. We have seen that the teleological world is not the world of the Absolute as such; for, as the original spiritual whole, his world is not categorized as either necessary or final. Nor is this teleological world our describable world as such; for it has only an abstract unity, so far as it is thought out, and it is inherently incapable of completed unity. The truly teleological world is constituted by the conscious relation of these two. The truths we know from our incomplete point of view, and the ideals we would embody in our morality, are consciously included in the life of the Absolute as a significant part of his experience. His world and life have eternally fulfilled ours.

Again, from the subjective side, finality is not a category of omniscient reason; for the Absolute does not think out his experience; it is eternally self-possessed. Nor is finality a category of the merely self-conscious reason in its theoretic aspect; for in so far as we think out our experience we do so in terms of necessity. Finality is the category of our inmost being. The moral reason does not merely assert *hypothetically* that our experience must have a moral meaning in virtue of its inclusion in the life of the Absolute; but it asserts that, in virtue of this relation, our experience *shall* have a moral meaning.

This, then, seems to me to be the truth of Idealism in affirming reality to be a spiritual whole—that in virtue of the conscious inclusion of my life, and all I mean to be, in the life of the Absolute, the moral function with its category of finality transcends mere reason and its system of necessary connections. I feel as free, says Professor James, to throw over a formula which violates my moral demand as one which violates only my demand for uniformity of sequence. Rather, says the idealist, I am inevitably freer to throw over my intellectual formulæ, and to affirm with my inmost being the formulæ of the moral reason.

J. D. Logan.

THE CLASSIFICATION OF THE SCIENCES.

OF the numerous schemes of classification of the sciences that have been formulated in the history of philosophical speculation, three only will be briefly considered in the course of this article, and afterwards an attempt will be made to state the principles upon which a true classification should be based. The three systems to be thus considered will be those that have been developed latest in the history of thought. By this means the labors of previous thinkers will be utilized, and, at the same time, the advantage that accrues from the analysis of distinct and original types of classification will be more or less adequately realized.

The first, historically, of these three types of classification was that of Auguste Comte.[1] The basis upon which Comte's classificatory system was established was the fundamental distinction between the abstract and the concrete. The sciences, according to Comte, develop both logically and historically from the abstract and the simple to the concrete and the complex. Each successive stage in this development is determined by the preceding stage: every science receives the laws which render its existence possible from the sciences which have preceded it in the series. The six main sciences which have thus been formed in the course of the evolution of thought are mathematics, astronomy, physics, chemistry, biology and sociology. The hierarchical character of Comte's scheme of classification is seen in the fact that mathematical laws are indispensable to the exact ascertainment of astronomical phenomena; that the law of gravitation which holds universally throughout the stellar world is employed in the determination of such a physical process as the fall of a body to the earth; and that the exact determination of the nature of biological processes implies a prior knowledge of physical and chemical laws. That the sciences in this scheme treat of phenomena of ascending degrees of complexity is evident from the consideration that each of the sciences includes

[1] Positive Philosophie, Book I., Ch. II.

the facts and methods of those sciences that are earlier in the series, as well as introduces new facts and methods of its own. That these sciences are in the order of decreasing generality or abstractness is obvious when we consider that mathematics is applicable to all spatial phenomena; that astronomy deals with celestial, while physics is concerned with the narrower field of terrestrial bodies; and that sociology is simply that department of biology which treats of highly developed living beings in their manifold interrelations. This relation of abstract to concrete holds not only of the sciences considered in their serial order, but characterizes their content when taken separately. Thus there is an abstract mathematics, the calculus, and a concrete mathematics, which is composed of general geometry and of rational mechanics. There is an abstract or mathematical astronomy, and a concrete or descriptive astronomy. There is a physics that deals with the principles that underlie the composition and resolution of forces, a physics that is concerned with the application of these principles to the concrete movements of masses and molecules, as well as a physics that describes the varied properties of matter. All the sciences, in the same way as those that have just been mentioned, may be regarded either from the point of view of the universal principles that underly them, or from that of the particular facts that form the subject-matter of investigation.

Although Comte's classification marked a distinct advance over that of any of his predecessors, it has yet encountered severe and merited criticism at the hands of thinkers who have since been concerned with the same line of inquiry. Of these criticisms, the most acute and far-reaching is that of Herbert Spencer.[1] In the first place, Spencer shows that Comte's use of the terms abstract and concrete is quite unwarrantable in the connection in which he employs them. An abstract science is one subject-matter of which consists of conceptions that have been dissociated from the concrete objects of sense-perception, and considered solely upon their own account. In this sense of the term, astronomy, for instance, is not in any way more abstract

[1] Essays: Genesis of Science and Classification of the Sciences.

than biology. Both are concerned with objects having groups of qualities that are accessible to observation and hence are equally concrete. What does hold of the two instances just mentioned is that the former is more *general* than the latter, that is, that its objects are more widely distributed in space and time. But even if generality in place of abstractness is regarded as the basis of Comte's scheme of classification, the order of decreasing generality, that he presents, does not conform to the facts of the case. Physics has not a wider 'extension' than chemistry. Neither the objects with which physics nor those with which chemistry is concerned are less widely distributed than are astronomical phenomena. Rather the reverse is the case, since the former sciences treat of all objects that have a material constitution. Even if the unwarranted view be taken that Comte's decreasing generality is based not upon *possible* but upon *actual* objects of perception, it would still be untrue that physics is, at the present time, less general than astronomy, as spectrum analysis has rendered the two fields virtually co-incident.

Another criticism, which Mr. Spencer makes against Comte's scheme of classification, is that the asserted dependence of the sciences, that come later in the series, upon those that come earlier, has neither historical nor logical justification. Abstract was not developed earlier than concrete mathematics. Algebra, which is based upon a generalization of numerical quantities, and hence is more abstract than arithmetic, became an exact science after the latter science had reached a highly organized form. Astronomy advanced to the position of an exact science *pari passu* with an advance in the knowledge of physical facts and laws. The law of gravitation, for example, was not first discovered as an astronomical fact and afterwards applied to the relations obtaining between the earth and the bodies on or near its surface. Its discovery, on the other hand, was rendered possible by inductions from observed terrestrial movements, and by the deductive employment of previously discovered physical laws, such as that of the acceleration of falling bodies. In each of the above mentioned instances, the historical development of the sciences in question took place in the reverse direction from that indicated in Comte's

celebrated scheme. Nor is the logical development of the sciences what Comte has asserted it to be. The natural order of mental development is not from the abstractly simple to the concretely complex, but is rather from the vague and indefinite, in which parts are only imperfectly distinguished, to the exact and definite in which the parts, while more clearly differentiated, become at the same time more closely connected with one another. It is in following out this logical law of evolution that the sciences have advanced from a comparatively chaotic condition to a position of high and increasing organization. The real sciences have invariably developed from a narrow to a wide observation of facts, and from narrow and inexact to wide and exact generalizations. Comte is wrong then in claiming that the concrete stages of a given science are dependent upon its abstract stages, since every stage, through which a science in the course of its evolution passes, is both more abstract and more concrete, that is, more highly differentiated, than that out of which it arose. The dependence in this case is that of a state of higher organization upon a state of lower organization. In the same way the separate sciences, taken as wholes, are not merely dependent upon single sciences more abstract than themselves, but are dependent, to a greater or less extent, upon the whole body of scientific knowledge which has been previously elaborated.

The third and last fundamental objection that may be raised to Comte's classification, that, namely, to its *linear* character, has been more especially emphasized by Professor Wundt.[1] The sciences, as this author points out, are not so empty of significance as to bear to one another the relation merely of superordination and subordination. Physics and chemistry, for example, could never reach the position of exact deductive sciences without the aid of mathematical laws ; but mathematics, in turn, receives an impulse to its further development by its application to the concrete subject-matter of these sciences. A certain mathematical preparation is required for the study of experimental physics, yet this discipline is also indispensable to the transition to the higher mathematics. In the psycho-physical individual, physi-

[1] Eintheilung der Wissenschaften, Phil. Studien, Vol. 5. P. 1–55.

cal, chemical, biological and psychical processes interact in all degrees of closeness and complexity, and the sciences that treat of those processes have a corresponding closeness and complexity of interrelation. Nowhere do we find evidence in nature of dependence pure and simple, but always of *inter*-dependence; and consequently, any arrangement of the sciences upon the ground of pure logical superiority and inferiority is quite without justification.

Mr. Spencer has sought to rectify Comte's errors by constructing a scheme of classification upon a new foundation. Instead of arranging the sciences in a constantly descending order of abstractness and simplicity, Mr. Spencer makes three sharp divisions of the whole field of knowledge and under each of these divisions brings a whole group of sciences. The three divisions of his system are the abstract, the abstract-concrete and the concrete. The abstract sciences are those which deal with the abstract relations of co-existence and sequence under which phenomena are presented to us, rather than with phenomena themselves. Logic is the science that treats of these relations in their qualitative character, and mathematics the science that deals with the relations in their quantitative aspect. The concrete sciences, again, are those that deal with the single objects of sense-perception, regarded not in their elements but as totalities. Between these two groups stand, as the name implies, the abstract-concrete sciences. These sciences seek to determine the laws of the actions of things, not in the context in which these things occur, but under ideally perfect conditions. They are concrete inasmuch as they deal with particular objects that exist in space and time. They are abstract to the extent that these objects are regarded as dissociated from all interfering conditions, and the laws of their movement in space determined upon their own account. These groups of sciences again, have within them a common principle of division, that, namely, of regarding the sciences from a general and from a special point of view. Thus the abstract-concrete sciences are considered from the point of view of the universal laws of force, as deduced from the persistence of force (the theorems of resolution and composition) and

from that of the laws of force as manifested in masses and molecules. The concrete sciences are viewed both from the standpoint of the universal laws of the continuous redistribution of matter and motion, and from the standpoint of this redistribution as actually going on. Thus Spencer has carried out his logical principle of the division of the sciences into abstract and concrete, both in his classification as a whole, and in the division that he makes within each of the main groups of sciences.

While Spencer has presented a much more elaborate scheme of classification than that of Comte, and has in many respects improved upon the latter's system, he has yet retained several of the faults of his predecessor, as well as added new defects of his own. In common with Comte, he regards metaphysics as having no peculiar content or method of its own, but as being simply the highest and most abstract generalization of material phenomena. As this highest generalization, with Spencer, refers to a reality that is wholly unknowable, he is only consistent with his own philosophy when he fails to introduce into his system of classification any of the metaphysical disciplines. He thus fails to recognize that metaphysics has a province distinct from that of the special sciences—an enquiry, namely, into the ultimate nature of the presuppositions which science without question accepts. For a like reason, namely, that his philosophy is essentially materialistic, Spencer follows Comte in making psychology one of the subdivisions of biology. Whatever justification there may be for this position from the standpoint of organic evolution, it is certain that, from a logical point of view, psychical processes are as legitimately the object of scientific enquiry as are any of the processes of the material world. The one set of processes is as real as the other, and a classification that ignores either lays itself open to the charge of neglecting one-half of the field of possible scientific exploration.

Spencer's scheme of classification has been criticised by Wundt, in the article which has been referred to above, on the ground that the distinction which the former author makes between the concrete and the abstract-concrete, or, in other words, between sciences that deal with totalities, and sciences that deal with iso-

lated forces, has not sufficient basis in reality. Thus the sciences which Spencer places under the head of the concrete, such as astronomy and physiology, may be regarded, just as well as chemistry and physics, as sciences that deal with elements in abstraction from their immediate context. So, also, the subject matter of physics and chemistry has just as much a concrete side, and is as much open to observation as is that of biology and psychology. In the same way, Wundt claims that Spencer's distinction between the abstract and the abstract-concrete sciences has not sufficient justification in the nature of the subject-matter with which these sciences deal. The abstractions which lie at the base of this division differ not merely in degree, but also in kind. Mathematics does not treat merely of relations which have been abstracted from the concrete relations of things, but it constructs for itself conceptual objects that are fundamentally different from the conceptions that lie at the foundation of the physical sciences. Of these new constructions it may be said, that the first impulse to their formation, but not their material, is given in concrete objects and their relations. The true distinction between the two groups of sciences is that between those that treat of real and those that treat of formal objects and relations. The former sciences are concerned with the properties of concrete phenomena; the latter with the order or arrangement of these phenomena in space and time. This latter point of view is not the result of abstraction from the objects given in perception, but is an original attitude of the mind towards the real world. It follows, then, that the mathematical sciences must be placed in a category quite distinct and separate from the sciences that treat of the sensible properties of things.

Wundt has himself proposed a method of classification which obviates many of the objections to which Spencer's scheme is open. The sciences he divides into the formal or mathematical, the real, and the philosophical. The formal sciences, as has been already indicated, deal with objects which, in their formal character, render the existence of real objects possible, but which are also capable of independent perception and of ideal construction, and, as such, constitute the subject matter of a distinct group of

sciences. The philosophical sciences, in so far as their content goes, do not form a class apart from either the formal or the real sciences. Both the former and the latter have for their aim the understanding of the same phenomenal world. The essential difference between the two is in the *extent* of the subject-matter with which they respectively deal. Each of the special sciences is limited to a particular sphere which it seeks to understand as perfectly as possible. Philosophy, on the other hand, seeks to show how these spheres, though distinct, are not separate but have an underlying unity of organization. This it does by means of an analysis and criticism of the fundamental conceptions which science and 'common sense' employ, and by a reduction of these conceptions to a single ground of unity.

In addition to this threefold division of the sciences, on a quite different principle from that of Spencer, Wundt also differs from the same philosopher in the position to which he assigns the mental sciences. These sciences in Wundt's scheme are placed upon a footing of complete equality with the sciences of nature. A new and important distinction is also introduced which is common to both these groups of sciences, although with a different application in the two cases. This is the distinction between processes and objects. According to this position, all phenomena may be regarded either from a dynamic or from a static point of view. The former aspect regards the world as changing; the latter as fixed and stable, and open to formal description and classification. Instances of the former division are the dynamics of masses, the dynamics of molecules, and the physics of light, heat, and electricity; of the latter are the sciences of astronomy, botany and zoölogy. The union of these two points of view is found in those sciences that treat of the processes of nature *in* the objects of nature, such as the physics and chemistry of the concrete bodies of nature, both organic and inorganic. In the case of the mental sciences, the distinction assumes the form of mental processes *vs.* mental creations. The typical science of mental processes is psychology. The sciences of mental creations are such as economics, the doctrine of right, and systematic theology. Mental phenomena, again, are to be distin-

guished from material phenomena as the processes of immediate, from those of mediate experience. The former treat of mental processes as they take place in the mind of the individual; the latter can form the data of any of the sciences when abstraction is made from the operation of the individual's consciousness. But if the difference between the spheres of mind and of nature is that between immediate and mediate experience, it is evident that there will be a corresponding difference in the forms of mental activity concerned in the determination of the facts of the respective sciences. Immediate experience is discovered primarily by introspection; while mediate experience requires to be ascertained by the employment of complex induction methods. Thus, this division is both a real division based on the nature of the subject matter, and a logical division based on the nature of the activity of mind employed in the ascertainment of scientific facts and laws.

This classification, which Wundt has worked out in detail, is undoubtedly in many respects a great improvement on that of Mr. Spencer. In his scheme, Wundt has at last brought the mental sciences to their true position and rescued them from their subordination to the physical and biological sciences. The philosophical disciplines are also recognized at their proper value and given an independent place as products of mental activity coördinate with the real and mathematical sciences.

In other respects, however, Wundt's classification appears to be open to unfavorable criticism. In his system, the distinction is not clearly made, or consistently carried through, between the subject-matter of the sciences and the forms of mental activity concerned in their elaboration. The mathematical sciences are distinguished from the sciences of nature and of mind as the formal from the real, but such a distinction does not serve to show wherein the mental processes in the construction of the two groups of sciences differ from each other. The philosophical sciences are given a position by themselves, but the logical methods that are peculiar to these subjects of inquiry are by no means sufficiently indicated. The division of the real sciences, again, into those concerned with mind, and those concerned with

nature is not an essentially logical division. Nor is there a sufficient difference between these two fields of reality to warrant our regarding the psychological sciences as sciences of immediate, and the physical sciences as those of mediate experience. In the case of both classes of sciences, the immediateness or mediateness of any given process depends upon the manner in which this process is viewed, rather than upon the field of reality in which it occurs. The observation of a plant, for instance, is just as immediate as is the introspection of our state of mind which is concerned with such observation. So also, the full explanation of the psychical process of association is just as mediate or inferential as is the explanation of its co-relative physiological changes. Physical science as well as psychological science has to appeal constantly to immediate experience for a confirmation of its conclusions; and psychological as well as physical facts require to be explained causally, that is by reference to antecedent phenomena.

The further distinction that Wundt makes both within the material and mental sciences, that, namely, between processes and objects, has a real, though not apparent, logical foundation. This logical ground is exhibited in the fact that the former sciences do, and the latter sciences do not, call for explanation by means of preceding processes. A process necessarily has an antecedent stage which may be qualitatively or even generically different from its present stage, and this antecedent stage requires explanation if the process as a whole is to be exhibited. It is evident, however, that the processes that occur in nature do not take place accidentally or capriciously. There is a uniformity of natural occurrences that holds throughout all space and time. Given like conditions with regard to the happening of a particular event, and we may be sure that a like effect in every case will follow. Thus causal explanation is concerned, not merely with tracing the particular antecedent of a particular event, but with discovering its law or invariable mode of action. But although there is this uniformity existing in nature, there is also a great complexity in the causes and conditions of any particular occurrence. No event in nature is so simple as not to have more than one cause

coöperating to produce it. It is, then, the task of scientific investigation to discover what are the causes concerned in the production of a given phenomenon, what antecedent events are irrelevant and also the precise manner and degree in which a given cause is active in bringing about the effect. There is also the problem—and in practical life this is the more important of the two—to determine what are the elements involved in a complex *antecedent* event, and what will be the probable *effect* of each of these elements. It is to resolve such great complexity that the inductive methods of experiment, hypothesis, agreement and difference, are brought into operation. Where objects as such are to be scientifically treated, none of the aforesaid methods are employed, but rather the methods of accurate observation and analysis, of comparison and of systematic classification. Here description rather than explanation is the aim of the scientist, although such description may require careful discrimination from related phenomena, as well as subsumption under appropriate species or genera. This description, when accurately given, holds good once for all, and demands no reference to phenomena out of which the given object has arisen or evolved. Thus, although Wundt has not made the fact explicit, there is a clearly marked logical distinction implied in his division of the real world into processes and objects.

In constructing a plan of classification upon ultimate principles, it would seem that two distinct factors must be given equal consideration. In the first place, such a classification should be based upon the nature of the mental activity concerned in the elaboration of the different sciences. The nature of this activity is best expressed, not by the principle of abstractness and concreteness, for that constitutes too general a principle of division, but by the particular character of the methods which the mind employs in dealing with the material furnished it by the different spheres into which reality is divided. On the other hand a classification based upon method is purely logical in its nature, because there is no reference to the character of the reality that the method undertakes to interpret. The same method may be applicable to widely different spheres of the real world. At the same time, the

simplicity or complexity of the method constitutes an adequate criterion of the nature of the mental activity which is brought into exercise. Nevertheless, a division of the sciences based upon method needs to be supplemented by a division based upon the nature of the subject-matter upon which it is employed. The mind does not work *in vacuo*, but the possibility of its operation is conditioned by the experiential material which is presented to it. In every case the nature of the reality, with which consciousness deals, determines the particular direction of its methodical operation. While objects by themselves do not constitute an adequate principle of classification (for the same object, when regarded from different points of view, may furnish the subject matter of many different sciences), yet the nature of these objects must certainly be taken into account when constructing a classificatory scheme upon an adequate foundation. Otherwise, the plan proposed would be empty and formal, and would have no direct reference to the real world. Just as knowledge is constituted by interaction

METHODS.	OBJECTS.				
	CONCEPTUAL.		REAL.		
	Philosoph.	Mathematical.	Inorganic.	Organic.	Psychical.
Reflection.	Metaphysics. Theory of Knowledge. Logic. Ethics. Æsthetics. Theology.				
Deduction.		Geometry (Analytic and Synthetic). Arithmetic. Algebra.			
Deduction and Induction. (Theory, Hypothesis, Experiment, Agreement and Difference.)			Physics (General and Special). Chemistry (General and Special). Theory of the Ether. Astronomy (Mathematical). Geology (Dynamical).	Biology (General and Special). Physiology.	Psychology. Economics. Sociology. Pol. Science. History (Explanatory).
Observation, Comparison and Classifica'n.			Astronomy (Descriptive). Mineralogy. Geology (Structural and Historical). Geography.	Morphology. Anatomy. Botany. (Structural.) Zoölogy. (Structural.)	Anthropology. Ethnology. Philology. History (Descriptive).

between mental and physical processes, and differences in either of these factors will give differences in the total product, so a true scheme of classification needs to take account both of the acting mind, and the material upon which it operates. In other words, a true scheme of classification should be explicitly two-dimensional, having reference both to the logical nature of the mental activity involved, and to the distinctive character of the different spheres of reality, the sciences which it attempts methodically to arrange.

In the preceding table of illustrative sciences, both of these ultimate principles have been given equal prominence, and each of the leading sciences is classified from the two fundamental points of view of subject matter and logical method. The former point of view, or that of objects, is again regarded from the standpoint of real and conceptual objects. The distinction between these two subdivisions is, on the one hand, that of things existing in space and time, and therefore perceptible, or regarded after the analogy of perception, and, on the other, mental constructions considered in independence of the concrete subject-matter from which they are abstracted. This distinction, however, is not an absolute one, since the real sciences use laws and principles to interpret the concrete phenomena with which they deal and, again, the ideal constructions of geometry are capable of perceptual representation. Real objects are sub-divided into the distinct, though by no means separable, classes of the inorganic, the organic, and the psychical. The division of conceptual objects into philosophical and mathematical objects is made on the basis of logical universality and non-universality. The conceptions of philosophy are those that refer to the universal and ultimate nature of thought and reality, while those of mathematics have reference merely to the quantitative aspect under which reality is to be regarded. Space, for instance, when considered philosophically, has to be brought into connection with the wider realm of the knowable, especially with the overlapping activity of the mind. When, however, it is regarded mathematically, its province and its fundamental conceptions are rigorously defined, and definite results are obtained by confining scientific enquiry within precisely determined limits.

The division that has been given of logical methods is grounded upon the nature of the mental activity employed in interpreting the real world. In reflection, the mind adopts the regressive rather than the progressive attitude. It starts from a given fact or principle, and by analytical investigation seeks to determine the presuppositions upon which it is based. It thus advances, or rather recedes, from the particular to the general, from the given to its underlying assumptions. This is the method *par excellence* of philosophy. Its aim being to give an ultimate explanation of the real world, it starts from the assumption of ordinary knowledge and science, and by an analytical treatment of these data it endeavors to reach the 'first principles' upon which they are based. It takes nothing for granted, except, indeed, the rationality of thought and the knowability of things, but seeks to place all unalyzed assumptions in the crucible of an all-embracing criticism. The method of deduction, on the other hand, is to advance from certain laws or principles to laws or facts that are of equal or less generality in their scope. This progress it accomplishes by combining different judgments in such a way as to give a valid conclusion. Such a combination does not take place in a mechanical fashion, but is accomplished syllogistically by passing from premise to conclusion by means of the continued identity of the middle term. The most perfect instance of deduction is found in mathematical reasoning. Here every stage of the inferential process is established with quantitative precision, a fact which enables the conclusion to be stated with a like degree of exactness. As the relation between deduction and induction is a very close one, these methods have been placed together in the scheme of classification that has been presented. The aim of all the causal sciences is to reach the position of being able to deduce particular facts from pre-established laws with unerring certainty. Thus, the more developed such a science becomes, the greater becomes the range and accuracy of its previsions. But in order to reach such a position, it is forced to pass through the preliminary stages of imperfect inductions which it tests by such methods as those of experiment, hypothesis, and agreement and difference. These inductions, in turn, cannot be confirmed solely by direct reference

to concrete phenomena, but involve deductive inferences from laws already established. Thus, in the imperfectly developed condition of the real sciences, that exists at the present time, induction and deduction are mutually dependent. Even were these sciences placed upon a completely deductive basis, they should still be *taught* by passing the student through logical processes similar to those experienced by the sciences in question in the course of their formation. The last division we have made of logical methods, that, namely, into the methods of observation, comparison, and classification, implies, as has been indicated above, a static and descriptive way of viewing reality. Even where the objects of reference are processes, as happens in the case of history, these processes are treated simply in themselves and not as open to explanation by reference to antecedent processes. The three methods of this group have been placed together for the reason that they are inseparably involved in the construction of the descriptive sciences. Observation alone cannot lead to the construction of a science. There must be some principle, however superficial, which connects the facts observed, before this group of facts can be entitled to the rank of science. The most superficial of these principles are those of space and time, which serve as the bases, respectively, of geography and history, when these sciences are taken in their simplest and crudest possible acceptation. The mere spatial and chronological arrangement of parts, however, must be supplemented by comparison, by classification, or by causal explanation, if the resulting product is to take the name of a science. Thus anatomy is a science, not so much from the fact that it observes and arranges spatially the parts of the animal organism, as from the fact that it namest hose parts, and compares them with one another and with related organisms, with the purpose of discovering their essential points of identity as well as their minor points of difference.

The grouping of the sciences, that is here presented on the basis of the logical methods employed in their formation, must not be taken as by any means an absolute one. It may be truly said that no method is the exclusive property of any single group of sciences, that, in fact, every method is more or less directly

involved in the construction of every science. All that our classification according to method designs to effect is to indicate the dominant or essential logical process employed in the elaboration of a given group of sciences. That other methods are necessarily involved in such elaboration does not detract from the validity of the classification. Thus the method of reflection occupies an important place in the construction of the psychical sciences, especially in the formulation of their definitions, but it is not the dominant or characteristic method which these sciences employ. Observation is a necessary preliminary process to the formation of physical or chemical inductions, but the main purpose of such inductions is to establish laws from which facts may be deduced without the intervention of immediate experience. Every system of classification is forced to recognize the fact, that, corresponding to the interdependence of the parts of its subject-matter, is the relativity of its classification and that, consequently, every one of its divisions is more or less applicable to every one of the parts of the reality with which it has to deal.

In the accompanying classificatory table no attempt has been made to give a complete list of the sciences which have been grouped under the different sub-divisions. All that has been designed to attain is to exhibit graphically the ultimate principles upon which a true classification should be based, and to place in their appropriate class the most important of the sciences. Nor, in the brief explanation of the grouping that has been given, is any attempt made at an exhaustive treatment of the subject. Lack of space, as well as lack of knowledge of the details of the special sciences, precludes the writer from completely carrying out this programme. What has been attempted is to select those sciences that are most typical, and seem most to call for explanation, and briefly to describe their character, and to give the reasons for the places to which they have been assigned.

Of the philosophical sciences, metaphysics seeks to determine the ultimate constitution of the world. It asks such questions as, Is reality, in the last resort, one or many? Is it real or ideal? Is it spiritual or material? In order to obtain an answer to such questions it requires to examine reflectively the conceptions both

of science and of ordinary thought, since it is through the judgments of science and of 'common sense' that an acquaintance with the nature of the real world is rendered possible. Thus it seems that metaphysics presupposes a theory of knowledge. Such a theory implies an investigation of the relation between the mind and its object, as well as an enquiry into the nature of the different elements of knowledge and the connection that exists between them. Logic, in distinction from epistemology, deals with the distinctively *rational* part of knowledge, or knowledge as it is constituted by judgment and inference. Formal logic is concerned simply with the various linguistic forms that judgment and inference assume, without regard to the content or meaning which these forms express. Speculative logic, on the other hand, treats of the act of thought in its necessary connection with an object, and evaluates its judging and reasoning processes on the basis of the reality which these processes interpret. Ethics and æsthetics may be regarded either as real or as conceptual sciences. From the former standpoint, ethics asks the question, What do men actually aim at? What do they in common desire? From the philosophical point of view, on the other hand, it deals with the ultimate nature of such conceptions as the pleasant—the unpleasant, the right—the wrong, the good —the bad. In the same way, æsthetics, as a real science, studies standard works of art with the aim of discovering the principles that determine taste and enter into the construction of the beautiful; as a philosophical discipline, it enquires concerning the way in which, and the extent to which, these principles are constitutive of knowledge and reality.

The real sciences, which are formed through the employment of the combined method of deduction and induction, may be divided into those whose laws are, and those whose laws are not, capable of precise quantitative statement. To the former belong the inorganic and the organic, to the latter, the psychical, sciences. The reason for this fact is, that the processes and objects of the physical and biological sciences can be weighed and measured by exact quantitative units, whereas, psychological processes are irreducible to a numerical basis of measurement. Yet the psy-

chical sciences are not on that account prevented from reaching a highly deductive position. Psychical qualities have duration and degrees of intensity, and the relation between stimulus and sensation is expressible in roughly exact quantitative terms. Psycho-physical generalizations, as well generalizations as to the relations between one psychical process and another, can be established, and from these laws facts can be deduced with an approximate degree of exactness. The leading inductive sciences, again, may be regarded either from a general or from a special point of view. Thus physics, from the former standpoint, investigates the laws of composition and resolution of forces, and the laws of the movements of masses and molecules. From the special point of view, it treats of the properties and laws of such phenomena as heat, light, sound, and electricity. General chemistry is concerned with the nature of the connection between physical and chemical processes, and with an elaboration of the atomic theory. Special chemistry treats of the analysis of material substances into their elements, and with the laws by which these elements are combined with one another. Biology may be regarded either from the point of view of the origin, reproduction, and evolution of life, or from that of the structure and function of cells and of protoplasm. Economics is deductive to the extent that it derives new truths from such pre-established laws as those of diminishing returns and of marginal utility. It is inductive to the extent that these laws are obtained through the observation of present economic facts and relations, or through historical analysis. In a like way, sociology is deductive and theoretical in so far as it deals, *a priori*, with the laws that are observed to obtain in such social relations as those of group affinities and antagonisms. It is inductive in so far as it infers from present or past social phenomena the laws that represent the order and progress of society. History is explanatory in so far as it investigates the causes and tendencies of events, and is enabled from the laws thus generalized to predict, with greater or less minuteness, the events to take place in the future. It is descriptive in so far as it deals with such events merely *as* events, and in the order of succession in which they actually occurred.

We close this sketch of some of the essential characteristics of the leading sciences by a single additional word of explanation. A separate place has not been assigned to the history of the different sciences, for the reason that the history of scientific ideas is so intimately bound up with the nature of these sciences themselves as to constitute practically the same subject of enquiry. A knowledge of the history of a given science from its inception to its present stage of development, presupposes an acquaintance with its facts, laws, and methods. A science and the history of its development are not so much separate disciplines as two distinguishable aspects of the same sphere of investigation.

G. A. COGSWELL.

REVIEWS OF BOOKS.

The Metaphysics of Experience. By SHADWORTH H. HODGSON, Hon. LL.D., Edin. In four volumes. New York: Longmans, Green & Co., 1898.—pp. xix, 459; viii, 403; viii, 446; viii, 503.

Mr. Shadworth Hodgson, who has been before the public as a philosophical writer for over twenty years, has now given us the final summing up of his reflections in four portly volumes. *Finis coronat opus.* We may take it for granted that the author's philosophy has now reached a form which it will retain, so far as he is himself concerned. In attempting to make some estimate of the value of Mr. Shadworth Hodgson's system, it is impossible to deal with the various and complex material presented by him, at least with anything like thoroughness; and it may therefore be better to attempt a statement of his main position and the conclusion to which he is finally led.

The title of the book—"The Metaphysic of Experience"—at once gives us pause. There are in philosophy no two terms the meaning of which is more fluctuating and uncertain. The former term, though it was not used by Aristotle, may be rightly taken to mean an actual or attempted synthesis of reality as a whole, in contradistinction to a partial or provisional synthesis. The latter term, again, is the fruitful mother of indefinite and confused thinking. In Aristotle it meant very little more than ordinary practical tact or rule of thumb—those everyday judgments, such as that 'fire burns,' which everybody makes who has a mind at all. In modern times, however, 'experience' has had a varied career of ambition, downfall and restoration; but, what is most important for us, it has never, or hardly ever, been used without tacitly conveying a reproach and an assumption. Whenever a writer talks about basing his philosophy upon 'experience,' it is well to beware of him. Every modern thinker must, and does, mean to base his philosophy upon 'experience.' Mr. Shadworth Hodgson is as far as possible from an agreement with Mr. Bradley, but both appeal to 'experience.' When, therefore, our author tells us that he places himself 'on a strictly experiential basis' all that he conveys to one's mind is the conviction that he is going to be polemical and dogmatic. And so it is, for he goes on to say that "the Kantian philosophy, and those philosophies which have, as it were, sprung from its loins, never get beyond the psychological point of view, for they are based on the distinction between Subject and Ob-

ject as an ultimate as well as an indisputable one." This contention is a fair instance of that juggling with terms which pervades and disfigures the whole of Mr. Shadworth Hodgson's book. The force of the charge against 'the Kantian philosophy' and its successors, lies in the meaning attached to the term 'psychological.' The writer must know that such English exponents of Kant as the Master of Balliol maintain that The Critique of Pure Reason is only 'psychological' in the sense that Kant had not quite freed himself from an assumption which Mr. Shadworth Hodgson everywhere makes—viz., that the mind may be treated as one object among others—an assumption which is fatal to all sound metaphysical thinking. Then, there is something almost ludicrous in the statement that Hegel regards "the distinction between Subject and Object as an ultimate as well as an indisputable one"; the apparent force of which lies in a confusion between the 'distinction' and the 'separation' of subject and object —the former of which Hegel affirmed, while the latter he denied. But, indeed, if the reader desires to understand Hegel, he had better read that author himself, rather than such perversions of his system as are at present current. In the further statements of Mr. Shadworth Hodgson's views, it is not proposed to refer to his criticisms of others; it is enough to say that there is no single author to whom he has referred who would accept his interpretation.

What does the author mean by 'metaphysic'? Its problem, he says, is "that of being generally, in contrast with that of material being only. It suggests subjectivity, that is, perception and thought, as its mode of approaching phenomena, in contrast with the objective mode, by way of observation, hypothesis and experiment, which assumes matter as something external to the percipient. And it suggests analysis of a knowledge into something else than atoms of knowledge, again in contrast with the physical hypothesis, that matter is ultimately composed of material atoms physically indecomposable. For the proper antithesis of metaphysic is empiric, which means taking unanalyzed concretes as ultimate facts, and dealing with them on that basis. . . . . The subjective analysis of experience is in the true sense of the term *Metaphysic*: and this, together with the conclusions which may be drawn from it, is metaphysical philosophy, and the only philosophy worthy of the name" (I, 10–11). There is no single statement here which is not open to challenge. How is it possible to maintain the opposition of 'being generally' and 'material being,' the contrast of a 'subjective' and an 'objective' 'mode of approaching phenomena,' 'analyzed' and 'unanalyzed' facts? As

to the first point, metaphysic cannot deal with 'being generally' unless it includes 'material being.' It is not a special science, standing side by side with physics, but the science of sciences; otherwise, as Aristotle long ago pointed out, we should need another science to give the final synthesis. Until this superstition of metaphysic being a special science is exploded, we shall never emerge from the quagmire of common-place assumption into which we have drifted. There is only one 'science,' metaphysic, all other so-called 'sciences' being simply branches of this one single 'science.' That this obvious truth has been so often overlooked is due to the fact that the special branches of 'science' are now cultivated by men who are not familiar with the only one 'science'; with the natural result that, while their conclusions have a real practical value, they are theoretically almost worthless. It will help to clear up our ideas, if we consider that a complete master in philosophy would have a perfect grasp of all knowledge. This ideal is of course now-a-days impossible, in a way that it was not impossible in the time of Aristotle; but it is still the ideal, and may be approximately obtained by a proper use by the metaphysician of the results of the special investigations of others. But no metaphysician, who begins by opposing his science to other branches of knowledge, can possibly give us a true metaphysic, for the simple reason that he is viewing 'being generally' as if it were a special department of 'being,' which can be isolated and considered apart and by a special method. Hence, secondly, our author's contention that the method of metaphysic is 'subjective' is due to the same untenable assumption that there is a special department of 'being' with which it deals. By what right does he say that physical science "assumes matter as something external to the percipient"? That representatives of physical science have done so, is no doubt true; but this only shows that, without knowing it, they were bad metaphysicians. There can be no 'matter' which is 'external to the percipient'; the proposition may be stated in words, but it has no intelligible meaning; and it seems a strange thing to assume that physical science must be based upon nonsense. The truth is that Mr. Shadworth Hodgson has not himself got rid of this very assumption; and hence he talks of metaphysic as an 'analysis of our knowledge,' or the 'subjective analysis of experience'; in other words, he regards the work of the metaphysician as consisting in concentrating his attention upon 'inner,' as opposed to 'outer,' experience.

Having made this initial assumption, the author naturally goes on to apply his method to what he calls 'experience.' And here the

ambiguity of that term plays a leading part. 'Experience' is not a congeries of 'unanalyzed' facts, which may be interpreted by 'analysis.' If some one tells me that he finds his 'experience' to be of such and such a character, and that, setting aside all assumptions, he simply states what it is, one can only wonder that he does not see the entire fallacy of his procedure. For *whose* experience is he going to analyze? If primitive man could be interrogated as to his 'experience,' what would be the result? Certainly something very different from that of Mr. Shadworth Hodgson. Now, if our author may appeal to his 'experience' as ultimate, why may not anybody adopt the same method? Mr. Shadworth Hodgson finds as the result of his analysis, for example, a conception of God which to me seems untenable: yet, unless we are to exclude from 'experience' all conceptions of the ultimate nature of things—which is impossible—one man's 'experience' as such has as good a claim to be regarded as a primary datum as another's. What this shows is, simply, that there is no sound method of constructing a Metaphysic on the basis of 'experience,' conceived as containing a quantity of raw material which only differs from the final result obtained in being wanting in clear articulation. The metaphysician must not only consult his 'experience,' but he must of necessity *interpret* it in the light of a comprehensive and self-consistent system, and he inevitably will do so, though he may imagine that he is simply accepting the 'facts' of his 'experience.' A 'science' cannot be constructed without comprehensive vision. This, of course, does not mean that 'science' is independent of 'experience'; but it does mean that 'experience' is a process in which the intelligent subject transforms the material with which he begins; a process which cannot be effectively carried out without what Mr. Bradley calls a "'sceptical study of first principles.'" This 'sceptical study' Mr. Shadworth Hodgson seems to have made very easy to himself.

If the reader will turn to the last chapter of Mr. Shadworth Hodgson's book, he will be enabled to see how the dogmatic assumptions and the false method of the whole work have their revenge. Speaking of the 'universe,' he tells us that "we cannot positively conceive it, in its entirety, as a single real existent in the full sense, that is, as a real condition capable of action and reaction with other real existents . . . It is only finite objects, or objects thought of as finite, that we can conceive as standing in the relation of real conditioning, or, as it is usually called, cause and effect, to other objects. To conceive the universe as a single real existent in the full sense of reality . . . is

incompatible with the essential characteristics of infinity and eternity . . . the name *universe* meaning the object which is so thought of, and our thought being subject to the forms of time and space . . . We cannot . . . conceive as a single existent, limited in time and space, either the non-material and unseen world, taken as the real condition of the seen, or the universe which embraces both. . . . Our objective thought of the universe, then, we can conceive, but not the universe as the object thought of (IV, 363–364). . . . The conception of infinity and eternity is itself a conception of the perceptual fact, that they transcend the limits of conception (367)."

Now, it is of course true that the 'Universe' cannot be adequately characterized by the category of causality; but why should it follow that it cannot be conceived "as a single real existent in the full sense of reality?" The author's reason is the old one, that 'our thought' is 'subject to the forms of time and space,' or, in other terms, that 'infinity and eternity' 'transcend the limits of conception.' But they only 'transcend the limits of conception,' when by 'conception' is meant a representation of them as if they were a definite individual thing, alongside of other definite individual things. 'Infinity' and 'eternity,' however, are not 'things' at all, and cannot be pictured: they are relations comprehensible by thought, and comprehended every time they are thought. This confusion between a representative picture and a true conception has been repeatedly pointed out, and until it has been transcended a worthy Metaphysic is impossible. All conception proper is of the 'infinite,' *i. e.*, every conception is the grasp of what reality in a particular aspect is. That $2 + 2 = 4$ is a conception, and it involves the 'infinity,' or, in other words, the essential and unchangeable nature of the relation; and similarly, the conception of the Universe as one is necessarily the comprehension of what it really is; unless we are prepared to say that plurality is a higher conception—a view which seems to me to be unthinkable. The conclusion, then, of our author's elaborate work is simply the explicit statement of the dualism with which he started. The remainder of the chapter is an unsatisfactory attempt to reinstate popular theological conceptions.

Though I cannot regard Mr. Shadworth Hodgson's work as making any substantial contribution to Metaphysic, I gladly acknowledge the great ability he everywhere displays, especially in the criticism of materialism. In this respect, and as a contribution to psychology, his work is well worthy of the most careful study; and no one can read it without stimulation and profit.

QUEEN'S UNIVERSITY, KINGSTON, CANADA. JOHN WATSON.

The Development of English Thought. A Study in the Economic Interpretation of History, by SIMON N. PATTEN, Ph.D., Professor of Political Economy, University of Pennsylvania. The Macmillan Company, New York and London, 1899.—pp. xxvii + 415.

The student of the history of philosophy is naturally disposed to give cordial welcome to a work which seeks to make possible a better interpretation of the most important period in English thought. None can doubt that when the history of philosophy shall be written in more adequate fashion it will be presented in a far more intimate relation to the basal activities of life—to man's work and social atmosphere—than it has as yet assumed. There is much in the present work which will contribute toward a better investigation of the conditions of English character and thought. On the other hand, the student of philosophy finds such careless and unwarrantable statements, such confident assumptions based on the slenderest evidence, when the author discusses philosophical writers, that grave doubts arise as to the trustworthiness of the author on his own special field. One is forced to ask continually when reading sweeping generalizations for which no specific evidence is advanced: 'Can one accept this as reliable, or is it merely the author's guess, brilliant it may be, but still likely to betray the student from another field who ventures to make use of it?' A further disadvantage of the book is that the author does not adhere very closely to the method which we naturally expect. In place of an analysis of economic and commercial conditions, we frequently find some psychological theory of attractive picturesqueness but dubious value, or some feat of literary criticism which makes the development of Hobbes or Hume fit into the appropriate place in a scheme, but which has no basis in fact.

The opening chapter outlines the theory of which the remainder of the work is intended to furnish the application. The psychology of this theory has been examined in considerable detail elsewhere,[1] and it will suffice to notice here those aspects of the theory which stand in closest relation to the author's historical interpretations.

Premising the assumption that knowledge is a synonym for "sensory ideas, brought by the senses from the environment," the author offers the following theory as to national character and race ideals. The psychological basis of national character is found in the motor reactions which have become habitual as necessary for survival in the peculiar environment amid which the nation has passed its formative

[1] By Professor Angell in the *Am. Jour. Sociology*, May, 1899, and by Dr. Fite in the *Am. Jour. Polit. Econ.*, June, 1899.

period. Race ideals are defined as the "visualized groups of sensory ideas" which have in the past aroused such motor reactions as were requisite for survival. The race ideal may be changed when a new group of sensory ideas is connected to the inherited motor mechanism. This is 'conversion.' The English people illustrate this on a large scale by their appropriation to the service of government and law of the reactions formerly connected with the Church while religion and morality are left unstable, whereas in France religion is stable but the political ideals have no stable instincts (p. 187). This mode of statement may commend itself for its simplicity, but it does scant justice to the complex character of the emotional life, and supposes a looseness of relation between intellectual, emotional, and volitional activities which is contrary to the whole present tendency of psychological analysis. To speak of the Greek kalokagathia, or of the English love of personal liberty, as a "group of sensory ideas" is not merely to ignore the fact that such ideals are largely motor rather than sensory in their imagery, but also to ignore the element of valuation which distinguishes an ideal from an idea; and if it be replied that this is omitted purposely in order to state the process in objective terms, the question arises, why enter the subjective sphere at all by the term 'sensory' ideas.

Next comes the classification of environments as local and general, with a 'pain economy' corresponding to the former, and a pleasure economy to the latter. In the former, which is the more primitive, quick instinctive action is demanded, but there is "little use for fine sensory distinctions." But this can hardly be regarded as other than a curiosity, when one thinks, not merely of the American Indian, but of other peoples in local environment, and to say that "a quick decision and its immediate execution are more important than a correct apprehension of the character and qualities of the objects toward which the activity is directed" is to utter what is no more true of the primitive man than of the modern captain of industry; neither can afford time to observe what does not relate to action. The 'philosopher,' as Socrates confessed, has little chance for 'survival' in either epoch. Classifications of society, based on wealth or social position, should be replaced, in Professor Patten's opinion, by divisions according to psychic characteristics. The four main classes are: (*a*) 'Clingers,' developed by localities with restricted food supply; (*b*) sensualists, warriors, adventurers, capitalists developed by improving conditions and widening fields of activity; (*c*) 'stalwarts' produced in highly developed societies, frugalists in their economic habits, lovers of dogmas and creeds, exemplified especially by the Puritans; (*d*)

'mugwumps,' highly developed on the sensory and analytic side at the expense of the motor, critics, not actors. This classification will challenge less criticism than the statements as to the four stages of reflective thought, which are declared to arise in the following order (!) the economic, the æsthetic, the moral, the religious. Each economic environment creates a series of these four. "The history of each epoch is thus practically independent. The ideas of each epoch do not grow out of the similar ideas of the preceding epoch, but are formed anew out of the new conditions."

If for 'economic environment' we should read 'economic and social environment' we should have a half-truth, well worth stating in opposition to the practice of separate histories of æsthetic, moral, and religious thought, but when taken seriously it means an entire ignoring of the intellectual environment in which a thinker grows up, and this is certainly as real as the economic environment. The dogma leads to curious results in the course of the attempt, made later, to explain Hume's thought as quite independent of Locke and Berkeley.

Lastly, at every transition to a new environment, one type of men with strong powers of observation will seek to understand national and social affairs through a detailed observation of particular events. They move on an 'upward curve' from fact to theory. Such are the economists. Another type, in which the race instincts are strongest, seek to find in the new epoch new stimuli for the old motor reactions, *e. g.*, a new thought of God for religious instincts. These are prophets, moralists, or philosophers, who move on a 'downward curve' seeking a new content for old ideals. Locke, Hume, and Mill are the "three economists on the upward curve" of the three epochs of English thought. Newton, Adam Smith, and Darwin are the three corresponding philosophers or "thinkers on the downward curve."

So much for the general theory outlined in the first chapter. The five succeeding chapters deal respectively with the antecedents of English thought, especially the economic and social conditions; the Calvinists, in which Puritanism in general, and Hobbes, Locke, and the Deists in particular, are considered; the Moralists, with special attention to Mandeville, Hume, Adam Smith and the Wesleyan movement; the Economists, emphasizing Malthus, Ricardo, Mill, Darwin, and the poetry and religious ideals of this century; and finally furnish concluding remarks on present conditions. Of these the first contains much suggestive material and analysis. One of the most valuable

points in its bearing upon the later religious and moral development is the antithesis between the communal life with its festivals, and the home or family life with its peculiar virtues. It was the growing emphasis upon the latter which found expression in the Puritan's denunciation of the former. The doctrine that the Church opposed crime, and Protestantism opposed vice, has also its truth, although it is somewhat puzzling to be told on pages 92 f. that primitive societies (*e. g.*, the Germans before the introduction of Christianity) punished vice much more severely than crime, and then on pages 122 f. that vice "comes into being only when (as in the time of the Puritans who were 'visualizers') men are able to picture a long series of events and perceive the evils that flow from them."

The last chapter will have special interest for the general reader. It sounds odd, however, in the light of the historic power wielded by the Roman church when we read: "What fathers and mothers think and do affects the history of the race. The deeds and fancies of steriles are of interest only to themselves." Since Socrates's glowing portraiture of his Eros, the teacher and writer have fondly supposed that there is such a thing as intellectual heredity.

Leaving Chapter V for more intelligent appreciation by economists, the philosophic student will naturally look to the chapters on the Calvinists and the Moralists for suggestions as to his own immediate field. Calvinism found congenial soil where "the clannish spirit is strong," *i. e.*, among mountaineers and city artisans. "The Reformation in England was due to three sets of ideas: frugalistic concepts, the feeling of the solidarity of responsibility, and the influence of the Bible." This last factor had its effect through the substitution of the 'word pictures' of the Puritan who was a reader, for the 'color pictures' of the Cavalier, who was an observer. It is no doubt true that the Puritan did live and move in the world of the Hebrew law and prophecy; but it is an example of Professor Patten's constant tendency to overwork his principles when he says (p. 119): "The king said, 'No bishop no king,' because he had never seen a king without a bishop," and not being a word-visualizer, he could not, like the book readers, get the idea in any other way. As though there were no more fundamental analogy between episcopacy and monarchy than an association of ideas, or as though the only objection of the cavalier to ecclesiastical democracy was based on inability to visualize.

The treatment of Hobbes is the first of a series of discussions of the development of philosophical writers in which Professor Patten does not appear to good advantage. He has apparently not taken the

trouble to verify by dates and editions the statements which suggest themselves as plausible. We read, for example, on page 146, that the idea of a state of war was an afterthought to Hobbes. "In his earlier works he talks only of the condition of war, or sometimes advancing a step farther he speaks of an estate of war. In the *Leviathan* the nearest he comes to it is in the phrase 'man by mere nature.' It is only in the *Philosophical Rudiments of Government and Society* that the thought is fully expressed, and there he has a note explaining its meaning, a clear proof that the thought in this form is new to him and therefore requires explanation." Now the above quotation from Professor Patten, if I understand it, implies that the *Leviathan* was prior to the *Philosophical Rudiments*. But as a matter of fact both appeared in the same year, while, what is more to the point, the latter is but a translation of the *De Cive* of 1646 where the note is found also. Even if the note was not in the earlier edition of the *De Cive* in 1642 the phrase 'status belli' was in all probability there, and if in 1646 he attached the meaning of 'state' to the Latin 'status,' it is at least very improbable that the term had earlier a radically different meaning.

The treatment of Locke is an attempt to prove the thesis that he was an "economist on the upward curve." This involves demonstration that his primary object was not to show the origin of ideas by the method of looking into his own mind, but to combat 'enthusiasm.' The central principle of his work is 'indifference.' Considering that Locke wrote after the Restoration, one would naturally suppose that the economic, religious, and political atmosphere of the period would be looked to as explaining such a position—assuming that this is really characteristic of Locke—but instead we find it referred solely to the fact that Locke had contracted consumption, "lost his taste for vivid pictures, and so no longer sympathized with those who were moved by mental visions," (p. 160). Few who read Locke thoroughly and sympathically, however, will be inclined to assent to the word 'indifference' as expressing his fundamental characteristic. A contempt for fruitless logomachy does not belie the serious and strenuous advocacy of truth, religious liberty, and personal rights which breathes in his works, and is reflected in the lines of the face.

Professor Patten's treatment of Mandeville seems to me to state correctly Mandeville's position, and to illumine it admirably by analysis of his environment. The section upon Hume, on the other hand, is almost a series of unfounded and often clearly erroneous statements. The thesis maintained by Professor Patten is that the starting point of

Hume's development lay not in Locke but in Mandeville. The final blending of Hume's philosophy with that of Locke was an accident. The *Treatise* in its inception was intended to be not a philosophy, but a book on social science. The part first written was the book on the Passions. This was followed successively by Parts Fourth and Third of the book on the Understanding, and not until Part Second of this book does "the influence of Hume's predecessors become apparent." Now, the general thesis as to Hume's intention and early interest may or may not be true. It certainly is not true that his early interest was exclusively centered in social questions, for in his letter to Elliot (Life of Burton, I, 332) he speaks of his dialogues on natural religion and then says: "'Tis not long ago that I burned an old manuscript book, wrote before I was twenty, which contained page after page of the gradual progress of my thoughts on that head. It began with an anxious search after arguments to confirm the common opinion; doubts stole in, were dissipated, returned;—it was a perpetual struggle of a restless imagination against inclination, perhaps against reason." Is not the transition from such a state of mind as this to a consideration of the general problem of 'Probability' and Knowledge a much more probable one than the transitions suggested by the author, which are that Hume when ill read Mandeville's "tirade against deductive physicians," generalized the latter's "crude statements into the general proposition that reason is 'wholly inactive' and 'utterly impotent' (in the book on the Passions), then in the spirit of complete skepticism wrote in Book I, Part iv, that all knowledge resolves itself into probability, which he finally corrected in Part iii into the title Knowledge *and* Probability? As evidence for such a progress in Hume's thought, apart from the title, the author relies especially on the indications from Hume's later revisions of his works as to which parts were first written, the general assumption being that the more youthful statements suffered most (p. 216). Now, it is quite true that the book on the Passions suffers severely on its reissue as the *Dissertation*, and in particular the passage on the relation of reason to passion, but I cannot see how any one with the *Treatise* and *Enquiry* before him could write the following (p. 216): "He never shows any sign of repentance for having printed his ideas on cause and effect, nor for *any of the doctrines of the understanding; they stand out more clearly with each rewriting*" (Italics mine). When we think of the doctrines of space and time scarcely alluded to in the *Enquiry*, and of the doctrines as to external existence, as to the nature of substance, as to personal identity, as to the immateriality of the soul, as to the soul as a bundle of

perceptions, all entirely omitted from the later writings, we are forced to wonder in just what respect they 'stand out more clearly.' Surely these, also, are quite ample to account for the expected enmity of the metaphysicians, logicians, mathematicians, and theologians. It is because of such writings as this that the historical student feels that suspicion as to the author's seriousness, which is stimulated in the general reader by the line of causation noted on p. 193, where the bath tub is reputed first to have transformed the sensualist Englishman to a gentle optimist; then, by cooling his blood, to have created the need for tea-drinking, and thus indirectly to have brought about the increased pleasures of home life and prepared the way for the controlling influence of woman in the modern family. In spite of its frequent brilliancy of suggestion, the student will hardly be able to accept the author's interpretation of the development of English thought as final.

J. H. TUFTS.

THE UNIVERSITY OF CHICAGO.

The Foundations of Zoölogy. By WILLIAM KEITH BROOKS, Professor of Zoölogy in the Johns Hopkins University. New York, The Macmillan Company, 1899.—pp. viii, 339.

Columbia University publishes as the fifth volume of its biological series thirteen lectures by Professor Brooks of Johns Hopkins, on "The Principles of Science as Illustrated by Zoölogy." They form a book that is to the philosophical student extremely interesting, though at times difficult and somewhat baffling. The last-named characteristic is due, perhaps, to the great caution with which Professor Brooks guards his statements on all doubtful points, a caution that, on the other hand, gives us the more confidence in his scholarly and scientific spirit. The difficulty of the work, however, is not a little increased by the nature of the author's style, a series of disconnected paragraphs often making it no easy task to follow the argument from page to page. But the volume is one that should be read by everyone who is interested in seeing how certain familiar philosophical problems look from the zoölogist's point of view.

The most important topics discussed in these lectures may be grouped under three heads: first, the significance of the belief held by many biologists that the laws of life are wholly reducible to the mechanical laws of physics and chemistry; second, the strength of the natural selection doctrine and the uselessness of the Lamarckian factor; third, the relation of natural selection to teleology. The first and third problems are brought by Professor Brooks into close relation,

and it may be well to discuss his views on the 'acquired character' question before considering his treatment of the relation between a mechanical conception of the universe and philosophy as a whole.

The author defends natural selection against several frequently offered objections, such as that drawn from the persistence of variations whose importance is too slight to be life-saving; and the difficulty, acknowledged by Darwin, of accounting for the great diversity of forms of life represented among the earliest fossils. The consideration of these topics forms one of the most interesting sections of the book, but since its philosophical significance is slight it cannot be discussed here. As regards the Lamarckian factor, Professor Brooks urges in the first place that the fact that use of an organ results in its development is itself an adaptation which must be explained by those who make inheritance of the effects of use the cause of adaptation. It does not seem, however, that this objection would hold against the view that use-inheritance is *one* factor in adaptation, though dependent upon selection for its origin. A similar remark might be made on Professor Brooks's second argument against the inheritance of acquired characters: the argument, namely, that inheritance of the effects of use can cause only adaptations that are of value to the individual, whereas by far the greater number of adaptations have direct reference to the welfare of the species. This, of course, does not prove, and is not meant to prove, that use-inheritance plays no part in development, only that it does not play an important part.

A criticism which the author makes of one of the arguments put forward by Romanes in defense of the Lamarckian factor seems to rest upon a misunderstanding. Romanes, as is known, maintained that the more complicated reflex actions cannot be explained as the products of selection, but are more easily understood as 'inherited habits,' as the organized results of actions which were originally accompanied by intelligence. Professor Brooks objects that this view is inconsistent with the belief held by Romanes that all kinds of action, rational as well as reflex, are purely mechanical in character. How, he asks, if one believes with Romanes that mind can never cause motion, can one find the origin of a reflex act easier to understand on the supposition that it was accompanied by intelligence? It might be answered that the position of Romanes is not at all irreconcilable with belief in the mechanical nature of all action. Without for a moment supposing that consciousness causes movement, one may find the 'inherited habit' theory the easier one because it is based on an undoubted fact in the life history of the individual. We know that certain movements

are accompanied by consciousness, and that they are in general those which represent the newer adjustments to environment; such movements tend by repetition to lose their conscious accompaniment and approach the reflex type—a process perhaps, not easy to understand, but yet actual.

This leads us to consider Professor Brooks's treatment of the mechanical theory of life and intelligence. On the claim that the laws of life are reducible to the laws of physics and chemistry, his verdict is 'Not proven'; for, he points out, the essence of a living thing is its fitness to its environment, rather than its structure as such, and for this fitness physics and chemistry furnish as yet no explanation. Further, he reminds us in the lecture on "Paley and the Argument from Contrivance" that no biological truth is more firmly established than the origin of all existing life from preëxistent life—a truth that forms a barrier against the reduction of living and lifeless matter to a common category.

But what will be the effect upon our belief in the value of reason and will if it is sometime proved that the whole of life is governed by one set of mechanical laws? Professor Brooks shows that the third of the problems mentioned above, namely, the relation of natural selection to teleology, takes on a different aspect when considered in connection with the problem of mechanism. Paley's argument, weakened though not destroyed by the natural selection doctrine, is attacked in a new quarter if it becomes conceivable that watches are a part of the chain of physical causation as much as any natural objects. In general, however, the author does not consider the mechanical theory a destructive one; first, because so long as it depends upon scientific research it can involve only the conception of *order*, not that of *necessity*—Professor Brooks objects to the so-called Philosophy of Evolution on account of its unscientific implication that the universe has necessarily developed in one way—and secondly, because so long as mechanism means order and not necessity, it can never exclude from its order any fact like human reason, of whose usefulness we have empirical evidence.

Quite possibly the above statements do not adequately represent the author's position; but he seems not to meet the whole difficulty. There is plenty of evidence that the nervous structures and processes to which human reason corresponds have their importance to the physical order, otherwise they would never have been developed by selection. But what many people would like to know is whether the conscious process itself makes a difference to the physical order. Undoubtedly, as Professor Brooks, following Hume, points out, there is

no more intrinsic difficulty in supposing that mind causes motion than in supposing one notion to cause another, since causation is only observed sequence. But there is a difficulty in supposing that an event can be fully accounted for by one set of conditions, and yet depend on another factor as well; that a given action is wholly the result of mechanical processes, and yet caused by a thought process. This is the old, old contradiction that science can never solve, for the only way to avoid it is to hold that the nervous process and the thought process are not two but one, and this science can never warrant us in declaring while object and eject remain on the face of them so absolutely different. The most that science can do is to say that practically belief in mechanism need not trouble us, since, so far as we know, the particular kind of nervous process referred to never occurs without its conscious accompaniment. If we are automata, at least we have no reason to fear that we may become unconscious automata.

MARGARET FLOY WASHBURN.

WELLS COLLEGE.

SUMMARIES OF ARTICLES.

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

LOGICAL AND METAPHYSICAL.

The Nature of Judgment. G. E. MOORE. Mind, No. 30, pp. 176–193.

"Truth and falsehood depend on the relation of our ideas to reality" (Bradley, *Logic*, p. 2). "All ideas are signs" (p. 3), and "A sign is any fact that has a meaning," while "meaning consists of part of the content (original or acquired) cut off, fixed by the mind, and considered apart from the existence of the sign" (p. 4). The crux here lies in considering the idea and meaning as 'cut off' or abstracted from one another. We will use the term concept instead of Mr. Bradley's term idea, and it is our purpose to protest against this description of a concept as something 'cut off.' A concept is universal, as Mr. Bradley himself admits. And it is just because it is universal that it cannot form 'a part of the content' of an individual thing. A part of an individual, cut off from that individual, is itself individual. But judgments have to do with universals, and therefore with concepts and nothing else but concepts. And this is true of the existential judgments as well as of all others. Existence is itself but a concept, and by no means the only one which acts as criterion of truth. For example, $2 + 2 = 4$, is true whether there exist two things or not. A judgment consists of at least two concepts and a relation between them, which relation is itself a concept. In a word, a judgment is a complex concept. Moreover, the whole world and every object in it is but a complex of such complex concepts. The concept is, therefore, essentially *substantive*, and in no way can it be defined truly as a 'wandering' or 'floating adjective.' While this view essentially agrees with Kant's, it differs from his in some important respects: (1) For Kant's atomic sense data it substitutes universal concepts. (2) It abandons the problem, 'How is knowledge possible,' and accepts the cognitive function as ultimate datum. (3) It denies any form of idealism which asserts that all differences can be explained by any abstract unity, all concepts deduced from any one all prevailing absolute concept. (4) While admitting the distinction between empirical and *a priori* judgments, it asserts that this distinction is found not in judgment,

qua judgment, but in the concepts which judgment uses. A judgment about an empirical concept need not itself be empirical, as Kant seems to assume, but is always both universal and necessary. The judgment is itself ultimate, is itself truth, and therefore needs no reference to any existence or reality beyond itself in order to establish its truth.

IRA MACKAY.

Some Remarks on Memory and Inference. F. H. BRADLEY. Mind, No. 30, pp. 145–166.

Memory is the consciousness of past events as past. But how can we think of the past at all? The stream of thought really flows forward. How, then, can a thought-process, which *really* flows forwards, *ideally* flow backward? To think the past, as past, reality must appear to us as a *series* in which the present is degraded to the position of a one-among-others. Given an ideal series *a-b-c-d-e* and our actual presence at *e*, how, then, can we ever arrive at *a*? The process seems to be as follows: *e*, by an ideal identity with a, redintegrates *a*'s differences, and thus we have the idea of *a* here and now. Then we supply the differences between *a* and *e* by filling in *b-c-d*, and so get the idea of *a* there and then. First "a leap through ideal identity," and then a filling in of differences. In this way we arrive at the idea of a series of different events in one identical experience, a series of past events, as series, in which each member is said to be remembered. But not only can we remember a past event to have happened, but we can imagine or infer it to have done so. And this leads us on to consider the relation in which memory stands to imagination and inference. When we imagine an event *a* to have happened, we first remember *b*, and then neglecting the ideal identity involved in this memory process, we simply think of *a* as juxtaposed to *b*. It is this absence of ideal identity, this absence of logical control in the thought process, and hence of necessary connection between the events thought of, that differentiates imagination from memory. This is why memory is, while imagination is not, accompanied by belief. In inference, on the other hand, the very reverse is the case. Here the process is purely logical. Here we confine ourselves to logical necessity, to ideal identity, and ignore the differences. Hence, we may prove event *a* to have happened without imagining its differences, and so picturing it as a concrete event there and then. Memory, then, is a compound process, a compound of imagination and inference. Our justification for performing this process is nothing less than the ultimate test of all truth, viz., that by so doing we can best harmonize our world.

IRA MACKAY.

Testimony and Authority. A. F. RAVENSHEAR. Mind, No. 29, pp. 63–83.

I. The Claims of Testimony. Reliance upon others in physical science is *sometimes* necessary, but in psychology it is *always* necessary. Inductive logic, in so far as it claims to be a theory of scientific method, ought to in-

clude a theory of testimony and authority. The writers on logic have failed to treat this subject. The testimony of a qualified expert is of more value than our own imperfect or untrained observations. Furthermore, it might almost be said that testimony is necessary, not only to the establishment of the *universality* of the principle of the uniformity of nature, but even to the perception of *any* uniformity in the bulk of nature's activities. The universal uniformity of nature can be seen only by an analytical use of the experience of others, as well as of our own.

II. Criteria of Trustworthiness. A theory of testimony aims at showing how to steer an even course between excessive credulity and excessive incredulity. The legal and the mathematical treatment of the subject aid us but little. The Law of Evidence is of slight value to us in our problem, since it gives only a few practical rules for judicial inquiry. A few relating to corroboration, competence of 'interested' witnesses, or those laboring under an infirmity, and to 'directness' of evidence are of importance, but are far from constituting an adequate list of safeguards. The mathematical treatment of testimony is positively useless. The mathematical theory of probability makes the theoretical witness so highly abstract a personage that he finds no counterpart in nature, unless it be a bag containing black and white balls.

III. Conditions of Trustworthiness. The assertor's meaning must be correctly ascertained. He must be free from bias or unconscious influences. In conveying his information he must be sincere and careful (conscientious), and must be accurate in memory and expression. In acquiring his information he must have had sufficient opportunity or means for becoming acquainted with the matter asserted, and must be a person of skill or capacity adequate to the acquisition of the knowledge professed. (*a*) Corroboration.—Bias and insincerity may be eliminated by a concurrence of persons of sufficiently varied interests. Any assertion concurred in by many persons of different training, habits, and point of view is likely to be accordant with a wider aggregate body of knowledge and experience than if made by one of them alone. Accuracy of memory and expression does not seem to be touched by corroboration. Extraneous evidence may be used in testing and verifying statements, as in cross-examination. (*b*) Conflict of Testimony or Authority.—Absence of sincerity and presence of bias assure of untrustworthiness. Where there is direct conflict, which of the two opposing statements is to be preferred must be decided by determining which of the two assertors or groups of assertors has been more accurate in memory and expression, or which has had the opportunities or capacity for ascertaining the matter asserted. Testimony may be divided broadly into (1) expressions of judgment or opinion, and (2) assertions of fact, and the latter into (a) matters of common observation or patent facts, and (b) latent facts, the subject of experiment or research. In expressions of judgment or opinion, and in the description of facts disclosed by research, preference should be given to the authority of capacity, while in regard to patent facts authority

is to be measured chiefly by opportunity. In a conflict of our own testimony with that of others, the question is resolved into one of comparison of authority, *i. e.*, relative opportunities and capacities for ascertaining the matter in hand. Authority ; the Expert or Specialist.—Reliance is placed upon the statements of others either from *necessity* or for *convenience*. It is nowhere necessary to rely on others except in certain matters of observation or experiment ; and in these only so far as they themselves are unanalyzable or simple facts. Hence, we must analyze all assertions, and if we cannot we must suspend judgment, or see how far the assertor satisfies the conditions of trustworthiness. The expert or specialist, therefore, should be employed only to prove or to point out unanalyzable facts of observation or experiment where this cannot be done by the inexpert. Departure from this rule is justifiable only as a concession to convenience. (*c*) Concatenation of Testimony.—A 'self-infirmitive' chain is one in which a statement passes from mouth to mouth among persons, and in which the credibility diminishes as the length of the chain increases. In the 'self-corroborative' chain, a number of persons independently make the same assertion. In the latter, we have greater credibility because we are only one remove from the fact. But if we make use of testimony as to the credentials of our witnesses, which is the method that our examination of the conditions of trustworthiness has led us to, we find that we can retain the advantages of the 'self-infirmative' chain without sacrificing those of the 'self corroborative' chain ; we can combine the length of the former with the strength of the latter.

HARRY L. TAYLOR.

Les néo-darwiniens et l'hérédité des caractères acquis. FELIX LE DANTEC. Rev. Phil., XXIV, 1, pp. 1–41.

This writer belongs to the bio-chemical school whose aim is to explain all life from 'elementary life.' It is a common fault when explaining life to read into the lower forms the abilities which we see in the higher. If we go back to the very lowest forms, all that we find is merely physical and chemical life. All explanations of that which is general in biology—heredity, *e. g.*—must begin with this elementary life. It is just the problem of this school to explain such phenomena as heredity by attributing to the germ a structure so simple as to have in it a definite mixture of definite plastic substances. The pre-formation theory, the 'representation particles' of Buffon, the 'gemmules' of Darwin, the 'ancestral plasm' of Weissmann, the theories of structure and function, are all insufficient for an explanation of heredity, especially of acquired characteristics. These theories are good in part, but the bio-chemical school has the merit of going back to the one common factor of all life ; the merit of using methods which are absolutely scientific, and hence, of giving results which are of final value. Its explanations are true, and are not merely new definitions using words which imply the very thing which is to be defined.

F. M. WINGER.

De l'application des sciences mathématiques aux sciences expérimentales. H. BONASSE. Rev. de Mét., VII, 1, pp. 1–25.

Disclaiming any purpose to make a complete classification of the sciences, the writer divides them into two general classes: The *mathematical sciences, i. e.*, logic, algebra, geometry, rational mechanics, mathematical physics, which study abstract forms of thought; and the *experimental sciences* which study phenomena. The writer first proceeds at some length to justify his division and definitions. He then seeks to show that progress in science is made by the application of the mathematical to the experimental sciences, or by the investing of facts with forms. By the expression of numerical results in abstract formulæ a twofold advantage is gained which is designated by the terms interpolation and extrapolation. A considerable space is given to discussing the applicability to science of the theory of probability, and the theory of error, as developed in mathematics.

VIDA F. MOORE.

The Paradox of Logical Inference. MISS E. E. C. JONES. Mind, No. 26, pp. 205–218.

"We have not got inference unless the conclusion (1) is necessary from the premises (2), goes beyond the premises." But this is a paradox. On the theory that every logical conclusion contains something new, some do not regard immediate inference and the syllogism as inferences, even though the conclusion be necessary. Induction, they maintain, is the only true inference, for its conclusion is new even though it is not necessary. This interpretation, however, destroys the paradox of inference, which must be retained. The necessity and the newness belong together in every inference. The conclusion is both necessary and new. The writer, to be sure, reinterprets somewhat the notions 'necessary' and 'new.' 'Necessity' denotes the relation of two propositions such that if one is true the other is true; and any proposition is new provided it is expressed (mentally or verbally) in a different way from the premises. Every form of valid inference, including all kinds of immediate inference, as well as the syllogism, is, therefore, both necessary and new, and exemplifies the paradox of inference. But how can this paradox be explained? Or how can there be any inference, *i. e.*, how can necessity and newness belong together? The solution depends upon the conception of unity in difference which belongs to a system. Truths can be inferred from one another because they depend upon one another and never are independent. "The perceived relation of both propositions to one whole, on the articulation of which the truth of both depends, is the condition of inferring the one from the other." This conception of system also explains the judgment *A is B*. *Intensionally A* is never *B*; but *existentially*, or as belonging to a unit, *A* is *B*.

E. P. ROBINS.

Seele und Leib. JULIUS BERGMANN. Ar. f. sys. Ph., V, 1, pp. 25–68.

If we hold with Descartes and Locke that bodies are nothing more than inert and moving masses, possessed of primary qualities, then there is no consciousness in them. Nor does the concept of energy help us any, since energy in the last instance is only the product of mass and velocity of movement. How disparate mind and body are! Is there no identity between them? If we take any material body or object, then this object, however individual it may be, is more than an inventory of its own attributes, just as a house is more than a heap of bricks and mortar. The object has a multitude of attributes, but it is yet only one single object. It is a one-in-many, *an organic whole.* There is no other escape from fortuitous atomism. Evolution does not solve the riddle but only throws it further back. If this be true, the entire external world of objects, as well as every individual object in it, is an organic whole. But this is just what we have already found to be true of the subjective world of consciousness. Can we keep these two organic wholes separate? No! If we try to think of the external world of objects as existing in itself, it quickly loses that unity which makes it organic. The unity of the objective world is one and the same with the 'I,' the unity of the subjective world of consciousness. Here then the *objective and subjective worlds fall together and become one.* An object and the complete perception of it are identical. '*Esse est percipi*,' as Berkeley has well shown. 'Extended substance' and 'thinking substance' are one and the same. To set them up as entities independent of each other, as Descartes did, and as so many of the moderns have followed him in doing, is an act of false abstraction. This view does not reduce all reality to appearance, but rather on the contrary makes all appearance reality. Things are not merely what they *appear to appear,* but what they really and truly appear, that is, *are.* Mind and body are identical.

IRA MACKAY.

Beiträge zur Æsthetik. MAX DESSOIR. Ar. f. sys. Ph., V, 1, pp. 69–89.

III. Of the connection between science and art. (a) conscious relation-Æsthetics.

Heretofore science and art have appeared as opposites. Has æsthetics an existence? Æsthetics is a science, and its field of experience is that of the production and enjoyment of art. The freest, most subjective, most synthetic activity of man must be transformed in the direction of necessity, objectivity, and analysis, or no scientific æsthetics is possible. Everything belonging to the æsthetic or artistic has something in common, whereby it is perceived as such, but at the same time every creative process, every impression, every work of art is distinguished from every other. Community and distinction are closely bound together, but science cannot imitate this union. One side must be accepted and the other interpreted

as a variation from it. After examining several theories, among them those of Wundt and Lotze, the author finds four factors in the impression which a work of art makes. 1. The individual factor, consisting in that which the observer brings out of the treasures of his own mind. This factor is not in the work of art. 2. The ethical factor, arising from the effect produced upon the observer by the work of art, *e. g.*, sympathy. 3. The rational factor, arising from knowledge of history of art, etc. 4. The artistic factor. In music the rational and individual factors come in at the last and are very indefinite. The longer the æsthetic feelings endure the more difficult they are to describe. From an analysis by Nietzsche of the feelings produced by a piece of music, and also from some analyses by his own students, Dessoir draws some conclusions regarding the course of the æsthetic feelings. There is first a wavering to and fro of the whole consciousness. Some perceive in the feeling of activity, in the exaltation of the mental powers, the peculiarity of the æsthetic feelings; others regard as essential that dreamy state during which we give way to all other possible ideas, and occasionally perceive a shuddering as if the works of art took away a portion of ourselves. No doubt the mind wavers between both. Secondly, the ideas and trend of feelings have a tendency to continue until the highest point of intensity is reached, then easily to change to their opposites. Between the active and passive states of the mind there is frequently a pause. The individual factor serves to destroy, rather than to deepen the impression.

This explanation is based on the simplest relation between art and science. A second possibility of a designed connection appears in the artistic didactic, by which we understand not a subdivision of poetry, but a conscious change of scientific knowledge into artistic presentation, *e. g.*, scientific novels, book-illustrations, etc.

HARRY L. TAYLOR.

Philosophie Metaphysik und Einzelwissenschaften. Von ERICH ADICKES. Z. f. Ph., Bd. CXIII, pp. —.

This article refers directly to the conception of philosophy and its relation to the particular sciences maintained by Wundt in his *System der Philosophie*. As is well known, Wundt refuses to follow the neo-Kantian separation of science and metaphysics, but bases the latter upon the results of the former, and gives to it the problem of evaluating and uniting the facts obtained from the various special sciences. Adickes opposes this view, and urges that only in the sphere of the positive sciences, which deal with objects given in experience, is objective *knowledge* possible; that metaphysics, which deals with supra-sensible objects, can never result in anything more than individual opinions determined by personal emotion and longings. This is essentially the same view which the author has already advanced in the article 'Wissen und Glauben' in the Deutsche Rundschau, January, 1898 (summarized in Vol. VII, pp. 429 of this jour-

nal), and in his recent report on German literature in this Review (cf. vol. VIII, p. 100). Without denying all value to metaphysical speculation, the author insists that it is essential that it should be recognized that its results are totally different in kind from scientific conclusions, that they have only the significance of personal construction or hypotheses which can never be verified. He also points out the danger to science of any failure to recognize this distinction, and of allowing metaphysics to suppose itself 'scientific,' or to exert any influence within the field of experience. Metaphysic is not a science, and never can become one. Special fields of investigation, Psychology, Ethics, and Æsthetics have been assigned to philosophy; to it also remain as fundamental sciences Logic and theory of knowledge.

J. E. C.

PSYCHOLOGICAL.

Le sentiment religieux dans l'extase. I. E. MURISIER. Rev. Ph., XXIII, 11 and 12, pp. 449–472, 607–626.

The study of religious emotion in ecstasy has formerly been a study for metaphysicians or theologians, but here it is treated according to psychological methods, and its genesis and transformations are traced. Religious facts are, in general, social or individual, and may be national or personal. For some, religion is an internal life, a union, or even an identification with God; for others, it is a collective knowledge, and tends to realize harmony in will and heart. The social and individual periods often alternate, the change from one into the other being gradual. The first degrees of ecstasy are characterized by visions, feelings of charity, and also very great inertia, followed by a final extinction of all social feeling, even to a forgetfulness of family. There is indifference to everything that is not the immediate object of contemplation. After this period of asceticism, there is a gradual return into the social life, and instead of seeing good only for the individual, there is realized the good of opposing collective reform to collective evils Exaggeration of the social religious feeling leads to fanaticism; exaggeration of the individual religious feeling, so striking in mysticism, tends toward ecstasy. It is of value, then, to find the essentials of this piety, its genesis, its nature. Astonishment and fear are its common characteristics; hence it is more emotional than intellectual. It is a low form of religion, because fear arises through a dread of eternal punishment; thus the great preoccupation is safety, a desire to suffer martyrdom here in order to gain eternal happiness. Following this state of fear is a period of indifference before the search for God is begun. It is sometimes said that ecstasy is born of fundamental contradictions of the internal life, but this cannot be admitted as an essential religious fact, because many become ecstatics who are not capable of this internal conflict. Another opinion is that it may be caused by insufficient nourishment, prolonged insomnia, or any condition which will cause depression. To the feeble physical state corresponds a feeble moral state,

which prevents coördination of psychical facts. It may not be true that 'disease is the natural state of the Christian,' but it is undoubtedly true that the general condition of the body plays a considerable rôle in the life of the mystic. Mystics themselves give evidence of this. Their first prayers are those asking to be delivered from the tortures of the body; according as the condition of the body varies, the aspect of life changes; their higher and lower natures seem to become two distinct personalities, each struggling for supremacy over the other. This unrest gives rise to a desire for a stronger unchanging support which is able to give a condition of constant happiness. The desire for guidance and aid, or the desire to be rid of the responsibility of self, is a fundamental fact in ecstasy. Fear and love are parts of mysticism, but not its essence; even ideas of sin and justification scarcely exist. The ignorance of the mystic does not trouble him, he asks for no logical scientific explanations of religious facts; intellectual curiosity plays a small part in the genesis of subjective religion. However, the shades of emotion in ecstasy may vary infinitely. The feeling at the moment of conversion has been characterized as a desire for God's guidance. Its nature may be determined with more precision by comparison with other more familiar states. Physicians have pointed out the resemblance between ecstasy, somnambulism, and catalepsy. Since the period of greatest happiness comes during these pathological stages, there is a longing to get back to the abnormal condition. The ecstatic begins to fall into this state by means of deep meditation. Active life seems insipid in comparison with a life of contemplation. Through contemplation, organic torments are forgotten, multiplicity of sensation ceases, pious thoughts control the secular; there is obtained finally a unity and stability of soul. The one great desire is for guidance toward the perfect life. Where this idea persists in spite of diverse attempts to satisfy it by other means, it becomes truly religious. Ecstasy becomes then a systematization of variable states and antagonistic tendencies. The next step is to discover how this simplification is accomplished.—In the second article, the author describes the different forms of asceticism and their relation to ecstasy. The common way to attain to a condition of ecstasy is to place the body in subservience; then with this beginning to place the mind in the same condition. The common description of such processes is the term 'mortification.' If all the senses and the mind are brought to dwell for a sufficient length of time upon a certain thought (as the scene of Jesus Christ upon the holy mountain or in the temple, or the incarnation), anyone can attain to this state of ecstasy. The external stimulus is generally necessary either in the shape of an object or picture, or even a passage from a book. Accompanying this change in body and mind, is a corresponding change in affection, which brings on hallucination. Later in the process the mind becomes merely receptive. Personal conscience, the source of all diversity and perversity, is lost, and it is God alone who acts. The mind sees without images, by sudden illumination. Almost all religions to-day have in more or less degree this idea of depend-

ence upon guidance, a fear to act independently, without the guidance not only of a spiritual, but of an earthly leader. Also the imitation of a model, so exaggerated in contemplation, is at the bottom of all subjective religions. Further, the idea of asceticism is present to some degree in almost all religious persons in giving up certain things called 'secular,' or in sacrificing this life to that of the future; or else the idea of God is present in carrying out secular works and studies.

FLORENCE MACLEAN WINGER.

The Evolution of Modesty. HAVELOCK ELLIS. Psy. Rev., VI, 2, pp. 134–145.

Mr. Ellis attempts in this paper (which will form part of the second volume of his 'Psychology of Sex') to make a psychological analysis of the constitution and development of modesty. He defines modesty provisionally as "an almost instinctive fear, prompting to concealment, and usually centering around the sexual nature." Its real development in the individual begins at puberty, hence it may be correlated with the development of the sex-organs, and with the psychic changes that accompany adolescence. Most important among the latter is the development of the social instinct. The sexual factor in the development of modesty finds its expression in the disgust which attaches to many of the organic functions which are focussed in the sacro-pelvic region. When this feeling of disgust gives rise to a fear of exciting disgust in others, the germ of modesty is generated. The social factor finds its first expression in savage races in the gesture of sexual refusal. Its further growth is expressed (1) in the idea of ceremonial uncleanness (an idea that becomes particularly dominant in savage races which have developed an elaborate ritualistic system), (2) in the use of clothing, (3) in the new development of the social-economic conception of women as property, and (4) in the elaboration of the social ritual. The author believes that modesty is not becoming intensified, but rather diminished with the progress of civilization; that disgust, the primary basis of the emotion, attaches itself to a complex and tends to disappear when that complex is analyzed. Still modesty remains as an essential grace of life, and whatever variations it may assume we can scarcely conceive of its disappearance.

WILLIAM CHANDLER BAGLEY.

A Study of the Relation between Certain Organic Processes and Consciousness. By Professor JAMES ROWLAND ANGELL and HELEN BRADFORD THOMPSON. Psy. Rev., VI, 1, pp. 32–69.

Circulation and respiration are the organic processes with which this paper deals. The results of previous experiments are briefly but adequately summarized—the investigations of Mosso, Fèrè, Lehmann, and Binet receiving special attention. The experiments forming the major part of the study consisted of two very complete series of tests taken from

two different subjects. The curves showing circulatory changes are capillary pulse tracings taken with the air plethysmograph of Hallion and Comte; for the breathing curves a modified form of Bert's respiratory was used. The tests were intended to throw light upon three problems: The circulatory and respiratory changes correlated with (*a*) emotional experiences, (*b*) sensory stimulation, and (*c*) 'mental application.' The following conclusions were reached: (*a*) The most noticeable effects of emotional states upon the bodily processes are the sudden violent changes and irregularities produced. The vaso-motor shifts are the most evident of the changes, although marked irregularities in the rate and amplitude of both breathing and pulse occur. There is no evidence of marked and constant correspondence of agreeable states with one set of physiologic processes, and of disagreeable states with an antithetical set. Almost all the emotional experiences, whether disagreeable or agreeable, produce vaso-motor constrictions. The breathing during emotional experiences shows no greater uniformity in direction than the pulse: all variations of both rate and amplitude are found accompanying both agreeable and disagreeable experiences. (*b*) The vaso-motor shifts for sensory stimuli are not so great as those for emotional experiences, and the amplitude and rate are less spasmodic and irregular. Various sensory stimuli produce experiences of widely different intensities, and a corresponding but not always proportional difference in organic changes. In general, the great majority of sensory stimuli of all kinds cause vaso-constrictions. The rate changes of the heart-beat during sensory stimulation are about equally divided between increases and decreases. (*c*) The curves of mental application are characterized by the slight amount of the vaso-motor changes involved, and by the even progression in which changes in rate and amplitude take place when they occur at all. The amplitude of the pulse curve shows a greater tendency to decrease than to increase.

The authors maintain that the processes with which they dealt were cases of readjustment of an organism to its environment. This readjustment involves a maintenance of the equilibrium of the bodily processes which runs parallel with the maintenance of the attentive equilibrium and plays an essential part in the readjustment of the psychophysical organism.

WILLIAM CHANDLER BAGLEY.

L'homme droit et l'homme gauche. J. J. VAN BIERVLIET. Rev. Phil., XXIV, 2, pp. 113–143; 3, pp. 276–296; 4, 371–389.

This article, treating in great detail of the peculiarities of right- and left-sided persons, is divided into three parts. The first part gives results from personal investigations, from other scientists' investigations, and statistics from tailors, hatters, glovers, and shoemakers concerning the size of the bones and muscles of the right and left sides of the body. The second part treats of the asymmetry of the nervous system; the third of the asymmetry of functions in the two types of individuals. The general re-

sults for all parts are the same. A perfectly symmetrical face or body or nervous system is an anomaly. During infancy the body is more symmetrical than at any other time. Asymmetry increases with development. Right-sided persons have larger bones and muscles, hence greater strength and increased functions on the right side of the body and on the left side of the head. The opposite is true for left-sided persons. This asymmetry is true for sensitivity of the eyes, ears, nostrils, and skin. The results have been obtained from too insufficient data to make sweeping statements; but in general it may be said that on one side of the body the bones and muscles are larger, the nerves more refined, and the brain more developed, according as the individual is right-sided or left-sided.

F. M. WINGER.

ETHICAL.

James Arbuckle and His Relations to the Molesworth-Shaftesbury School. W. R. SCOTT. Mind, No. 30, pp. 194–216.

In 1725 we find James Arbuckle in Dublin, the intimate friend of Hutcheson and Molesworth. All three were philosophic followers of Shaftesbury. In 1729 Hutcheson went to Glasgow, and if we regard him as the 'Father of Scottish Philosophy,' then we shall have to say that Scottish philosophy was born in England, and spent its infancy and youth in Ireland. All that we know about the philosophy of this little Molesworth-Shaftesbury club of 1725 is contained in 'Hibernicus's Letters,' one hundred and two in all, written by Arbuckle and published in the Dublin Journal between April, 1725, and March, 1727. Arbuckle's philosophy, as here found, is essentially the æsthetic morals of Shaftesbury. The supreme good is happiness or the beautiful life. Man is ethically an artist. Happiness has three essential elements—pleasure, joy, and tranquility. Pleasure is delight in the beauty of inanimate things; joy—delight in the beauty both physical and moral of living and social beings; tranquility—delight in the beauty of mental order and harmony. Thus Arbuckle's ethics was essentially æsthetic. Unlike Hutcheson and Shaftesbury, he never uses the expression 'Moral Sense.' Of conscience he has little to say, and this little is writ in æsthetic terms. We cannot, he says, help knowing right from wrong, for "there issues from Conscience to the mind its own *picture pure and unspotted.*" Again, he is not so optimistic as Shaftesbury. Happiness no doubt is the reward of virtue, but is not always really so here below. Hence he has to call in a *Deus ex machina* who will make all thing right in a future life, where a higher beauty will atone for the imperfections of the present. In treating of government and economics, Arbuckle has to set aside his idea of beauty, and fall back on Shaftesbury's benevolence, which he interprets with Hutcheson as "the greatest happiness of the greatest number." Conclusion—Shaftesbury never decided whether to define virtue as beauty or as benevolence. Arbuckle defines it

as beauty. Hutcheson, at least in his earlier works, defines it as benevolence. Hence Shaftesbury, like Socrates and Descartes and every other many-sided father of philosophy had 'incomplete' followers.

IRA MACKAY.

The Ethics of Intellectual Life and Work. THOMAS FOWLER. Int. J. E., IX, 3, pp. 296–313.

Intellectual life is the "habitual desire and effort to discover the truth for ourselves in matters rising above the sphere of our ordinary interests and occupations." Intellectual work is the process of coördinating and affiliating these truths, and of communicating and explaining them to others. The primary virtue of intellectual life is the love of truth, a virtue more common in ancient than in modern times. A second is intellectual honesty, and, closely allied to it, is intellectual tolerance. With regard to the communication of opinions, no one has a moral right to misrepresent his own views, but, on the other hand, we are not bound to obtrude our opinions, and should not do so, if we think they would not benefit others. Intellectual work, especially that which results in publication, should be thorough, honest, and clear, and should regard the rights of others.

GRACE NEAL DOLSON.

The New 'Ethical' Philosophy. By JOHN WATSON. Int. J. E. IX, 4, pp. 413–444.

This article is directed against those writers who maintain that the Hegelian type of idealism is too abstract and intellectual, and must be superceded by an 'ethical' idealism which shall take more account of the life of feeling and action. The author takes Professor A. Seth's essays recently published under the title *Man's Place in the Cosmos*, as typical of this tendency, and maintains that so far from being an advance to a newer and truer theory, the so-called 'ethical' idealism is nothing but disguised scepticism. He sho thatws the objection brought against Hegelianism of making experience coextensive with knowledge of objects, and thus neglecting the subject, overlooks the fact that for the Hegelian there is no object without a subject. The demand for a philosophy which shall do justice to feeling and volition is similarly based on the failure to recognize that knowing, feeling, and willing are simply aspects of the concrete unity of spirit.—Philosophy as a science, however, as opposed to philosophy as a set of working principles, is 'intellectual.' For its end and content is truth; "and truth, while it can have no existence except for a self-conscious subject, who at once thinks, feels, and wills, has its home only in the medium of thought." When it is asserted that 'thought and reality are identical,' it is not meant that there is no difference between them, but that reality is rational, that it contains no irreducible element which cannot be comprehended by thought. Philosophy, indeed, is not experience, but

embraces within itself the whole of experience, "because it expresses within itself what experience must be thought to be." "Truth is neither intellectual, nor ethical, nor religious, because it is all and none of these; it is all, because it is the thinking comprehension of the principles underlying the whole complex spiritual activity of man; and it is none because it is not that spiritual activity, but a theory of what in its essence it is." "The 'immediate assurance' or 'belief' of the ethical idealist is nothing but the unreasoned anticipation of what philosophy establishes." To fall back on feeling is to abandon philosophy altogether. Moreover, the notion of 'laying hold of reality' by 'immediate assurance,' turns out, on examination, to be thoroughly unmeaning and self-contradictory.

J. E. C.

Die Frage des sittlichen Fortschritts der Menschheit. PAUL BARTH. V. f. w. Ph., XXIII, 1, pp. 75–116.

The end of the last century was characterized by a more general optimism than prevails at present. Buckle, in his *History of Civilization in England*, maintains that no real change has ever taken place, either in ethical principles or in moral feelings. This is incorrect. In the history of thought ethical principles have often changed, and the same is true in practical life. Society approaches perfection in proportion as it is founded upon the good will of its members. Moral autonomy for the individual may, therefore, be taken as the standard by which to measure change. The application of this standard shows that there has been a gradual progress in the recognition of the rights of the masses, as also of women and of slaves. Moral feelings have also changed. Kindness and sympathy and conscience have a wider range than before. Conscience, however, varies also in intensiveness. Its power seems to move in curves parallel to the rise, flourish, and decay of an economic order or an ethico-religious ideal. Potential morality, therefore, may be represented by a gradually rising line, while the actual power of conscience during different periods may be represented by curves to which the rising line is approximately the common tangent. The present time is a retrogression; it is the descending branch of the curve. This is indicated by the decline of religious faith and of business honor, and is further verified by statistics of crime and of suicide. The growth of science in general, and of sociology in particular, promises to make clear the conditions controlling the development of moral autonomy and the efficiency of conscience.

BOYD BODE.

HISTORICAL.

Un fragment inédit de l' "Esquisse d'une philosophie," publié par Chr. Marechal. LAMENNAIS. Rev. de Mét., VII, 1, pp. 39–67.

This is the continuation of a paper in the *Revue de Métaphysique* for November, 1898. This number contains Chapters III–V of Book IV,

Chapter I and part of Chapter II of Book V of the *Esquisse d'une philosophie.* Chapter III treats of property. In man two things must be distinguished—the type or immaterial essence, and the organism which gives him an individual physical existence in space and time. By property is meant what is a man's own by virtue of his needs as a physical individual. As man develops his needs multiply, and the term property widens to include all that is necessary to the conservation and development of his life. The physical world is the common property of living beings; each has a natural right to that portion of this common property necessary to his existence. Each is bound by a double law to seek his own preservation and the preservation of others. While property remains common, it is *virtual* only, but it becomes *real* by appropriation. A reserve beyond actually present need becomes necessary, and this reserve is by right transmissible, for since life itself is transmitted, so should be also the means of life. Chapter IV treats of the mutual relations of the members of the family. Father, mother, and child are units within the unity of the family, and their reciprocal duties are derivable from the specific functions assigned to each by the common end of conservation and development. Chapter V gives a résumé of the laws of the family, discussing in some detail the rights and duties of the several members and the laws which should govern the transmission of property from parent to children. Chapter I of Book V treats of the distinctions between the spiritual and temporal societies before defined. The double law of right and duty is the law of the spiritual society. Right corresponds to individuality, duty to the subordination of the individual to the welfare of the community. The spiritual and temporal societies are radically inseparable; the latter is the condition of the effective realization of the former in time, hence it is termed temporal. The laws of the spiritual society proceed from the principle of unity, and tend to the conservation of unity; while those of the temporal society proceed from the principle of individuality, and tend towards the conservation of distinct organisms. The laws of the temporal society, however, imply those of the spiritual. Man belongs to both societies, and is subject to the laws of both. Chapter II of Book V discusses the origin of the temporal society. Its origin, the writer concludes, is from God, but mediately, by the action of causes which effect the evolution of the phenomenal world, and by the concurrence of human activity.

VIDA F. MOORE.

La synthese Scolastique. DE WULF. Néo-Scolastique, VI, 1, pp. 41–65.

Philosophy is the science of the universal order. It includes, according to Aquinas, (1) natural order; (2) moral order; (3) logical order; (4) order of the mechanical and the fine arts. The natural order is the object of theoretic philosophy, which includes metaphysics, mathematics, and physics. Metaphysics seeks to comprehend the nature of reality. It emphasizes the distinction between actuality and potentiality. The actuality is perfection,

reality, or degree of being. Potentiality is the capacity for perfection. Whatever contributes to the actuality of being is called a cause. God alone is pure actuality. In the absolute subordination of all other beings to God, scholasticism overcomes the Aristotelian dualism. This subordination appears in the doctrines of exemplarism, creation, and providence. In created being, a distinction corresponding to the distinction between act and potentiality is made between form and matter, individual essence and common essence, existence and essence. According to Aquinas, form is not in all cases inseparable from matter. The common essence is to the individual essence as the determinable to the determining. The universal *ante rem* is expressed in exemplarism, the *in re*, in the theory of the substantiality of the individual and the principle of their individuation, the *post rem*, in the elaborations of the mind. The distinction between essence and existence, which is inapplicable to the being of God alone, brings into prominence the contingent nature of created being. Of the other sub-divisions of theoretic philosophy, mathematics treats of those properties of corporeal beings which do not, while physics treats of those properties which do depend upon motion. Matter passing from the inorganic to the organic goes through a graduated series of changes on the principle that *natura non facit saltus*. The end of the world process scholasticism declares to be the glory of God, and so answers the question, raised by Aristotle, in what way God is the ultimate cause of the material world.

BOYD BODE.

The Teachings of Frederick Nietzsche. CHARLES M. BAKEWELL. Int. J. E., IX, 3, pp. 314–331.

Nietzsche is primarily a poet, not a philosopher, nor a scientist. He preaches a return to nature, and the necessity of proper scepticism. He calls in question all the ideals of modern Christian civilization, especially those relating to morality. The position may be summed up as follows: "He is a thorough-going sensationalist, empiricist, evolutionist. In time positivism has at last become completely positive, having sloughed off even the Unknowable, that Ghost of the soul and of God. This view is at once atheistic and necessitarian, destructive of all hope in a future life, of all human responsibility, and of all that we are wont to call morality." Nietzsche's views have met with abundant acceptance, because they voice the positivistic science of the day. He usually combats real evils, but his remedies would be even worse. He is the natural consequence of the shallowness of modern philosophy and the cowardice of modern Christianity.

GRACE NEAL DOLSON.

Le positivisme et les vérités nécessaires. D. MERCIER. Néo-Scolastique, VI, 1, pp. 12–29.

If positivism, of which J. S. Mill is the best exponent, is to be refuted, it must be shown (1), that knowledge of the truth of mathematical proposi-

tions is not based upon observation, but upon a comparison of the terms of these propositions; (2) that observation gives evidence only for what is true here and now, not for what is always and everywhere true. We perceive that two straight lines cannot enclose a space, says Mill, in reference to the first point, because the imagination pictures the lines and so substitutes an imaginary experience for a real experience. And when, with regard to the second point, we say a proposition must be universally true, appeal is made to the inconceivability of the opposite. But history warns against such an appeal; for the existence of antipodes was formerly thought inconceivable. Mill, however, does not have due regard for to the method of abstraction. The essence of things forms an indivisible unity, and the mind can grasp it only after successive representations. By abstraction, essence is then separated from accident, and so necessary truths are attained. Axioms are necessary, not because their opposites are inconceivable, but because they are self-evident. When what was once deemed inconceivable becomes conceivable, there has simply been a change in the premises, never in the inference from the original premises. Thus the difficulty in conceiving of antipodes was obviated by the acceptance of the law of universal attraction. When Mill says that the objects of geometry do not exist, and are, moreover, impossible, he identifies what is extrinsically, with what is intrinsically or conceptually impossible.

BOYD BODE.

NOTICES OF NEW BOOKS.

A Brief Introduction to Modern Philosophy. By ARTHUR KENYON ROGERS, Ph.D. New York, The Macmillan Company, 1899.—pp. ix, 360.

This little book is one of many signs that philosophy, which grows out of the need of a workable view of the universe, is not to be turned permanently aside from this, its main purpose, by the epistemological interest that has controlled it during the last half century. That we are entering upon a revival of metaphysics is clear enough, not only from the activity of avowed metaphysicians, but also from the tendencies of a considerable proportion of the most eminent psychologists of the day. If the new metaphysics shall have something important to say, sooner or later the timidity and even exhaustion attending the long preliminary inquiry as to how we know will be followed by the exhilaration of conviction. From academic debates as to starting point and method, we shall advance to positive results, which in the nature of the case will constitute an oracle for the guidance of life. Then will metaphysics once more speak the language of the people, and literature, art, and social organization will experience a new inspiration. Doubtless the dawn of such an era would bring forebodings lest, by descending into the streets and the market place, philosophy should become uncritical, dogmatic, possibly a tool of ecclesiastical or other parties. Yet ought not academic philosophy to assume that its mission is not accomplished by merely knowing certain things better than other men, but only by lifting the whole world of culture to a truer and hence more workable thought of the universe?

In spite, then, of the shudderings that are sure to meet a book of popular metaphysics—especially a book starting out with the avowal that the whole technical apparatus of philosophy exists for the sake of discovering the *meaning* of the world and of life—we may, not unreasonably, interpret the appearance of Dr. Rogers's book as a sign of at least a healthy appreciation of values. What is attempted is worth doing; the question is whether the difficult and delicate task is worthily accomplished. On the whole, the book exhibits not only solid historical knowledge and independent thought (not dogmatic theology masquerading as philosophy), but also a judicious selection and arrangement of material, and satisfactory clearness in presentation. Such an essay must, of course, omit many things that the appetite of a professional philosopher finds essential, and it will always be possible to ask whether this or that point might not be more simply stated. In the present case, something might possibly have been gained by a series of sub-headings or other indications of the transition-places in the thought, and by a larger amount of skilful repetition and recapitulation. It is also not perfectly clear just what sort of audience the author intends to

address. If the book were intended for the use of college students, it should have included reading lists and historical references, besides more specific statements of the place which the problems here discussed occupy in the total organism of knowledge. The title, too, seems to be a trifling misleading, especially the abbreviated title, 'Modern Philosophy,' printed on the cover. For the primary reference is not at all historical, but rather constructive and metaphysical. On the other hand, it would not be surprising if the general reader should find the book a pretty severe strain upon the purely logical intellect. One misses the references to the sciences, to history, and to life, that give the sense of concreteness, at least to beginners. But the author very properly declines the task of rendering philosophy easy; he simply claims that many difficulties for the beginner can be removed by simplification of phraseology, and by dissecting out, as it were, the main trunk-nerve of metaphysical inquiry. And certainly the book neither descends to pettiness and dogmatism on the one hand, nor obscures its main points by too great detail on the other. The problems are unfolded with a firm hand, and, though the author's own standpoint is frankly stated, there is unvarying candor, self-restraint, and objectivity.

The problem undertaken is, naturally, that of discovering what is the ultimate unity whence life may derive meaning. The answer is what the author designates as theistic idealism. "How are we to get a unity into the world which shall be more than an abstract unity, and which shall take up the differences as an essential element within itself? Not by looking behind things for an underlying, static substance, but by taking the whole dynamic process, which it requires just this manifold of different elements to constitute, and which, again, we can understand as a unity only by looking to our own active and purposive lives. The world can be a unity only if it is, like human life, a unity of conscious ends." But this unity, the author insists, does not imply that reality is a single experience, as Hegel seemed to teach. On the contrary, a relatively independent experience on the part of finite minds—an experience into which God cannot enter, though he may know it—is itself "a part of the meaning which is the reality of the world, and which, therefore, determines, not as an afterthought, but in the first place, the laws of the world." The resulting view is that social life "is the inmost and essential reality of the world." God's life itself is "constituted by those social relationships whose development forms the truth of history."

How this conclusion is reached may be briefly indicated. Following the general order in which the problems of philosophy have developed in modern times, the author begins with the dualism of Descartes and shows the unsatisfactory character of both its results—the older theism with its external teleology, and pantheism with its abstract unity. Neither materialism nor the subjective idealism of Berkeley solves the difficulty, but with them the problem transforms itself into that concerning the sources of knowledge. Here follow simple, clear, and sympathetic chapters on Kant

and Hegel, showing how, though the former left standing the dualism of thing and experience, and though the latter unified experience beyond the fact, yet they made it impossible to find reality anywhere except in conscious existence. The book concludes with a fresh and invigorating discussion of the criterion of truth, the main thought being that the criterion cannot be the immediate certainty that is the prius and goal of demonstration, but something more full of content, namely, an experimental certainty in which life in its totality concurs. That which *works*, in the sense of contributing to practical ends, cannot be separated from that which works in the sense of verifying an hypothesis.

One hesitates to point out gaps in what professes to be little more than an essay. Yet it would certainly seem that even here there is need of answering such questions as these: How can God know the experiences of finite minds without in any way entering into those experiences? Again, if history is or expresses the life of God, is not that life a process and hence lacking in unity? Exception may be taken also to some of the terms employed to differentiate the theoretical from the practical, such as 'intellectual knowledge,' 'intellectual truth,' and 'intellectual reasoning.'

Entirely apart from the question whether the author's standpoint is a finality, we may say, in conclusion, that it is well that the task of simplifying philosophy for beginners has been undertaken by one so well equipped for the work as the author proves himself to be.

GEORGE A. COE.

NORTHWESTERN UNIVERSITY.

The Psychology of Peoples. By GUSTAVE LE BON. New York, The Macmillan Company, 1898.—pp. xii+236.

The present volume may be regarded as a series of generalizations from the author's numerous works on history and sociology, beginning with his *Researches anatomiques et mathematiques*, etc., which was crowned by the French Academy of Science in 1879. M. Le Bon has been led by his investigations to the conclusion that the different races of mankind are as well characterized by their souls as by their bodies. "The object of this work is to describe the psychological characteristics which constitute the soul of races, and to show how the history of a people and its civilization are determined by these characteristics."

Here we may notice the background of supposition upon which the author elaborates his views. In the first place, it is assumed that polygenism is the only defensible theory, that "the human race comprises several species which are quite distinct and probably of very different origin." This view is exceptional among scientific students. While monogenism may never be able to make out a complete case, still it is the view to which a wide and varied evidence directs. M. Le Bon overlooks similarities in human races and emphasizes differences only. The second supposition is that all transformations are "the hereditary accumulation of imperceptible changes," in

which environment plays little or no rôle. Hence the souls of races are something like the windowless monads of Leibniz. "It is impossible to arrive at any understanding of history unless it be continually borne in mind that different races can not feel, think, or act in the same manner, and that in consequence, they cannot comprehend one another." This is surely a hard blow to the claims of general science, but what must be the despair of co-educational efforts when we are assured that man and woman never have like chains of thought and that "the difference in their logical faculties is alone sufficient to create between them an insuperable gulf." We are told that the formation of French people of to-day, very heterogeneous as compared with the English, has required more than ten centuries, and that this development has been so rapid as only to be explained by the mathematical principle that when a cause persistently produces the same effects the causes are the logarithms of the effects. This position seems somewhat strained in view of the sudden rise of such peoples as the Greeks, the Scots, and the Japanese. Indeed, M. Le Bon himself asserts that a great change came over the Frenchmen of the eighteenth century caused by "the fact that in the lapse of a century theology had given way to science, reason had taken the place of tradition, and observed truth that of revealed truth." But as the author holds that sudden deterioration is possible, while sudden advance is impossible, the above instance may not be inconsistent with his theory.

It is to be noted that, while M. Le Bon asserts the irreducable differences in the souls of races, he does not come to close quarters with general ethnology, but confines himself in the main to the racial disparity of the Kelts and the Anglo-Americans. In his exposition and valuation of these differences, he has much in common with Nietzsche. Over against the 'imbecilities' of socialism he depicts the glories of ruthless individualism. While, in truth, everything is moving into the more heterogeneous, realizing greater inequality, the dominant theory of the day is that of socialism and collectivism which "will prove the destruction of the people that permanent armies and bankruptcy shall have spared." Socialism is sapping the life and energy of Keltic and Germanic Europe. "No people is so well prepared as Germany to accept its yoke. No people of the present age has more entirely lost its initiative, its independence, and the habit of self-government."

M. Le Bon does well in ringing the changes on the all importance of character. The destiny of both individuals and nations lies in character. Environment and intelligence are of very little importance. Ideas exert an influence only when they have been transformed into sentiments, and become a part of character. Over-culture or intelligence weakens or destroys character. The barbarian with energy of will has always been mightier than a sceptical civilization. Great intellectual superiority leaves degenerate offspring behind it. "The real danger to modern societies lies precisely in the fact that men have lost confidence in the worth of the princi-

ples that serve as their foundations." When these principles are regarded as of mere relative value they have lost their power. The masses will have the absolute, and to those who speak of absolute values they will always turn. Hence it is concluded that the elements which are philosophically inferior are, from a social point of view, the most important.

While abounding in paradox and contradiction, the work is very interesting and suggestive. It belongs to the literature of illumination, and is a book which no student of human nature should leave unread.

MATTOON M. CURTIS.

ADELBERT COLLEGE.

David Hume. By HENRY CALDERWOOD. Famous Scots Series. Oliphant, Anderson and Ferrier, Edinburgh and London. Charles Scribners' Sons, New York, 1898.—pp. viii, 158.

Thomas Reid. By A. CAMPBELL FRASER. Famous Scots Series. Oliphant, Anderson and Ferrier, Edinburgh and London. Charles Scribners' Sons, New York, 1898.—pp. viii, 160.

The simultaneous appearance of these volumes is most appropriate, as both Reid and Hume are better understood and appreciated when there is a parallel reading of their lives. Born on the same day of the same month, the 26th of April, exactly one year intervened between the birth of Reid in 1710, and that of Hume in 1711. Thence the lines of life and of thought widely diverged. Hume was by nature a sceptic, and Reid by nature a man of faith; the one the philosopher of empiricism, the other the philosopher of common sense. Hume not only lived in the world, but was essentially of it, a man of affairs, and of strong social bent, historian and diplomat as well as philosopher. Reid, on the other hand, was a simple country pastor in the earlier years of his career, and later, amidst the more complex and distracting activities of a university life in a large commercial city, he preserved that original simplicity to the end. Hume, moreover, came rapidly to the period of mental maturity, while Reid's development was of a slow growth and of a late fruitage. Hume had planned his *magnum opus* before his twenty-first year, composed it before twenty-five, and had given it to the world before twenty-eight. It was not, however, until Reid was in his fifty-fifth year that he published his famous work, *An Inquiry Into the Human Mind on the Principles of Common Sense.* These contrasts, which impress us the more forcibly when we study the lives of Hume and Reid together, illustrate most strikingly the bearing of native temperament, education and environment upon one's point of view, and the general nature of one's philosophical convictions.

It is most fitting that the lives of these Scotch philosophers, who were eighteenth century contemporaries, should be written by two distinguished representatives and teachers of the Scottish philosophy, who have labored together with such conspicuous success in their university careers during the latter half of the nineteenth century.

In Professor Calderwood's account of Hume we find that sympathetic treatment which marks a scholar and a man of broad tolerance. Such a spirit is manifested especially in the author's criticism of Hume's religious views in Chapter VII ; and the following quotation from the preface also illustrates it in a marked manner: "Notwithstanding Hume's vast ability and many services, his name has hitherto awakened the dislike of the majority of his fellow countrymen, because of his openly avowed skepticism concerning views reverently cherished by Christian men. At this date, however, we may claim to have reached the period when it is possible to survey the writings with more of the historic spirit, or, at least, with that 'freedom from prejudice' for which Hume pleads ; with enlarged views as to liberty of thought, and with perhaps greater indifference to the disturbing influence of the opinions so characteristic of the historian. . . . So readers may be willing to consider afresh the scepticism, and the religious faith, and they may even be able to find in Hume a witness for Christianity whose testimony is, in some respects, the more valuable since beset with so many and such grave doubts. Going further than this, it is probable that a renewed study of Hume's writings may lead us to a fairer interpretation of the attitude of those, in our own day, whose averred doubts have induced earnest men to classify them amongst the irreligious."

In his exposition of Hume's philosophy, the author is especially happy ; he gives a just and appreciative estimate of Hume's influence upon his contemporaries, and upon the succeeding generations of philosophical thinkers. He shows, moreover, how to that influence there may be traced, through a reactive tendency, the beginnings of the common sense philosophy, the rise of Kant, and the birth of the modern transcendental philosophy.

Professor Fraser's account of Reid is also satisfactory and suggestive. The man in his setting receives at the author's hands the color of reality ; with strong and vivid touches there is depicted for the reader the life of the boy in the valley of the Dee, the making of a scholar at Mareschal College, the self-sacrificing years of service in the parish of New Machar, Reid's vocation as a champion of the common-sense philosophy at the challenge of David Hume, and finally his career as author and teacher in Old Aberdeen and in Glasgow. In the concluding chapter, Professor Fraser describes Reid's influence upon the subsequent development of the Scottish philosophy, and also upon the writings of Collard and Cousin, and through them upon the philosophy of France. The author moreover insists that Reid's teachings are in accord with the modern tendencies in German philosophy, affirming that "a humanized Hegelianism, which seeks to restore or retain the often dormant faith in the perfectly good God, and thus in the future of man, may even be taken as in line with Reid, under the altered intellectual conditions at the end of the nineteenth century."

JOHN GRIER HIBBEN.

PRINCETON UNIVERSITY.

Li Livres du Gouvernment des Rois. A thirteenth century French Version of Egidio Colonna's Treatise *De Regimine Principum.* Now first published from the Kerr MS. Together with Introduction and Notes and Full-Page Facsimile. By SAMUEL PAUL MOLENAER, A.M., Ph.D., New York, the Macmillan Company; London, Macmillan & Co., Ltd., 1899. —pp. xlii, 461.

In the thirteenth century the Augustinian Monks (hermit order) became a power, philosophically and ecclesiastically, and took rank alongside the Dominicans and Franciscans. Egidio Colonna was, in his age, the most illustrious representative of this order, and in 1294 was elected its General. He was sent from Rome to the University of Paris (circa 1269) for the completion of his studies in philosophy and theology, and was the first Augustinian admitted to the doctorate in that University, in which later on he became one of the foremost professors. He was a pupil of Thomas Aquinas for a number of years (the period is uncertain), whose doctrines he defended against the attack of the Oxford Minorite, William of Lamarre. King Philip III. appointed him tutor to the Dauphin of France, Philip the Fair, who came to the throne in 1286. He is further known as the teacher of Jacob of Viterbo and Thomas of Strasburg. The scholastics of the fourteenth century gave him the name of *doctor fundatissimus.* In 1294 he was made Archbishop of Bourges by Boniface VIII. (whose cause he loyally supported in the papal conflict with Philip IV.), and died at Avignon in 1316, at the age of 69 years. He is variously known as Aegidius Romanus (from his having been born at Rome), or Aeigidius de Columna (from his family), or by the common Italian form Egidio Colonna, or by the frequently used French designation Gilles de Rome. It was for the instruction of Prince Philip that the work *De regimine principum*, now rarely read even by scholars, was written. After the Dauphin's accession to the throne he caused Egidio's treatise to be translated into French, and it is this version of Henri de Gauchi (p. 422, l. 20) of which Dr. Molenaer has here presented us with a carefully edited and exquisitely printed edition. The version was made about 1295 and is in a Picard dialect.

This treatise on "The Education of Princes" is the most important of the voluminous writings of Egidio, and holds a very prominent place in the didactic literature of Scholasticism. It was first printed in 1473, and subsequent to that date was published in eleven Latin editions. In philosophy, Egidio is perhaps best known for the ardent propagandism which he made for the doctrines of Aquinas in the Augustinan order, and for the bitter controversy waged with Averroism. In his works *De erroribus philosophorum* and *De intellectu possibili quaestio aurea contra Averoym* he attacks the well-known Averroistic interpretation of the "creative or poetic reason," whose universality and unity in all minds (according to Averroës) should make the reprobate soul of Judas, so Egidio objects, one with the sainted spirit of Peter. His philosophy is essentially the Aristotelianism of Thomas Aquinas, combined with Neoplatonic elements derived from Augus-

tine and the *Liber de causis* of Proclis. He assumes the original unity of all things in God, and, owing to God's productive causality, the world proceeds from him in cosmic emanation, after the fashion of the Neoplatonic faith. In regard to the treatise more immediately under consideration, we are told by Angelus Rocca that Egidio wrote commentaries on the Ethics, Economics (pseudo treatise), and Politics of Aristotle, and it is out of these studies that the work *De regimine principum* grew. It was probably immediately suggested by a tractate (fragment) of Aquinas on the same subject. The theological continuation of the work is formed by the treatise *De potestate ecclesiastica*, on the power and government of the church, so that the two works cover the entire ground of instruction in civil and ecclesiastical administration. The *lex naturalis* is corrected by the evangelical and divine law, *lex æterna*, whose final and plenary interpreter is the Church. Egidio in his "Education of Princes" supports the claims of hereditary monarchy as the best form of government, but like Macchiavelli in *Il principe*, he wrote with the bias of definite political conditions about him, in which he was personally concerned. The work is divided into three parts, which correspond to the subject matter of the Aristotelian treatises above named; (1) Ethics (the individual); (2) household Economy (the family); (3) Politics (the state). All rule, he says, is based fundamentally on self-rule. The most important thing, therefore, is the education of the personal will. Only he can rule a house or a kingdom who has learned to rule himself. So that in this part he considers the problems of Ethics, and the virtues, amongst which he lays most stress on the *magnanimity* of the princely character, well-ripened *prudence*, and the basal virtue of *justice*. His treatment of these virtues is drawn largely from the *Nicomachean Ethics* with occasional references to the *Rhetoric* and the *Magna Moralia*. It exhibits also intimate acquaintance with the *Summa theologica*, *Pars secunda*. He parts company with Thomas, however, in his treatment of the *irascibile* and *concupiscibile*, and in his account of the origin of the twelve human virtues (p. 33, l. 19, seqq.) with their corresponding *passiones:* amor et haine, desir et abhomination, deliz et tristece, esperance et desesperance, poour et hardiesce, ire et debonereté (p. 95, l. 37, seqq.). Part II treats of court economy, of the relations between King and Queen, of duties to children and feudal retainers, of proper physical and moral environment for a royal household, and of the etiquette and formalities of social life. Part III considers the problems and duties of public life, the essential nature of the state, and the civil government both in peace and in war. Gilles de Rome goes beyond Aristotle in his theory of a *regnum*, or combination of states which transcends the mere *civitas*. In Aristotle's time, and in the entire pre-Alexandrine Era, the city-state was the supreme human institution. The notion of empire and of federated governments was a growth of post-Aristotelian history. Dr. Molenaer's editorial work on this interesting treatise of Egidio, which has unfortunately fallen into obscurity, reflects great credit on American scholarship. It is, however, unfortunate (if one

may record a complaint against a work for which one is altogether grateful), that for a volume of this nature no index has been provided; the table of contents, full as it is, is not adequate. One would also have been glad to see headlines referring to the content of pages rather than references to the folio, which are of absolutely no service to the ordinary reader, while for students of paleography the folio references would have been better placed on the side margin. The introduction furnishes a clear and admirably prepared statement of the leading facts touching the history of the text.

W. A. H.

L'enseignement intégral. Par ALEXIS BERTRAND. Paris, F. Alcan, 1898. —pp. 313.

The author, who is already known by his *La psychologie de l'effort*, his *Lexique de philosophie*, and his *Principes de philosophie scientifique et de philosophie morale*, here discusses in a pleasing style the educational system of France. He pleads for a system of instruction which shall be complete and unified, which shall methodically and harmoniously develop all the mental powers, and result in an integrity, an entireness, of mind, not reached by the present French education, with its serious gaps and its incoherent eclecticism. From thirteen to twenty, the time of great plans and high hopes, the youth are now provided with nothing but disconnected lectures and adult courses, instead of being taught the sciences in such a way that each leads beyond those which precede, and prepares for those which follow. This continuity of development is the thought of Comte, following upon the fundamental principles of Descartes—the doctrine of innate ideas (seeds of truths that culture ought to develop and fructify), and of the universality of good understanding (making possible the development of these germs). To these masters of French thought Bertrand points with glowing admiration. Following their leading, he outlines an education which he predicts will be the national system of France within twenty years, and adopted by the world in half a century. The nature of *L'enseignement intégral* is emphasized by its contrast with two modern tendencies —*bifurcation*, amalgamating the new demands of science with classical studies, and obtaining not a fusion but a crude mixture; and *biscephalism*, which divorces the school from life by presuming that nature has prepared a sort of division of mental labor, one brain hemisphere being the guide of thought and the other of action.

The watchword of the new education is, not man for science, but science for man. Its main pedagogic principles are three: (1) The law of *didactic equivalents*, which spares the learner the painful task of going through any science with interminable detail. The explanation of similar methods is not repeated for different sciences. By a sort of 'vicarious' functioning one does duty for all. (2) The law of *mnemonic perspective*, by which scientific theories are set in their historical and social *milieu*. Education is thus vivified, and the relation between theory and application made clear.

(3) The law of *partitioning of the sciences*, by which is meant their connection rather than their disjunction; *e. g.*, astronomy with geography, sociology with history and psychology.

One is apt to feel, in reading the book, that it is more philosophical than psychological, and to wish to remind the author, when he calls Descartes and Comte the law and the prophets, that there have been in more recent times certain apostles and evangelists, who represent a later, and possibly higher stage of evolution in educational thought.

J. O. QUANTZ.

The Story of the Mind. PROFESSOR J. M. BALDWIN. Appletons, New York, 1898.—pp. 238.

This volume is one of the series comprising the Library of Useful Stories. The plan of the author is to give, first, a general account of the scope of psychology, and then to take up, in order, its various branches: Introspective, Genetic (Animal and Child Psychology), Physiological, Experimental, Abnormal, Individual, Educational, Racial, and Social Psychologies. Most of these subdivisions are treated in separate chapters. The author frankly admits that a good deal of the material has been drawn from his earlier publications; consequently, it is rather the manner of arrangement and presentation that invites comment than the contents of the book itself. It is, in the first place, a difficult matter to cover so large a body of knowledge in 240 pages and yet make it into a 'story.' The writer's success seems to lie in his candid and clear statement of facts and principles; he retains the dignity of scientific diction, and is nevertheless intelligible to his audience. He does, however, approach a dead-level in presentation which is apt to be fatal to narration. More changes of niveau, more 'situations,' would have made the book more truly a story; and surely the material lends itself to such treatment. The allottments of space to the various divisions are somewhat open to criticism from the general standpoint; *e. g.*, the spaces 1 : 2 : 3 (approximately), given to Introspective, Animal, and Child Psychology respectively, seem hardly in proper proportion. Again, the entire separation (half the book) of introspection and experiment scarcely gives a true account of methods and materials. One feels some delicacy in making a similar complaint about the exclusive introduction of 'local characters' in the Story of Experiment. This may give 'greater reality' to the chapter, as the preface predicts (particularly when we suddenly turn a laboratory corner and run plump against 'Mr. B.' the author himself); but it scarcely gives a series of representative methods or results for experimental psychology as a whole. Beside its general survey, however, which will be of importance to the psychologist in his novitiate, this little book holds a surprising amount of psychologic lore, well intended to widen the circle of its influence.

I. M. BENTLEY.

An Outline of Philosophy. JOHN WATSON, LL.D., Professor of Moral Philosophy in Queen's University, Kingston, Canada. Second Edition. Glasgow, James Maclehose and Sons; New York, The Macmillan Co., 1898.—pp. xxii, 489.

This is the second edition of Professor Watson's *Comte, Mill, and Spencer.* The title has been changed, and the book has been much enlarged by the addition of 180 pages which bear the title "Notes Historical and Critical." The original texts remain the same, with the exception of a few changes "especially in chapters VI and X." The notes are intended "to give a fuller view of the topics discussed in the body of the work, and to show their historical application." Only such notes have been introduced as seemed best fitted to throw additional light on the text. In the important notes the following subjects receive most attention: The Platonic and Aristotelian criticism of Phenomenalism, Aristotle's definition of Philosophy, Mathematical knowledge, Descartes and Kant, Lotze's Theory of Knowledge, the Problem of Human Freedom. It is impossible to discuss these additions to the work without criticising anew the original text with which they are so closely associated. It is sufficient to say that they are written in a clear, succinct way, and add considerably to the nature of the work as a whole.

DAVID IRONS.

Kritik der reinen rechtlich-gesetzgebenden Vernunft, oder Kant's Rechtsphilosophie. Von DR. A. ELEUTHEROPULOS. Zweite Auflage. Leipzig, Otto Weber, 1898.—pp. 81.

An interesting problem in interpretation is raised by the author of this little book. The objection is often urged against Kant that his theory of rights is inconsistent with his fundamental ethical principles. Dr. Eleutheropulos is willing to admit that there is nothing in the *Kritik der praktischen Vernunft* to prepare the way for the *Rechtslehre;* nevertheless he claims that the contents of the latter are strictly deducible from certain conceptions which are an integral part of Kantian doctrine, and which Kant himself might have brought together, had he chosen, into a *Kritik der reinen rechtlich-gesetzgebenden Vernunft.* The critique which the master did not write, the expositor—we can hardly say the pupil—has attempted to supply. The *Rechtslehre,* he tells us, is based upon the following *a priori* ideas: (1) freedom in external exercise, *i. e.,* freedom from outer restraint, and (2) justice, or the social contract. By applying to these ideas the machinery of the *Critique of Pure Reason* (instead of the *Critique of Practical Reason* as we should expect), a foundation is provided, which, it is claimed, will support the structure now resting upon sand.

This bold attempt to add another member to the Kantian trilogy suggests a number of questions, only one of which it is possible to consider here. Is it true that the *Kritik der praktischen Vernunft* provides a basis only for the *Tugendlehre* to the exclusion of the *Rechtslehre?* The argument for the

affirmative answer runs as follows: The law of morality is addressed solely to the character, and ignores outer action. The *Rechtslehre*, on the other hand, deals solely with actions, in complete indifference to motives. Now, it is easy enough to find proof texts with which to bolster up this allegation of dualism, but it is possible to show that it is neither the only nor the best way in which to interpret Kant's doctrine. In the first place, it is obvious that no such distinction exists between purpose and action as is here presupposed; the one necessarily passes over into the other, except when physical causes prevent. Accordingly, the law which demands maxims thereby demands actions also, wherever the action is possible. And this fact—at times—Kant clearly recognizes. Hence the alleged dualism disappears, and the distinction between *Rechtspflicht* and *Tugendpflicht* must have some other ground. And this is formulated with sufficient clearness by Kant himself. "Die Tugendpflicht ist von der Rechtspflicht wesentlich darin unterschieden, dass zu dieser ein äusserer Zwang moralisch-möglich ist, jene aber auf dem freien Selbstzwange allein beruht." (*Metaphysik der Sitten*. Tugendlehre: Einleitung, II.) In case of compulsion, the action, of course, loses all moral value (though it may still remain the *duty* of the second party to apply the force), but from this the inference is by no means justified that it has no moral value when done out of respect for the law. Therefore Kant may properly write: "Das Rechthandeln mir zur Maxime zu machen, ist eine Forderung die die Ethik an mich thut." (*Metaphysik der Sitten*. Rechtslehre: Einleitung, § C.) That Kant often lost sight of these simple principles, there can be no doubt. But we are bound to interpret him by the best that he has given us. And if we do, we shall find that his theory of rights is an integral part of his ethical philosophy, and as such is prepared for in the *Critique of Practical Reason*.

FRANK CHAPMAN SHARP.

Der Phaedo Platos und Mendelssohns. Inaugural-Dissertation von OTTO BILTZ. Berlin, Mayer und Müller, 1897.—pp. 64.

A descriptive outline of the two dialogues, Plato's and Mendelssohn's, an analysis of each, with an account of the sources other than Platonic of the work of Mendelssohn, and a brief summing up of results, form the course and content of this dissertation. As might be expected, and as the author himself admits, the principal conclusions do not materially differ from those reached by Kampe in his dissertation on the same subject published in 1880; the resemblance between Mendelssohn's Phaedo and Plato's is external and superficial, while the philosophical content is very different; moreover, the points of difference are in general agreed upon. All this is shown here again very clearly and conclusively, but beyond this, the essay contains nothing of importance. There is a certain want of appreciation of the subtle movement in the last discourse of Socrates, as represented by Plato, when the several arguments for the immortality of the soul are divided and labeled as so many separate 'proofs,' instead of being re-

garded as contributing, one after the other, to the deepening of one great argument, as Bonitz, and, more recently, Archer-Hind, have taught us to view them; but if one *will* insist on being pedantic, then, I suppose, it must be conceded that the author is right in holding, as against Bonitz, that in 77, C. D. Plato does not formally derive more from the argument from reminiscence than he had previously derived from the circular cosmic process. Surely, however, to disciples who were not all too dull-witted, there must have been some feeling that an important step forward had been taken in the new and very definite suggestion that the soul not only existed in Hades, but existed there "with a certain power and intelligence" (70, B).

H. N. GARDINER.

L'Esiglio di S. Agostino, Note sulle contraddizioni di un sistema di filosofia pei decreto. DA LORINZO MICHELANGELO BILLIA. Torino, Fratelli Bocca, 1899.—pp. xi, 149.

We find in this book an attack on the doctrines of those writers and teachers in France, Belgium, and Italy who are endeavoring to translate the philosophy of St. Thomas into terms of modern psychology, and who claim to bring into unison with scientific methods the theories of the greatest of the scholastics. Like most efforts to put old wine into new bottles, Neo-Thomism, though interesting for many reasons, is likely to be shortlived, but its existence will not be seriously endangered by the criticism of S. Billia. The special object of the writer's animadversions is a work by Professor De Craene, of the University of Liège, "De la spiritualite de l'âme." Taking M. De Craene as a typical example of his school, the author asserts that the former misrepresents the teaching of Idealism or Spiritualism, especially that of the Cartesian philosophy, and also that, for the sake of an affectation of modernity at all costs, he forsakes the essential doctrines of St. Thomas, and makes common cause with positivism—thus preparing the way for an acceptance of the conclusions of the materialists.

He has, indeed, little difficulty in showing that M. De Craene confirms the issue by his somewhat vague presentation of idealism—treating all the so-called idealists *en masse*, and attributing to the school views which many of its modern adherents have expressly disavowed. Nor can there be much doubt that the writings of St. Thomas Aguinas offer little support for the opinions of those who claim to be his modern representatives. But S. Billia's criticism of the psychology of his author is hardly convincing. His own standpoint is that of the 'Realists' in the scholastic sense, and with nominalism or conceptionalism he will make no terms. Names, he says, "could not have the value of signs if the human intellect were not endowed with a vision of the universal—if the super-sensible were not the true, proper and immanent object of the intellect, which signs, language and reflection cause to pass from the unconscious into consciousness." To find in our own day such a keen discussion of nominalism versus realism

from the point of view of one who claims that supersensible realities are objects of knowledge, might lead one to suspect that in the ashes of the scholasticism, that some have thought long extinct, there still lives some of its old fires.

It is to be noted that S. Billia frankly claims for his work that it is written in the service of religion. He warns the Neo-Thomists that their philosophy is symptomatic of worldliness and paganism, and that its logical outcome is atheism. On the other hand, he claims that there can be but one Christian Philosophy, which, it would seem, is Idealism as represented by the Platonists, by Malebranche and by Rosmini. But did not that ardent nominalist, Berkeley, feel an equal certainty that in his type of Idealism is to be found the true philosophic basis for the religion of Christianity? And has not Hegelianism, which finds no favor in our author's eye, been forced to do yeoman's service in the cause of supernaturalism? It is not always easy for the religionist to distinguish between friend and foe in the ranks of philosophical systems.

E. RITCHIE.

Psicologia del Linguaggio. (Seconda edizione) da N. R. D'ALFONZO. Rome, Società Editrice Dante Allighieri, 1899.—pp. 124.

The substance of this work was given by the author in a series of lectures designed to supplement courses in psychology and logic; and in its present form it is especially intended for students of pedagogy and philosophy in secondary schools. It offers a brief, but clear and adequate presentation of its subject, bringing together succinctly and systematically the results of physiological, psychological, and historical investigations, in so far as they have any direct bearing on the genesis and development of language in the individual and the race. The chapters dealing with the pedagogical principles involved in the acquisition of language and their use in reading and writing are extremely fresh and suggestive. Throughout the book, the writer keeps well in view both the correlation of the physiological processes with the facts of consciousness involved in language, and also the close connection between the mental image and its verbal expression. Signor D'Alfonzo has here given us an admirable introduction to the psychology of language. An English translation would be well adapted for use in our colleges, where the want of such a text-book is often felt.

E. RITCHIE.

From Comte to Benjamin Kidd. The Appeal to Biology or Evolution for Human Guidance. By ROBERT MACKINTOSH, Professor at Lancashire Independent College. New York, The Macmillan Company; London, Macmillan & Co., 1899.—pp. xxiii, 305.

It is the purpose of this book to answer the question how far biology, especially in its evolutionary form, is able to afford guidance with regard to ethical and social problems. With this object in view, the author ex-

amines critically first the system of Comte, and afterwards a number of the more prominent English writers on social and ethical subjects. The book is divided into four main parts, with the following titles : Part I, Comtism, with Some Scattered Parallels ; Part II, Simple Evolutionism—Spencer, Stephen ; Part III, Darwinism, or Struggle for Existence (dealing with Miss Cobbe, Bagehot, Alexander, Huxley, and Drummond) ; Part IV, Hyper-Darwinism—Weissmann, Kidd. The author sets out on his examination, as he himself tells us, with the assumption of "the trustworthiness of the moral consciousness, or the reality of the distinction between right and wrong" (p. 7). And the positive conclusion which he reaches is "that if biological clues are to afford guidance for human conduct, they must be supplemented by clearer moral and religious light, and in philosophy by some scheme of metaphysical evolutionism, marking a transition perhaps from Darwin to Hegel" (p. 9).

In general, the work has been well and carefully done. The author is a keen critic and refuses to be put off with general terms, or to follow the lead of vague biological analogies. Nevertheless, two defects will naturally suggest themselves to the reader, however sympathetic he may be with Mr. Mackintosh's general standpoint. There is usually too great haste to criticise : the author fails often to give a clear and full statement of the views with which he is concerned. Secondly, to some extent also the book lacks unity and system ; it could be greatly improved by a careful rearrangement and selection of the materials. But, in spite of these defects, it well deserves to be called a good and useful piece of work.

J. E. C.

The following books also have been received :

Religion in Greek Literature. LEWIS CAMPBELL. London, New York and Bombay, Longmans, Green & Co., 1898.—pp. x, 442.

Lectures and Essays on Natural Theology and Ethics. WILLIAM WALLACE. Edited with a Biographical Introduction by EDWARD CAIRD. Oxford, Clarendon Press, 1899.—pp. xl, 565.

Naturalism and Agnosticism. The Gifford Lectures delivered before the University of Aberdeen in the years 1896–1898, by JAMES WARD. New York, The Macmillan Co. ; London, Macmillan & Co., 1899.—Vol. I, pp. xviii, 302 ; Vol. II, xiv, 294.

The Philosophical Theory of the State. BERNARD BOSANQUET. London, Macmillan & Co. ; New York, The Macmillan Co., 1899.—pp. xi, 335.

Free Will and Determinism. C. J. MELROSE. London, The New Century Press, 1899.—pp. 53.

Man, The Microcosm. Part I : The Nature of Man. LEONARD HALL. London and Edinburgh, Williams & Norgate, 1899.—pp. 82.

University of Iowa Studies in Psychology. Vol. II. Edited by GEORGE T. W. PATRICK. 1899.—pp. 163.

Die Giltigkeit unserer Erkenntnis der objectiven Welt. Von Dr. phil. WALTER T. MARVIN. Halle a. S. Max Niemayer, 1899.—pp. vi, 96.

Spinoza und Schopenhauer. Von Dr. SAMUEL RAPPAPORT. Berlin, R. Gaertner's Verlag, 1899.—pp. 148.

Jean Jacques Rousseau's Social Philosophie. Von FRANZ HAYMANN. Leipzig, Veit und Comp., 1898.—pp. x, 401.

La dissolution opposée à l'évolution dans les sciences physiques et morales. Par ANDRÉ LALANDE. Paris, Alcan, 1899.—pp. viii, 489.

Morale et éducation. Par P. FÉLIX THOMAS. Paris, Alcan, 1899.—pp. vi, 171.

De la psychologie des religions. Par RAOUL DE LA GRASSERIE. Paris, Alcan, 1899.—pp. 308.

Nouvelles esquisses de philosophie critique. Par A. SPIR. Precedées d'une biographie de l'auteur. Paris, Alcan, 1899.—pp. xxx, 147.

The Psychological Index, No. 5. Compiled by HOWARD C. WARREN and others. New York, The Macmillan Co., 1899.—pp. iv, 173.

Seelenmacht. W. LUTOSLAWSKI. Leipzig, W. Engelmann, 1899.—pp. xvi, 301.

System des moralischen Bewusstseins. L. WOLTMANN. Düsseldorf, Herman Michel, 1898.—pp. xii, 391.

Naturphilosophische Untersuchungen zur Wahrscheinlichkeitslehre. KARL MARBE. Leipzig, W. Engelmann, 1899.—pp. 50.

Einleitung in die Philosophie. W. JERUSALEM. Wien und Leipzig, W. Braumüller, 1899.—pp. viii, 190.

Gemeinschaft und Persönlichkeit. A. WENZEL. Berlin, R. Gärtner, 1899. —pp. 141.

Wörterbuch der philosophischen Begriffe und Ausdrücke. R. EISLER. Probeheft. Berlin, Mittler und Sohn, 1899.—pp. vi, 48.

Lettres inédites de John Stuart Mill à Aug. Comte et réponses. L. LÉVY-BRUHL. Paris, Alcan, 1899.—pp. xxxviii, 560.

De la méthode dans la psychologie des sentiments. F. RAUH. Paris, Alcan, 1899.—pp. 305.

La tristesse contemporaine. H. FIERENS-GEVAERT. Paris, Alcan, 1899. —pp. iii, 195.

Étude de la cause finale. N. KAUFMANN. Paris, Alcan, 1898.—pp. xix, 155.

L'ignorance et l'irréflexion. L. GÉRARD-VARET. Paris, Alcan, 1898. —pp. 296.

L'instabilité mentale. G.-L. DUPRAT. Paris, Alcan, 1899.—pp. 310.

Les origines de la religion. J. BAISSAC. Nouvelle edition. Paris, Alcan, 1899.—Tome premier, pp. x, 301 ; Tome second, pp. 310.