

PSYCHOLOGICAL LITERATURE.

MIND AND BODY.

L'Ame et le Corps. ALFRED BINET. Paris, E. Flammarion, 1905.

In Book I., entitled 'Definition of Matter,' the external world is reduced to a mere complex of sensations. We cannot go beyond sensations. They are the only reality we know. The term 'sensation' is employed here somewhat as Locke used the term 'idea' and as Bergson uses the term 'representation,' to express any and every kind of experience on the side of its content, without implying that it is either physical or mental.

Physicists in their attempt to give a precise account of the material universe have reduced its phenomena to terms of certain modes of experience which are most directly quantifiable, in their enthusiasm even sacrificing that accuracy of which it is their chief boast to be the exponents. Light, heat, electricity, sound, motion, are all stated in terms of visual and tactile-kinæsthetic sensations. But why, Binet asks, should sound be stated in terms of sight and touch? What would the tuning-fork or the ear be in terms of auditory sensations? Because they lend themselves to scientific experiment and measurement, visual and tactile-kinæsthetic sensations have become the exclusive imagery of science, but theoretically there is just as good reason for holding that the real world is sound or odor and that it manifests itself in visual and tactile-kinæsthetic terms, as to hold that it really is made up of atoms or energy and manifests itself in the form of sound, odor, temperature, color, etc.

The hegemony of the hand and eye in science is therefore a purely methodological superiority and primacy. Why should one kind of sensation represent the real any more truly than any other? There are no primary and secondary qualities: all sensational experiences are equally real and equally false or equally true. No special group may be taken as giving a more faithful picture of the real nature of matter. The mechanical theory of nature is thus brought under suspicion. It has neglected to reckon with that most obstinate immediate fact—the observer himself—which, properly speaking, is the distinctive datum of psychology. But this perceiving subject or observer can in turn only be stated in sensational terms: the subject is but an object in disguise.

The distinction between mind and matter therefore cannot be carried back to the distinction between sensation and the physical excitant, for the excitant is known only in terms of sensation: the supposed distinction reduces to a distinction between different kinds of sensations.

One of the most serious difficulties which this view encounters is the apparent interpolation of the nervous system between the perceiving subject and the external object. The objection seems to be supported by the doctrine of the specific energy of nerves, in which theory it is implied that the sensation derives its character from the nature of the sense organ or brain process and need not resemble its physical stimulus in the external world. It is apparently supported also by the fact that the nervous system itself can only be known through the nervous system. And the difficulty is further complicated by the fact that whereas the nervous system appears to be the essential prerequisite of having any sensations whatever, yet the nervous system of any perceiving subject is never known by himself in such terms.

This difficulty is met in two ways: first, by denying the existence of a 'perceiving subject' in the sense which the objection implies; and second, by the hypothetical consideration that the nervous system in perception remains unperceived only because it is a constant factor in the situation, whereas the external stimulus is perceived because of its variable character.

Book II., the 'Definition of Mind,' is devoted to the attempt by a critical analysis to get rid of the ambiguous concept of a psychical subject. The author makes an inventory and analysis of consciousness viewed as process or activity. He finds of course that the only terms in which he is able to describe consciousness are those of the physical or material content. He accordingly is led to define sensation, image, idea, emotion, volition, as purely physical or physiological phenomena. Sensation, he says, is not a means of knowing the physical properties of matter; it *is* these properties. Since he rejects any noumenal thing-in-itself, he finds, therefore, that the distinction between the mental and the physical vanishes; he appears to swamp the whole universe now in the psychological categories.

He saves himself, however, from this apparent conclusion from his argument by a distinction between the object of consciousness and the act of consciousness. If matter refers to the content or object of sensation, it does not follow for Binet that the mental refers to an experiencing subject or self. Mind is not something which is conscious (this would only be a covert commitment to realism), but is the fact of being conscious or, as we would say, the How as contrasted

with the What of sensation. Mind is the generic name for the act or process of experience as opposed to its content or object. The mental is not an existence, a subject; such a subject could only be known as are other contents of experience in sensational or ideational terms, as an object among other objects, whereas the mental as such is rather the subject-object relationship.

The problem of mind and matter is, he says, not so much how they came to be identified as how they ever came to be separated, since for the naïve point of view there is no such dualism. His error lies in the supposition that while it is impossible to isolate consciousness from its content, it is quite possible to isolate the content or object of consciousness; or, in his language, consciousness cannot exist apart from sensation, but sensation may exist apart from consciousness. This leads him to attribute an independence and completeness to sensation or matter which he denies to consciousness or mind.

The mental thus stands for an adjusting activity; it is the still incomplete world of our experience. And psychology is itself a science of matter, *i. e.*, the science of that portion of the total complex of our sensations which has the property of preadjustment.

But Binet does not feel the full force of his own argument in certain places where, for example, he maintains that the stimulus may act independently of consciousness whereas consciousness has no existence independent of the object. In short, matter (complex of sensations) may exist apart from mind, but mind may not exist apart from matter. He slips into a realistic way of speaking when he says that our consciousness does not in knowledge add anything to the object. The relations belong to the object; they are given in the object independently of consciousness.

In Book III., the 'Union of Mind and Matter,' the author discusses the four leading theories: spiritualism, materialism, parallelism and Bergson's theory. He finds himself with certain qualifications in closest accord with the last of these. He rejects Bergson's view that the nervous system is merely an equating apparatus because it implies that consciousness is not directly correlated with the brain. But he agrees with this writer in his rejection of the other three views and seeks to supplement what he regards as the defect in Bergson's view by an original speculation with regard to the function of the nervous system in relation to consciousness. This, in a word, consists of supposing that the nervous system contains a constant as well as a variable element. The variable element is that supplied by the external excitant. This, as the changing factor, elicits consciousness, in accordance

with the general law of change as the condition of consciousness. The constant factor is that supplied by the nervous system itself which because of its uniformity remains unperceived even in the act of perception in which it is directly operative.

Life and Matter; a Criticism of Professor Haeckel's 'Riddle of the Universe.' Sir OLIVER LODGE. London, G. P. Putnam's Sons, 1905.

This little book aims not only to be 'an antidote against the specific and destructive portions of Professor Haeckel's' work, but attempts to 'confute two errors which are rather prevalent'; namely: (1) "The notion that because material energy is constant in quantity, therefore its transformations and transferences — which admittedly constitute terrestrial activity — are unsusceptible to guidance or directing control"; and (2) "The idea that the specific guiding power which we call 'life' is one of the forms of material energy; so that, directly it relinquishes its connection with matter other equivalent forms of energy must arise to replace it" (preface).

With the arraignment of Professor Haeckel's so-called scientific monism which, when consistent, appears to be a crude form of materialism, most students of science and philosophy will agree. But with certain of the positions which the author puts forward to take the place of the discarded materialism there will be less agreement.

The author, while holding that the conservation of energy is a sufficiently legitimate generalization, a reasonable hypothesis, yet admits that it is not an experimental fact; the discovery of new forms of energy is possible in the future which will involve a restatement of the law. But, after all, he says, this is not especially important, since in any case the doctrine that the amount of energy is constant is quite compatible with guidance, control or directing agency (p. 20). This idea contains the main thesis of the book: that life and mind may belong to a transcendent realm (*i. e.*, to a world of facts not yet discovered by science) and that they may have directive power without having causal efficiency. "I maintain," he says, "that life is *not* a form of energy; that it is *not* included in our present physical categories; that its explanation is still to be sought." Life 'is a guiding and controlling entity' which nevertheless 'alters the quantity of energy no whit' (pp. 116-117). "Guidance of matter can be effected by a passive exertion of force without doing work" (p. 144).

Especially unsatisfactory to the student of philosophy is the naïve realism of Sir Oliver's position, which indeed is in this respect little