

BEHAVIORISM AND INDIRECT RESPONSES.

AS if it were not enough that psychology should have lost first its soul and then its mind, the newest type of psychology—behaviorism—has come into the world unencumbered with even the least vestige of consciousness, and is wholly mechanical (mechanistic) in all that it does. It reminds one of a certain ethical theory of “automatic self-direction” which advocates a kind of thoughtless, mechanical morality as the ultimate ideal and goal for practical conduct. (Clark: *The Christian Method of Ethics*, p. 33.) Behaviorism of the type formulated by Professor J. B. Watson takes the ground “that imaginal thought needed no new principles of explanation and required no different interpretation in behavior from that of other habits; and that if behavior could adequately treat of the overt bodily organization, it could, by the same principle, just as adequately treat of the thought processes.” (Watson: *Behavior*, pp. 324–5.) According to this theory thought is implicit behavior. “In other words, when we study implicit bodily processes we are studying thought.” (Watson: *Psychology*, p. 326.) “Where explicit behavior is delayed (*i.e.*, where deliberation ensues), the intervening time between stimulus and response is given over to implicit behavior (to ‘thought processes’).” (*Behavior*, p. 19). Thus Watson substitutes “*for what it (image, imagery, thought) is supposed to do, a mechanism* which is exactly in line with what we have found to exist everywhere else, *viz.*, an enormously developed system of language habits. From this point of view, all organization, no matter what its character, shows directly for what it is worth in the appropriate muscles.” (*Behavior*, p. 324, italics mine.)

Now a language habit, in this view, is a vocal or other habitual reaction which through association with previously formed appropriate habits has come by frequency of repetition to be *substitutable* for these latter. “Vocal habits do not become language habits until they become associated with appropriate bodily habits, and even substitutable for these acts.” (*Behavior*, p. 329.) When in a child’s experience a word is learned, it finally is uttered *without* the appropriate associated movement or movements. (*Cf. Behavior*, p. 330.) “Furthermore, as language habits become more and more complex behavior takes on refinement: short cuts are formed, and finally, words come to be, on occasion, substituted for acts.” (*Behavior*, p. 19.) “The putting on of conventional speech habits is thus an illustration of conditioned reflex level of functioning (vocal habit) plus later associative connection of the word when learned

with the bodily habits connected with the object for which the word *stands* (true language habits)." (*Psychology*, p. 320. Italics mine.)

Coming now to the application and testing of this theory in experience, I might say: If my *thought* of a box is an implicit language reaction associated with, and substituted or at least substitutable for, other body reactions of mine to that box, or to some other box, but no box now being present, then my thought of a box is an indirect reaction to *some* box. (It might prove a very interesting task to try to determine just exactly *what* box.) How can Professor Watson explain such reactions as this, which seems truly enough to be reactions to objects not at the time stimulating any receptor organ? "Neural activity begins always in a receptor," he says. (*Behavior*, p. 333, note.) To take a more specific example of experience, when I am *reminded*—and there is another word which, if the behaviorists gain the day, will have to go to the dump-heap—of my baby girl, who is at present several hundred miles from me, and has been for a month, I have a tendency to make the same reactions as I should make, and often have made, upon having her come within my field of vision. The reactions which I now make incipiently (implicitly), or even explicitly, it may be, are reactions to what I, as an orthodox psychologist, have been calling a *mental image* (of the child) with its various motor expressive concomitants. According to Professor Watson I should have to begin calling this stimulus not a mental image but another muscular (or glandular) reaction, acting as stimulus for the present reaction. This stimulating reaction was largely a complex of implicit language and other movements, and they are now functioning as *substitutes* for still other possible explicit body movements, or certain such movements made by me in the past (we wonder, which?), in response to the child directly. The stimulating reactions differ from these latter body reactions to the actual child in that they are *highly integrated abbreviations or short-circuitings* of them. "If we examine the bodily habits of any child just prior to the beginning of true language habits, we find that it can respond appropriately to hundreds of objects and situations, for example, to its doll, bottle, blocks, rattle and many other things. Its environment is becoming complex. Abbreviated and short-circuited actions become a necessity if it is to hold its own in that environment and make progress." (*Psychology*, p. 319.) "The same thing undoubtedly takes place in silent talking or thinking. Even if we could roll out the implicit processes and record them on a sensitive plate or phonograph cylinder it is possible that they would be so abbreviated, short-circuited and economized that

they would be unrecognizable unless their formation had been watched from the transition point where they are complete and social in character, to their final stage where they will serve for individual but not for social adjustments." (*Psychology*, pp. 324-5.) "All of the recent work shows that these [speech habits] reach enormous complexity in a comparatively short time." (*Behavior*, p. 19.) "Observation shows that we have even short-circuited (substituted for) the word system of thought. We find a somewhat highly involved system of language habits which, strange to say, while formed (as we believe) after vocal language habits, have their locus in the general bodily musculature such, *e.g.*, as the nod of the yes or no, closing the lids slowly for yes, winking, which expresses a whole series of words, the shrug of the shoulders, and bodily sets and attitudes. These movements are often spoken of as mimetic. But the fact is they have nothing at all to do with thought, until by a process of substitution such as we have already described they come to function as do words." (*Behavior*, p.p. 332-3.)

But the crucial question here is: How comes it that one reaction can be *substituted for another*, of which it is at the same time an abbreviation? And is it always a matter so simple and mechanical as abbreviation, and substitution in a mechanical sense? Just what is contained in these concepts of substitution and abbreviation? We strongly suspect that by way of the very subtleties and refinements of the language process which he is trying to explain, Professor Watson is guilty unawares of smuggling into behavior categories which by hypothesis have been forever outlawed. He says this substitution is a mechanical process. (*cf. Behavior*, p. 330.) But what causes it to happen, and just what is the specific nature of the process? Is it not just possible that Professor Watson has simply highly abbreviated what is essentially consciousness after all, and packed it up in this microscopic nut-shell of "complex and refined organization," or "integrated abbreviation," and that he deceives himself in thinking that he is now forever rid of the "conscious" bugaboo just because he has been able, as he thinks, to squeeze it into such tenuous, behavioristic, objective, quasi-nothingness? Substitutability is such a homeopathic dose of the "conscious" or "psychic" that even a Watson could swallow it without knowing that he had taken anything. For substitution is a psychic category: it is based on the notion of purpose or end. To say that one reaction is *substituted for* another is all of a piece with saying that the one *answers the purpose of* the other. Now whose purpose is this? And what is a purpose? A purpose is more than a muscular set, more than an implicit muscular or glandular reaction. The life of the animals is full of muscular sets, but not of purposes,

even according to Watson. Nor will it help us out to say in lieu of "Reaction B^2 answers the purpose of reaction B' " that "Reaction B^2 does the work of reaction B' ." For what work does a reaction do, aside from *being* a reaction and taking its own place in the total causal chain of reactions? In such a sense as this it would be utterly impossible for any reaction to do the work of another. Or, suppose we say the substitutability of a language reaction for another body reaction—"a mechanical process"—means that the former reaction adapts or relates the organism to the object in question in a way *similar* to the way in which the latter reaction relates or adapts it. For example, the implicit reaction of eating pie (*i.e.*, the thought of eating pie) relates a boy to a piece of pie in a way *similar* to the relation or adaptation brought about by the explicit movements of pie-eating. So similar, and yet so different! Even if you admit that the alleged but mythical difference "for consciousness" is the very least of the differences, how great is that difference! And even after the boy has eaten the piece of pie, if for any reason he thinks, imagines, or even suspects that he has not eaten it, the said thought, imagination, or suspicion is going to function, *do* something, in his subsequent behavior.

We can not believe that thought is "highly integrated bodily activity and nothing more." (*Psychology*, p. 325. Italics mine.) It seems rather that Watson has, either arbitrarily or blindly, cut the heart out of thought and asked us to be satisfied with objective, post-mortem observations upon its cold carcass. If "thought is the action of language mechanisms" (*Psychology*, p. 316) with or without vocal speech, if it is "highly integrated bodily activity and nothing more," how could the human "values" be accounted for? And we are not speaking now of values as matters "purely subjective" as some would hold them to be. Value is objective *as value*, if not as an essence of physical fact. (Cf. Tufts in *Creative Intelligence*, p. 372.) Is the idea of "the good," for example, nothing more than a highly abbreviated, greatly refined, system of implicit (and explicit) reactions substituted, by simple or complex mechanical substitution, for one or more earlier and originally more explicit reactions to some object or objects which we craved? We are told that man does not live by bread alone. Are the good, the true, and the beautiful muscular or glandular reaction-substitutes for our infant reactions to food, shelter and booty?

What Professor Watson pigeon-holes as the merely mechanical process of substitution of one set of movements for another is after all a *psychological process of meaning*. There *is*, to be sure, that substitution and abbreviation which he claims. But it is only because the fact of psychological meaning, or objective reference,

underlies the fact which he refers to as mechanical substitution that the latter can even be truthfully called substitution. Without the common meaning factor in the two reaction systems in question, one of these could not even be *thought of* as substituted for the other. In other words, in the very act of denying the functioning of the conscious factors in behavior, Professor Watson is unwittingly assuming it.

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REVIEWS AND ABSTRACTS OF LITERATURE

A History of English Philosophy. W. R. SORLEY. Cambridge Press. 1920. Pp. xvi + 380.

Professor Sorley, of Cambridge University, has long been known to students of British philosophy for his stimulating chapters in *The Cambridge History of English Literature*. His new book, just published by the Cambridge Press, is a collection of those chapters, and thus makes readily available to students of philosophy and to the general reading public what was formerly somewhat difficult to find and quite expensive to possess. Professor Sorley's book is easily the best history ever written of British philosophy.

It is surprising, in comparing the book with the original chapters in *The Cambridge History of English Literature*, to find how few changes, how little revision, were needed to make isolated and detached chapters fit smoothly and integrally into a united and continuous account of the development over three centuries of a body of national thought. It is only occasionally that the most careful reader would detect the threads by which the original pieces of work are held together, and in no case are these threads in the least objectionable. The more important changes which Professor Sorley has introduced into his history as it appears in book form may be briefly pointed out. A new chapter on the Cambridge Platonists is included, as that group of writers had been treated by a different author in *The Cambridge History of English Literature*, and Culverwel and Glanvill are now included happily among the Platonists instead of in the section on "Hobbes and Contemporary Philosophy." The accounts of Lord Herbert of Cherbury, of Richard Cumberland, of Sergeant, and especially of Thomas Reid and his school have been expanded; and for the first time, brief accounts of Zachary Mayne, of Bosanquet, of Laurie, and of James Ward have been added. Thomas Brown is fortunately rescued from his former misleading classification with James Mill and Ricardo among the Utilitarians, and put where he belongs in the Scottish School. A very able criticism of Locke's *Essay* has been further developed in