

BEHAVIOR, ORGANISMS AND THE SUBJECT MATTER OF PSYCHOLOGY

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There is a lot philosophical in the writing of psychologists. One of the philosophical issues that was popular fifty years ago is still current in psychological articles. The two sides of the issue have been labeled variously as introspectivist-extraspectivists (Rychlak, 1968), mentalist-behaviorist (Fodor, 1968), and other similar apparent dichotomies which perhaps represent ends of continua. In recent efforts to reconcile psychologists of these differing philosophical orientations, the statement that psychology is the study of the behavior of organisms has come to have only nominal application. Psychology as one of the behavioral sciences is still finding itself in the quandary of how behavioral it must be to be a science. Perhaps the old, purely philosophical antinomies do not hold as stringently for psychologists as they once did, and it may be helpful to recast the problem of reconciliation as one of arriving at an appropriate subject matter for psychology. Behavior as a subject matter was once characterized as S-R bonds. Tolman's theorizing in the 'thirties and 'forties helped reinsert consideration of the organism into the purview of psychological studies; hence, the S-O-R characterization. Along with the organism, cognition and mental processes returned to the language of psychologists. That is not to say, of course, that mentalistic terminology had ever been eradicated from psychological writing.

Phenomenology is presently being estranged from behaviorism, and after being separated, the two are being reunited (e.g., Wann, 1964; Day, 1969). The organism is again being emphasized in such terms as "phenomenal experience" (Kendler, 1970) and "ppp" (Brody and Oppenheim, 1966). Behaviorism is to be both lauded and lamented; lauded, because its methods replaced the inferior ones of the structuralists, and lamented, because its methods prevent a psychologist from being open to the world of meaningful experience (Lichtensein, 1971). There is a tacit agreement among psychologists of whatever philosophical orientation that the study of the behavior of organisms is somehow at once the study of behavior and the study of organisms and that it is difficult to study either to the exclusion of the other. The tempting conciliation is to say that dif-

ferences in subject matter are, therefore, only matters of emphasis. Apparently reconciliation does not demand a definite answer to the question of whether psychology is returning its emphasis of study to the organism or allowing the study of behavior to continue to dominate.

It is not entirely accurate to say that records of behavior are that from which theories of psychology construe their data (Turner, 1967). Yet in certain respects data are autonomous; they stand on their own; and only their interpretations differ. In interpretations, then, the different emphases are made, and in interpreting data there is no recognizable line over which one passes from theoretical emphasis on the organism and its functioning to an emphasis on the function of the behavior of the organism. After either emphasis has been made though, the differences seem to become so great that often the result is what is popularized as philosophical debate about basic conceptualizations of man.

This paper is not about those differences; it is about how one suddenly finds himself emphasizing either the organism or behavior as the subject matter of his theoretical statements. It is about the indistinct boundary at which one moves from theories of the behavior of organisms either to theories of organismic functioning or to theories based on physicalistic descriptions of behavioral and environmental factors. Rather than beginning with clear distinctions and moving toward a tenuous unity based on arbitrary presumptions about the definition of science or the subject matter of psychology, this paper begins with that area of unstable compromise and suggests how those clear distinctions come about.

Fifty years ago Norman Campbell (1952) defined science as follows: "Science is the study of those judgments concerning which universal agreement can be obtained" (p. 27). Before offering this definition, he felt it necessary to make a case for the existence of other minds, or "other persons," as he says. The development of his argument is fairly elaborate, but it may be sketched as follows. After dividing the world into internal and external parts, Campbell argues by analogy that "intimately" associated with other persons' bodies are other persons' minds, or simply other persons, in the same way that he (i.e., Campbell) is intimately associated with his body. Judgments reached by persons are based on sensations. There are methods for assuring that a community of sensations is possible so that universal agreement about those judgments is also possible.

The term "judgments" returns the organism to science. The judgment of an organism is not necessarily an overt behavior. Hence, basing the substance of science on judgments seems to require the elaborate argument about the existence of other minds. Since judg-

ments are in turn based on sensations which are internal to the organisms, the arbitrary division of the world into internal and external parts is immediately required. That division leads Campbell to write, ". . . it seems to me that there is something so fundamentally different in the internal and external worlds . . . that we would not, even if we could, group them in the same categories" (p. 72). Campbell's argument thus sharply differentiates two worlds; the internal and external worlds are "fundamentally" different.

Last year Howard Kendler (1970) published a paper on the unity of psychology. "The structure of psychology," he writes, "is basically an epistemological issue. . . . In any epistemological analysis, one must take arbitrary assumptions to guide his rational analysis" (p. 31). Among the things this analysis should provide is collective understanding, and collective understanding requires intersubjective agreement. Kendler distinguishes between two kinds of explanation, one based on deductive-nomological explanation and one based on psychological understanding. Kaplan (1964), who owes a debt to Campbell, has made a similar distinction. Scientific explanation and psychological understanding through phenomenal experience are different, and one might investigate phenomenal experience scientifically. According to Kendler, one may abstract significant characteristics from phenomenal experience, characteristics that help in understanding behavioral and neurophysiological events. In this way one can form the basis of a model of the mind.

There are points of similarity between Campbell's definition of science and Kendler's description of psychology. Campbell's term "community of sensations" is used in nearly the same way as Kendler's "collective understanding"; Campbell's term "universal agreement" is used in about the same way as Kendler's "intersubjective agreement"; and Campbell's term "judgments based on sensations" assumes the priority of the organism in much the same way as Kendler's term "phenomenal experience." Campbell founds science and its methods on the sensations of the scientist and the necessity of providing technical assurances that the analogy between the sensations of different scientists may hold. In this epistemological issue Campbell begins with the seemingly rational, certainly arbitrary assumption about an internal and an external part of the world and ends with knowledge by means of a community of sensations. In a similar sense Kendler notes that some psychologists restrict the subject matter of science to phenomenal experience and others omit phenomenal experience from consideration. The arbitrary division set by Campbell seems to characterize these fundamental differences between areas of psychological study; the areas of psychology that emphasize the internal part of the world, or phe-

nominal experience, are different from the areas of psychology that emphasize the external part of the world, or physical manipulation. Kendler proposed unification "on a common criterion of explanation," scientific or deductive-nomological explanation, which can come to explain phenomenal experience through modeling the mind. Kendler prophesies: "Without a common conception psychology will inevitably be split into separate and distinct disciplines" (p. 30). For Kendler, then, the unity of psychology, if it is to come, will come through theory and deductive-nomological explanation.

To summarize for a moment: the internal part of the world is the realm of phenomenal experience. The external part of the world consists of physical objects and of other persons; that is, rather, the minds and bodies of other human organisms upon which common agreement may be obtained. Psychology finds itself in the situation of having to study both the internal and external parts of the world. Seemingly both parts cannot be studied simultaneously, for one part of the world serves either as the language base or as the data base for the other. Psychology seems able to come close to studying both parts through the study of neurophysiological events. However, as Kendler points out, the problem of establishing both a theory of behavior and a theory of neurophysiological events precedes the establishment of an isomorphism between these two kinds of theories. Until an isomorphism is established, indeed if it is possible, there are no justifiable grounds for asserting that a neurophysiological event is tied to a behavioral event in any useful way. If a common concept of explanation is reached though, the internal and external parts of the world may be united in a model of the mind.

The assumption of the two "fundamentally" different parts of the world does seem plausible. Campbell fashions his argument in the following way: "If I divide the world into an external and an internal part, you are part of the external part. 'You' are not 'me' and 'I' am not 'you,' you are part of my external world and I am part of yours" (p. 23-24). Kendler merely asserts the fact of separateness: ". . . I just wish to insist that phenomenal experience represents a legitimate area of investigation for the simple reason that phenomenal experience exists. To deny the existence of human consciousness is equivalent to denying the existence of an external environment" (p. 34). That one does not find Kendler's assertion shocking may be due to the currency of an argument along the line of Campbell's, "if," as Campbell writes, "anything so elementary and so fundamental to all thought can be called an argument" (p. 25).

Yet the subject matter of psychology labeled "the study of the behavior of organisms" remains vague. The study of the internal

part of the world, the study of personal experience, may be relabeled "the study of organisms." In this regard one might suggest that there are a number of ascriptions one makes to oneself that do not appear to be tied to what is externally observable. For instance, Kendler asserts: "I am simply stating that a person's phenomenal experience is an observable event, at present to him alone, and is neither equivalent to behavior nor to neurophysiological events as I have defined them" (p. 35). That is, each person in his own way seems to understand how he observes his experiences. In silently ascribing to himself that he has a headache or that he is depressed, he feels he can at times be successful in keeping others from knowing about those self-ascriptions. On the other hand, when observing another person in the external world, one may describe that external person in a way that the latter would accept as true, yet in a way different from the latter's own self-descriptions. Psychoanalytic interpretation is just one of the areas which depends on the possibility of this occurrence. The separateness of "me" and "you" seems undeniable. To affirm that both a person and his behavior are what psychology studies seems to violate this separateness. Still, it seems equally undeniable that one cannot study behavior without regard to an organism, even if the organism is oneself, and that one cannot study an organism without some behavior occurring, even if the only behavior involved is studying. In this state of affairs, one might find attractive Rychlak's (1968) appeal that an appropriate form of study in psychology is dialectic where theorizing is equivalent to thinking and where each discriminial construct implies both its opposite and its union with its opposite.

In the face of this dilemma, whether purely dialectical or not, one may want to turn to philosophy. The byword among contemporary philosophers is that their efforts are directed toward the dissolution of just these kinds of confusions. Although the intricacies of philosophical argumentation are lost to psychologists, the gross summary of two attempts at dissolving this problem may be helpful. P. F. Strawson (1964) describes two solutions that have been offered for this difficulty of how to deal with the gap between the internal and external worlds. He notes the tendency of people (among them perhaps philosophers and psychologists in their philosophical orientations) to oscillate between philosophical skepticism and philosophical behaviorism. The skeptical position is that self-knowledge is all one ever has. From this position one affirms that he never has conclusive evidence for any statement; he has only contingent evidence. For example, Campbell's view of scientific laws is that they are regularities upon which a person's judgment is contingent and upon which rests the possibility of universal agreement of those

judgments. There are appropriate techniques for reducing the uncertainty which might prevent that agreement, and his argument for the existence of other minds is to disallow the extreme skeptical position, solipsism, from having any scientific sanction. Hence, though one never can have conclusive evidence about the validity of a scientific hypothesis, he has different ways of rendering the hypothesis so that a community of sensations may pass judgment on that hypothesis. The hypothesis becomes more or less plausible on the basis of its being demonstrated, and the success of its demonstration rests upon the agreement of scientists' sensations contingent upon that demonstration.

The behaviorist position is often called dogmatic in that one is allowed to use terms only in relation to observed behavior. The behaviorist position may be equivalent to one of the outcomes of the skeptical position when the demonstration upon which the scientists' sensations are contingent is behavioral and when it is asserted that the scientists' sensations in no way introduce uncertainty into the agreement upon the terms which are to be applied to that demonstration. In short, philosophical skepticism is based on self-ascription, on phenomenal experience, as being all that people, including scientists, ever have as evidence for existence; whereas philosophical behaviorism discards sensations in favor of observables. Behaviorism may occasionally be linked with skepticism when manipulation of observables is used to produce judgmental agreement on the basis of a contingent community of sensations.

In his effort to dissolve the problem of how to link the internal with the external world, Strawson takes the position that the concept of person is primitive; it is prior to the use of predicates which are self-ascriptive or other-ascriptive. That is, before the world can be divided into internal and external parts, such division must appear plausible to a person. This plausibility requires that a person be able to use both self-ascriptive and other-ascriptive predicates coherently. For example, if a person were unable to use the relational pronouns *I* and *you*, he would not regard Campbell's argument as convincing. If he did not know that he uses *I* in self-ascriptive statements and *you* in ascribing properties to other persons, he would be unable to accept that he was "I" to himself and "you" to another. Plainly, at least to Strawson, the concept of person contains the possibility of both these uses, and the denial of one is the denial of, or at any rate the introduction of doubt into, the other.

Another philosopher, Norman Malcolm (1964), attacks more directly the argument by analogy, i.e., the kind of argument of which Campbell's is an example. Malcolm suggests that the problem of other minds comes about when one assumes that he must argue "from

his own case." His own case appears prior to the concept of "other minds." If one is freed of this illusion of priority, then he is able to acknowledge that the circumstances, behavior, and utterances of others are his criteria for the existences of the mental states of others. The opposite of arguing from one's own case is behaviorism. According to Malcolm, behaviorists assert that one observes himself on the basis of outward criteria which anyone else could observe about him. If one takes this behavioristic position, then he is puzzled about how he comes to use statements from his own case, i.e., self-ascriptive statements. Hence, neither the argument by analogy from one's own case nor behaviorism is acceptable. Malcolm suggests that first-person psychological sentences be put in an entirely different light. Malcolm acknowledges that there are problems with Wittgenstein's suggestion that first-person sentences are to be thought of as similar to the natural, nonverbal, behavioral expressions of psychological states, but he notes that this suggestion is helpful in that first-person sentences can be seen as having the same importance for a person as preverbal criteria of the psychological states of others (cf. Shawver and Dokecki, 1970).

What the comments of these philosophers have to do with psychology is only this: psychologists are occasionally deluded by words just as everyone else is. But psychologists are in the peculiar situation of thinking that they have to study what some words seem to refer to; e.g., what philosophers and others call "psychological states." If psychologists are deluded into thinking that there is a subject matter available to them that is referred to as "psychological states," then they are immediately faced with the dilemma which has been described. If they go on to affirm that this subject matter exists because they know it intimately, in themselves, just as everyone else does, then they have begun to argue from their own cases. One may then be forced to make the peculiar statement that scientists are forced to deal only with contingent knowledge. Thus it is likely that one would actually expect one day to be able to "model the mind." Being deceived by these words, such a psychologist would attempt to equate his use of particular self-ascriptions with a use of others' self-ascriptions. One such equivalence might be stated as follows: "Your headache is equivalent to my experiencing a sensation contingent on the observation of the reading on such-and-such an instrument." To the psychologist perhaps this possibility betokens progress. However, if this possibility became an actuality, its main implication would be at most that one could then arbitrarily impose different criteria upon which to judge the veracity of another's mastery of self-ascriptive terminology.

The preceding may be thought of as one of the legitimate inter-

ests of psychology, but it must first be pointed out that this conception of psychology is necessarily organism-centered. When theorizing is equivalent to thinking, its implicit skepticism may slip into solipsism as in the theory of thought. Of course, dogmatic behaviorism is no safe alternative to this danger of solipsism.

Kaplan (1964) and other philosophers, in accepting neither the skeptical nor behavioristic position, have called for the study of human action as the subject matter of behavioral science. As yet, psychologists seem not to comprehend what techniques such a study would require. In the theory of human action, meaning has a unique stature; the meaning of terms is not solely determined by a reference theory of meaning. This change in the determination of the meaning of psychological terms carries with it additional difficulties for psychologists. If human action involves the meaning of action, the beliefs, desires, and values of human action, then psychology still faces all the knotty problems it has tried to investigate since it attained scientific respectability. However, taking the subject matter of psychology to be human action, psychology would necessarily be concerned with the behavior of organisms, the organism man in particular. This subject matter would not be liable to arbitrary assumptions that lead to division and to dire predictions about psychology splitting into separate disciplines. Deductive-nomological explanation and psychological understanding could be recognized as equally important in the adequacy of theoretical accounts.

There is at present a way of studying human action and the behavior of other organisms. This technique is quite crude, and it has had most success with infrahuman organisms because of this very dilemma, the problem of self- and other-ascription in verbal behavior. The important move that B. F. Skinner (1957) has made, however, is to shift the focus of study from words, written, uttered, thought, or dreamed, to the context of acting. Skinner specifically rejects the reference theory of meaning so that in his analysis of behavioral contexts he does not look for the object to which the word is said to refer. Hence, he does not look for psychological states, even in theory, and he is not concerned about the terms in which self- or other-ascriptions are made. However, in rejecting meaning almost without qualifications, he seems to be studying only the behavior of organisms under varying circumstances, i.e., contingencies of reinforcement, and not meaningful human action. That estimation is perhaps accurate, and the contingencies of meaningful organismic behavior remains to be analyzed. Other considerations of meaning have led to formal or pseudo-formal theories in psychology, and experimental activities are often directed toward defining the meaning of psychological constructs. These indications support the notion

that most psychologists are currently construing meaning according to a reference theory. Theories which are simply lattices of construct definitions have proved of little value, and it may be that, even in psychology, meaning by reference to physical objects or to psychological states will become just one of multiple ways of getting at meaning. It is certain that in a theory of human action, definition by means of reference alone will not be constructive.

In summary, this paper has suggested that the two classes which seem to make up the subject matter of psychology, labeled "the study of behavior of organisms," are not clearly separable. That class bound by the experiencing organism, the internal part of the world, the phenomenal world, and the class of behavior, the external part of the world including the objective study of neurophysiological events, are at best arbitrarily distinguishable. Particular theories, which make this distinction in their accounts of organismic functioning, provide only a semblance of union of these two classes of subject matter. This paper mentioned that both the theory of human action and the theory of contingencies of reinforcement offer alternatives to a psychologist who finds the meaning by reference only particularly stultifying. These latter theoretical alternatives exact a different point of view from the scientist, a point of view that allows him to see intact the behaving organism as the appropriate subject matter for psychological study.

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