DISCUSSION

PURPOSIVE STRIVING AS A FUNDAMENTAL CATEGORY OF PSYCHOLOGY[1]

In this able address it seems to me that Professor McDougall has criticized the behavioristic point of view in psychology more severely than is justified by the facts, and the following discussion is an attempt to clarify some aspects of behaviorism that seem to have been neglected. In a paper which I presented at the same meeting[2] I developed a series of postulates which are designed to place the problems presented by individual and social achievement on the same fundamental basis as the problems of physics and chemistry. Professor McDougall regards such attempts as evidence of a lack of courage. Specifically, he states, "The 'behaviorist' slavishly accepts the physical sciences as his model, and seeks safety from the charge of being unscientific by confining himself to the use of the methods of observation, description, and explanation current in those sciences" (p. 306).

McDougall's fundamental conception is stated by himself as, "The life of man from birth to death is one long series of purposive strivings" (p. 307). As one way of stating an axiomatic fact there can be no objection to it, but as an axiom which is to serve as a basis for the deduction of subsequent theorems and corollaries, I do not see how the essential quantitative factor is to be introduced. If this conception is stated in a different form, it may be directly derived from premises more fundamental than the conception itself. To illustrate: If, as I maintain, the laws of direction and rate exclude, so far as mathematical theory indicates, the possibility of utter condensation, or utter dispersion, or a permanent stability (zero motion) of all the particles, the result is that limited electron-proton aggregates form motion groups of varying symmetries, configurations, and degrees of stability. From this it follows that

[1] Address of Professor William McDougall, President of the Section of Psychology of the British Association for the Advancement of Science, Toronto, August 1924.

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[2] 'One Set of Postulates for a Behavioristic Psychology.' PSYCHOL. REV., 1925 32, 83–87.

there can be no permanent stability, and McDougall's 'purposive striving' is merely another name for this limited stability of the electron-proton locus which I have designated as the human individual.[1] However, when human strivings are regarded as forms of protoplasmic instability, the conception becomes so general that it has lost the specificity which is necessary to establish it as a category in explaining human achievement.

Purposive striving as a fundamental category requires the development of sub-categories of (*a*) purposes, (*b*) strivings, and to reach a maximum of scientific utility it should be possible to state them in a quantitative form. This is implied by McDougall himself in the statement, "There is a vast range of differences in respect to the nearness or remoteness of the goal; and in respect also to the clearness, fullness and adequacy with which he [man] thinks of his goal. And there is also a wide range of differences between his successive strivings in a third respect, namely, in respect of the urgency, the intensity, the concentration, and output of energy manifested in his striving at any movement" [moment?], (p. 307). As a practical problem the behaviorist asks, What hope is there of reaching an agreement as to what objects and events shall be included under the various classes of purposes and strivings? and, What hope is there of developing a system of measurements by which quantitative interrelations can be established? If psychologists cannot agree on what facts are to be included under sense-qualities, mind, or consciousness, will they agree on what is to be included under the much less definitive category of purposive striving? That Dr. McDougall anticipates difficulty in establishing purposive categories seems indicated in the following: "Let us be content to postpone metaphysics and to start out from two indisputable empirical facts: first, the fact that sometimes men create new things, such as great works of art and literature and new scientific formulæ. Secondly, the fact that, when normal man simply and strongly desires a certain end and perceives certain bodily movements to be the means to that end, those movements follow upon that desire and that perception" (p. 311).

If we grant the request not to ask how a desire or a perception can produce a bodily movement, this restricts us to an enumeration and description of man's achievements. The descriptive phase is, of course, an important part of every scientific investigation, but when we ask, What are the categories according to which our

[1] Postulates 3, 4, 5 in article cited above.

observations shall be classified? we are merely given a negative program which begins and ends with a sentimental appeal to popular psychology. According to McDougall, "a psychology that ignores the all-pervading purposiveness of human life is of no use; for, if it is consistent, important words that are essential to the intelligent discussion of human affairs (such words as motive, intention, desire, will, responsibility, aspiration, ideal, striving, effort, interest) are of no meaning for it; or, if they are used, are used with a meaning so thin and so different from that of ordinary discourse, that profitable converse with the practical man is impossible" (p. 309). As a program for psychology this means the repudiation of the categories, awareness, sensation, consciousness, etc., and the substitution in their place of such categories as motives, desires, responsibilities, ideals, interests, etc. That it is easier to classify human ideals than it is to classify sensations, seems doubtful.

As to the suggestion that we 'postpone metaphysics' I would heartily concur if metaphysics is taken in the traditional sense, but if avoiding metaphysics merely means that we are to avoid attempts to understand the fundamental principles on which psychology is based, I do not agree. If for instance Professor McDougall is content to let the exact nature of purposive striving develop as 'the present limitations and imperfections of our understanding' develop, we are making the same error that has been made in the development of all the psychological systems. We are merely refusing to raise an issue which is essential for any experimental program. There was a time when it was only necessary for the scientist to walk around and carefully report the objects and the events that he observed. But most of this has already been done. The introduction of the experimental method brought with it the analysis of the objects and the events into their component and antecedent parts. Since everything that occurs simultaneously with an event is a component of that event, and everything that preceded an event is an antecedent of that event, scientific expediency requires that components and antecedents be classified into essential or non-essential for the particular experiment that is being conducted. For this reason, any experiment that is not based either implicitly or explicitly on some theory of causation is practically useless as contributing toward scientific or practical control.

I do not wish to imply that our fundamental conceptions should be unalterable. The physical sciences have demonstrated the

futility of this; but if whatever is to be included under purposive striving is to be purely a personal matter to be decided or not decided, how can any progress be made? The essential condition of all science is that the investigators must understand each other, and unless this agreement is reached at the very outset no amount of subsequent defining and classifying will lead to uniformity.

Traditional psychology started out with the assumption that the nature of consciousness was self-evident; 'everyone knows what consciousness is,' yet at the present time consciousness is about to be eliminated from psychology because no two people seem to be able to agree as to what facts are to be included under this term. Does the conception 'purposive striving' hold forth greater promise?

The behaviorist maintains that it is better to start out with a *uniform* conception even if experimental developments show that this conception must be frequently altered. How can we develop an explanation and experimental program of the study of human achievement if from the very beginning we are not agreed as to the nature of human achievement, the causal factors underlying it, the nature of the individual, and the methodology of investigation? This does not mean that it is necessary to be able to define a given term in a manner acceptable to every one. It does mean, however, that we must work backward toward some uniform conception that can be stated quantitatively. In my own system I have adopted the principle of motion or movement. I hold it as axiomatic that all human achievement, both personal and social, is a form of motion. The question arises, What kind of motion? The adequate answer would be the analysis of a given activity into the types of motion which the physicists have classified: as, motion to the right, left, up, down, circular, centrifugal, parabolic, elliptic, sinusoidal, slow, fast, variable, etc. Does this imply that I am at present able to designate by some system of coördinates, every movement, micro- and macroscopic, of the contractile effects and their resultants which we now call the League of Nations, for instance? Assuredly not. The physicist, who also postulates motion as fundamental, is only just beginning to reduce the motions of the electrons and protons within the atom to a system of coordinates. In mechanics and hydraulics he is still obliged to work with mass motion. The behaviorist is still more restricted and must rest content with those motion groupings at the complex end of the series: electrons, protons, atoms, molecules, protoplasms,

protozoa, metazoa, and compound metazoic organizations as represented by animal and human groupings of which the League of Nations represents a terminal form. When I designate the League as a form of motion this means that it may be regarded as made up of (*a*) the movements of a particular group of administrators and experts, of (*b*) a system of records and reports which are also the products of the movements of individuals. The social institution which we call the League of Nations thus represents a specific series of movements which are the components of larger movement configurations, and the effects of antecedent movements. It is, of course, impossible for me to analyze these movements into their components and plot them on some system of coördinates of the Cartesian type, but the events making up the League can be classified on the principle of *equivalent orders*. For instance, the documents issued by the League from time to time represent a resultant of many other documents and verbal responses of other individuals; each of these in turn being a resultant of antecedent manual, verbal, and social conditions. The analysis may regress along two relatively independent lines: (*a*) an ontogenetic series tracing backward through the sensori-motor modifications of the activity in question to some infantile form of movement, (*b*) a phylogenetic series tracing backward through the social or institutional modifications of the activity to some primitive social form.[1]

This type of analysis requires no principles which have not been developed out of the methods of the other sciences. It places the program of psychology in with the other sciences. It uses the general scientific methods of measurement and description, entering into reciprocal relationship with the other sciences on equal terms, without being restricted by terms and definitions some of which, such as the soul, ego, image, sensation, consciousness, mind, have not achieved a scientific status although they are among the oldest in the language; others, as mentality, psychical energy, self-initiating drives and desires, which seem to be only terminological variants of these older terms. There is, of course, no valid reason why 'purposive striving' should not be regarded as a form of motion, except that McDougall insists upon introducing a form of antecedent (a purposive process) which cannot be measured, and insists upon a relation between cause and effect which is probably inverted, in the statement, "In the instances near the top, the more developed modes of mental life, involving the solving of a defined

[1] Postulates 9 and 10 in article cited above.

problem, the thinking out of a plan, we all recognize the purposive nature of the striving. The goal, as envisaged, governs the movements of both mind and body" (p. 307).

Suppose it is found that imagery, or the 'goal as envisaged' is only one of the effects of the sensori-motor modifications which are the actual causes of the 'movements.' If this should be the case 'the goal' (whatever McDougall may mean by this term) is merely a component or by-product, not a cause. From this there is no escape. According to Professor McDougall the analysis of human achievement leads to categories of 'purposive strivings' fundamental to which is some hypothetical 'purposive process.' None of these assumptions lend themselves to a quantitative analysis that will be generally accepted, and this practically means that they are excluded from science.

On the behavioristic assumptions, however, the analysis of any phase of human achievement leads into sensori-motor categories, on the one hand, and into history and statistics on the other. As its own field behavioristic psychology investigates those movements which establish the individual's social status in the group of which he is a member.

As a behaviorist I would not hesitate to accept 'purposive striving as a fundamental category in psychology' if such a category seemed to offer possibilities beyond the scope of physical science when the principles of physical science are developed along the lines indicated in my set of behavioristic postulates. I would be the last to maintain that these postulates are anything but working hypotheses to be altered or eliminated as new developments in science make this necessary.

In conclusion I wish to stress the fact that modern science is not the same as the science of a hundred years ago. McDougall says, "Let us not deny ourselves the right to build up a psychology that may be of use and value to our fellow-workers in the social sciences, because we cannot at present answer the most difficult of all questions. The physicist is equally nonplussed if you ask him comparable questions, such as, How does one molecule attract or repel another? What is the nature of chemical affinity? What is electricity? But he does not suspend his researches because his fundamental conceptions and assumptions are disputable and disputed, nor does he turn to some other branch of science in order to borrow from it others that have more prestige. Let us follow his example" (p. 312). If the physicist is nonplussed by the question

"What is electricity?" the difficulty lies in the fact that the physicist is trying to answer a pseudo-question which was actually formulated for him by the psychologist or philosopher. The modern answer to the question resolves itself into the form, What objects and events which we may observe shall we include under the term 'electricity'? The fact that objects move away and toward each other is one of these observed facts. In measuring this type of movement such conceptions as volts, amperes, induction, direct and alternating currents, conductivity, resistance, etc., are developed. All of these objects and events are grouped together under the class name 'electrical objects and electrical events.' They *are* 'electricity.' When the physicist insists on finding some additional *force* or *energy* he is merely introducing a variant of the 'soul conception' into his science.

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