

BEHAVIORISM

BRO. STEPHEN MCGONAGLE, O. P.



BEHAVIORISM is a science, with philosophic tendencies, taking human behavior as its subject matter, and having the avowed purpose of seeking to control and predict this behavior. It is a subject which engrosses the minds of many today. Hardly a book on psychology or philosophy is published which does not contain a criticism, favorable or otherwise, of the behavioristic position. It is the behaviorist, who, by his attacks on the traditional psychology and by his attitudes and assumptions, provokes much of the discussion in the different schools of philosophic thought.

The behaviorist is, by implication and viewpoint, incapable of sympathy with introspectional psychology; he prefers the cold and scientific formulae of mathematics and physics. In his hands, psychology becomes an objective branch of natural science. Everything that receives attention is immediate, evident, unequivocal and objectively observable. The hypothesis of a soul or mind, is replaced by that of a bodily organism operating on mechanical or physical principles. There is no study of mental phenomena, for the mental states are either ignored or considered as material states. All explanation of human conduct is made in terms of stimulus and response, and no interpretation is permitted in terms of consciousness. Any appeal to consciousness is rejected, as well as any metaphysical or philosophical element, because they are not tangible and not capable of being objectively observed.

Behavioristic psychology includes a three-fold course of study and observation, namely a neuro-physiological study of the bodily organism, an observation of the responses or activity of this organism, and an examination into the specific stimuli to which the organism reacts. Thus, for the behaviorist, the individual is but a reaction mass, a mechanical organism without soul, mind, intellect, or will, but in either stead possessing two attributes, hereditary structure and acquired habits. The behaviorist consigns to these attributes every instance of human activity, which means that there are two modes of action, namely structural activity, and learned or acquired activity. According

to the behaviorist this activity may not be labeled either conscious or unconscious; it must be termed simply the response to stimulus. These modes of activity are either implicit or explicit.¹ Explicit hereditary responses are the observable instinctive and emotional reactions, as sneezing, fear, etc., while the implicit responses are the internal secretions and glandular activity. Thought, thinking, language habits, and the systems of conditioned reflexes are considered as implicit acquired responses, and play activity as explicit.

The behaviorist demands that philosophy be taken out of psychology and then turns his own system into a materialist philosophy. He condemns general ideas as empty abstractions and then illogically declares that all events are mechanically explicable. He makes two unjustifiable assumptions, namely that all human activity is fundamentally mechanical in principle, and that mechanistic psychology is able to give an adequate and intelligible account of human behavior. All of his terms are selected from physiology, biology, and physics; expressions like "stimulus and response," and "reflex action," and "behavior," and "adjustment" are used.

All the actions of the individual are looked upon as an adjustment to a stimulus received, or as a readjustment to a new environment. The behaviorist enters the maternity ward and notes the stimuli to which the infant at birth is forced to respond, and the responses to these, such as breathing and heart beat. He notes the variation in each. He sees no inheritance of capacity, talent, genius, and mental characteristics not dependent upon structure.² He studies the birth equipment of infants and decides that "Differences in structure and differences in early training will account for all differences in later behavior."³ He concludes that mathematical ability, musical ability, mental powers, and others are the result of early environment. He proclaims that healthy infants without structural defects, glandular diseases, insanity and the like may, by early training, be converted into doctors, lawyers, and merchants; and this, irrespective of their lineage.⁴ He draws attention to the evils of engendering the wrong responses in a child, like fear and jealous reactions, in order to control the child's behavior. He warns of the sexual and immoral tendencies that may be implanted by the unwise actions of ignorant and evil parents.

¹ J. B. Watson, *Psychology from the Standpoint of the Behaviorist*. (Phila., 1919). Pp. 14 and 194.

² *Psychologies of 1925*. (Worcester, 1927), p. 1 ff.

³ *Ibid.*, p. 6.

⁴ *Ibid.*, p. 10.

Then as a result of too much observation and too little introspection, he transgresses against himself. Since he can objectively observe nothing but behavior, he regards all else—consciousness, intellect, purpose, instinct—as nothing but idle speculation. Mind is matter, or it does not exist; the intellect is a non-entity, and thought, the involuntary vibration of the vocal cords. Instinct is made a reflex action, and personality, everything predicated of the individual. A mechanical basis is declared for everything—for mentality, thought, habit, and personality; and thus behaviorism graduates into a materialist philosophy.

Like most aspects of philosophy attracting the attention of man, behaviorism had an early beginning, its tenets being expressed, in principle at least, by Democritus and the Greek atomists. Greek atomism was featured by a mechanistic interpretation of nature and the rejection of animism and of all theoretical notions of the intellect and free will opposed to the materialist view.⁵ Later on in Europe, Galileo, Descartes, and others, accepted the positive teachings of Greek atomism as the only explanation of material things, i. e., that all events are mechanically explicable. Having revived the physics of Democritus, Descartes put forward the view that the animal is a machine, and life but a mere mechanical process. Behaviorism was again foreshadowed by Spencer in his dogma of evolution, holding that all phenomena, mental and physical, must be explained by a mechanical interpretation. More immediately, however, behaviorism is indebted to Bechterew, Pavlow, and to the tropistic studies of Loeb and others. Today, the popular exponent of behaviorism is Doctor John Broadus Watson of Johns Hopkins University.

To compare behaviorism with traditional psychology is difficult, not by reason of showing wherein they differ, but in respect of indicating points of resemblance. The first question that should be settled is the subject matter of each, the chief methods employed, and the aims, results, and attempted explanations. Watson defines psychology as "That division of natural science which takes human activity and conduct as its subject matter."⁶ But for Watson there is no place in the study of human activity for mental states and so on: "He (the student) is not confronted with definitions of 'consciousness,' 'sensation,' or of 'image,' 'perception,' and the like."⁷ His definition thus carries two implications: (1) that psychology deals only with what is observable,

⁵ E. C. Wilm, *The Theories of Instinct*. (New Haven, 1925), p. 14.

⁶ *op. cit.*, p. 1.

⁷ *Ibid.*, p. viii.

i. e., with what can be noted by the photographic plate or stop watch, and (2) that consciousness is not observable, and hence, meaningless. The behaviorist has thus at the outset a complete set of taboos, namely the soul, intelligence, free will, sensations and anything that might smack of introspection; which assumption tends to hamper his progress and that of psychology in general. To the scholastic, the analysis of these faculties and functions is necessary and essential for a complete psychological study of man. Mercier writes: "And following Aristotle we look upon the human soul as the first principle, in virtue of which we are alive, sentient, and rational."⁸ Saint Thomas, in his *Summa Theologica* states: "In the first place we shall consider those things which pertain to the essence of the soul; secondly, those things which pertain to its powers or faculties; and thirdly, those things which pertain to its operation."⁹

All psychological study is followed within the same confines and has a common object—the operations of the individual. Both the behaviorist and the scholastic observe habits, actions, the processes involved, the sequence of cause and effect, stimulus and response. But behaviorism denies all the data secured from introspectively observable facts, limits itself to the objective method, and is thus restricted to the observation of muscular and glandular activity, and of stimulus and response. Behavioristic study is from without; concentration is directed to the organs of the body which are more intimately connected with conscious life, namely the sense organs and the nervous system. Ideas are sought as to the way in which behavior may be controlled by carefully scrutinizing these organs. From this study of structure and behavior, an attempt is made to understand the connection between mental life and muscular activity, but without any direct testimony being sought, or accepted, from individuals about their mental processes. Not so the scholastic, who takes over the lessons he has learned from logic, namely observation and introspection, induction and deduction, experiment and hypothesis, analysis and synthesis. Behaviorism clings to the objective method alone and discards introspection as a stumbling block, while the scholastic combines the two. Introspection has its difficulties, but the objective method by itself is barren; the one must supplement the other. The study of human activity demands that consciousness be taken into account, that is, that introspection be employed, for then only can human conduct be explained. We observe states of consciousness by the subjective or

⁸ *Manual of Modern Scholastic Philosophy*. (2nd ed., London, p. 162).

⁹ Ia, q. 75.

introspective method, that is, by turning the mind in upon itself. The utility of the objective method consists in suggestion and corroboration; it studies only phenomena apprehended through the external senses. For the value of the two methods it is only necessary to compare the progress made in the study of animals, where the objective method alone is possible, with the progress made in psychological study of man.

*The three fundamental errors of behaviorism are, according to Morton Prince, (1) "In confining themselves to only one method of observation and experimentation," (2) "The denial of consciousness as cause of bodily reactions," and (3) "That behavior can be today completely explained in terms of the correlated neural and other bodily processes alone."¹⁰ Consciousness is a mental state or act, by which the subject perceives his experiences, by which he is aware of his states of feeling and of the operations of his external senses, and also by which he distinguishes and compares them. The behaviorist does not deny that mental states exist, he simply ignores them. To him, consciousness is merely a useless by-product of the soul theory. He believes that mental states cannot be defined, terms them a *flatus voci*, and considers that they are not realities but manifestations of something else, that is, that they are in reality material states and, at the most, psychical categories always reducible to material. Such being the case, every instance of human conduct would be merely a mechanical, reflex response to a sensory stimulus; only those sensible movements constituting external behavior would be worthy of note; and their interpretation, therefore, should be contained in terms borrowed from the organic sciences.

The scholastic, with his common sense philosophy, asks why this behavior of man should appear to be purposive and anything but mechanistic. Also, the scholastic objects, such a theory implies that all processes in the world are fundamentally mechanistic and physical, that it makes human behavior mechanistic, strictly determined and necessary, and therefore able to be foretold with accuracy; all of which experience contradicts.

Almost without exception philosophers have sought the explanation of man's behavior in consciousness, for man is a rational animal and works with an end in view. This is the attitude of the scholastic. He contends that bodily reactions and emotional states are unintelligible without consciousness. He proclaims that mind is not material, nor matter mental; that the mental process cannot be the effect of a cere-

¹⁰ *Psychologies of 1925*. (Worcester, 1927), pp. 202, 204, 206.

bral process. Mind is not to be identified with brain; consciousness depends in some degree upon the brain and goes with it, but it is always distinct from the brain even though it shares the brain's vicissitudes. So consciousness cannot be a biological entity, such as an organism, nor an organism reacting to its environment, such as is the brain. Common-sense philosophy recognizes that consciousness, through which the subject is aware of his desires, likes and dislikes, feelings and impulses, does directly and immediately influence our behavior. Prince, treating the question, writes: "Any psychology that does not recognize that consciousness is a cause of our actions, will be treated as nonsense and will never be accepted or seriously considered by common-sense people."¹¹ Most psychologists admit that consciousness influences behavior, though in what manner is disputed. Philosophy demands that an action be explained by the placing of at least the proximate causes, and to merely designate the stimulus which has aroused the response is insufficient, since the stimulus is not the complete cause of the response. Woodworth¹² points out that the terms stimulus and response, cause and effect, are not interchangeable, since the relations involved are diverse. The same stimulus on diverse occasions may give rise to diverse responses, just as an unsavory cheese tickles the palate of one, and in another calls forth a feeling of repugnance; or it may reveal more energy in the response than was called for in the stimulus. Without consciousness, how can the act of one who drops a dollar bill in a beggar's cup and accepts a five-cent pencil, be adequately explained? So, consciousness must be taken as an indisputable fact, and the contrary assumption destroys not only psychology but the sciences as well.

Scholasticism has always been in opposition to determinism, materialism, and mechanism, and by all of these, behaviorism is completely enslaved. Determinism views every event as a necessary, unavoidable result of antecedent conditions, and makes all behavior, which otherwise appears purposive, nothing more than a mechanical expression of previous environment. Materialism acclaims matter as the only reality, and mechanism interprets all events, processes, and thought according to mathematical formulae. With such assumptions, behaviorism proceeds to describe thought as "implicit habit responses," or as "conditioned reflexes." So thought is regulated by, and dependent upon, the establishing of conditioned reflexes; and indirectly the substantiality and spirituality of the soul is denied. Such thought can

¹¹ *Ibid.*, p. 203.

¹² *Ibid.*, p. 122.

be nothing more than a highly integrated bodily process, an act which must be placed in the class of other muscular activities and neural responses. Doctor Watson lists thought among the implicit language habits: "Thought is the action of language mechanisms;"¹³ which means for the behaviorist that thought is identified with the bodily processes required for language, i. e., with the muscular activity of the organism involved, such as movements of the diaphragm. He holds the view that a thought belongs to the same category as the act to which it gives issue; "Yet many scientists balk at admitting that thoughts of justice, mercy, and sympathy belong in the same category,"¹⁴ i. e., in the same category to which explicit bodily acts of justice, mercy and sympathy belong. Father Gredt, O. S. B. writing in opposition to the materialistic view, says: "Immateriality is the foundation of cognition, the formal constituent of the cognoscitive faculty and of thought itself. . . . The reception and immaterial possession of thought is something entirely *sui generis*, and fully superior to the order of mechanical, physical, and chemical forces, and to the entire vegetative order. . . . Objects which in nature have physical existence, accept a psychical (immaterial) existence in thought."¹⁵ The immaterial constitution of abstract thought is, according to Saint Thomas, beyond the powers of a bodily organ: "There is, therefore, a certain operation of the soul which so far exceeds corporeal nature that it cannot be exercised by a corporeal organ,"¹⁶ and this operation is the means for comprehending the material and spatial world, and the material aspects and expressions of life, since consciousness is limited to the direct apprehension of life. Thought is a mode of comprehending material states and activities, but to identify thought with the activity of the organism is materialism, while to endow muscular activity with thought is panpsychism.

In the behavioristic program of study and observation, instinct has no place unless it be for negation and criticism. "There are then for us no instincts; we no longer need the term in psychology."¹⁷ Any mental characteristic, or special ability, is admitted in so far as it is based upon structure, as, for example, the throat formation of a contralto, or the long slender fingers of an artist; but any unlearned activity of so complicated a nature as an instinct is denied. Unlearned activity of man and beast is explained by

¹³ *op. cit.*, p. 316.

¹⁴ *Ibid.*, p. 324.

¹⁵ *Elementa Philosophiae*. (3rd ed., Freiburg, 1921), nn. 410, 407, 221.

¹⁶ *Summa Theologica*, Ia, q. 78, a. 1.

¹⁷ *Psychologies of 1925*. (Worcester, 1927), p. 1.

attributing it to structural formation in accordance with which it must act until learning and a new environment have exerted a release from this structural slavery. The concept is not new, and has been gaining ground since the days when Herbert Spencer identified reason and instinct, mind and life. Mr. Watson insists that our unlearned behavior can be explained after the same fashion in which we render the actions of the boomerang intelligible, that is, according to structure and the laws of physics: "If we need no mysterious way (i. e., by means of instincts) of accounting for the motion of the boomerang; if the laws of physics will account for its motions—cannot psychology see in this a much needed lesson in simplicity?"¹⁸ The assumption that there exists no behavior which is not based on inherited structure or upon the individual's own experience and environment, reduces what is known as instinctive action to the level of physical responses mechanically determined by the organism. The description of instinct as a "chain of reflexes," or a "compound reflex" working through a team of neurones, is contrary to scholastic reasoning and subversive of fact as well. To interpret actions that are instinctive, scholasticism relies neither upon the "Inherited Habit" (lapsed intelligence) theory of Lamarck and the Lamarckians, nor upon the "Natural Selection" theory of Darwin, but upon philosophical principles drawn from the unlearned and purposive activity in animals and man. In other words, there is a necessity for recognizing some principle which will explain those actions which are performed without concomitant consciousness and without learning, and which sometimes subserve neither the propagation of the race nor the preservation of the individual. Structural formation is always essential, but far too insufficient by itself to explain the great variability of instinct. Instincts, therefore, cannot be identified with the setting in motion of a team of neurones, nor with habit, for instinctive action is too fundamentally different from habit-behavior. Structural formation gives no clue as to why instincts differ when the organism remains the same, e. g., in the different patterns of the webs of spiders and the nests of birds, nor does it explain why diverse organisms should have the same instinct, as the migratory instinct in birds, fishes, and animals. From the scholastic viewpoint, instinctive action is purposive in function and probably able to be modified through heredity, and the char-

¹⁸ *Ibid.*, p. 13.

acteristics of this action are attributable to the Author of nature alone.

Education for the behaviorist becomes, as a result of his tenets, pure animal training. Since all behavior is to consist in response to stimuli, that is, in the reaction of muscles and glands to nervous impulses which have their origin in the sense organs, while habits are the adaptation of an individual to the environment which surrounds him; and since personality is but the result of this environment and thought but a part of the bodily process; then habit-formation becomes learning, and learning becomes education. Habits are the acquired processes of man and animals. The nervous tissue is the basis upon which the environment forms the habits. Stimuli is the physiological term used for simple factors, e. g., rays of light. When the factors are social or educational, and therefore complex, the stimulus is termed an environment. And when the stimulus becomes complex, the response becomes the behavior of the organism, or, as it is termed, an act or adaptation to environment. Thus the behaviorist educator chooses the environmental factors with which he wishes to organize the nervous tissue, such as placing a sword in the hands of a small boy. He then chains a certain response to a particular stimulus (sword practice), so that a system of desired responses (sword thrusts) will be regularly forthcoming when the definite stimuli are provided.¹⁹ In this manner, education is made to consist of the acquired systems of responses or modes of habits. Such education rests falsely upon the supposition that the mind is the product of environment. As a scientific theory it has its experimental value; but it is false when taken as a description of actuality, since education is conceded to have cultural merits and not to be merely a means of efficiency, prosperity, and bodily health. Learning is thus reduced by the behaviorist to efficiency and to the perfection of habit response, while personal development and human excellency are ignored. Such standardization and stereotyped habit responses render a man capable in certain situations, but leave his character and cultural assets undeveloped. The aim of education should be to equip the individual with a set of trustworthy principles and beliefs which will serve him well through life. And principles are but leading ideas, for, according to Saint Thomas, ideas are the principles of thought,²⁰ and habits are the preparation for action.²¹

¹⁹ *Ibid.*, pp. 2 and 10.

²⁰ *Summa Theologica*, Ia, q. 15, a. 3.

²¹ *Ibid.*, Ia 2ae, q. 49, a. 3.

To conclude, behaviorism begins as a science, but ends as a philosophy. By its own definition it is a branch of natural science, and naturalistic psychology tends to mechanistic psychology as its logical consequent. The behaviorist or naturalistic psychologist conceives of everything within nature as controlled by natural laws. He refuses to conceive of any self-directing entity such as the soul or consciousness. He thus, inevitably, takes over the mechanistic view, which either denies any influence to consciousness, or else denies its existence. The point of disagreement between behaviorism and scholasticism, or any purposive psychology, is thus complete and fundamental. In psychology, no difference can be more fundamental than contradictory views as to the essential nature of human behavior and the ultimate sources of human conduct. The merits of behaviorism lie in the presentation of scientific physiological facts, and in a pragmatic and utilitarian advocacy of bodily health. As a philosophy, behaviorism is false. When behaviorism decides that man has no powers of personal choice, no measure of self-determination, and that man's instinctive consciousness of a freedom from mechanical and physical control is a delusion, then behaviorism specifies why, as a philosophy, it will never be accepted.

