

John Watson (1878–1958)

John Watson, in 1913, delivered his Behaviorist Manifesto and that, traditionally, has been marked as the beginning of behaviorism. There were, in fact, other antecedent developments during the preceding decade. The newly emerging comparative psychology was developing objective methods and an objective subject matter, e.g., Loeb was explaining observed behavior in terms of tropisms or involuntary, automatic reactions to stimuli (Schultz and Schultz, 1992). In 1911 Meyer published *The fundamental laws of human behavior* in which a fully behaviorist account of human action was put forward (Wozniak, 2002). The call for a science of behavior was being put forward by a number of people during the 1890s and 1900s (Hunt, 1993). In Watson's pronouncements, however, these advocates of an objective approach to the explanation of human endeavors were drawn together. Behaviorism, over the next couple of decades, would gain prominence. The mental testing movement and Gestalt psychology would provide stiff opposition during the 1920s (Jones and Elcock, 2001) but by the time the 1930s had arrived behaviorism would dominate experimental psychology. Long-standing theoretical issues would be dismissed, e.g., the mind–body problem, and theoretical concerns would be shunted aside, if not banished altogether. Topics such as personality, thought, language, emotional development, and motor skills would be reinterpreted in terms of conditioning processes (Hilgard, 1987) and the study of mental phenomena would be considered unscientific.

Watson focused on objective data and emphasized the prediction and control of behavior as the aim of scientific psychology.

The interest of the behaviorist in man's doings is more than the interest of the spectator—he wants to control man's reactions as physical scientists want to control and manipulate other natural phenomena. It is the business of behavioristic psychology to be able to predict and to control human activity. To do this it must gather scientific data by experimental methods. Only then can the trained behaviorist predict, given the stimulus, what reaction will take place; or, given the reaction, state what the situation or stimulus is that has caused the reaction. (Watson, 1924/1966, p. 11)

To that end Watson rejected introspection as an acceptable, experimental methodology as well as dismissing any explanation of behavior based upon mentalism. In doing that Watson rejected consciousness as psychology's subject matter.

Behaviorism, on the contrary, holds that the subject matter of human psychology is *the behavior of the human being*. Behaviorism claims that consciousness is neither a definite nor a usable concept. The behaviorist, who has been trained always as an experimentalist, holds, further, that belief in the existence of consciousness goes back to the ancient days of superstition and magic. (Watson, 1924/1966, p. 2)

Watson's overriding interest was in the correlating of observable stimuli (ranging from an environmental situation to an internal organic condition) and responses (anything done by an organism) with each other. As Watson (1924/1966) put it, a problem has been explained when the stimulus has been determined and the response has been identified. Any psychology

that retained the mind/body problem as an issue could not produce verifiable conclusions. The behaviorist would have none of this.

For the behaviorists only objective methods would be considered valid (Heidbreder, 1933). To that end, even if one admitted the existence of states of consciousness they could never be proven scientifically. Observation, with or without instruments, is fundamental to all scientific procedures. No two observers will ever see a thought or a feeling or anything else of a subjective nature; they are outside of the domain of science. On the other hand, the process of conditioning behavior is objective and is therefore important to the analysis of behavior.

While rejecting the mind and consciousness Watson could not escape the fact that the phenomena of reasoning and memory were not so readily dismissed. In fact, in the initial paper or manifesto he even used such phrases as “I firmly believe” (p. 164), “I was greatly surprised” (p. 165), and “My final reason is” (p. 168). Mental processes would have to be given a behavioral explanation. As regards memory, Watson dealt with it by simply recommending that objective procedures for assessing it be utilized without using such tools as a means to identify the supposed mental machinery underlying the processes of recall, recollection, or forgetting. Efforts should be directed, he argued, at tests like list learning, habit formation, and habit persistence.

It was Watson’s contention that the environment in which humans and other organisms act forces the establishment of habits—both manual or motor habits, and speech habits. Speech habits follow the development of general body habits, and they achieve an enormous complexity in a relatively brief period. With the increases in the complexity of the language habits, neural associations emerge as connections between acts and words. Behavior becomes more refined, and, in time, words become substitutes for acts. Stimuli that would have formerly produced acts come to produce words that are either spoken or assume the form of mere laryngeal movements. Stimulus presentations come to produce either explicit or implicit responses. Explicit behavior is evident when an immediate, overt response, or an overt delayed response, is produced by a stimulus; in both cases the behavior is directly observable. Implicit behavior, on the other hand, involves the speech mechanisms. In the process of deliberation there is a delay in the explicit behavior to a stimulus, and the time between the stimulus and the response involves thought processes or implicit behavior. The likely seat of implicit behavior, Watson surmised, was the larynx and he suggested that with the appropriate equipment this would be demonstrated. If it could be demonstrated that implicit behavior was just word movements, or some word-like movement, human behavior would, on the whole, be amenable to objective observation and be subject to the control that lesser organisms have proven to be.

According to Watson (1924/1966), what the ordinary person meant by memory required an explanation, especially since behaviorism’s critics had regarded this as a weakness. Memory, Watson proposed, was simply the return of an established habit, without any intervening or subsequent practice, when the stimulus conditions that had last supported the established conduct were again present.

By “memory,” then, we mean nothing except the fact that when we met a stimulus again after an absence, we do the old habitual thing (say the old words and show the old visceral—emotional—behavior) that we learned to do when we were in the presence of that stimulus in the first place. (Watson, 1924/1966, p. 237)

To develop his point Watson offered the scenario of a Mr. Sims meeting an old friend (after some absence). The two men had met years earlier and, during that time of acquaintance, had interacted regularly. The two had become very well familiar with each other. Due to this frequency of association, the two had formed verbal habits and manual habits with regards to each other. On the basis of such well-formed habits, even after the passage of many months, Mr. Sims and his friend, when reconnected, would reenact the old verbal and bodily habits that they had established toward each other. Watson opined further that the elapsed time of separation may have been, at some point, so long, since the previous period of practice, that the whole habitual organization could have been lost. Such losses could have occurred, as well, had the period of practice been insufficient for the establishment of a firm habit. Thus, memory was the establishment of a well-formed habit and forgetting was the breaking down of such a habit. Retention, therefore, was of an organization of visceral responses (emotions), laryngeal responses (language), and manual responses (actions).

While Watson believed that he had provided a behavioral account of language and language retention, there was one other issue that had to be addressed. Traditionally, accounts of language had dealt with the issue of the intention that was behind the generation of words, i.e., the issue of word meaning, and this was a topic that the critics had singled out. This too was something that behaviorism could explain.

What had formerly been called thought was, in Watson’s account, simply talking to oneself (subvocal, laryngeal responses). Thought arose after the overt habits of speech had developed. Self-talk (talking out loud to oneself) would occur when a person was alone but, over time, that would fade to a whisper and, eventually, it would occur behind a person’s lips and out of sight. Having retreated from observation it may have seemed that Watson was re-introducing what was unobservable, just like the so-called images. Watson did not believe this was the case. Such responses were, to him, implicit, and potentially observable (all that was required was an apparatus to measure the fine motor movements of the vocal apparatus).

As Watson had noted, the critics of his theory of thinking had argued that he had provided no account of meaning. Watson’s rejoinder was that the question of meaning itself was an historical matter. The issue itself was being imported into the behaviorist position from introspective psychology and from philosophy. Behaviorism did not include any propositions regarding meaning in its premises. These were the premises by which behaviorism had to be judged. Meaning did not enter into behaviorism because it was without any scientific connotation. The whole notion, to Watson, suggested that what something means is an idea, and what that idea means is another idea in an infinite regress of ideas. Ideas explain meanings and ideas are explained by other ideas; this was just more obfuscating mentalism that interferes with scientific explanation. Meaning, rather than being an idea, is a doing, what something means is what is done with it.

To make his case Watson offered the example of the object called “fire.” In coming into contact with the object that has been paired with the word fire, the person may be burned and may have a conditioned negative reaction. Overcoming that response with new conditioning, the use of fire for warming may be acquired, or for cooking, or for light, or multiple other possibilities. On any particular occasion one of these responses may be displayed and, on that instance, what the person is doing is what the fire at that moment means. Fire has multiple behaviors associated with it (meanings) and, of all of these meanings it is the current response that is the current meaning of fire. The term meaning, ultimately, is superfluous, unnecessary. In the end, when the development of all of the individual’s behavior is understood (Watson’s term), when one knows the variety in the organization of the behavior, and when one can arrange the conditions that will bring forth any of those forms of organization, meaning will be unnecessary.

A serious difficulty with Watson’s approach was that it was not at all clear what, exactly, the rejection of consciousness actually meant (Heidbreder, 1933). Sometimes consciousness was denied and a belief in it was considered to be an illusion. At other times consciousness was treated as being beside the point; if it existed it was not open to scientific investigation and not within the realm of science. This move freed science of consciousness but committed it to a dualism, an epistemological duality of that which is accessible to science and that which, in human existence, is inaccessible to scientific inquiry. Given the espoused position, Heidbreder asked where the terms consciousness, awareness, thinking, and emotion came from. They could not come from personal awareness of inner speech or personal heartbeat since these had been ruled out. Both larynx and heart are part of the physical world but to be immediately aware of them, of their action, could only be upon the basis of personal, private sensations. It seemed as though Watson was admitting them some real existence.

According to Woodworth (1931), despite his proclamations, Watson would not have felt a need to explain images or feelings if they were really just unreal ghosts. Similarly, Heft (2001) proposed that an examination of Watson’s writings indicate that some phenomena of mind were actually considered legitimate given his attempts to give an account of them, e.g., language and memory. Furthermore, while the behaviorist ruled out consciousness and awareness as appropriate subject matter, immediate experience was depended upon all the same (Heidbreder, 1933). Reference to external objects is accepted given the assumption that these can enter the experience of all observers and are therefore objectively valid forms of knowledge. These, however, are grounded in the subjective experiences of the observers. As Woodworth (1931) put it, “the behaviorist certainly admits that he himself can see and hear, for does he not insist that only what he can see and hear shall be accepted as scientific data” (p. 83).

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