

BEHAVIORISM AS A LEARNING THEORY

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I. Presuppositions

1) Behaviorism is naturalistic. This means that the material world is the ultimate reality, and everything can be explained in terms of natural laws. Man has no soul and no mind, only a brain that responds to external stimuli. 2) Behaviorism teaches that man is nothing more than a machine responds to conditioning. One writer has summarized behaviorism in this way: "The central tenet of behaviorism is that thoughts, feelings, and intentions, mental processes all, do not determine what we do. Our behavior is the product of our conditioning. We are biological machines and do not consciously act; rather we react to stimuli. 3) We are not responsible for our actions. If we are mere machines, without minds or souls, reacting to stimuli and operating on our environment to attain certain ends, then anything we do is inevitable. Sociobiology, a type of behaviorism, compares man to a computer: Garbage in, garbage out.

4) Behaviorism is manipulative. It seeks not merely to understand human behavior, but to predict and control it. From his theories, Skinner developed the idea of "shaping." By controlling rewards and punishments, you can shape the behavior of another person.

2. What is behaviorism?

1) Psychology is the science of behavior. Psychology is not the science of mind. 2) Behavior can be described and explained without making reference to mental events or to internal psychological processes. The sources of behavior are external (in the environment), not internal (in the mind).

3) In the course of theory development in psychology, if, somehow, mental terms or concepts are deployed in describing or explaining behavior, the either (a) these terms or concepts should be eliminated and replaced by behavioral terms or (b) they can be and should be translated or paraphrased into behavioral concepts.

3. Three types of behaviorism

1) Methodological behaviorism is normative theory about the scientific conduct of psychology. It claims that psychology should concern itself with the behavior of organisms (human and nonhuman animals)

2) Psychological behaviorism is a research program within psychology. It purports to explain human and animal behavior in terms of external physical stimuli, responses, learning histories, and (for certain types of behavior) reinforcements. 3) Analytical behaviorism traces its historical roots to the philosophical movement known

as Logical Positivism. Logical positivism proposes that the meaning of sentences used in science be understood in terms of the experimental conditions or observations that verify their truth. It is a theory within philosophy about the meaning or semantics of mental terms or concepts. It says that the very notion of a mental state or condition is the notion of a behavioral disposition or family of behavioral tendencies.

4. Behaviorist

- Learning is what organisms do in response to stimuli. A behaviorist organism learns, as it were, from its successes and mistakes.

1) Ivan Pavlov

a. the learning process consists of the formation of associations between stimuli and reflexive responses.

b. an unconditioned response

c. an conditioned response

2) Skinner: identifies the behavioristic principles and learning incentives that he hopes will reduce systematic injustices in social systems.

3) Watson believed that learning was a process of conditioning reflexes (responses) through the substitution of one stimulus for another. His most famous experiment was Albert- a child who became afraid of all furry objects as a result of a conditioning.

4) Thorndike: He formulated his "law of effect" which held that reward had a strong positive effect on human learning but that punishment had little or no effect in extinguishing learning.

5. Main ideas

The basic ideas of behaviorism are: human behavior is a product of the Stimulus-Response interaction and that behavior are modifiable. Study of animal is beneficial in that it help us understand/analyze human behavior.

1) Stimulus-Responses

All complex forms of behavior, including reasoning, habit, and emotional reactions are composed of simple stimulus-response events which can be seen and measured. We can trace a child's attitude certain response, we can predict the individual's behavior. Furthermore, if we can control the stimulus, we can control the individual's behavior.

-elicited response: the response occurs in the presence of a stimulus -emitted response: the movement was emitted by the organism- not as a response to a stimulus. Skinner called this type of response "operant" indicating that the organism

was taking the initiative and operation on its environment.

2) Conditioning

- Respondent conditioning

*A form of learning in which an old response is evoked by a new stimulus *Theory developed by Pavlov

*Found to be used more in the early years of development and diminishes as we grow older

- Operant conditioning

*A form of learning in which a new response is acquired as a result of satisfying a need

*Developed by Skinner in 1938

*Technique: provide repeated reward for behavior that comes closer to what we want. Skinner refined this process and called this "Behavior Shaping"

*Two types of reinforcement were used- positive and negative- to increase the probability of the addition or removal of a certain response

*Human learning is based more on operant conditioning than the classical one

6. Behavior Modification

1) Set behavior goals

2) Determine appropriate reinforcers

3) Select procedures for changing behavior 4) Implement procedures and record results 5) Evaluate progress and revise as needed

7. Impact of behaviorism on instructional technology

1) Teaching Machines uses the principles of the programmed learning to provide a self-pacing delivery of the instruction. 2) Computer Associated Instruction The rapid growth of the personal computers in the society facilitated the explosion of educational software packages.

*Stating the purpose of the software *Apply the appropriate reinforcer - text or visual or audio *Depending on the application, shaping, chaining, modeling, punishment, and award principles are used

*Very often, a scoring (monitoring) system is present

*Provides the status of progress

3) Virtual Reality can definitely address the human interfaces part if it can provide a "real" teacher to give instruction.

8. Criticisms

1) Mental events such as pain, seeing bright light, or hearing a song all involve more than predicted behavior.

2) By restricting their analysis of mental events to only stimuli and dispositional responses, behaviorism may be engaged in overkill.

9. Conclusion

Critics say that Behaviorism oversimplifies human behavior and that it sees the human being as an automaton instead of a creature of will and purpose.

It has turned the attention of psychology to solving real behavior-related problems. Since learning is a function of behavior change, the behavior modification procedures developed by behaviorists have proven useful to many school teachers. Behaviorism has had major influence in the learning field and it will continue to play an important part in it.