Behaviorism

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When speaking of behaviorism there are two distinct settings in which the subject can refer to. In one instance there is the scientific aspect which refers to behaviorism as a psychological theory that deals with stimuli and responses. On the other hand there is behaviorism as it relates to the educational setting. In the writers findings there seems to be very little correlation between the two instances. The reason for this is that the scientists were merely interested in controlling behavior to see that it *could* be controlled. In education the focus is to control behavior to get desirable environmental results. Of course, it is the scientific findings of behaviorism that have served as a basis for the educational theories of behaviorism. The scientific study of behaviorism is, in fact, related to learning but not necessarily classroom learning. These scientists were more so interested in the way a being learns in general rather than in a classroom. When educators speak of behaviorism it usually leads to behavior modification. This is linked to scientific behaviorism. In both situations someone is studying the actions of others and attempting to show that through association that behavior can be controlled. In this paper the writer will attempt to explain the foundation psychological and educational behaviorism and the notable contributions made to the study of behaviorism.

Behaviorism can be linked to several philosophies. Behaviorism can be linked to Realism because both the realist and the behaviorist believe that environmental experiences cause behavior. Realism deals with things that deal in facts and that can be seen. This correlates with behaviorism because the study of behavior is contingent upon actions that can be seen. Behaviorism can also be linked to the Materialistic philosophy

which states that, “Reality is primarily matter and motion and all behavioral phenomena can be explained in those terms.” (Ozmon, 208). Originally, behaviorism started with the physiological studies of Ivan Pavlov. In fact, the term “behaviorism” did not even exist. This term would not be used until a scientist by the name of John Watson coined the phrase. Behaviorism is more of a psychological theory than an educational philosophy. It is not a school of thought but rather, a scientific and psychological theory. Behaviorism can be summarized as the study of stimuli and response. Through the manipulation of stimuli and response, an individual can be conditioned to behave in certain ways. There are two types of conditioning. There is Classical Conditioning and Operant Conditioning. Classical Conditioning was introduced by Ivan Pavlov. Ivan Pavlov grew up in pre-Soviet Russia and originally intended to be a priest. He left the seminary for a life in Science. He was a physiologist and his primary interest was with digestion and reflex reaction in dogs. He was the first Russian to receive the Nobel Prize. “Pavlov’s discovery was that environmental events that previously had no relation to a given reflex could come, through experience, to trigger the reflex. Prior to experience, organisms possessed a number of reflexes that were built-in, that is, not conditioned upon experience, Pavlov called them *unconditioned reflexes*. An unconditioned reflex has two components. There is first the environmental event, or stimulus, that triggers it, as food in the mouth triggers salivation. This environmental trigger is called the *unconditioned stimulus*. Second, there is a reflex response itself, for example, salivation. This is called the *unconditioned response.*” (Schwartz, 22). Pavlov’s experiments would insert the ringing of a bell with the unconditioned stimulus, food, and eventually through association both the food and the bell would become a conditioned stimulus. The

conditioned response would be salivation. This became known as Classical Conditioning and Pavlov became known as the "father of the conditioning theory". Other than to see if this in deed was how the digestive system interacted with the nervous system, there was no other purpose to conduct these experiments.

As mentioned earlier, the name behaviorism was started by a man named John B. Watson. Watson was a Psychologist at Johns Hopkins University. He was rather extreme in his ways of thinking. He took the findings such as that of Pavlov and correlated it to psychology. "He believed that fears are conditioned responses to the environment. In experiments, he conditioned people to be fearful then deconditioned them. He thought the environment as the primary shaper of behavior and maintained that if he could control a child's environment he could then engineer that child into any kind of person desired." (Ozmon, 211). Watson's thinking in this respect made a great deal of sense because a person is, after all, a product of their environment. It then stands to reason that a person is going to reflect the morals and values of those around them. In respect to behaviorism, Watson thought that "Its theoretical goal is the prediction and control of behavior. Introspection forms no essential part of its methods." (Staddon, 5). Watson felt that feelings and self-reflection had nothing to do with an individual's behavior. He felt that your environment and the experiences you had created the behavior you displayed.

The positivism movement has given merit to the ideas of people like Watson because it believes in applying scientific rules to social situations. Basically, one can

scientifically work out social issues in the world. This theory, of course, makes no sense. Social issues are personal and require feeling and emotions. When feelings and emotions are involved in anything, Science or the scientific method is usually a poor factor. When dealing with human emotions, sometimes scientific facts become irrelevant.

The other type of conditioning is Operant Conditioning. "Operant Conditioning deals with the consequences that determine whether we do the same thing or something similar again. Certain outcomes strengthen the behaviors that precede them, whereas others do not." (Nye, 13). Basically, Operant Conditioning feels that the consequences will determine the behavior. This theory suggests that consequences of actions will determine a person's personality. This biggest difference between Classical and Operant Conditioning is that Operant conditioning contends that consequences of the behavior are what is most important. With Classical Conditioning, the behavior or response created by a stimulus was the most important thing. Operant conditioning is more concerned with the consequences created from stimulus and response.

Someone who was instrumental in Operant conditioning was Burrhus Frederick Skinner, known as B.F. Skinner. He was born in Pennsylvania and grew up there as well. His father was an attorney and had desires to be in politics. His mother was very strict and she was apparently the ruler of the household. Although Skinner was never physically reprimanded, his parents made sure he was made aware of consequences. The family was very concerned with what others thought of them. This could be why they tried so hard to get him to always be mindful of his behavior. Skinner's life was, for all

practical purposes, normal. He did the things that normal children did. He was heavily influenced by a teacher he had when he was a boy. He actually credits her with his decision to write. He went to Hamilton College in New York where he studied English. He didn't do as well as he would have liked with regards to writing and soon turned his attention to psychology. He was influenced by the works of Pavlov and Watson. He eventually applied to graduate school at Harvard University and was accepted. He eventually went on to teach psychology at the University of Minnesota. During this time he met his wife Yvonne. The couple had two children and one f whom became the topic of much debate. Skinners wife came to the conclusion that the first years of childrearing were tough. So, for the second child they came up with a contraption known as the "Baby-Tender" or the "Aircrib" as it later became known as. The crib was enclosed and it had glass on the front. The temperature inside the box was regulated and the baby had toys and other things she would need while inside. The crib sheet was on a conveyer belt for easy changing. Skinner and his wife received a great deal of grief form outsiders who felt that this was a very cold and clinical approach to dealing with children.

Most of Skinner's experiments were with animals. "Boiling Skinner's psychology down to its most fundamental premises, we have: (1) organisms, animal and human, are active—they emit behaviors of various kinds; (2) when a behavior is emitted, it has consequences that may affect the future of the behavior—these consequences may either increase or decrease the likeliness that the behavior will occur again; (3) the consequences are determined by the organism's physical and social environments." (Nye, 11). Skinner's experiments dealt with the behavior of organisms as they relate to the

consequences that occur from the behavior. This leads us to a term known as Reinforcement. In Operant conditioning there are two types of reinforcement. There is positive and negative reinforcement. Skinner preferred positive reinforcement. He did not believe that negative reinforcement worked. He called the positive reinforcement a reward and the negative reinforcement a punisher. "He called this operant conditioning because behavior operated on, or had an effect on, the environment. The crucial elements of operant conditioning are the response, or operant, and the consequence. The consequence may be positive, in which case it is called the reward, or positive reinforcer, or it may be negative, in which case it is called the punisher, or a negative reinforcer." (Schwartz, 27). Skinner's experiments often had animals in a box with contraptions that the animal would have to manipulate in order to get a desired object. This became known as the "Skinner Box". In regards to negative reinforcement, it can often be confused with punishment. However, negative reinforcement strengthens a given behavior and punishment usually deters a particular behavior. Another term that can also be confusing is Extinction. "It is through extinction that we can eliminate behavior that has already been acquired and occurs with substantial frequency. If one identifies the reinforcer that has been operative in the situation, and discontinues it, the response will eventually stop occurring." (Herman, 72). The biggest difference between punishment and extinction is that with punishment we take away a reinforcer to get a desired behavior. With extinction, we just take away the reinforcer regardless of the behavior. This is to completely stop a behavior. In the writer's opinion, punishment is not effective as it only increases unwanted behavior in most cases.

Another Scientist who studied animal behavior in enclosed spaces was Edward L. Thorndike or E.L. Thorndike as he is most commonly known. "Young Thorndike studied the behavior of cats escaping from puzzle boxes. The animal had to push a pole or pull a chain to allow it to get out and eat a little food." (Staddon, 9). Thorndike realized that the behavior of his cats started having patterns. At first the cat would be erratic and trying any mean to get the food. After trial and error the cat seemed to learn the best way to get the food. Thorndike thought that there had to be some goal to be reached in order to get a certain behavior. He thought that the animal showed common sense to get what it needed. To explain this Thorndike came up with what he called the "Law of Effect". "According to Thorndike, some behavior occurs in random trial and error fashion, varying in form from moment to moment. The law of effect tells us that if some of these variations happen to be followed by pleasurable consequences or rewards, they are strengthened or stamped in and become more likely in the future." (Schwartz, 26). Basically, the animals were using common sense as to get what they wanted. Thorndike considered this intelligent behavior.

Both Thorndike and Skinner studied Operant conditioning techniques and Both Pavlov and Watson studied Classical Conditioning. All of these people were scientists and their primary concern was with scientific fact and how it related to behavior. Many people would say that their experiments were cold and inhumane. But they are scientists and they are not concerned with human feelings.

When we think of behaviorism in education, we do think of the basis of studies such as the ones mentioned earlier in this paper. However, because we are dealing with the education system, we are forced to be more in tune with the children's feelings and needs. When we consider behaviorism in the educational setting, we are often thinking of behavior modification. This is a similar premise of scientific behaviorism. Teachers must control behavior in order for learning to happen in the classroom. Often this occurs in the form of rules, rewards and consequences. When we consider rewards in classrooms we are talking about positive reinforcement. The reward is the reinforcer. However, when does this become bribery? Educators must know where to draw the line when they are choosing reinforcers. Not all reinforcers have to be a tangible object to be gained. Many times simply giving praise is the best positive reinforcer. On the other hand, there is a point in which it goes to far. If you must constantly reward desired behaviors with tangible items the demand will continue to grow out of control. Why should students be bribed to do something they should do anyway? "Although research has established that both positive and negative reinforcers increase behavior, both are not equally useful. Positive reinforcers provide greater opportunities to control the exact desired response. The use of positive reinforcers makes it possible to reinforce only the particular response on wishes to strengthen. By contrast, when using negative reinforcers, any response that will end the unpleasant stimulus, even temporarily, is reinforced" (MacMillan, 33). Unfortunately, this is often what happens in the classroom. The student is negatively reinforced and the undesired behavior is therefore increased.

In order for reinforcement in the classroom to be effective, the teacher must have good management skills in the classroom. There are certain important behaviors of the teacher that are instrumental in the classroom. "Withitness, is the term that means remaining aware of what is happening in all parts of the classroom at all times by continuously scanning the classroom" (Brophy, 47). This is important for any educator to remember when maintaining control of the classroom. If the teacher isn't paying attention the students will know it and take advantage of it. "Overlapping is doing more than one thing at a time" (Brophy, 47). Teachers must be flexible and skilled at the art of multi-tasking in order to accomplish all the objectives laid before them. "Signal continuity and momentum during lessons is teaching well-prepared and well-paced lessons that focus the student's attention" (Brophy, 47). If the student is engaged and on task the behavior of that student is likely to be more desirable than that of a student that is bored or not engaged. The items mentioned above will cause an environment conducive to acceptable and desirable behavior in the classroom. Educators need to remember that any given day can not be predicted and it is the responsibility of the educator to be willing to be flexible and open to compromise.

In Summary, behaviorism started out as a psychological theory and had come a very long way since. It has come from just testing human behavior for random responses to today's application of these experiments as they relate to children in classrooms. As time goes on there will always be new behaviors to consider and new and better way to handle these behaviors. What educators need to be aware of is that they may not always find their answers to behavioral issues in a text book. Educators must use trial and error

when facing difficult behavioral situations. The scientific behaviorists have paved the way for the understanding that we have of human behavior today. It is imperative that we be constant in our efforts to further enhance the discoveries of these people. The study of human behavior is ever changing because no single human is ever the same.

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