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# An Influential Role Of Classical Conditioning

## Abstract

Classical conditioning is a term that refers to the conditioning of a subject through repetitive exposure to a stimulus, that over time is associated with an object or constant variable. Classical conditioning leads to a specific reaction when the association between two variables is clearly presented. During early childhood, children are often easily influenced by the actions and habits of the adults in their environment or the person(s) responsible for the care of the child. Pavlov introduced the theory of operant conditioning in order to explain that the behavior in a subject can be developed through the pairing of a neutral stimulus with a potent stimulus. The effects of classical conditioning during early childhood can be explained by exploring the development of classical conditioning, its application to early childhood in regards to schooling, and the advantages and disadvantages of classical conditioning during early childhood. The effects of classical conditioning during early childhood is professionally relevant because it can lead to advances in learning behaviors for children as well as allow children to be able to grasp concepts or act in a specific manner that is appropriate in different circumstances. In addition, classical conditioning can break children of negative repetitive behaviors and help them to learn different behaviors and reactions.

## The Effects of Classical Conditioning During Early Childhood

Classical conditioning is a method of learning that can be identified throughout our daily lives. An example of classical conditioning could be the reaction a canine has when its owner brings out a leash. Over time the animal will begin to associate the leash with going for a walk and its response could be salivation and excitement. Although this behavior seems, for some people, to just naturally happen, it is definitely a learned behavior. Yet classical conditioning does not work with animals only, it is also a way in which people learn. A popular example of a child experiencing classical conditioning is "Little Albert". Little Albert refers to the experiment in which a young boy was classically conditioned to associate a loud banging sound, which scared him, with a rat he was playing with in the research study. After a while the loud banging sound was not utilized and Little Albert began to associate the rat with his fear in general. Although this type of research is no longer utilized because it is seen as unethical, classical conditioning is applied in different forms during early childhood, in order to establish specific behaviors in a child. Classical conditioning is a process of learning that is important to explore in regards to education and individual behaviors that a child develops. Also, classical conditioning is significant in breaking negative habits and teaching children positive behaviors that will benefit them in the future. John Watson, a psychologist who promoted the study of behaviorism, agreed with the theory of classical conditioning and stated, "Give me a dozen healthy infants, well-formed, and my own specified world to bring them up in and I'll guarantee to take any one at random and train him to become any type of specialist I might select - doctor, lawyer, artist, merchant-chief and, yes, even beggar-man and thief, regardless of his talents, penchants, tendencies, abilities, vocations and the race of his ancestors" (Watson, 1924, p. 104).

## Development of Classical Conditioning

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The learning process theory of classical conditioning was established by a Russian physiologist named Ivan Pavlov (Babkin, B.P, 1949). Originally Pavlov was studying the physiology of digestion when his studies led him to the development of his first experimental model of classical conditioning. Pavlov's research was compiled while studying salivating dogs. Pavlov implanted small stomach pouches in the dogs in order to measure the secretion of gastric juices secreted when the dogs began to eat. The research led Pavlov and his assistants to condition the dogs to salivate at the clicking of a metronome, and as his research advanced, Pavlov formed a basis for conditioned reflexes and the theory of classical conditioning. In Pavlov's research he concluded that he was capable of pairing a neutral stimulus with an excitatory one, which would then display an unconditioned response. In terms of Pavlov's research the unconditioned stimulus would be the food in the dog's mouth and the salivation would be the unconditioned response. Yet Pavlov also added a conditioned stimulus in his experiment, which would be the metronome, and as a result the dogs would salivate, creating a conditioned response. Due to Pavlov's research and success in his studies, processes of learning can be explained in depth and can promote conditioning for positive behaviors in children.

## **Application of Classical Conditioning in Education**

Classical conditioning is often utilized in the classroom from children in early childhood and even as they grow older. The reactions children experience in connection to classical conditioning are involuntary. There is always a likelihood that behaviors can be suppressed, but the urges associated with the behaviors cannot be suppressed (Watson, J. B., & Rayner, R, 1920) Although operant conditioning, another learning process, is more often utilized in the classroom, classical conditioning pairs the success in the classroom with a positive reinforcement yet also establishes the behavior that comes from the conditioned stimulus. The most commonly known applications of classical conditioning in the classroom include the facilitation of emotional, behavioral, and cognitive responses to neutral stimuli through a positive association, positive associations between teaching and learning activities, the ability to relate learning activities to positive situations, maintenance of a positive learning environment, and the development in the recognition of differences and similarities in situations. The utilization of classical conditioning in the classroom and generally in the education system is capable of aiding children to make positive associations at a young age and to become aware of patterns of prejudice; to teach children to be aware as children and as adults. It is also possible to classically condition children at a young age to make positive associations with academic success and the motivation to reach their goals. By using classical conditioning to motivate children to be successful this could also lead to the closing of the achievement gap. Although unknowingly children learn classical conditioning with the anxiety associated with getting an answer wrong or exams, it is also possible for children to make new associations that decrease their anxiety instead. An example of this is if a child were to become stressed out over math exams and to claim that they hate math as a result of their anxiety. Yet there is often the misconception of "unlearning" a behavior or the "extinction" of a behavior. Instead, a child must undergo a new association in order to create new associations. In order to create a new association the child must be presented with the conditioned stimulus alone frequently (Rescorla, 2004).

## **Advantages and Disadvantages of Classical Conditioning**

While classical conditioning can be utilized for developing positive associations and learning

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behaviors, classical conditioning can equally be used to develop negative associations and learned behaviors. Advantages that are paired with classical conditioning are the emphasized learning from a child's environment, the support of nurture over nature, its basis on scientific grounds, the way in which complex behavior is broken down into the stimulus-response units, and the possibility of improved or controlled behavior (McLeod, 2014). These advantages can positively affect a child's ability to participate and to increase motivation in their desired goals. In addition, the effects of classical conditioning can lead a child to depend more on their environment and experiences rather than allow for a child's future to become dependent upon their genetics. Another advantage that can be taken from classical conditioning is the ability for a child to learn new associations and to continuously learn new behaviors to increase the likeliness of becoming successful or breaking away from behaviors that hinder their development. However, there can be disadvantages of classical conditioning, which can result in negative behaviors and associations. Some common disadvantages that can be developed from classical conditioning are the disallowance of free will in individuals, lack of validity of a behavior, and limiting the discrepancy in nature and nurture. An example, which encompasses the negative effects of classical conditioning, are the images and messages presented in our media. The novel and also the movie, *A Clockwork Orange* portrays a sociopath and mass murderer is strapped to a chair and forced to watch violent movies consistently while being injected with a drug that causes him to feel nauseous. After this consistent repetition, the main character associates violence with nausea and this limits his ability to be violent. The presentation of classical conditioning can be seen even in video games and movies where children watch brutal images of human suffering and death, and as a result learn to associate these images with their favorite sportswear or candy. The exposure to this type of classical conditioning allows for children to become desensitized to death and serious events and in opposition to *A Clockwork Orange* promotes the increase in violence and the association with violence and pleasure (L. Rowell Huesmann and Laramie D. Taylor, 2006).

## **Conclusion**

Classical conditioning is an important learning process utilized in psychological behavior. The theory of classical conditioning was developed by Pavlov and remains to be a form of learning that is utilized in the education of children during their early childhood and onward. Classical conditioning is influential in the development of children as adults and promotes the idea of nurture over nature. In addition, classical conditioning has both advantages and disadvantages. Due to the fact that children are easily influenced by learned behaviors and experiences it is important that they learn to develop positive associations in order for classical conditioning to have a positive effect.