Free research paper on operant and classical conditioning

Environment, Animals



Learning is one of the areas of human psychology that remains, to this day, hotly contested by researchers. Some claim that learning is one type of process, while others claim that learning takes place through a different process. Two of the leading theories regarding learning are the theories of operant and classical conditioning. Both have been studied extensively throughout the years, and each has supporters and detractors. Choosing a method for learning and teaching behavior is different from learning complex ideas and engagement in a classroom, but principles of operant and classical conditioning can still be used in these situations to encourage learning and effective behavior. As previously stated, both operant and classical conditioning are heavily concerned with the idea of behavior, rather than the rational performance of certain thoughts (Lilienfeld et al., 2013). To understand the ways in which classical conditioning and operant conditioning can be used to elicit (or avoid) behaviors in people, it is first important to understand the theories as a whole.

Classical conditioning is a type of conditioning or learning that is sometimes called Pavlovian conditioning, because of its association with the great psychologist and researcher Pavlov (Moore, 2002). Pavlov is famous for his work with dogs, encouraging them to salivate at the sound of a bell. He introduced the theory that there can be a conditioned stimulus (like the prototypical sound of a bell) that can induce a reflex response unrelated to the stimulus (the salivation of the dog) based on pairing and conditioning (Lilienfeld et al., 2013). Essentially, classical conditioning is focused on three things: first, the conditioned stimulus, which can be represented by the bell. Second, classical conditioning is concerned with the unconditioned stimulus, which is referred to by researchers as being "biologically potent"-- in the case of the dog, it is the taste of the food (Lilienfeld et al., 2013). Finally, the unconditioned response is the unlearned reflex that is motivated by the conditioned stimulus (Lilienfeld et al., 2013). The conditioned stimulus is linked to the unlearned reflex to provoke an unrelated response in the individual being conditioned. According to Brewer (1974), "It's important to note that classical conditioning involves placing a neutral signal before a naturally occurring reflex In Pavlov's classic experiment with dogs, the neutral signal was the sound of a tone and the naturally occurring reflex was salivating in response to food. By associating the neutral stimulus with the environmental stimulus the sound of the tone alone could produce the salivation response" (Brewer, 1974). Although Brewer (1974) notes that there may not be sufficient evidence to suggest that classical conditioning works for adult humans, other studies suggest that classical conditioning may be very effective in certain situations.

Operant conditioning is very different from classical conditioning. Operant conditioning is concerned with the use of disincentives and incentives to produce a certain behavior in an individual. In the realm of operant conditioning, it is important to note that there are two basic types of motivational tools used: punishments and reinforcements (Lilienfeld et al., 2013). Punishments are adverse events that the individual wants to avoid, and they come in both positive and negative forms (Lilienfeld et al., 2013). Positive punishments are punishments in which some outside stimulus is applied, while negative punishments are punishments in which some positive event is removed. While the idea of a positive punishment may seem strange, the "positive" part does not qualify the type of punishment, it merely dictates whether the punishment involves the removal of a stimulus or the addition of one (Lilienfeld et al., 2013). Reinforcements in operant conditioning follow a similar pattern; positive reinforcements are positive outcomes that are presented after the demonstration of a particular desired

behavior. Negative reinforcements are the removal of an undesirable event or outcome after the presentation of a desirable behavior (Lilienfeld et al., 2013).

These different types of conditioning and learning can be used in different situations. Taste aversion, for instance, can become a serious problem for many people; when people become averse to new tastes or to certain types of food, they may become ill or start to exhibit signs of malnutrition, and so on. Taste aversion can be due to a number of things; perhaps the individual had a bad experience eating a particular food at a young age, or perhaps a food made him or her sick at some point. Many people become averse to the tastes of certain alcohol after imbibing too much of it and becoming ill (Kalat and Rozin, 1973). Classical conditioning is the way that this taste aversion problem is begun in humans; perhaps the illness was merely coincidental, but regardless, a person becomes averse to a taste and feels physically ill as a result of that taste because of classical conditioning (Kalat and Rozin, 1973). Classical conditioning is a way for humanity to protect itself in the case of accidental poisoning; taste aversion after serious illness protects the body against eating anything with a similar taste again (Kalat and Rozin, 1973).

Animal training, on the other hand, responds much more aptly to operant

conditioning. While punishments and reinforcements are both used in traditional operant conditioning, animal training uses a type of operant conditioning that focuses only on positive reinforcement and negative reinforcement. To train animals properly, the animal trainer must ignore all bad behavior, thus not allowing the animal to associate any kind of attentiongetting behavior with positive results. Animal trainers prefer not to use punishments in their training methods because animals-- particularly dogs-can respond aggressively to punishments, depending on the type and duration of punishments used (Hilby, Rooney, and Bradshaw, 2004). Rather than focusing on punishments as a way to teach animals how to behave, trainers use positive reinforcement methods-- giving the dog a treat, for instance-- and negative reinforcement, in which the trainer completely ignores the dog when the dog refuses to behave in the way the trainer desires. Once the dog behaves properly, the trainer rewards the dog by paying attention to it, thus removing the undesired event (Hilby, Rooney, and Bradshaw, 2004).

If a client were interested in ceasing a bad habit like nail-biting, one of the first methods for stopping this habit would be to use classical conditioning methods. One of the key ways to stop nail-biting is to place something on the hands, like gloves, or to put some kind of foul-tasting substance on the hands. Thus, as the person goes to bite his or her nails, he or she gets the substance in her mouth and the natural human taste-aversion response takes over, prompting the individual to stop putting his or her hands in his or her mouth. Operant conditioning principles may also be used in the long run, as rewards can be given when the individual has not acted on his or her desire to chew his or her nails for a certain amount of time; this is positive reinforcement. The combination of these two types of conditioning will allow the person to fight the nail-biting habit.

The issue of a potential client struggling to be "less lazy" is a much more complex problem than a nail-biter, and requires a more in-depth approach. This individual will have to be addressed on the basis of operant conditioning, giving himself goals to work towards and positive reinforcement for reaching those goals. However, with individuals making lifestyle changes, it is often most efficient when they are to be accountable to outside sources; this is the punishment aspect of operant conditioning. If the individual is accountable to outside sources, then failing to meet goals will result in feeling shame and embarrassment. However, in this case, there needs to be a good mix of motivation, planning, outside influence, and support for the individual. He must make a series of small, incremental changes to his life to ensure that he will be successful in the long run. Operant and classical conditioning may not be useful entirely on their own to teach adult human beings complex things, but they can be incredibly useful for addressing certain behaviors in adults. Behaviors like bad habits can often be addressed through operant conditioning, and often certain phobias or other adverse behaviors can be easily understood through the concept of classical conditioning.

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