Operant conditioning essay examples

Education, Learning



The theory of operant conditioning created by behaviorist B. F. Skinner explains that a behavior can be understood by looking at the external apparent causes of an action and the related consequences resulting from that action. Skinner's theory was inspired by the Law of Effect theory of Edward Thorndike, but he added one additional component to Thorndike's law of effect and that is Reinforcement (McLeod, 2007). Reinforcement is of four types - positive reinforcement, negative reinforcement, punishment and extinction. According to Skinner, behavior can be reinforced through rewards and punishment. Both positive and negative reinforcement strengthen a behavior and encourage it to be repeated whereas punishment discourages a behavior making it fizzle out eventually. Removal of something in order to discourage a behavior is called extinction. This paper would compare in detail the positive and negative reinforcement, its effectiveness with the description of a scenario in which I would apply operant conditioning following a viable reinforcement schedule.

In his experimentation on positive reinforcement Skinner placed a starving mouse in a box which had a lever on one side. As the mouse while scampering around inside knocked the lever down accidentally, a food pellet would appear beside the lever. After couple of times of being put inside the box, the mouse picked up the learning that going straight to the lever would bring it food and so the consequence of it receiving food at the press of the lever ensured that it would continue the action. Positive reinforcement thus involves strengthening a behavior by offering a rewarding consequence to someone. For instance, if a child receives \$10 reward for keeping his room clean, he will be more likely to keep his room clean in the future. In this case

his behavior of keeping his room clean has been rewarded with \$10 which serves as a stimulus for the child to continue repeating his behavior because he realizes that the continuation of this behavior will earn him a reward (McLeod, 2007). Negative reinforcement, on the other hand, involves removing an unpleasant outcome or event to stimulate someone continuing a behavior. For instance, if the same child needs to give \$10 out of his pocket money to his parents for not cleaning his room, he in order to avoid the payment would keep his room clean and thus the removal of a negative outcome would result in extracting a positive response from the child in continuing his behavior of keeping his room clean. In his experimentation on negative reinforcement, Skinner put the same mouse in a box but subjected it to an unpleasant experience of electric current. The mouse, however, guickly learned that the press of the lever would switch off the current and after a few times of being put in the same box, it picked up the learning of going straight to press the lever to disconnect the current. Thus the stimulus to escape the unpleasant experience of electric current encouraged the mouse to repeat his behavior (McLeod, 2007).

Though it depends entirely on circumstances whether or not a particular reinforcement is effective, but given certain situations negative reinforcement seems to be more effective than positive reinforcement and similarly in some situations positive reinforcement works better than negative reinforcement. For example, while teaching someone how to ride a bicycle, the positive reinforcement in terms of giving encouragement and support boosts up the confidence of the learner who feels encouraged to continue peddling the bicycle despite bruises received due to crashing into

the ground while learning to keep balance. In this case, the negative reinforcement that comes in the form of bruises might encourage the learner to learn riding quickly in order to avoid bruises and crashing but since wrecking is a part of the whole learning process of riding bicycle, it cannot be avoided. Positive reinforcement seems to be more effective in this scenario. On the other hand, while disciplining an unruly child negative reinforcement appears to be more effective. For instance, when a child misconducts or throws a tantrum in a shop some parents in order to calm down the child pander to the child's whims by providing him the things he wants and the child learns to repeat such behavior to acquire more objects and attention from his parents. In this scenario, if the parent would have taken the mode of negative reinforcement by not buying the child things he wants unless he learns to discipline himself in the future, the child will learn that in order to get rewards of toys, he must be at his best behavior in a store and that throwing tantrums would only annoy his parents.

A scenario in which I would like to apply operant conditioning would be to shape the behavior of a batch mate who often drops her classes and borrows notes from me and then doesn't return my notes unless I send her several reminders. I have told her many a time to attend classes regularly but she turns a deaf ear to my advice and continues borrowing my notes. I have applied the positive reinforcement to make her attend classes by telling her that the professor is giving 'A' marks to those students who have regular attendance but to no avail. I think it is about time when I should apply the negative reinforcement of not giving her my notes at all so that she begins to take her classes seriously. Also I have decided to tell her that the

professor would fail her if her attendance is not 70%. Now since she gets the notes from me she doesn't feel the need to attend her classes but once I stop giving her notes, she would have no other way but to be present in the class in person to take down the notes. Further, the probability of the professor giving her a 'zero' might function as a stimulus to attend classes. " A reinforcement schedule is any procedure that delivers a reinforcer to an organism according to some well-defined rule" (Staddon & Cerutti). Reinforcement schedules are categorized into two types - continuous and variable schedules. When reinforcement is applied on a continuity basis it is called continuous schedules which are further divided into two topes - fixed ratio and fixed interval. When reinforcement is applied on an irregular basis, it is called variable schedule which further is segmented into two types variable ratio and variable interval. In case of fixed ratio, reinforcement is applied after a behavior is repeated a specific number of times. In case of fixed interval reinforcement is applied after a specific duration of time. Variable ratio involves a reinforcement being applied after a variable number of responses and applying reinforcement after a variable amount of time refers to variable interval. Since reinforcement schedules are very important to make a reinforcement work, I think I would go by the fixed ratio schedule and that is not giving my friend my notes at all unless she begins to attend her classes. Since she has repeatedly skipped her classes to spend time more on watching movies and roaming around with friends, no positive reinforcement so far has come to any use and given the importance of attending math classes, if I stop giving her relevant notes she would be forced into attending classes.

In conclusion, operant conditioning coined by Skinner refers to the learning of behavior based on the apparent causes and effect of an action. There are four types of reinforcement which strengthen and weaken a behavior through rewards and punishment. Positive reinforcement refers to the reinforcement given through rewards for an action and negative reinforcement involves taking away unpleasant outcome to strengthen an action. Though most of the people believe that positive reinforcement is more effective, I think the effectiveness of both positive and negative reinforcement depends entirely on circumstances. Given the scenario of my friend repeatedly continuing her behavior to skip important classes, I think the fixed ratio schedule of negative reinforcement would be effective in making her give regular attendance.

References

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