

General Psychology

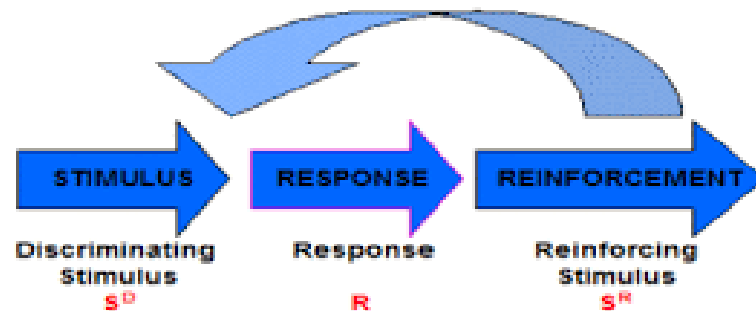
Paper I

B.A. I (Hons.)

Instrumental/Operant Conditioning

Instrumental conditioning, also called operant conditioning, is a method for modifying the behaviour which utilizes contingencies between a discriminative stimulus, an operant response, and a reinforce to change the probability of a response occurring again in that situation. This method is based on Skinner's three-term contingency and it differs from the method of Pavlovian conditioning.

Behavioral Theory: Operant Conditioning



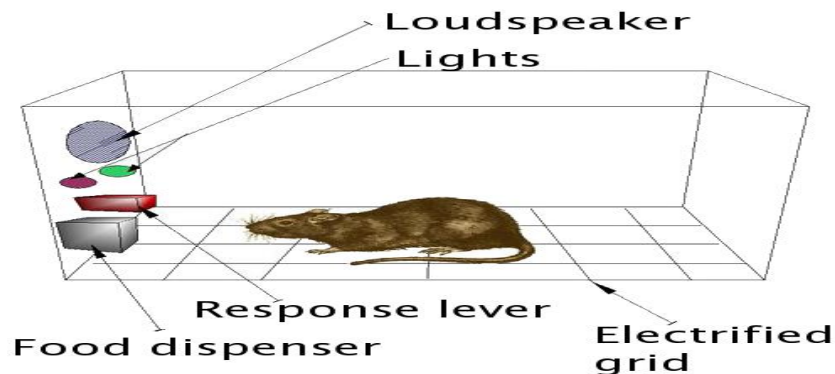
An everyday illustration of operant conditioning involves training your dog to "shake" on command. Using the operant conditioning technique of shaping, you speak the command to "shake" (the discriminative stimulus) and then wait until your dog moves one of his forepaws a bit (operant response). Following this behaviour, you give your dog a tasty treat (positive reinforce). After demanding ever closer approximations to shaking your hand, your dog finally comes to perform the desired response to the verbal command "shake."

B.F. Skinner's First Experiment

B.F. Skinner proposed his theory on instrumental conditioning by conducting various experiments on animals. He used a special box known as "Skinner Box" for his experiment on rats.

As the first step to his experiment, he placed a hungry rat inside the Skinner box. The rat was initially inactive inside the box, but gradually as it began to adapt to the environment of the box, it began to explore around. Eventually, the rat discovered a lever, upon pressing which; food was released inside the box. After it filled its hunger, it started exploring the box again, and after a while it pressed the lever for the second time as it grew hungry again. This phenomenon continued for the third, fourth and the fifth time, and after a while, the hungry

rat immediately pressed the lever once it was placed in the box. Then the conditioning was deemed to be complete.

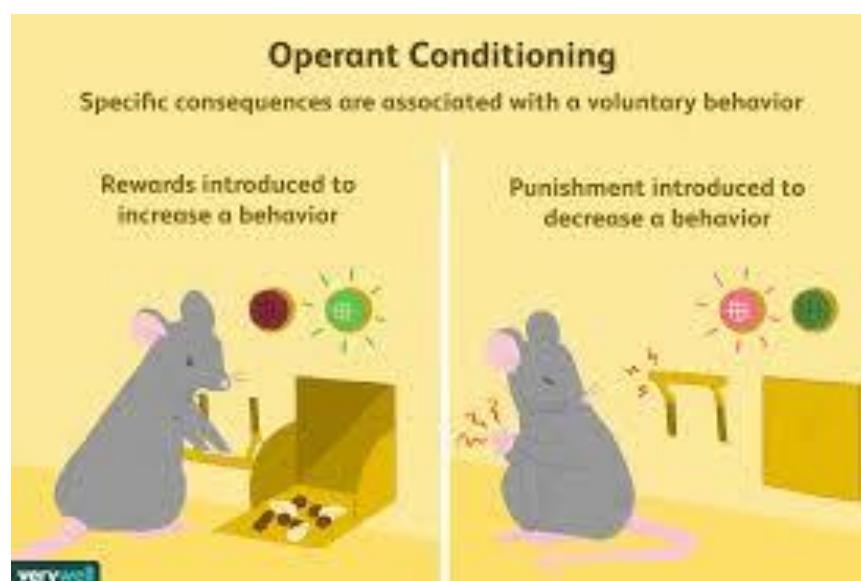


Here, the action of pressing the lever is an operant response/behaviour, and the food released inside the chamber is the reward. The experiment is also known as Instrumental Conditioning Learning as the response is instrumental in getting food.

This experiment also deals with and explains the effects of positive reinforcement. Upon pressing the lever, the hungry rat was served with food, which filled its hunger; hence, it's a positive reinforcement.

B.F. Skinner's Second Experiment

Skinner also conducted an experiment that explained negative reinforcement. Skinner placed a rat in a chamber in the similar manner, but instead of keeping it hungry, he subjected the chamber to an unpleasant electric current. The rat having experienced the discomfort started to desperately move around the box and accidentally knocked the lever. Pressing of the lever immediately seized the flow of unpleasant current. After a few trials, the rat had smartened enough to go directly to the lever in order to prevent itself from the discomfort.



The electric current reacted as the negative reinforcement, and the consequence of escaping the electric current made sure that the rat repeated the action again and again. Here too, the pressing of the lever is an operant response, and the complete stop of the electric current flow is its reward.

Conclusion

Both the experiments clearly explain the working of operant conditioning. The important part in any operant conditioning learning is to recognize the operant behaviour and the consequence resulted in that particular environment.

Dr. Hena Hussain

Asst. Professor

Department of Psychology

Oriental College, Patna City

WhatsApp No. – 9334067986

Email-drhenahussain@gmail.com