

# Case studies

[Psychology](#), [Behaviorism](#)



Behavior Modification Case Studies Case #1 1. Identify the target behavior and describe that behavior in 1 or 2 sentences. The target behavior would be physically using one or two hands to grab a toy and place it directly in the toy box. This does not include placing it in front of, to the side of, or behind the toy box, and does not include throwing or kicking the toys into the toy box. 2. Define Operant Conditioning and discuss how this method works to increase desired behavior. Operant conditioning is a type of learning that takes place through reinforcements and punishments of behavior. As a result of the consequences, the frequency of the behavior either increases (reinforcement) or decreases (punishment) the likelihood that the behavior will occur again in the future (Cooper, Heron, & Heward, 2007).

Reinforcement and punishment have a greater effect when it occurs immediately after or within a few seconds of the targeted behavior. The longer the delay between the occurrence of the behavior and the reinforcement or punishment, the less likely it will result in a change of behavior (Cooper, Heron, & Heward, 2007). Behavior achieved through positive reinforcement creates a stimulus that was not there prior to responding and behavior achieved through negative reinforcement removes a stimulus that was already present prior to responding. Mr. Kelley would like to increase the frequency of Bobby cleaning his room. In operant conditioning, targeted behaviors that need to be increased would be reinforced and would increase the frequency of the targeted behavior. Bobby picks up his toys and he is given an extra hour of playing video games. In Bobby's case, the extra hour of video game playing (the stimulus) was not present prior to the response (cleaning his room) and the extra hour of video

game playing will produce a higher frequency of Bobby cleaning his room. 3. Define positive reinforcement. What issues are involved in the selection of appropriate and effective reinforcement? Positive reinforcement occurs when a behavior is immediately followed by a stimulus that increases the frequency of future behavior in similar conditions (Cooper, Heron, & Heward, 2007). For example: Bobby's father would like increase the frequency of Bobby cleaning his room and by applying positive reinforcement adding a stimulus such as praise or extra television time after he has cleaned his room will make him want to clean his room more often (increase the frequency of his behavior). Issues involved in selecting appropriate and effective reinforcement include: a) Initially setting a goal for reinforcement that is easy to achieve and then gradually increase the goal as performances improve (Cooper, Heron, & Heward, 2007). Mr. Kelley could offer praise or increased attention to Bobby initially for picking up a set number of toys and then gradually increase the number of toys to be picked up before offering praise or added attention based on his prior performances. b) Use different reinforcers to ensure the desired behavior continues and does not lose its effectiveness (Cooper, Heron, & Heward, 2007). Mr. Kelley could offer praise to Bobby the first couple of times he picks up his toys as desired and then offer extra television the next time and increased attention following that so that Bobby doesn't become more or unaffected by the reinforcer. c) Combine response prompts and reinforcement. A response prompt is an extra stimulus that is used to help elicit a correct response. Response prompts can be in the form verbal instruction, modeling, or physical guidance (Cooper, Heron, & Heward, 2007). Mr. Kelley could use modeling as a response

prompt to show Bobby what he means and how he would like him to clean his room such as how he would like his toys picked up and where he would like them placed. d) For behaviors that require more time and effort use reinforcers that higher quality (Cooper, Heron, & Heward, 2007). If Mr. Kelley just wants Bobby to pick up his toys he could offer added attention but if he wants him to pick up his toys, put his clothes away in his dresser, and make his bed, this would require extra time and extra effort so he would want to increase the quality of the reinforcer to make it worth Bobby's time and effort such as going to the movies or going to get ice cream. 4. Choose two possible schedules of reinforcement and explain how to implement each schedule as well as the advantages and disadvantages of the schedules selected. The first schedule of reinforcement that could be used is the fixed ratio schedule. In a fixed ratio schedule, reinforcement is given after the completion of a set amount of responses (Cooper, Heron, & Heward, 2007). For example, Mr. Kelley, in using a fixed ratio schedule of FR6, would offer reinforcement to Bobby only after he successfully picks up and places 6 toys in the toy box (6 correct responses). The advantage of this type of schedule is that it maintains a typical pattern of responding and a higher rate of response. The faster Bobby picks up and places toys in the toy box, the faster he will receive praise or a reward. The disadvantage of this type of schedule is that it produces a post-reinforcement pause. The larger the number of responses needed the longer the pause and the number requirement is too high the response rate is much slower; meaning the responses are performed at a steady rate until they are completed (Cooper, Heron, & Heward, 2007). The second schedule of reinforcement that could

be used is an alternate schedule (ratio vs. interval). Alternate schedules would provide reinforcement whenever the correct numbers of responses are completed or the first response made after the elapsed amount of time if the ratio requirement has not been met (Cooper, Heron, & Heward, 2007). Bobby could be assigned a fixed ratio of 6 (FR6) and a fixed interval of 3 minutes (FI 3). If Bobby responds by picking up and placing 6 toys in the toy box prior to the end of the 3 minute interval he will be given a reinforcement, but if he does not pick up 6 toys and place them in the toy box within the 3 minute time period he would be rewarded for the first toy he picks up and places in the toy box after the 3 minute time interval. The advantage to this type of schedule is that it offers Bobby a second chance for reinforcement if he does not pick up the required number of toys within the time allotted and by reinforcing this one response it may encourage him to continue responding.

Case #2 1. Discuss one behavioral theory that could explain why Jackie has remained fearful of dogs. Classical conditioning occurs when a naturally occurring stimulus (unconditioned stimulus) that produces an unconditioned response is paired with a neutral stimulus. When this is done one or more times it produces a conditioned response (Cooper, Heron, & Heward, 2007). Pavlov demonstrated classical conditioning by showing that dogs could be trained to salivate at the sound of a bell just like they salivated when they were presented with food. To prove this he introduced a neutral stimulus (the bell) prior to presentation of food which at that time produced salivation in the dogs. At first, the bell triggered no response but after several attempts of ringing the bell prior to presentation of food, the dogs began to salivate in response to the bell now making the bell a conditioned stimulus. For Jackie,

she had no fear of dogs prior to being bitten, but once bit, she became fearful of dogs. The bite caused a conditioned response of fear of dogs. 2. What kind of behavioral medication program can be designed for Jackie so that she does not experience fear when seeing dogs? At the moment, Jackie behavior is being negatively reinforced by avoiding dogs altogether. By avoiding or removing herself from dogs she experiences no fear or anxieties. A fixed interval schedule of reinforcement could be used by first subjecting Jackie to looking at pictures or videos of dogs for a specific amount of time and offering praise and encouragement when her goals are met. As she progresses, a real dog could be added for a fixed amount of time, continuing with praise and encouragement, gradually increasing the amount of time in the room with the dog, to touching the dog, petting the dog, and then to playing with the dog.

Case # 3 1. Discuss the principles of operant conditioning that are underlying Emma's behavior. Emma's behavior has been positively reinforced by rewarding her whenever she did clean her room, negatively punished by placing her in time-out and removing the attention she received from her parents, and positively reinforced again by picking her up and cleaning her room for her when she throws a tantrum. Emma's behavior was immediately followed by reinforcement (attention from her parents). Emma was rewarded for picking up her room but she was also rewarded for throwing a tantrum, creating a conflict between the two and was also negatively punished at times for not doing as she was told. 2. Describe how you could apply operant conditioning theory to create a behavior modification to address Emma's behavior. Operant conditioning is a type of learning that takes place through reinforcements and punishments of

behavior. For behavior modification to occur, only the targeted behavior should be reinforced (picking up her toys) and no other behavior (throwing a tantrum). This can be done through positive reinforcement using a fixed ratio or variable ratio schedule of reinforcement. With the fixed ratio of reinforcement, Emma's parents would offer attention and praise (reinforcement) for a set number of toys, such as 5 — FR5, that are picked up and put away and in a variable ratio schedule of reinforcement they would provide reinforcement for every 10 toys picked up on average (VR10); 2, 6, 10, 7, etc. This type reinforcement schedule produces consistent rates of response because the respondent does not know when the next reinforcement will occur (Cooper, Heron, & Heward, 2007).

3. Explain how the concept of extinction of behavior could be applied in this case. Extinction occurs when the reinforcement of a previously reinforced behavior is stopped and it results in a decrease in the frequency of behavior in the future (Cooper, Heron, & Heward, 2007). In Emma's case it would be extinction of behavior maintained by positive reinforcement. Emma's temper tantrums were positively reinforced by her parents by them picking her up and cleaning the room for her, and for this behavior to become extinct the reinforcer (attention by picking her up and cleaning her room) must not be given. When Emma throws a temper tantrum they should ignore her tantrum. They should not acknowledge it or pick her up.

References: Cooper, J., Heron, T., & Heward, W. (2007). *Applied Behavior Analysis* (2nd ed.). Upper Saddle River, NJ: Pearson Prentice Hall.