PS385: Targeted Topics in Applied Behavior Analysis

**Discussion Board Lecture: Unit 2 Media Lecture**

**Unit 2: Reinforcement, Punishment, and Extinction**

**Lecture:**

Welcome, students! Have you ever thought about the influences driving your day-to-day behaviors? Contingencies of reinforcement, punishment, and extinction come to bear on your behavior every day. In Unit 2, you will examine the forces that help to determine whether a behavior will repeat or will be diminished in the future. For example, before falling asleep at night, you set your alarm to give yourself plenty of time to get to work the next day. What consequence may be influencing your actions? Well, you may set the alarm to give yourself an extra 20-minutes to get ready to escape another disapproving look from your boss for wandering in 5-minutes late. This would be an avoidance behavior in which you are negatively reinforced for getting up early by avoiding the disapproving looks (and possibly worse) of the boss. It may be that you set the alarm clock 20-minutes earlier than you normally would because you want to have time to have coffee with co-workers before the start of the day. The behavior, in this case, would function to attain the pleasant company of your co-workers, i.e., positive reinforcement. We engage in behaviors that have provided desirable outcomes in the past – or that we think will provide desirable outcomes.

Let’s revisit the disapproving looks of the boss – pretty punishing, huh! It only takes a few of those unpleasant encounters to discourage those late arrivals to work! The punishment of behavior can take many forms. The boss could have yelled at you for arriving late or she could have docked your pay. The “yelling consequence” would be positive punishment because the boss is “presenting” a verbal reprimand. Docking the pay would be an example of negative punishment in which a portion of your pay is removed due to being tardy.

Positive and negative reinforcement and punishment are powerful influences on behavior and can be used to modify clients’ behaviors. But the process of reinforcing desired behavior and punishing interfering behavior is more complex than one might think. One has to consider the immediacy of the consequence – whether it be reinforcement or punishment – and the schedule of reinforcement.

The more immediate the consequence, the more power it will have over the behavior. Even a one second delay in reinforcement or punishment can reduce the strength of that consequence. Think about the behavior of smoking cigarettes. Information campaigns relating the health risks of smoking have been underway for at least five decades, yet many still smoke. Why? This is an example of, among other things, delayed consequences. While everyone knows there are health risks, those risks are so far in the murky future that they have no influence on one’s behavior today. Let’s look at reinforcement for a moment. Would you work 60-hours a week for a $200.00 bonus? Sounds good, doesn’t it? But, what if that bonus wasn’t delivered until the end of the year? Would that delay make a difference to you? For many, that delay in reinforcement delivery would make a difference. The reinforcer is too far removed from the behavior of working 60-hours a week to influence the behavior. There are other influencing variables here, such as the magnitude of the reinforcer, but – for the sake of argument, let’s keep it simple and say that immediacy is the most important influence over your behavior in this case.

Schedules of reinforcement should be considered when designing behavior intervention plans. A schedule of reinforcement is basically a rule that states that a specific behavior will produce reinforcement. When working to train and reinforce a new skill – or strengthen a behavior, continuous reinforcement should be used. You would want to reinforce your toddler each time he/she uses the potty during initial toilet training. Or, you would want to reinforce your dog each time he rolls over when you give the command. Once the newly acquired behaviors have been established, you can thin the schedules of reinforcement to intermittent schedules to maintain the behaviors. Intermittent schedules of reinforcement require less investment of time, money, and effort than continuous reinforcement and behaviors maintained on intermittent schedules of reinforcement are more resistant to extinction, which we will talk more about in a moment. There are four broad categories of intermittent reinforcement, i.e., fixed ratio (FR); variable ratio (VR); fixed interval (FI); and variable interval (VI). A fixed ratio schedule requires that a specific number of responses occur before a response produces reinforcement. A variable ratio schedule requires a variable number of responses occur before reinforcement is delivered. Ratio schedules are frequency-based, while interval schedules are time-based.

A fixed interval schedule of reinforcement provides reinforcement for the first response following a specific, constant duration of time since the last reinforced response. An example of this might be receiving a paycheck every Friday. A variable interval schedule provides reinforcement for the first response following the elapse of a variable duration of time since the last reinforced response.

Reinforcement increases or maintains the behavior it follows and punishment diminishes the behavior it follows. But, what about those behaviors you wish to remove completely? In such a case, an extinction procedure may prove effective. Extinction requires the withholding of the usual reinforcer. That seems simple enough! But, in order to withhold the usual reinforcer, you must identify it.

In order to identify the reinforcer maintaining a behavior, you can collect data on the target behavior using an antecedent-behavior-consequence data collection form during direct observation. After a minimum of three observation sessions, you should begin to see patterns in the data that point to a probable function of the behavior, and you will also begin to identify the stimulus that usually follows the target behavior, i.e., the reinforcer.

You must never conduct an extinction program without also implementing a program that teaches and reinforces an appropriate, alternative behavior that can serve the same – or similar – function. A Differential Reinforcement of Alternative (DRA) behavior procedure would work very well in such a situation. You would place the target behavior on extinction by withholding the usual reinforcer and you would teach and reinforce the alternative behavior.

Reinforcement, punishment, and extinction are just a few of the tools behavior analysts can use to train needed skills and reduce behaviors that get in the way of client success. In the coming weeks, you will discover even more important tools of the trade!

Thank you for viewing your Unit 2 lecture!