Welcome to our first Discussion Board, students! This week is mainly a review of the basic concepts of Applied Behavior Analysis I. We want to make sure we are all on the same page before diving into the application of these behavior principles and concepts. First, we will review some terms – the ABCs and refresh our understanding of how the environment selects behavior. Second, we will have a brief review of positive reinforcement, negative reinforcement, and punishment. These are not all the behavioral principles – extinction, stimulus control, and motivating operations are also important. If you don’t feel confident on your understanding of these concepts, now would be a good time to review them. After we review the basic principles of ABA, we will review how to write target behavior definitions. Since this course focuses mainly on application of behavioral principles, we will be working with target behavior definitions almost every week. Good target behavior definitions provide a good foundation for our behavior plans. Finally, we will wrap up with a new topic: the seven dimensions of applied behavior analysis as described by Baer, Wolf, and Risley. Let’s dive in!

First, a review of terms. Remember the definition of behavior. Behavior is: the activity of living organisms. “Activity” implies action. Behavior is represented by movement through space and time. If what you are identifying and describing does not move through space and time, you are very likely missing the mark on describing behavior. The behavior must interact with the environment in order to be a behavior – this interaction is key. Behavior occurs in context, what is going on in the environment that interacts with the behavior is the context we are looking for. A stimulus is: an object or event that can be detected by one of the senses and thus has the potential to influence the person. It could be a feature of the physical environment or the social environment, meaning the behavior of the person or of other people. Stimuli occur before and after behavior. Examples of stimuli in physical environment include sunlight, noxious smell, warmth, and pain. Examples of stimuli in the social environment include attention, praise, frown, or an eye roll. Within this course, when we are looking for the “causes” of a behavior, we are looking at the stimulus changes that occur prior to and immediately after the behavior of interest. Remember, behavior does not occur in an environmental void, every behavior takes place within the context of a situation meaning a set of antecedent conditions and consequences. These antecedent conditions and the context of the behavior may not be immediately obvious to you, but they are there, and we can know them (determinism). Also, you don’t have to be aware of antecedent conditions in order to be affected by them, just like you don’t have to be aware of consequences for your behavior to change. It is the combination of antecedents and consequent conditions that determines what is learned. The antecedents and the consequences are the context in which a behavior occurs. We refer to the antecedent-behavior-consequence as the ABCs.

As human beings we have variations in our behavior. Selection by consequences depends on these variations in behavior. Those behaviors that produce the most favorable outcomes are more likely to be selected and occur again. Those behaviors with unfavorable outcomes are less likely to be selected and less likely to occur again. Within our lifetimes, much of our behavior is selected based on the consequences to our behavior. Some behavior has been selected because it has been found to be beneficial to the human species (for example, vocal sounds resulting in speech). These consequences are determining what behaviors are repeated and what behaviors stop occurring. This process selection by consequences is operant conditioning.

Operant conditioning includes reinforcement and **punishment**. We are going to talk about positive reinforcement first. Positive reinforcement occurs when a response is followed immediately by the presentation of a stimulus and as a result similar responses occur more frequently in the future. Pay special note to the word **immediate,** reinforcers are more effective when they are given immediately after the behavior occurs. So, after a behavior occurs, the environment is changed in that something is added/presented, and the behavior occurs more often in the future. What happens to the behavior in the future is critical in defining positive reinforcement. If the behavior does not re-occur in the future than the stimulus presented is NOT a reinforcer and reinforcement did not occur. Keep in mind that just because you hypothesize that something will be a reinforcer does not make it one. Just because you deliver a “good” thing, or a “bad” thing does not mean it was necessarily reinforcement or punishment – it is the change in behavior that defines it as reinforcement or punishment. I also want to mention: Once a behavior has been firmly established through reinforcement, we may no longer see the behavior increase; it may just maintain or continue. If a behavior is occurring, it has been reinforced. Our job is to figure out how.

Before we even start with negative reinforcement, I want you to write down: Negative reinforcement = reinforcement by relief. Negative does not mean “bad,” it does not indicate punishment. It does not refer to a behavior being removed. Negative reinforcement means a stimulus has been taken away or removed. Negative reinforcement occurs when the occurrence of a response produces relief from an aversive stimulus, which results in an increase in the future occurrence of that behavior. By engaging in the behavior, you are removing the aversive stimulus and getting relief; there is something unpleasant going on in your environment and by engaging in a behavior, you can change your environment and get relief from the unpleasant stimulus. This is important. The behavior is necessary to remove the aversive stimulus. Without engaging in the behavior, the aversive stimulus would continue, and you wouldn’t get relief. The behavior removes the aversive stimulus from the environment. Therefore, the behavior is more likely to occur because it brought relief.

Punishment occurs when a response is followed immediately by a stimulus change that decreases the future frequency of similar responses. If the behavior is still occurring – punishment has not occurred. You cannot define punishment by whether the consequence appears unfavorable, unpleasant, or aversive. You can say a consequence is punishing only if the behavior decreases in the future. Also, keep in mind – does the behavior decrease or stop on at the time the consequence is administered, or does the behavior decrease in the future? If it just stops at the time the consequence is administered, but continues in the future, punishment has not occurred. The future frequency must decrease. There are two types of punishment, just like two types of reinforcement. In positive punishment, a stimulus is presented immediately following a behavior and the future frequency of the behavior decreases. The stimulus presented is usually considered an aversive stimulus like a reprimand, yelling, spanking, or a shock. In negative punishment, an already present stimulus is terminated contingent on the occurrence of a behavior and the future frequency of the behavior decreases. With negative punishment, the stimulus being removed is a reinforcer/preferred stimulus like an iPad or a privilege.

As you write your target behavior definitions throughout the term, make sure to meet the 3 characteristics of a good definition described on page 67-68 of Cooper et al. and pass the 3 tests of a good definition and the dead man’s test. Your definitions should be objective and countable, they should be clear, meaning a stranger would know what to look for, and the definition should be complete. You shouldn’t be able to break it down any further. The Dead man’s test states, “if a dead man can do it, it isn’t behavior. If a dead man can’t do it, it’s behavior.” Can a dead man “not tantrum”? Can a dead man “sit quietly”? Can a dead man “not talk back”? Can a dead man “not hit you?” Basically, any “not” behavior, a dead man can do, so it isn’t a behavior. Use this test on your behavior definitions. Ask yourself, could a dead man do this behavior? If a dead man can do it, you need to change your behavior.

Within behavior analysis, the way we approach changing behavior falls within these seven dimensions. “Applied” means that the target behaviors we choose to change are socially significant (important to the client). “Behavioral” relates to the way we define behavior in behavior analysis. We have already covered this early in our review of terms. “Analytic” relates to how we know if we have control over a behavior. How do we know if our intervention is truly changing the behavior or if it is something else responsible for the change? We determine our interventions effectiveness through research designs. We learn more about these in one of our last units. “Technological” means that the techniques used in a behavior plan are completely identified and described. All the important components of a treatment are described in such a way that another person can implement them. “Conceptual Systems” requires us to relate our intervention plans back to underlying behavior principles. Is not enough to just learn a bag of tricks, you must be able to explain why your intervention will work. “Effective” means that our interventions have practical, real world effects in our clients’ lives. And, finally, in order to have “Generality,” behavior change must be durable over time, appear in a wide variety of possible environments, or spread to a wide variety of related behaviors.

Thank you for viewing the Unit 1 Discussion Board Lecture!