**PS385: Targeted Topics in Applied Behavior Analysis**

**Discussion Board Lecture: Unit 1 Media Lecture**

**Unit 1: Understanding and Applying Basic Concepts in Applied Behavior Analysis**

**Lecture:**

Welcome, students! Unit 1 begins your journey in PS385 with a review of some of the basic characteristics of science and the early history of behavior analysis. Your review will begin with an examination of the common assumptions and attitudes of all fields of science. You will recall that *determinism* is the belief that our “universe is a lawful and orderly place in which phenomena occur as a result of other events” (Cooper, Heron, & Heward, 2007). This belief is the foundation upon which applied behavior analysis (ABA) is built, that is, all behavior is the result of conditions that, once identified, can be modified to change the behavior in some way.

Positive and negative reinforcement can increase or maintain the future occurrence of the behaviors they follow. Positive and negative punishment can decrease, or completely do away with, the behaviors they follow. And, extinction, by withholding the reinforcement maintaining the behavior, can extinguish the behavior completely. Operant theory tells us that the future probability of the occurrence of a behavior is determined by its consequences.

*Empiricism* entails the “objective observation of the phenomena of interest” (Cooper et al., 2007). In ABA, the empirical study of the behavior of interest always requires direct observation of the target behavior in the natural setting and detailed recording of the most important dimension of the behavior, i.e., frequency; duration; latency; or intensity/magnitude.

*Experimentation* requires the controlled application of the independent variable and recording its effect on the dependent variable. In behavior analysis, the independent variable would be the behavior intervention and the dependent variable would be the target behavior. The determination of a functional relation can be made if the dependent variable changes in a specific way only when the independent variable is manipulated.

*Replication* requires repeating experiments in order to determine the reliability and usefulness of the results, or findings.

*Parsimony* dictates that “simple, logical explanations must be ruled out, experimentally or conceptually,” before moving on to more complex or abstract explanations of a phenomena (Cooper et al., 2007).

These assumptions form the foundation of ABA! B. F. Skinner, the founder of the experimental analysis of behavior, strove to explain behavior in terms of measurable and observable events. Contrary to popular belief, Skinner did not discount the influence of private events (thoughts, feelings, and beliefs) on behavior. In fact, he incorporated private events into his conceptual system of behavior, radical behaviorism.

Highly influenced by Watson’s stimulus-response psychology and Thorndike’s Law of Effect, which states that behaviors that result in pleasurable outcomes tend to repeat, Skinner embarked on his lifelong examination of the variables that influence behavior.

Although human behavior is highly complex, the three-term contingency - antecedent-behavior-consequence – is the basic unit of analysis in the analysis of operant behavior (Cooper et al., 2007). Often referred to as the “ABCs of behavior,” behavior analysts examine the antecedents and consequences of a target behavior, over at least three separate observation sessions, in order to hypothesize the probable function – or purpose – of the target behavior. In order to insure accurate recording of the target behavior, one must operationally define the behavior in terms of what the behavior looks like. Labels, such as “tantrum,” “disrespectful,” and “antsy,” are not sufficient descriptions of behaviors. One must describe the behavior in such a way that others can easily read the description and accurately identify the occurrence of the behavior. For example, “tantrum” could be operationally defined as, “When the teacher passes out the math worksheets and tells students to complete problems 1-10, Felicia screams, ‘No!’ and slides out of her desk and onto the floor and kicks the floor with the heels of her shoes.” Anyone reading that operational definition would be able to accurately record the occurrence of the behavior.

Identifying the function of a behavior is vital to the design of a function-based behavior intervention plan (BIP). The two broad categories of behavior function are attainment and escape/avoidance. If the function the behavior serves for the individual is not identified, the target behavior could inadvertently be maintained. For example, a child who complains of a stomach ache each morning before school could be expressing escape behavior – hoping to get out of school, or could be expressing attention-seeking behavior – hoping to gain his/her parent’s attention at a busy time of day when everyone is focused on getting to school or work on time. The function of the child’s behavior will guide the approach to treatment. If the behavior functions to escape school, then a Differential Reinforcement of Alternative (DRA) behavior approach might be effective. The parent would withhold the escape from school and provide reinforcement for getting to school without complaining of the stomach ache. If the behavior serves an attention-seeking function, then the parents could get the child up a little earlier and spend some time before school reading a story and talking about what they would do at the end of the day.

There are some very important characteristics of applied behavior analysis (ABA) that practitioners must keep in mind when providing services to clients. In 1968, Baer, Wolf, and Risley published their seminal article, “Some Current Dimensions of Applied Behavior Analysis,” in the first edition of the *Journal of Applied Behavior Analysis.* These “dimensions” became the defining characteristics of our field. The authors stated that a research study or a behavior change program must meet seven dimensions to be considered ABA. These dimensions are:

* Applied: Investigates socially significant behaviors that have immediate importance to the subject(s).
* Behavioral: Requires precise measurement of the actual behavior in need of improvement and records that it was the subject’s behavior that changed.
* Analytic: Must demonstrate experimental control over the occurrence and non-occurrence of the behavior, i.e., the dependent variable changes in some specific way only when the independent variable is manipulated.
* Technological: Descriptions of all procedures in a study must be sufficiently complete and detailed so it can be replicated by others.
* Conceptually systematic: Behavior change interventions are derived from the basic principles of behavior.
* Effective: The behavior change program improves the behavior sufficiently to produce practical results for the client.
* Generality: The behavior change intervention produces behavior changes that last over time, appear in other environments, or spread to other behaviors.

Unit 1, with its focus on the attributes and assumptions of science, the evolution of our field, and the introduction of the core principles of behavior analysis, prepares you well for the examination of more complex principles and strategies of ABA that you will examine in the coming weeks.

“Saving the world with behavior analysis” begins here!

Thank you for viewing your Unit 1 Lecture!