Welcome to our Unit 4 Discussion Board lecture. This week, you read about Skinner’s behavior analysis of language as described in his famous book Verbal Behavior. Skinner’s verbal behavior analyzes speech in terms of the functional relationships between the verbal behavior and the speaker’s current motivational state, his current stimulus circumstances, his past reinforcements, and his genetic constitution. Skinner said there was nothing special about verbal behavior – it is under the influence of the same types of environmental variables as nonverbal behavior. In Skinner’s environmental theory of language, he does not invoke mentalistic, hypothetical entities to account for the creation of speech. Verbal behavior is defined as a social interaction between a speaker and a listener. The speaker is able to control his or her environment through the behavior of the listener.

A verbal operant is a unit of verbal behavior. It is the controlling environmental variables that define verbal operants, not the form of the word. In verbal behavior, we are focused on the functional relationship between a response and its antecedent and consequence. The antecedent could be a motivating operation or a discriminative stimulus (s-d). The consequence would be some form of reinforcement. Skinner identified 6 elementary verbal operants: mand, tact, echoic, intraverbal, textual and transcription. We will spend the rest of the lecture discussing these.

The mand is a verbal operant in which a speaker asks for what she needs or wants. Mand is similar to “demand” and “command.” A mand is under the functional control of motivating operations and specific reinforcement. The motivating operation creates a need or a want that alters the potency of a reinforcer. The speaker then demands that reinforcer and the reinforcer is given. Mands are the first verbal operant acquired by children. The mand gets the speaker reinforcers such as edibles, toys, or the removal of aversive stimulation. Young children engage in a high rate of manding because it gets their wants and needs met. Let’s look at an example of a mand. My son is thirsty; he wants milk in a bottle. This is a motivating operation making liquids (in this case milk) more valuable and behaviors that have been reinforced with milk more likely to occur. He says, “Bottle.” I give him a bottle. “Bottle” is the mand, the consequence is the bottle of milk. The bottle of milk is the specific reinforcement related to the motivating operation.

A “tact is a verbal operant in which the speaker names things and actions that the speaker has direct contact with” (can see, hear, smell, feel) (Cooper et al., 2007, p. 530). The antecedent is a nonverbal discriminative stimulus and it must contact one of the senses. For example, a child sees fire truck and says, “fire truck.” The reinforcer for tacts is generalized conditioned reinforcement. Remember that a generalized conditioned reinforcer is a reinforcer that became a reinforcer from being paired with other reinforcers. It doesn’t depend on a motivating operation for its effectiveness. Praise is a common generalized conditioned reinforcer.

The echoic is probably the easiest to remember – it is an echo. The echoic is a “verbal operant that occurs when the speaker repeats the verbal behavior of another speaker” (Cooper et al., 2007, p. 531). Echoics are controlled by a verbal discriminative stimulus (the verbal behavior of another speaker) and generalized conditioned reinforcement as the consequence. There are two essential components of an echoic: Point-to-point correspondence means the beginning, middle, and end of the verbal stimulus matches the beginning, middle, and end of the response. Formal similarity means the controlling antecedent and the response share the same sense mode (auditory, visual, or tactile), and physically resemble each other. For example, I say out loud to my child “momma” and my child repeats out loud “momma,” and I say, “That’s right! I’m momma!” The verbal discriminative stimulus and the verbal behavior are occurring in the same sense mode and the beginning, middle, and end match. An echoic repertoire is very important for teaching language to children with language delays. Often it is one of the first skills we work on because we can build off this skill. We use echoic behavior to teach other verbal operants. Children need to be able to imitate or copy us before we can teach more complex verbal operants.

The intraverbal is a “verbal operant in which a speaker differentially responds to the verbal behavior of others” (Cooper et al., 2007, p. 531). A verbal discriminative stimulus evokes a verbal response that does not have point-to-point correspondence with the verbal discriminative stimulus. In plain English, someone says something to you and you respond. Intraverbals are answering questions, filling in missing words, telling stories, describing events, explaining, and the answers in question/answer sequences. Most conversations are full of intraverbals. The key here is that intraverbals are controlled by the verbal behavior of another person. Intraverbals receive generalized conditioned reinforcement.

Textual is reading, just reading not understanding. The verbal discriminative stimulus is visual, and the response is auditory, and the consequence is generalized conditioned reinforcement. “The textual operant has point-to-point correspondence, but no formal similarity between the stimulus and the response, written word, spoken language” (Cooper, Heron, & Heward, 2007, p. 532). For example, seeing the written word, “cat” and saying out loud, “cat.” Transcription is “writing and spelling words that are spoken” (Cooper et al., 2007, p. 532). A spoken verbal discriminative stimulus controls the response (which is written, typed, or finger-spelled) and is reinforced with generalized conditioned reinforcement. Like with the textual operant, transcription has point-to-point correspondence between the verbal discriminative stimulus and the response.

Those are the six elementary verbal operants as described by Skinner! Thank you for listening to the Unit 4 Discussion Board lecture.