

Stimuluskontroll for intraverbal atferd

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Intraverbal behavior

- “ Verbal stimuli evoke a verbal response that is different to the antecedent stimulus
- “ There is no formal similarity or point-to-point correspondence between the two (Michael, Palmer, & Sundberg, 2011; Skinner, 1957)

Example

- “ Example: answering questions such as “What’s your name?”
- “ The response (the name) has no formal similarity to the antecedent stimulus (“What’s your name?”).

- “ Sundberg and Sundberg (2011) examined whether acquisition of intraverbal behaviour in typically developing children occurs in a specific sequence
- “ If this sequence could be used as a framework for intraverbal assessment and intervention
- “ 39 typically developing children between the age of 23 and 61 months participated

- “ Assessed on the intraverbal section of *the VBMAPP* (Sundberg, 2008).
- “ Results showed age related general sequence of intraverbal acquisition
- “ This sequence is primarily a function of the complexity of the verbal stimuli occasioning the intraverbal response (Sundberg & Sundberg, 2011)

Purpose

- “ To provide an analysis of antecedent control involved in intraverbal behaviors
- “ Previous attempts have conditional discriminations (Axe, 2008; Sundberg & Sundberg, 2011)
- “ I will discuss three types of discriminations
- “ They are
 - . discriminated operants
 - . compound stimuli
 - . conditional discriminations.

Discriminated Operants

- ~ Simple discrimination, three-term contingency
- ~ $S^D - R - S^R$
- ~ Example: "ready-set ...", "peek-a ...", "A, B ...", "1, 2 ...", "big ...", etc.
- ~ Only the simplest intraverbal responses are discriminated operants controlled by a S^D

Conditional Discriminations

- ~ Whether a particular stimulus function as a S^D or S^A depends on another stimulus, a conditional (or sample) stimulus (Catania, 1998)
- ~ When sample stimulus A1 is presented, comparison stimulus B1 takes on the function of a S^D (or S+) and comparison stimulus B2 takes on the function of a S^A (or S-)
- ~ When A2 is presented as the sample stimulus, comparison stimulus B2 takes on the function of a S^D (or S+) and comparison stimulus B1 takes on the function of a S^A (or S-)
- ~ **In conditional discriminations, the sample stimulus determines the function of the comparison stimuli**

- ~ Conditional discriminations can also involve verbal stimuli
- ~ One verbal stimulus can establish another verbal stimulus as a S^D or S^A evoking particular responses
- ~ Catania (1998) autoclitic relations "I doubt the coffee is ready" and "I'm sure the coffee is ready"
- ~ "I doubt" and "I'm sure" differentially alter the evocative effect of "the coffee is ready"
- ~ "I doubt" and "I'm sure" are conditional stimuli (sample stimuli) (p. 258).

- ~ Skinner (1957) uses the conditional mand to make a similar argument
- ~ The conditional mand "If your name is Charlie, stand up!"
- ~ The verbal stimuli "If your name is Charlie" differentially alter the evocative effect of the subsequent verbal stimuli (i.e., "stand up")

- ~ **In intraverbal behavior, a conditional discrimination exists when a verbal stimulus change the evocative effect of a nonverbal stimulus**
- ~ Example: In response to a question the speaker describes properties of objects that are present
- ~ The speaker may observe a particular car (e.g., a black Ford Mondeo). In this case, the question "What color?" will evoke the response "Black" and the question "What make" will evoke the response "Ford"

- ~ The question "What color?" is a verbal conditional stimulus establishing the color of the car as an S^D (or S+) and the make and the model as S^A s (or S-).
- ~ A defining feature of conditional discriminations is that the same stimulus (or stimulus property) serves as an S^D (S+) in some trials and an S^A (S-) in others

- “ Another example is If-then questions such as
- “ If you are wearing blue say your name”
- “ In this example, “If you are wearing blue” constitute the sample stimulus and “say your name” is the comparison stimulus
- “ The former stimulus alters the function of the latter stimulus.

Compound Stimuli (Sammensatte stimuli)

- “ Compound stimulus-control exists when a particular response is controlled by two or more stimuli or two or more elements of a stimulus (Cohn & Weiss, 2007; Pérez-González & Alonso-Álvarez, 2008; Wolf, 1963)
- “ Yet differs from conditional discrimination

Alonso-Álvarez and Pérez-González (2006)

- “ Mand compliance is a program that may involve stimulus compound:
- “ The child selects the comparison stimulus blue ball from an array containing a blue ball, a yellow ball, a blue car, and a yellow car, when presented with the verbal compound sample stimulus “Touch blue ball”
- “ **Here, correct responding requires the child to respond to both elements of the compound sample stimulus (object and color), but one element does not change the evocative effect of the other**

- “ Stimulus control by a compound stimulus in an intraverbal relation occurs when two or more verbal stimuli (e.g., “Big” and “Animal”) come together to evoke a particular response (e.g., “Elephant”)
- “ Another example is when the compound S^D “Red vegetable” is followed by the response “Tomato”
- “ Also, responding to the question “What do you eat that’s red?” involves compound stimuli because a correct response requires that the speaker’s behavior comes under the control of several verbal stimuli, most notably “Eat” and “Red”
- “ The same is the case for the question “Name a big animal?”

- “ The reason why these are not conditional discriminations is that the different words involved in the antecedent stimulus complex *do not* change the evocative effect of each other, as per definition, is required in a conditional discrimination.
- “ The one verbal stimulus “Eat” does not change the evocative effect of the second verbal stimulus “Red”, and vice versa
- “ Rather, correct responding requires the child’s response to come under control of both elements of the compound stimulus (e.g., *eat* and *red*)

- “ According to this analysis, responding to the question, “What do you eat that is red?” is a discriminated verbal operant (i.e., a three-term contingency)
- “ The intraverbal response is evoked by a compound verbal stimulus complex

Complex Intraverbal Behavior Requires

- “ **Listener Behavior:** Discrimination of complex verbal
- “ **Speaker Behavior:** Emitting complex verbal topographies
- “ This likely makes the learning of such skills difficult

- “ One way of teaching the discrimination of complex stimuli while keeping the response topographies more simple is to teach listening skills
- “ In listening skills, responses typically involves identifying stimuli by either touching or pointing, a simple, non vocal response
- “ Establishing the discrimination of such complex verbal stimuli can be achieved while teaching a rich listener repertoire

- “ Working with listener skills are a way of teaching the learner to respond to complex verbal stimuli with a simple nonverbal response

Listener Skills

Discriminated Operants

- “ Simple Instructions such as responding to the verbal stimuli “clap hands” or “touch nose.” Also referred to as mand compliance of topography based responding
- “ Topography based responding to objects, such as drive car and read book
- “ Multiple simple instructions, such as instructions containing two actions such as “clap hands and touch nose”

Conditional Discriminations

- “ Most listener behaviors involve conditional discriminations
- “ Receptive labeling of objects (mand compliance of selection based responding).
- “ More advanced receptive labeling (verbs, colors, functions, opposites, categories, prepositions, etc) to establish advanced verbal listening skills.
- “ Multiple objects (e.g., “cup and book”). To teach responding to two verbal stimuli.
- “ Can include two-step receptive instructions and even two-step non-vocal imitations
- “ If you are wearing green raise your hand

Compound Stimulus

- “ Since most listener behavior involve conditional relations, compound stimuli is introduced gradually in conditional discriminations, as follows:
- “ Simple compound stimulus (e.g., “red car”). Initial compounding. Each object is specifically taught both as color discrimination and objects discrimination
- “ More advanced compounding. Such as mand compliance of information (“What grows that is green”)