

Behaviorist Theory on Language Acquisition

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BEHAVIORIAL THEORY

- behaviors, such as acting, thinking, and feeling, can be scientifically observed and measured
- **Language, as a behavior, is a set of habits acquired by operant conditioning and reinforcement**
- developed by B. F. Skinner, among others



LANGUAGE

- a subset of other learned behaviors
- a set of associations between meaning and word, word and phoneme, and statement and response
- **is learned or conditioned through association between a stimulus and the following response**
- a verbal behavior modified by the environment





LANGUAGE

- the —how of language is more important than the —what of language form
- a child learns language —when relatively unpatterned vocalizations, selectively reinforced, gradually assume forms which produce appropriate consequences



Operant Conditioning

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OPERANT CONDITIONING

- the strength of the stimulus-response bond determines the probability of occurrence of a certain response
- all behavior is learned or operant



OPERANT CONDITIONING

- complex linguistic behaviors represent chains or combinations of various stimulus-response sequences
- behavior is modified or changed by the events that follow or are contingent upon that behavior





OPERANT CONDITIONING

- **if a particular response is reinforced, it then becomes habitual**
- thus, children produce linguistic responses that are reinforced, and loses those that are left out



REINFORCER

- any event that increases the probability of occurrence of a preceding behavior



POSITIVE REINFORCERS

- benefits the person receiving it
- examples:
 - praising
 - repetition
 - frequent exposure
 - material reward

NEGATIVE REINFORCERS

- has no value to the person receiving
- causes the recipient to try to escape from it
- Examples:
 - physical punishment, discomfort
 - criticism and scolding
- negative reinforcers \neq punishment
- punishment
 - occurs after a certain behavior has occurred





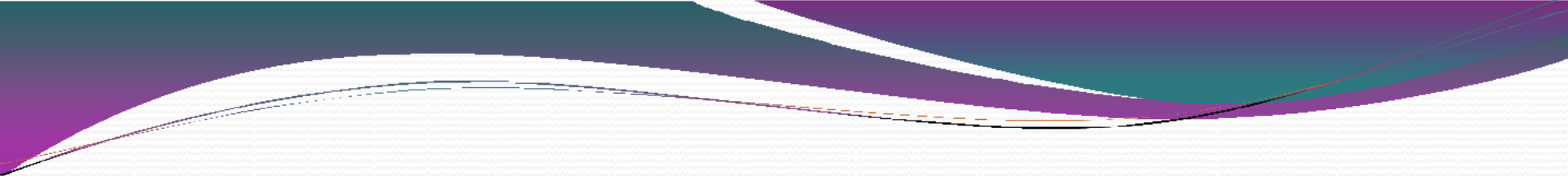
OPERANT CONDITIONING

- complex behavior are learned by:
 1. chaining - a sequence of behavior is trained in such a way that each step serves as a stimulus for the next
 2. shaping - a single behavior is gradually modified by reinforcement of ever-closer (successive) approximations of the final behavior
- thus, language results from the active role of the environment
- the learner is secondary to the process



OPERANT CONDITIONING

- once acquired, a **behavior requires only occasional reinforcement** to be strengthened and maintained
- **speech sounds that are ignored** are produced less frequently and **eventually disappear**
- Extinction
 - process of decreasing a behavior without punishment



Instead of punishing behavior, **it is better to simply take off the reinforcers** that cause that certain behavior. By doing so, **the doer of the behavior will not see the value of his actions,** because the reinforcers have been taken away from him. **The behavior will gradually start to fade away.**



Behaviorism and Language Acquisition

LANGUAGE ACQUISITION

- word learning is more complex
- mother has become *discriminative stimulus* (SD), a stimulus in the presence of which —mamall will be reinforced
- a bond is built between the referent —motherll and the word *mama*
- meaning is attached to the speech sound



LANGUAGE ACQUISITION

- more complex responses are learned through successive approximation
- **language learning is based on learning, imitation, practice, and selective reinforcement**
- longer sentences are also learned through imitation and chaining
- by hearing and imitating enough examples, **the child learns word associations rather than grammatical rules**





LANGUAGE ACQUISITION

- a child acquires grammar by learning these frames or chains, in which each word acts as a stimulus for the next, thus, grammatical units are controlled by surrounding words
- grammar is developed through the learning of structured phrases and sentence frames
- syntactic and semantic —slots within each frame are filled by substituting words or phrases that fulfill the same requirements



LANGUAGE ACQUISITION

- word ordering is learned as adults reinforce chains of symbols that are increasingly more adult-like
- early language behavior is not rule governed but rather shaped by the contingencies of the environment

CHILDREN WOULD MAKE ERRORS

- complex linguistic behaviors represent chains or combinations of various stimulus-response sequences
- behavior is modified or changed by the events that follow or are contingent upon that behavior



THE LEVEL OF LINGUISTIC ATTAINMENT WOULD DIFFER FROM CHILD TO CHILD

- this depends on the frequency and degree of reinforcements

Criticisms



LIMITATIONS AND LOOPHOLES

- children will utter words that even adults do not say
- children would not know the duality property of language
- children would not know syntax



LIMITATIONS AND LOOPHOLES

- retention of negative language (e.g., cuss expressions)
- no reinforcement on abstract ideas
- highly dependent on adult control



SUMMARY

- language is a behavior
- as a behavior, it requires reinforcers and stimuli from the environment
- reinforcers may be positive or negative, primary or secondary
- languages can be unlearned by putting away the stimuli/reinforcers

Reference List

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Skinner, Buhhrus Frederic. *About Behaviorism*. New York: Random House, 1974.

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