Conceptual behavior and language



relational concept learning- Learning that depends on identifying common relationships among objects/stimuli

- uses compare and contrast
- makes use of abstract qualities
- Nonhuman primates-- learn the same/different concept rapidly
- Premack (1988)
- Absolute number discrimination

associative concept learning- Learning that depends on identifying common associations

- No physical qualities are considered, only functional
- Vaughan
- Associative concepts based on a common outcome

ONCONCEPTUAL BEHAVIOR & LANGUAGE SPECIFICALLY FOR YOUFOR

ONLY\$13. 90/PAGEOrder Nowconceptual behaviorbehavior under the control

of generalized or abstract stimulus properties rather than specific attributes

- responding to objects due to their membership to a larger class, not their attribute

(For example: responding to microsoft word because it resembles a word processing program)

3 to 4 monthswhen can category learning be seen in infants? conjunctive conceptA class of objects that have two or more features in common.

(For example, to qualify as an example of the concept an object must be both red and triangular.) disjunctive conceptA concept defined by the presence of at least one of several possible features.

(For example, to qualify an object must be either blue or circular.)hypothesis testing theorymaking guesses of which attributes are necessary to fulfill conceptwholist strategyFocusing on ALL attributes of a conceptual class or category

- Focusing on all attributes, remembering past attributes when moving on to next stimuli
- narrow down the list of characteristics

partist strategyFocusing on a SINGLE attribute of a conceptual class or category

(For example: focus only on color when moving on to next stimuli)

-- wastes time if you must go back and test new attributes

(For example: stimuli is cat. attribute is fur. next stimuli is dog. therefore, dog is cat.)

family resemblances-Members of a concept share in common _____

(For example: bird = wings, feather, but different colors)

- The more resemblance something has the quicker the association is made
- -According to Rosch and Mervis (1975) members of a concept share something in common with other members of a concept, although they may not all share the same thing

superordinate level- The broadest, general, and overall category such as:

- [Animal] / Dog / Poodle
- [Food] / Meat / Hamburger

basic levelthe level of categorization that can be retrieved from memory most quickly and used most efficiently

- characterized by neither too much or too little information
- -Animal / [Dog] / Poodle
- -Food / [Meat] / Hamburger

subordinate levelthe most specific level within a category hierarchy

- Animal / Dog / [Poodle]
- Food / Meat / [Hamburger]

feature list theory-Concepts are represented mentally in terms of a list of features

- a) Defining features: features necessary for inclusion in a particular concept;

 MUST HAVE
- b) Characteristic feature: aspects of a concept that most instances share in common
- -Visually based
- -Features of a particular object are compared to the features of the concept stored in memory
- -If the object possesses enough relevant features it is recognized as a positive instance of the concept

defining featuresfeatures that are necessary to be in the concept

(for example: a chair must be used for sitting)characteristic featurescommon

feature aspects that most instances share

- not a big deal of some are missing

(for example: a chair doesn't always consist of arm rests)prototype theorytheory of categorization in which some members of a concept are recalled more frequently than others

- a object is compared to typical members or exemplars of a category
- occurs at the basic level

(for example: you are more likely to say robin or sparrow as an example for bird rather than choosing to say penguin or ostrich)

(for example: classify car, truck, and plane as a vehicle -- but hesitant to say unicycle or elevator)

(ethnic and gender stereotypes)

exemplar theorytheory of categorization in which a specific example or member of a larger category or conceptual class

- a specific remembered instance
- compares novel objects to ones already stored in memory

 (for example: visualize German shepherd when you hear dog)

 (for example: think of Kobe when you hear basketball player)

neural network modelstates that concepts consist of various excitatory connections between nodes and neurons

- parallel processing, unlike computer processing

learning setsapplying previously learned rules or responses to novel circumstances

- learning to learn

(for example: academic success of students depend on doing this each semester across several course environments)

(for example: cms 185 taught to read textbooks, take notes, and study tips. this is learning to learn)

transposition effect- responding to a relationship between two stimuli rather than to discrete characteristics of either stimulus

- strongly invites comparison with the process of concept formation
- discrimination formed on basis of relationship between stimuli

(for example: shade of light gray and dark gray; light gray pecks are reinforced; after discrimination is learned, the chicken is able to choose lighter gray over light gray due to the learned discrimination of picking the lighter shade)

perceptual concept learningLearning about something in general rather than a specific response or answer

(for example) learning about history and Tolman's experiments with animals forming cognitive maps of mazes.

languagea highly structured symbol system that allows for creative and meaningful communication between organisms universals features of language that appear to be true of all language users, regardless of language or cultureholophrasessingle-word utterances ordinarily referring to important objects or events in an infant's environment

- by the end of first year

(for example: ball, bottle)

telegraphic speechshort (2 - 3 word) utterances consisting of nouns and verbs

- used from 1. 5 to 2 years of age (18 - 24 months)

(for example: baby up, go car)

sensitive periodlimited time period during which a developmental milestone can be completed

- critical period is early childhood (7 - 8 years old)

psycholinguisticthe psychology of languagephonemessmallest unit of speech sounds

meaningless

(for example: s, t, b, l, ch, st, th)

morphemessmallest meaningful unit of sound

single words (cat, pencil)

prefixes (pre-)

suffixes (-s, -ed)

example:

talked is 2 (talk, - ed)

syntaxordering of wordssemanticsmeaning of spoken or written
wordpragmaticsappropriately using language in social contexts to bring
about desired consequences

(for example: speaking loudly in large group)

LAD (language acquisition device)evolved mechanism believed responsible for language acquisition in humansuniversal grammarNoam Chomsky's theory that all the world's languages share a common underlying structure

- super-rules that can be used for any type of language,
- kids find language easy to learn because the foundation is already made
 due to language exposure

18 to 24 monthsduring what age is telegraphic speech used? Mandsmaking requests or commands under a state of deprivation

(example: i want a cookie.)

(example: you just mowed the yard and are thirsty [antecedent]. you request a drink from friend [behavior]. your friend grants request [consequence].)

Tactnaming objects or events and being reinforced

(example: dog walks in room [antecedent] in presence of mom and infant. infant points to dog and says " doggie" [behavior]. parent reinforces " that's right! [consequence].)

EchoicA vocal imitative response that is typically reinforced by a social reinforcer. The response is typically evoked or requested.

(example: mother says " say cereal." the child says " cereal" and is praised.)

(example: mother points to pitcher of mile and says " milk" [antecedent].

Infant utters " milk.' the mother responds with praise [consequence].)

Intraverbala response that has no direction from the antecedent, but may be evoked by a discrimination request.

(example: biology teacher asks student what which kind of cell division occurs for the gametes, or sex cells [antecedent]. the student replies " mitosis" [behavior]. the teacher tells student " yes that is correct" [consequence].)

(example: asking, " what is your name?" will evoke a different response than repeating the question.)