

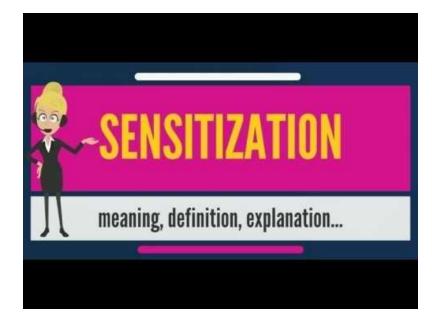
LEARNING

Clever Hans



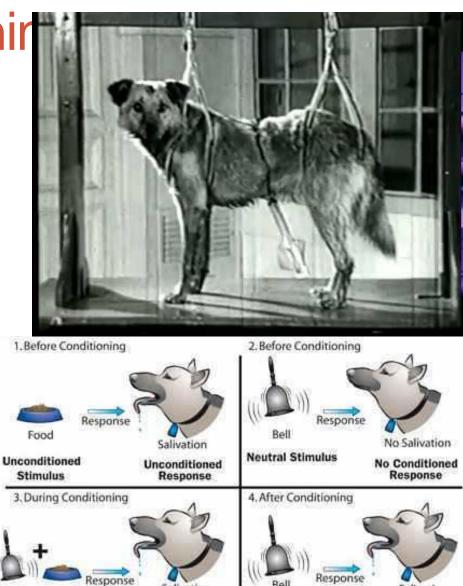
Habituation and Sensitization





Classical Conditionir

- Pavlov's dog(s)
- Unconditioned Stimulus (UCS)
- Unconditioned Response (UR)
- Conditioned Stimulus (CS)
- Conditioned Response (CR)



Salivation

Unconditioned

Response

Conditioned

Stimulus

Food

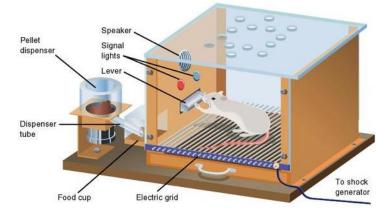
Salivation

Conditioned

Response

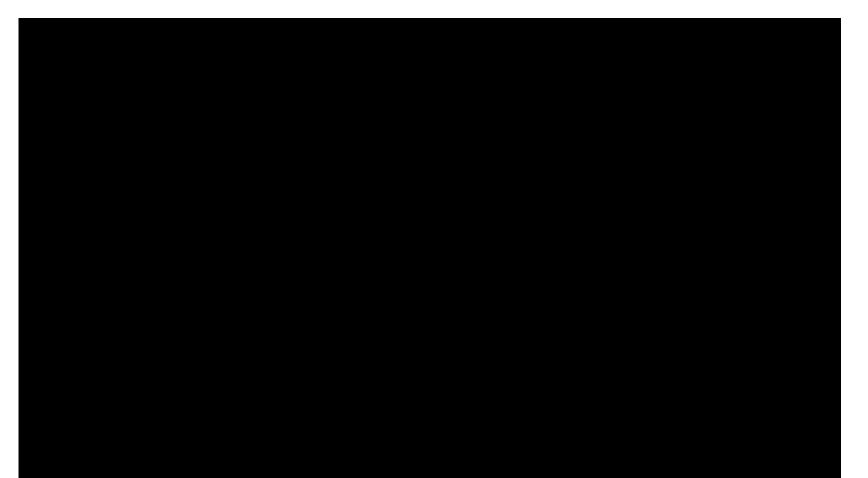
Operant Conditioning

<u>Skinner Box</u>



<u>The Big Bang Theory</u>-Operant Conditioning

Differences between Classical and Operant Conditioning



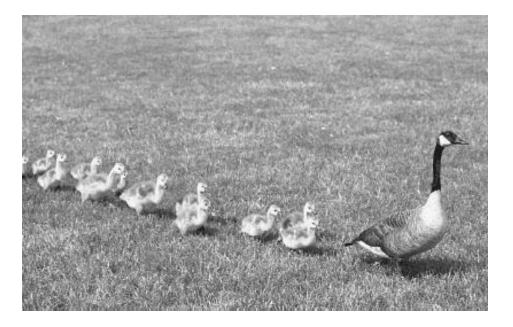
Other Types of Learning

- <u>Chaining</u>
- Discrimination Learning
- Conceptual Learning



Other Types of Learning

- Imprinting
- Imitation
- Taste Aversion



Other Types of Learning

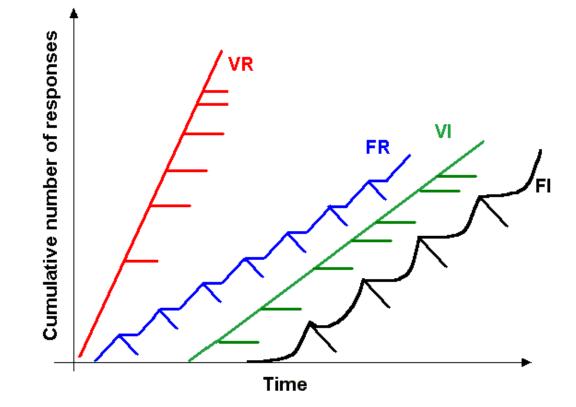
- <u>Shaping</u>
- <u>Autoshaping</u>





Reinforcement Schedules

- Fixed Ratio
- Fixed Interval
- Variable Interval
- Variable Ratio



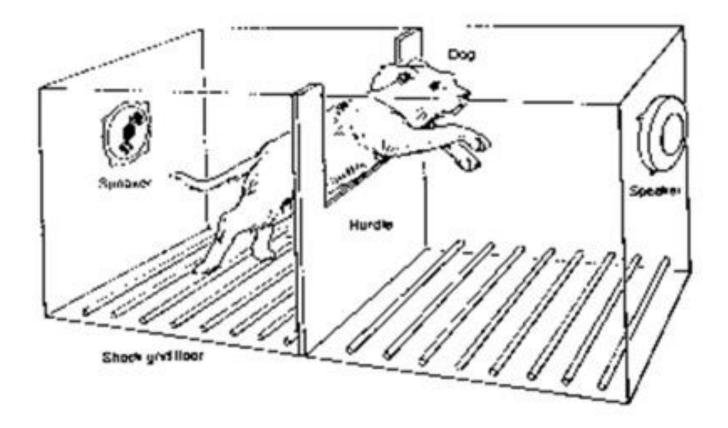
Types of Reinforcement

- Positive Reinforcement
- Negative Reinforcement
- Negative Reinforcement vs. Punishment





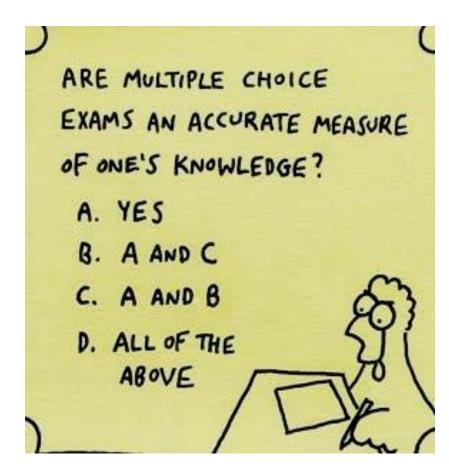
Learned Helplessness



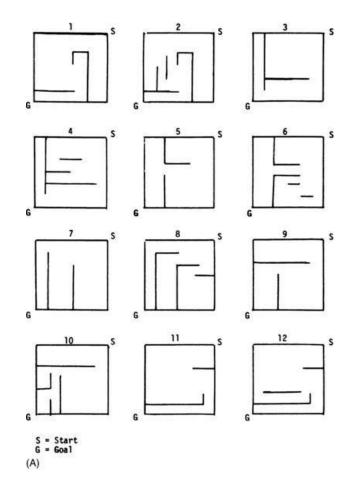
- Brain weight to body weight ratio
- Learning Rates
- Classical Conditioning



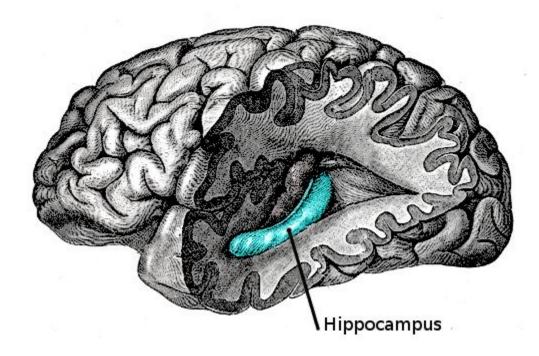
- Delayed response method
- Multiple-choice method
- Avoidance-response method



- Maze learning
- Object permanence
- Social cognition

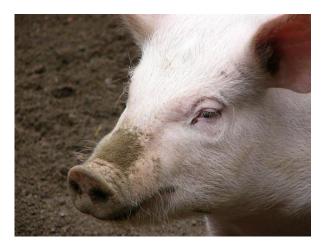


- Decision making or cognitive flexibility
- Episodic Memory



Pigs

- Influences on porcine learning
- Operant conditioning
- Visual discrimination



Effect of barren environment on memory and learning

Dogs

- Housebreaking
- Navigation





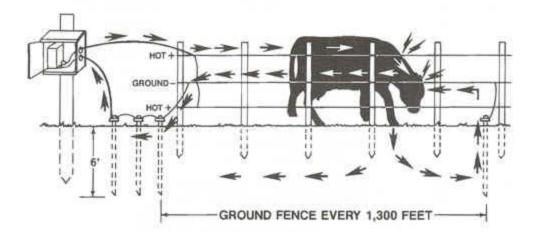


Cattle

- Operant conditioning
- Conditioned avoidance
- Taste aversion



GROUND WIRE RETURN SYSTEM FOR: A. DRY SANDY EARTH B. FROZEN EARTH C. SNOW COVERED EARTH



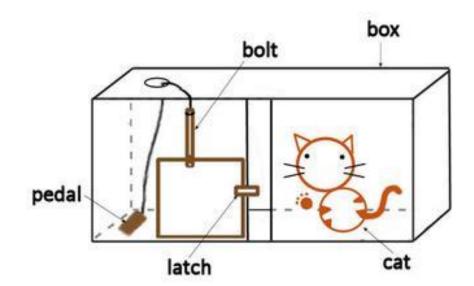
Horses

- Operant conditioning
- Visual discrimination
- Observational learning
- Frequency of training
- Handling



Cats

- <u>Thorndike's cats</u>
- Discrimination
- Rewards
- Conceptual learning



Imitation and observation



- Habituation-long-term, stimulus-specific waning of a response, or learning not respond to stimuli that tend to be without significance in the life of animal.
- **Sensitization**-an increase in the elicited behavior from repeated presentation of a stimulus.
- Classical Conditioning-a process of behavior modification in which an innate response to a potent biological stimulus becomes expressed in response to a previously neutral stimulus; this is achieved by repeated pairings of the neutral stimulus and the potent biological stimulus that elicits the desired response.
- Unconditioned Stimulus (UCS)-a stimulus that evokes and unconditioned response
- Unconditioned Response (UR)-A natural, usually unvarying response evoked by a stimulus in the absence of learning or conditioning.
- Conditioned Stimulus (CS)-A previously neutral stimulus that, after repeated association with an unconditioned stimulus, elicits the response effected by the unconditioned stimulus itself.
- Conditioned Response (CR)-A new or modified response elicited by a stimulus after conditioning.



- Operant Conditioning-is a method of learning that occurs through rewards and punishments for behavior. It encourages the subject to associate desirable or undesirable outcomes with certain behaviors.
- Chaining-a teaching method where sub-skills are reinforced in a sequence to enable the learner to perform more complex behaviors.
- **Discrimination Learning**-the process by which animals or people learn to make different responses to different stimuli.
- **Conceptual Learning**-a strategy which requires a learner to compare and contrast groups or categories that contain concept-relevant features with groups or categories that do not contain concept-relevant features.
- Imprinting-(of a young animal) come to recognize (another animal, person, or thing) as a parent or other object of habitual trust.

Glossary

- Shaping-the form of an existing response is gradually changed across successive trials towards a desired target behavior by rewarding exact segments of behavior.
- Autoshaping-A method of conditioning in which the conditioned response has not been reinforced by reward or punishment, but is a modified instinctive response to certain stimuli.
- Fixed Interval-behavior reinforced after *n* amount of time.
- Fixed Ratio-behavior reinforced after *n* amount of responses.
- Variable Interval-reinforced on an average of n amount of time, but not always exactly n amount of time.
- Variable Ratio-reinforced on average every *n*th response, but not always on the *n*th response.
- Positive reinforcement-occurs when an event or stimulus is presented as a consequence of a behavior and the behavior increases.



- Negative reinforcement-occurs when the rate of a behavior increases because an aversive event or stimulus is removed or prevented from happening.
- Learned helplessness-a behaviour in which an organism forced to endure aversive, painful or otherwise unpleasant stimuli, becomes unable or unwilling to avoid subsequent encounters with those stimuli, even if they are escapable.
- Allocentric-linked to a reference frame based on the external environment and independent of one's current location in it.
- Egocentric-thinking only of oneself, without regard for the feelings or desires of others; self-centered.
- **Taste Aversion**-the process by which an animal learns to avoid a food not because it tastes bad, but because it is associated with illness, particularly gastrointestinal malaise.
- Imitation-a form of learning where animals learn by observing others.