

Learning

Chapter 6

Three Types of Learning

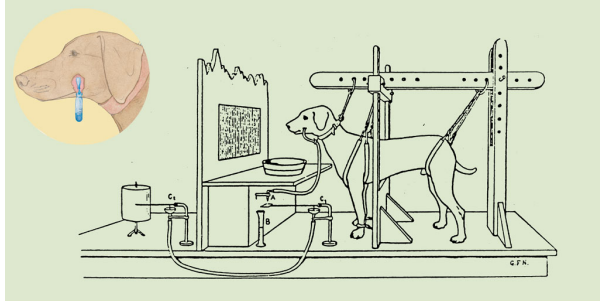
- Classical conditioning
- Operant conditioning
- Observational learning

John Watson: Little Albert Study



Pavlov





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Classical Conditioning

- Neutral Stimulus (NS)
- Unconditioned Stimulus (UCS)
- Unconditioned Response (UCR)
- Conditioned Stimulus (CS)
- Conditioned Response (CR)

Classical Conditioning

- Before conditioning
 - NS -> no response
 - UCS -> UCR
- During conditioning
 - NS + UCS -> UCR
- After conditioning
 - CS -> CR

Screwdriver

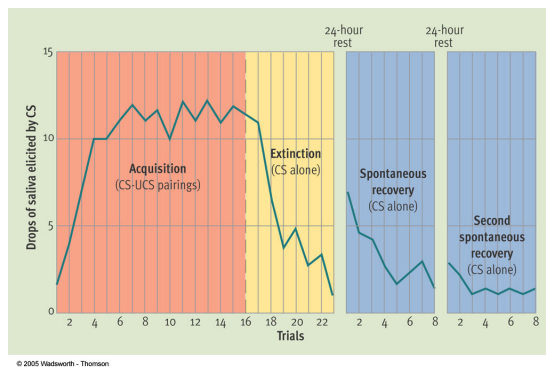
- Orange Juice?
- Vodka?
- Vomiting?
- OJ that makes you feel sick?
- Sick feelings after smelling OJ?

Little Albert

- White rat at first?
- Loud noise?
- Fear of loud noise?
- White rat after it provokes fear?
- Fear of white rat?

Pavlov's Dogs

- Meat powder?
- Bell when it produces salivation?
- Bell at first?
- Salivation to meat powder?
- Salivation to Bell?

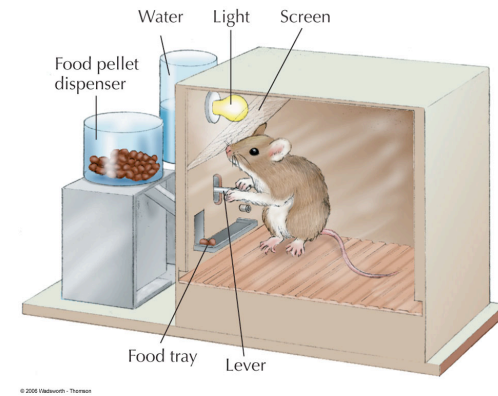


Other Classical Conditioning Concepts

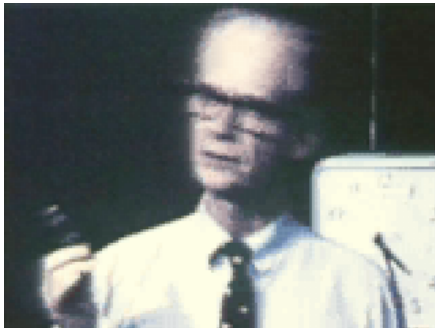
- Conditioned Fear
- Stimulus Generalization
- Stimulus Discrimination
- Higher Order Conditioning

Operant Conditioning

- Reinforcement
- Punishment



Skinner - Shaping

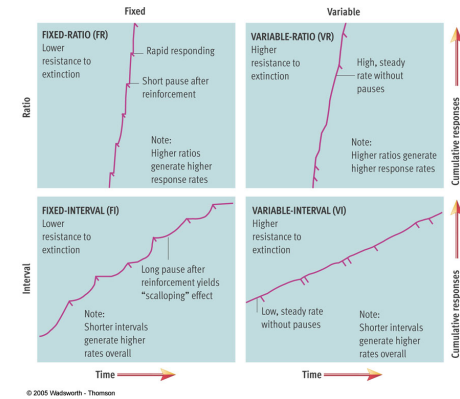


Basic concepts

- Acquisition
 - Shaping
- Extinction
- Stimulus control: Generalization and discrimination

Intermittent Reinforcement

- Resistance to extinction
- Types:
 - Ratio
 - Interval
 - Fixed
 - Variable



Reinforcement schedules: Examples

- a maid may take a break after cleaning three rooms
- watching shooting stars at night
- a teenager receives an allowance every Sunday
- a baseball player who gets a hit approx. every third time at bat
- checking the oven to see if the cookies are done
- a blueberry picker receives \$1 after filling 5 pint boxes
- a charity gets a donation for about every 10 phone calls it makes
- calling a garage mechanic to see if your car is fixed yet
- a student's grade increases one level for every book review
- going to the cafeteria to see if the next meal is available

- Negative reinforcement
- Punishment
- Escape learning
- Avoidance learning
- Phobias

- Positive reinforcement
- Negative reinforcement
- Punishment

Operant conditioning examples

1. A rat receives an electric shock every time it presses a bar. Before long, the rat starts pressing the bar thirty, and then fifty times an hour. How has the rat been conditioning?
2. Anna ate something that upset her stomach. Her friend suggested that she take a special mixture of peppermint tea and saltine crackers. After Anna tried the cure she felt better. How has Anna been conditioned?
3. If he doesn't do the dishes on Friday night, Joseph knows he won't be allowed to go out on Saturday. How is he being conditioned?

4. Tim is learning to play the trombone. His teacher notices that Tim likes baseball so she gives him a baseball card every time he plays well. How is Tim being conditioned?
5. Some hamsters jump on their wheels and begin running every time a light turns on. They learned that when they did not run on the wheels they received a blast of cold air. How were they conditioned to run on the wheels?
6. Jack came home later from his poker night. His wife doesn't complain to him, but doesn't sleep with him for the next several weeks. How is Jack being conditioned?

7. Every time her cat gets on the chair, Joyce picks him up and says "you know you're not supposed to be on the chair, you naughty cat," but the cat keeps doing it. What type of conditioning is Joyce attempting to use? What type of conditioning is she actually using?
8. Jeannie is upset because some kids at school are making fun of her. She complains to her mom of being sick every morning, and her mom often lets her stay home. How have the kids at school conditioned Jeannie? How has her mother conditioned her?
9. Fred's upstairs neighbors have a habit of having noisy arguments. Fred quickly finds that when the neighbors are yelling, he can bang on the pipes of his apartment with a hammer and the neighbors quiet down. How is Fred being conditioned? How are his noisy neighbors being conditioned?

Observational Learning

