LEARNING

Classical conditioning

Associative learning
- allows prediction (associate stimuli)
- respondent behavior

Pavlov's dogs (1904 Nobel prize)
* US (food) leads to:
  UR (salivation to food)
* CS (bell) becomes associated with US, leads to:
* CR (salivation to bell)

Elements of classical conditioning:
- Acquisition
- Extinction
- Spontaneous recovery
- Generalization
- Discrimination

Implications:
- Rescorla's research on predictability
- Garcia's research of biological predispositions
  * easier to condition food aversions to taste rather than sight or sound
  * easiest to condition behaviors that promote survival

Applications:
- Aversive conditioning—pairing a negative stimulus with a desired stimulus can help kick bad habits
- Drug addicts sometimes have cravings related to environment
- Classical conditioning of immune response (Ader & Cohen study)
- Extinction can help cure phobias

Operant conditioning

Associative learning
- consequences of behavior
- operant behavior

Thorndike's Law of Effect

Skinner
* Operant chamber (Skinner Box)
* Shaping
  - Successive approximations
* Discrimination

Reinforcement
- Positive reinforcement—pleasurable stimulus after a response (strengthens the response)
- Negative reinforcement—reduces or removes a negative stimulus (still strengthens the response)
- * Primary reinforcers (water, food, etc.) vs. secondary reinforcers (money, etc.)
- * Schedules of reinforcement
  - Continuous (rapid learning)
  - Partial (intermittent)
    - Ratio (certain # of behaviors)
      * Fixed (5 visits to restaurant = free meal)
      * Variable (slot machine)
    - Interval (certain period of time)
      * Fixed (ex. each day @ 3 p.m.)
      * Variable (ex. shooting stars)

Punishment
- Positive punishment (add bad thing)
- Negative punishment (take away good)
  *Both create avoidance behaviors (ex. lie—becomes neg. reinforced)

Latest contributions

Latent learning (Tolman)
- cognitive maps (demonstrate learning after award is given)

Intrinsic motivation (desire to do something for its own sake)
- When rewards are given for activity that is intrinsically rewarding, enjoyment declines (overjustification effect)

Extrinsic motivation (desire to do something for reward)
- Should be recognition for a job well done

Biological predispositions
- Easier to condition behaviors that match natural behavior

Legacy of Skinnerian thinking
- Criticism of deterministic philosophy, dehumanization, loss of personal freedom

Observational learning (modeling)
- Mirror neurons (biological basis)
  - promote empathy
- Bandura's Bobo doll study
  - Child watches adult, mimics
  - Increase of violence, aggression
- Media influence
  - Violent crimes—87% on TV, 13% real life
  - Violent action is correlated to viewing violence (media, video games) - leads to desensitization