

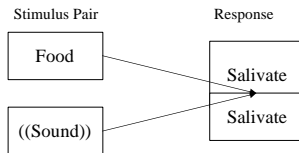
Slide 1: What is Learning?

- * Learning- a relatively durable change in behavior that is due to experience.
- * Common examples-
 - Language
 - Sports Mastery
 - Social Behavior
 - Reading etc
- * Types of Learning to be studied
 - Observational Learning (Bandura)- previous classes, a little here
 - Classical Conditioning (Pavlov)-
 - Operant Conditioning (Skinner)-

Slide 1

Slide 2: Classical Conditioning

- * a/k/a, Pavlovian Conditioning
- * background on Pavlov "Pavlov's Dog!"



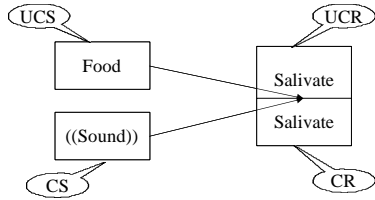
Slide 2

Slide 3: Pavlovian Terminology

- * Unconditioned Association- primary (natural) association between S-R
- Unconditioned Stimulus (UCS)- natural stimulus properties
 - Food
- Unconditioned Response (UCR)- natural response to UCS
 - Salivating
- * Neutral Stimulus (NS)- a stimulus unable to elicit a response.
- * Conditioned Association- acquired S-R where there previously was none
- Conditioned Stimulus (CS)- stimulus that acquire some of the stimulus properties of the UCS.
 - Sound
- Conditioned Response (CR)- response to a CS. Same or similar response to the UCR.
 - Salivating

Slide 3

Slide 4: Classical Conditioning



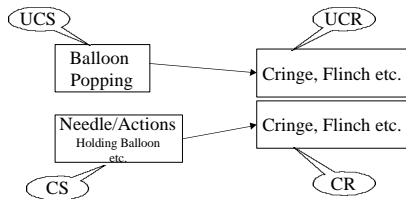
Slide 4

Slide 5: Pavlovian Terminology (cont.)

- Overhead
- * Acquisition- the formation of a new conditioned response tendency.
 - For example, salivate to tone
- * Trial- a single presentation of a stimulus “pair” to an organism
- * Extinction- the gradual weakening of the S-R bonds
- * Spontaneous Recovery- reappearance of an extinguished response after a period of non-exposure to the CS

Slide 5

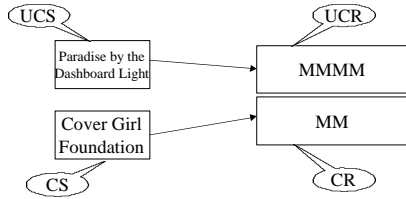
Slide 6: “Class”ical Conditioning



Slide 6

Slide 7: CC in Real Life- the CER

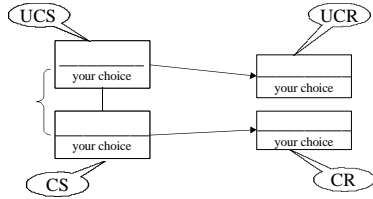
- * The "Conditioned Emotional Response" (CER)-
 - a classically conditioned emotional response
- * Katie B- a story of smelly young love



Slide 7

Slide 8: CER Continued

- * UT Psychology Building, Dogs, Highway Turnoffs etc.
- * Fears (Phobias) /// Your Life!!!



Slide 8

Slide 9: Important Factors in S-R binding strength

- * S-R bonds vary in strength (wax and wane, which allow us to adapt).
- * Temporal Contiguity- time association between two events
- * Neutral Stimulus Novelty- must be unusual or particularly powerful to be linked to UCS

Slide 9

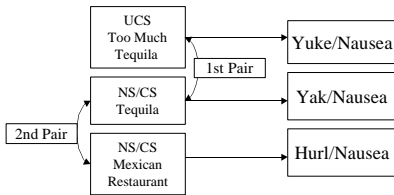
Slide 10: Generalization and Discrimination

- * **Stimulus Generalization-**
Little Albert- (CD clip)
 - * UCS- Loud Noise UCR- crying
 - * NS/CS- white rat CR- crying
 - * Generalization- gradual fear of furry objects

- * **Stimulus Discrimination-**
Grady (my dog) and the cars in driveway
 - * UCS- Owner UCR- happy dog behavior
 - * NS/CS- car engine CR- happy dog behavior
 - * Discrimination- only owner's car
CS= my car in driveway CR- happy dog behavior

Slide 10

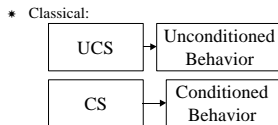
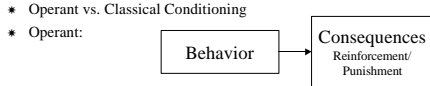
Slide 11: Higher Order Conditioning



Slide 11

Slide 12: Operant Conditioning (Skinner)

- * Much behavior is controlled by their consequences (future stimuli) not drawn out by event that precede it such as in classical conditioning.



Slide 12

Slide 13: Terms of Operant Conditioning

- * **Reinforcement**- consequences following behavior that increases the likelihood of that behavior being repeated in the future.
- * **Punishment**- consequences following behavior that decreases the likelihood of that behavior being repeated in the future.

Slide 13

Slide 14: Operant Terms Continued

- * **Rate of Response**- strength of learned response (remember no S-R bond as in CC, more of a R-S bond).
- * **Acquisition**- developing a new response tendency
- * **Extinction**- gradual weakening of response
 - What would cause this?
- * **Shaping**- the reinforcement of closer and closer approximations of the desired response.

Slide 14

Slide 15: Positive/Negative Reinforcement

- * **Positive Reinforcement**- increases response tendency by *presenting a rewarding stimulus*.
 - ◆ [Class exercise x2]
- * **Negative Reinforcement**- increases response tendency by *removing an aversive/unpleasant stimulus*.
 - ◆ [Class exercise x2]

Slide 15

Slide 16: Schedules of Reinforcement

- * **Schedules of Reinforcement**- a specific pattern of presentation of reinforcers over time.
 - ▣ Continuous Reinforcers
 - ▣ Intermittent Reinforcers

- * Which would be more resistant to extinction?

Slide 16

Slide 17: Schedules (cont.)

- * **Ratio Schedules**- rate of reinforcement determined by number of appropriate responses.
- * **Fixed Ratio [FR]**- circus prizes, raffle contests, piecework, mouse-clicking.
- * **Variable Ratio [VR]**- slot machines, internet surfing (?)

- * **Interval Schedules**- rate of reinforcement determined by first response after a time interval has passed.
- * **Fixed Interval [FI]**- checking email on university server that updates every 10 minutes.
- * **Variable Interval [VI]**- checking for slide notes on internet

Slide 17

Slide 18: Neg. Reinforcement & Punishment

- * **Quick Quiz**

- * **Negative Reinforcement**- increases response tendency by *removing an aversive/unpleasant stimulus*.
- * **Punishment**- consequences following behavior that decreases the likelihood of that behavior being repeated in the future.
 - ◆ Anything that leads to a weakened response tendency

Slide 18

Slide 19: Punishment

- * Effective use of:
- * Apply swiftly after unwanted behavior
- * Severe enough to be effective
- * Consistent application after unwanted behavior
- * Explain punishment
- * Minimize physical punishment, WHY?
 - general suppressive effect.
 - modeled (observational learning) --> future aggression.
 - often strong emotional backlash focused on source.

Slide 19
