

## LEARNING

**Classical Conditioning**—a type of learning style in which a previously neutral stimulus acquires the ability to elicit a response that was originally elicited by another stimulus.

- Developed by Ivan Pavlov around 1900.
- Russian physiologist
- Accidentally founded “psychic reflexes”
- Worked with dogs
- Discovered the dogs would salivate to a neutral stimulus like a bell
- Stimulus—response
- Automatic or involuntary reflexes

Unconditioned Stimulus (UCS) – A stimulus that automatically elicits a response. (Like food)

Unconditioned Response (UCR) – A response to an unconditioned stimulus. (Like salivating)

Conditioned Stimulus (CS) – A previous neutral stimulus that can now elicit a response (Like a bell)

Conditioned Response (CR) – A response to a conditioned stimulus (Like salivating to a bell)

Conditioned fears are often the result of Classical Conditioning.

### Basic Processes in Classical Conditioning

**Acquisition**- the initial stage of learning something; in Classical Conditioning, it occurs by pairing an Unconditioned Stimulus with a Neutral Stimulus (like meat and a bell).

**Extinction**- the gradual weakening and disappearance of a conditioned response tendency

In classical conditioning, the conditioned stimulus is presented alone.

Dental assistant with dentist drill

**Spontaneous recovery**- reappearance of an extinguished response after a period of nonexposure to that stimulus. Taking a break and getting the response back.

**Stimulus Generalization**- responds the same way to similar stimuli(bridge phobia)

**Stimulus Discrimination**- responds only to the original stimulus

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## OPERANT CONDITIONING

- **B.F. Skinner**
- **Form of learning in which responses come to be controlled by their circumstances**
- **Responses are influenced by outcomes**
- **Voluntary responses**

**B.F. Skinner called this reinforcement**—a response is strengthened because it leads to a reinforcer.

- Work—paycheck
- Money in machine—soda
- Tell jokes—laughter

### Basic Processes in Operant Conditioning

**Acquisition**—once again, the initial stage in learning. Responses that are reinforced are conditioned.

Operant conditioning responses go through a process called **shaping** which brings about the response over time

**Extinction**—same definition as in Classical Conditioning.

**Reinforcement must be done immediately after the response.**

**Primary reinforcers**—events that are reinforced because they satisfy a biological need

- Food, water, warmth, sex

**Secondary reinforcers**—events that are reinforced because they are associated with primary reinforcers

- Money, good grades, flattery, praise, material things
- Depend on tastes and learning

### **Positive vs. Negative Reinforcement**

**Positive reinforcement**—Presentation of something pleasant.

1. Student asks a good question
2. teacher praises student
3. student asks more questions

**Negative reinforcement**—Removal of something unpleasant.

1. student turns in homework on time
2. teacher stops criticizing student
3. student increasingly turns in homework on time

**Punishment**- Presentation of something unpleasant or the removal of something pleasant.

1. student interrupts teacher
2. teacher verbally reprimands student
3. student stops interrupting teacher

Rat hits lever; gets food= **positive reinforcement**

Rat in a box where the floor has a small electrical charge; rat hits lever, electricity stops= **negative reinforcement**

**Escape learning**—you get out of a situation to avoid negative consequences

- Seat belt buzzer-you put on seat belt.

**Avoidance learning**—you put on seat belt before you start car.

**\*\*\*Reinforcement is defined in terms of its consequences.\*\*\***

**Punishment**—negative consequence for a response

- Spanking
- Hangovers
- You wear something you think is stylish and others tell you that you look like a dork

### **Observational Learning**

Let's look at other types of learning

- Theory of **Albert Bandura—Social Learning Theory**
- We learn from observing **models**.
- You take a class that another took. They had a bad experience, you go into the class with bad assumptions

#### **BOBO DOLL STUDY**

- Child observes a parent kicking and punching a clown doll; child follows suit

### **Basic Processes**

- **Attention**—you pay attention to another person's behavior
- **Retention**—you store a representation in memory
- **Reproduction**—go from memory to behavior
- **Motivation**—you need an occasion to perform the behavior