

[ Learning Theories:  
Behaviorism ]

Dr. K. A. Korb  
JETS

[ Learning Goals ]

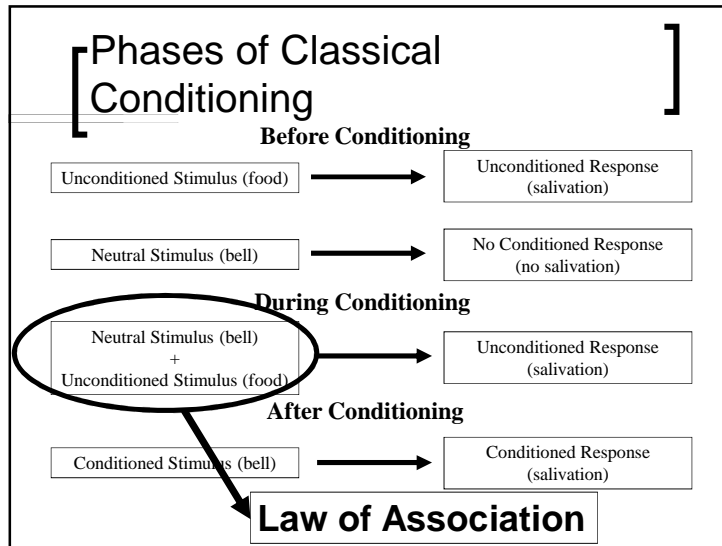
- Understand classical conditioning and its relevance to teaching
- Understand operant conditioning and its relevance to teaching

[ Behaviorism Overview ]

- **Behaviorism** definition of learning: Relatively permanent change in *behavior* as the result of experience.
- There are two types of behaviorism:
  1. **Classical Conditioning:** *Association of involuntary* responses with new stimuli
  2. **Operant Conditioning:** *Voluntary* behavior is strengthened or weakened by *punishment or rewards*

[ Involuntary Stimuli ]

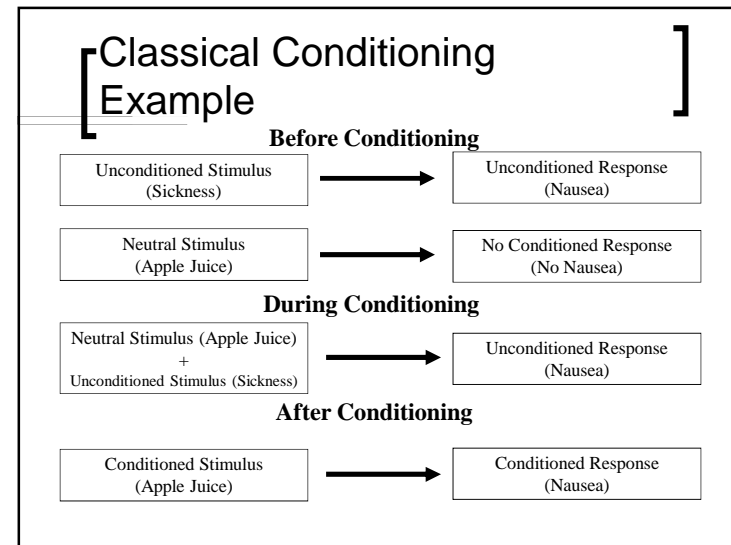
- Salivation
- Nausea
- Increased or decreased heart rate
- Reflex (e.g., jumping)
- Emotions (e.g., fear)

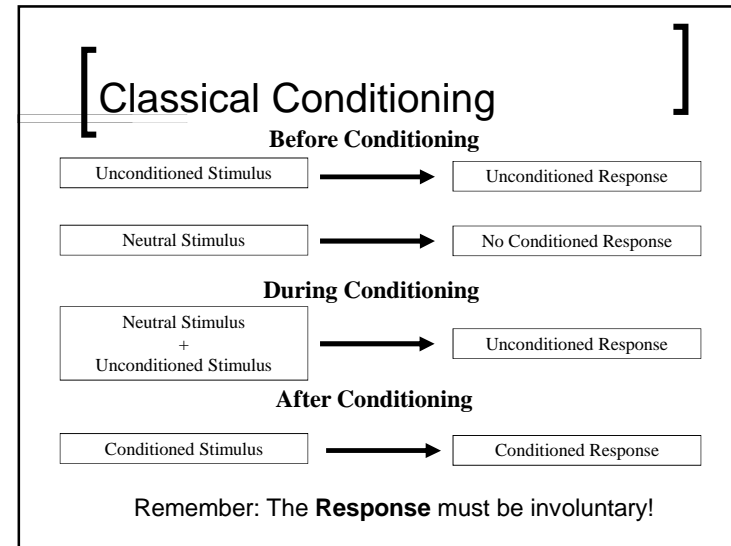
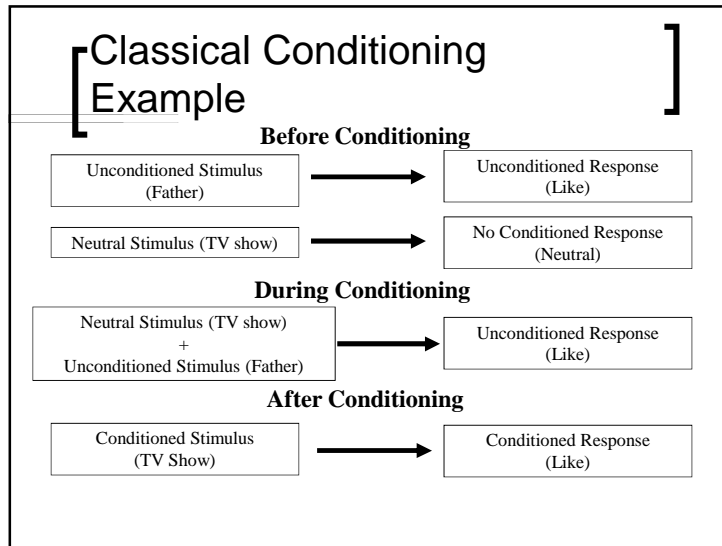


### Classical Conditioning

	<b>Stimulus:</b> Event that activates a behavior	<b>Response:</b> Reaction to stimulus
<b>Unconditioned:</b> Unlearned/Involuntary	<b>Unconditioned Stimulus</b>	<b>Unconditioned Response</b>
<b>Neutral:</b> No natural association	<b>Neutral Stimulus</b>	
<b>Conditioned:</b> Learned by association	<b>Conditioned Stimulus</b>	<b>Conditioned Response</b>

- ### Classical Conditioning
- **Unconditioned Stimulus:** Stimulus that triggers unconditioned response
  - **Unconditioned Response:** Unlearned response to an unconditioned stimulus
  - **Neutral Stimulus:** Stimulus that does not naturally elicit a response
  - **Conditional Stimulus:** Neutral stimulus that comes to evoke a classically conditioned response
  - **Conditioned Response:** Learned response to a classically conditioned stimulus





- ### Classical Conditioning: Educational Implications
- Pupil harassed at school
    - Pupil feels bad when harassed
    - Pupil associates being harassed and school
    - Pupil feels bad when she thinks of school
  - Student has caring instructor
    - Student feels good when with instructor
    - Student associates feeling good with school
    - Student feels good when he thinks of school

- ### Classical Conditioning: Educational Implications
- Classical Conditioning relates mostly to learning emotional behavior in an educational context
  - After repeated associations, previously neutral activities will become associated with emotions (happy, sad, anxious, angry, etc.)
  - Based on their experiences with Christians and the church, people learn to associate certain emotions with Christianity that can help or hinder their walk of faith
    - We must treat others – particularly non-Christians – so that they associate the fruits of the spirit with Christianity

[ Operant Conditioning ]

- **Law of effect:** Voluntary responses followed by positive outcomes are repeated while those followed by negative outcomes are not
- **Operant Conditioning:** Learn to behave in ways that result in reinforcement

[ Operant Conditioning ]

		<b>Behavior (Response)</b>	
		Reinforcement: Repeat Behavior	Punishment: Behavior Ends
Outcome (Stimulus)	Positive: Presentation	Positive Reinforcement	Positive Punishment
	Negative: Removal	Negative Reinforcement	Negative Punishment

[ Operant Conditioning ]

- **Positive Reinforcement:** Give a sweet to answer a question in class
- **Negative Reinforcement:** Allow a student who earned an A to skip an assignment
- **Positive Punishment:** Children who are late to class have to do frog jumps
- **Negative Punishment:** Remove points for students who plagiarize

[ Operant Conditioning ]

- **Reinforcement:** Increase likelihood of a behavior
  - **Positive Reinforcement:** Strengthens behavior by presenting a pleasant stimulus
  - **Negative Reinforcement:** Strengthens behavior by removing an unpleasant stimulus
- **Punishment:** Decrease likelihood of behavior
  - **Positive Punishment:** Weakens behavior through presentation of unpleasant stimulus
  - **Negative Punishment:** Weakens behavior through removing a pleasant stimulus

**[ Operant Conditioning ]**

- Examine the behavior:
  - Will the behavior continue? → Reinforcement
  - Will the behavior stop? → Punishment
- Examine how the environment influences behavior:
  - Does the environment give something? → Positive
  - Does the environment take something away? → Negative

**[ Operant Conditioning ]**

Response	→	Stimulus	Type
<b>+</b> Study	→	Good grade	<b>+</b> Positive Reinforcement
<b>+</b> Homework	→	Not sweep compound	<b>-</b> Negative Reinforcement
<b>-</b> Disrespect Teacher	→	Sent to headmaster	<b>+</b> Positive Punishment
<b>-</b> Cheat on homework	→	No break-time	<b>-</b> Negative Punishment

**[ Operant Conditioning ]**

- At JETS, the lecturer says that if you work hard on your other assignments, you will not have to take the exam.
  1. An employee who reports malpractices receives verbal abuse.
  2. An employee who volunteers for a more difficult duty misses out on unexpected "welfare."
- Rachel gets an award at the memory verse contest, so she continues to memorize bible verses.

**[ Operant Conditioning ]**

Response (Person)	→	Stimulus (Environment)	Type
<b>+</b>	→	<b>+</b>	Positive Reinforcement
<b>+</b>	→	<b>-</b>	Negative Reinforcement
<b>-</b>	→	<b>+</b>	Positive Punishment
<b>-</b>	→	<b>-</b>	Negative Punishment

## Operant Conditioning: Educational Implications

- Positive Reinforcement
  - **Premack Principle:** More desired activity is a positive reinforcer for a less desired activity
- Observe students to determine most effective reinforcer

## Operant Conditioning: Educational Implications

- Physical Punishment
  - Advantages
    - When used carefully and thoughtfully, punishment provides information about inappropriate behaviors
  - Disadvantages
    - Obedience is not necessarily permanent
    - It can become physical abuse
    - Frequent, harsh punishment can lead to more aggressive, anti-social behavior

## Operant Conditioning

- Strengths
  - Effective for short-term behavior modification
  - Straight-forward and easy to implement
- Criticisms
  - Does not address cognitive processes
  - Behavior ends when reinforcement ends
  - May hinder intrinsic motivation

## Behaviorist Theories

- | Classical Conditioning  | Operant Conditioning   |
|---|--|
| ■ Involuntary Responses   | ■ Voluntary Responses  |
| ■ Law of Association  | ■ Law of Effect  |
| ■ A conditioned stimulus becomes associated with an unconditioned stimulus that results in a conditioned response | ■ A behavior is followed by a reinforcer or punishment that influences future behavior |