Classical Conditioning Paradigm
Also Called Pavlovian Conditioning

Psychology 390
Psychology of Learning
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Observers of CC before Pavlov

- Whytt (1763)
  - Was a Scott
  - Noted that the sight or even the recalled idea of food causes an uncommon flow of spittle into the mouth of a hungry person.
- Bernard (1872)
  - Noted salivation in horses rather than dogs.

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Pavlov

- Was a Russian Physiologist.
- Before working on CC he already had won a Nobel prize for his work on digestion.
- Primarily worked with dogs.
- Would surgically make a hole in the dog’s stomach and monitor digestive fluids.

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Design

- Put food in the dog’s mouth and monitor the amount of salivation and digestive juices.
- Ran into a problem.
- Dogs began to salivate when it saw Pavlov and before food was placed in the mouth.
- Had to figure out what was going on before going back to work on digestion.

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Results

- If you take an arbitrary stimulus (one that does not evoke an innate or automatic response).
  - A BELL
  - Pair it with a non-arbitrary stimulus, (one that causes an automatic response).
  - FOOD
- The pairing will evoke a response to the arbitrary stimulus (Bell) that the organism has not made before.

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Pavlov gave the Arbitrary and Non-Arbitrary Stimuli Names.

- Called the arbitrary stimulus (Bell) the Conditioned Stimulus.
- Called the non-arbitrary stimulus (Food) the Unconditioned Stimulus.
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Example

• UCS → UCR
  Food → Salivation

• CS → UCS → UCR
  Bell → Food → Salivation

• CS → CR
  Bell → Salivation

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Other Examples of CC

Air puff → Blink
Tone → Air puff → Blink
Tone → Blink

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Other Examples of CC

Spanking → Pain
Parent → Spanking → Pain
Parent → Pain

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Other Examples of CC

Emetine → Nausea/Vomiting
Alcohol → Emetine → N/V
Alcohol → Nausea/Vomiting

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Bechterev (1857-1927)

• Developed a method motor conditioning where the CR was muscular rather than glandular.

• Became more popular because you did not have to do surgery.
Bechterev (1857-1927)

- Like others, argued that mentalistic interpretations of psychological events were not necessary.
- Argued that high level psychological processes such as thinking consisted of lower level sensory-motor reflexes.
- Had less influence than Pavlov but advocated many principles later proposed by the behaviorists.

General Points to Note About CC

1. CS must precede the UCS

When UCS precedes the CS is called backward conditioning – doesn’t work well.

2. CR Does Not Equal the UCR

- Pavlov found the CR was not always the same as UCR.

Dogs salivate but the content is different.


- Occurs in:
  - Dogs, rats, human fetuses, neurons

4. Can Appear in Many Environments.

- Classrooms
- Restaurants
- Woods

Is a S - S paradigm