

# Classical Conditioning

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## WHAT IS LEARNING?

- **Learning:** a relatively permanent change in behavior due to experience
  - Example: the difference of results between a pre-test and a post-test

## THE RISE OF BEHAVIORISM

- **Behaviorism:** rejected structuralism/functionalism
- Must study observable and measurable behaviors
- Assumptions (**principles**):
  - Behavior has causes and follows psychological “laws” (determinism)
  - Environment affects behavior
  - Explanations using WNDs (wants, needs, and desires) are useless (you can't measure wants, needs, or desires)

## WHAT IS CLASSICAL CONDITIONING?

- **Classical conditioning:** an association between two events or stimuli in close time such that one predicts the occurrence of the other
  - Does Pavlov ring a bell? Hahaha
  - Example: it's noisy outside; Suftka looks outside; he sees girls holding up signs--- homecoming voting

## PAVOLV'S CLASSIC STUDY

- Key terms:
  - **Unconditioned stimulus (UCS):** any biological relevant (to an animal) stimulus that produces a reflex response

- o Example: the dog seeing food or treats
- **Unconditioned response (UCR):** Whatever the response is the unconditioned stimulus
  - o Example: the dog drooling
- **Conditioned stimulus (CS):** This is the stuff that we are going to learn. Any stimulus that is previously neutral; it doesn't produce a reflex response; but it produces attention
  - o Example: the bell that Pavlov used
- **Conditioned response (CR):** is the behavior produced by the conditioned stimulus
  - o Example: the dog associating the bell with food
- - *\*Many strong emotional experiences are classically conditioned responses--- "pull out a blank sheet of paper" is associated with a quiz*

#### **POP QUIZ Example**

- UCS: the pop quiz
- UCR: panic, anxiety, nervousness
- CS: "Take out a blank sheet of paper and put your name on top"
- CR: panic response

#### **KEY CONCEPTS IN CC**

- **Acquisition:** pairing the CS with the UCS. This is the learning phase. Training and conditioning
  - **Generalization/discrimination:** how well you learned the response.
    - o Example of generalization: ringing a door bell instead of the usual bell and the dog still understands
      - If you get stung by a bee, you will also fear wasps and hornets
    - o Example of discrimination: ringing a buzzer instead of the usual bell and the dog doesn't understand

- Police Dog has to be able to discriminate between its handler and other people
- **Extinction:** present the CS alone. A great decrease in anxiety.  
Decrease of the conditioned response
- **Spontaneous recovery:** after time passes (weeks, months, years) and someone presents the CS alone, you will have a partial response
  - Example: drug relapse
- **QUESTION: WHAT GETS LEARNED IN CLASSICAL CONDITIONING?**
- **Contiguity** (Pavlov's perspective) vs.
  - **Contiguity:** next to
- **Contingency** (Rescorla & Wagner) Debate
  - **Contingency:** predictability

### **PARADIGMS IN CC**

- **Forward-Delay Procedure: PAVLOV**
  - CS and UCS overlap each other (CS is started first but they are ON at the same time)
- **Forward-Trace Procedure: PAVLOV**
  - There is a delay between the CS and the UCS
  - Conditioning gets harder: time matters!
- **Backwards Procedure: RESCORLA & WAGNER**
  - UCS and CS overlap each other (UCS is started first but they are ON at the same time)
  - Conditioning nearly impossible: prediction matters!
    - IT'S NOT ABOUT TIME, IT'S ABOUT PREDICTION