

# LEARNING

Terms: Pages 251-252 (No additional terms)



# What is learning?

**A relatively permanent change in an organism's behavior due to experience**

## How do we learn?

**Associative learning- learning that certain events occur together**

**Observational learning- learning from others' experiences and examples**

# Classical Conditioning

A type of learning in which an organism comes to associate stimuli.

**Unconditioned Stimulus (UCS):** a stimulus that naturally and automatically triggers a response.



**Unconditioned Response (UCR):** the unlearned, naturally occurring response to the UCS.



# Classical Conditioning

**Conditioned Stimulus (CS):** an originally neutral stimulus (**NS**) that, after association with the UCS, comes to trigger a response.

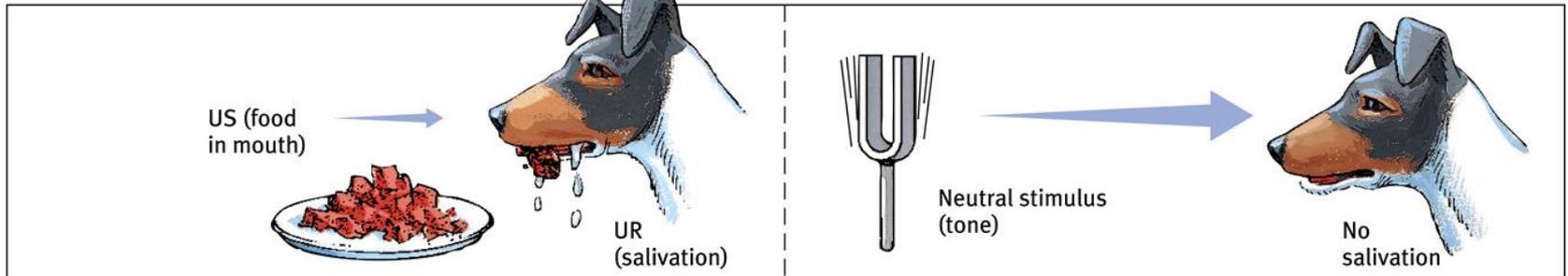
**Conditioned Response (CR):** the learned response to a previously neutral stimulus.





# Pavlov's Experiments

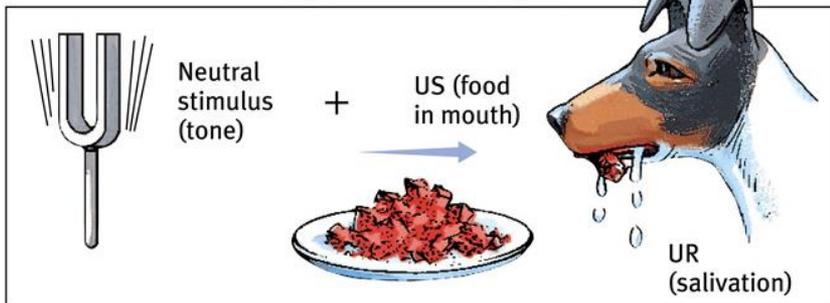
## BEFORE CONDITIONING



An unconditioned stimulus (US) produces an unconditioned response (UR).

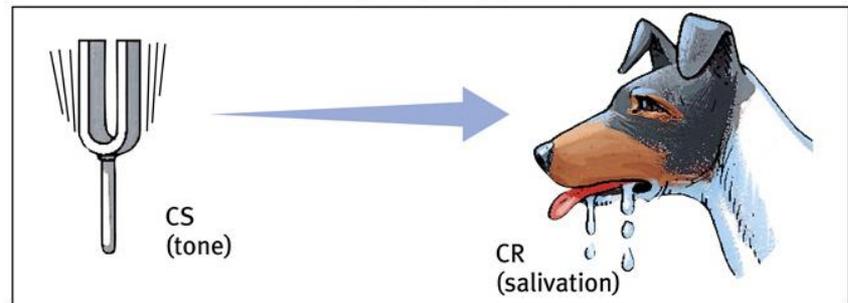
A neutral stimulus produces no salivation response.

## DURING CONDITIONING



The unconditioned stimulus is repeatedly presented just after the neutral stimulus. The unconditioned stimulus continues to produce an unconditioned response.

## AFTER CONDITIONING

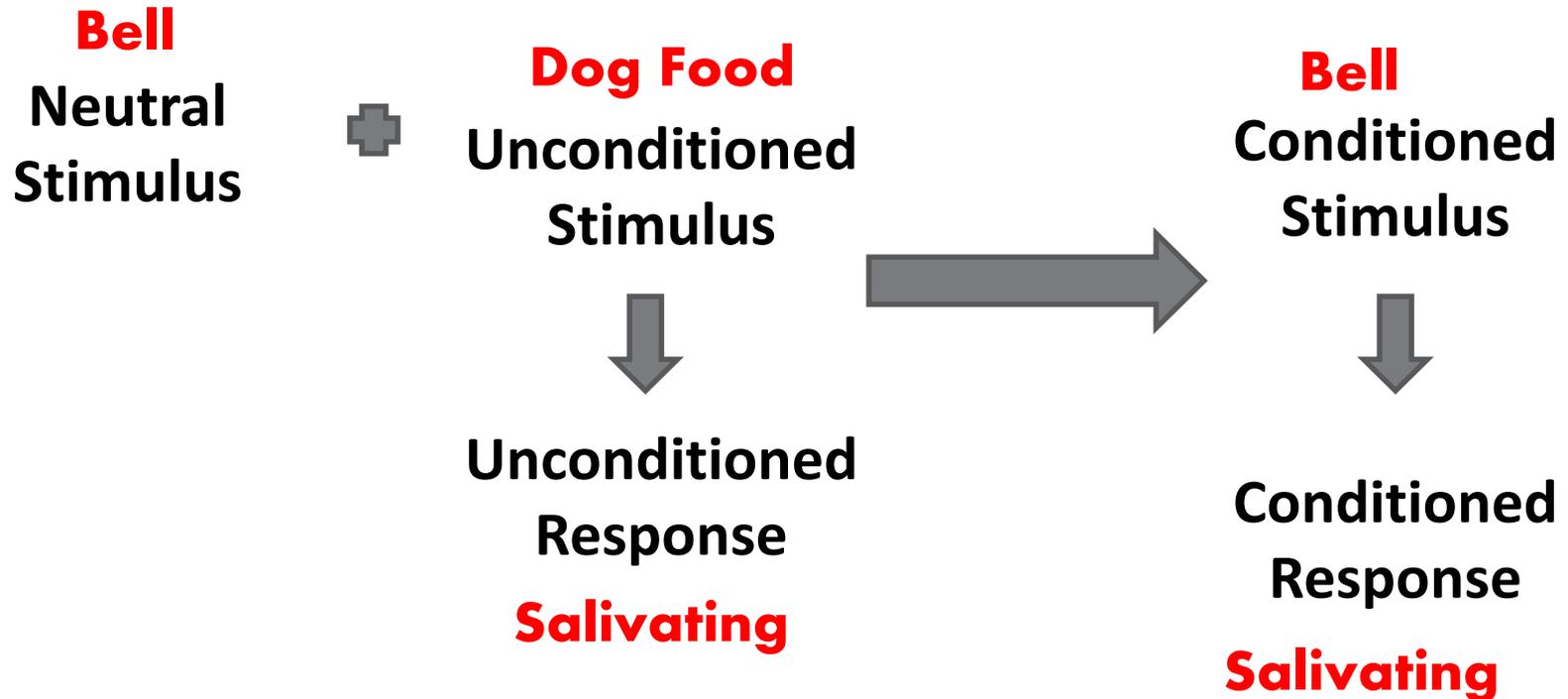


The neutral stimulus alone now produces a conditioned response (CR), thereby becoming a conditioned stimulus (CS).

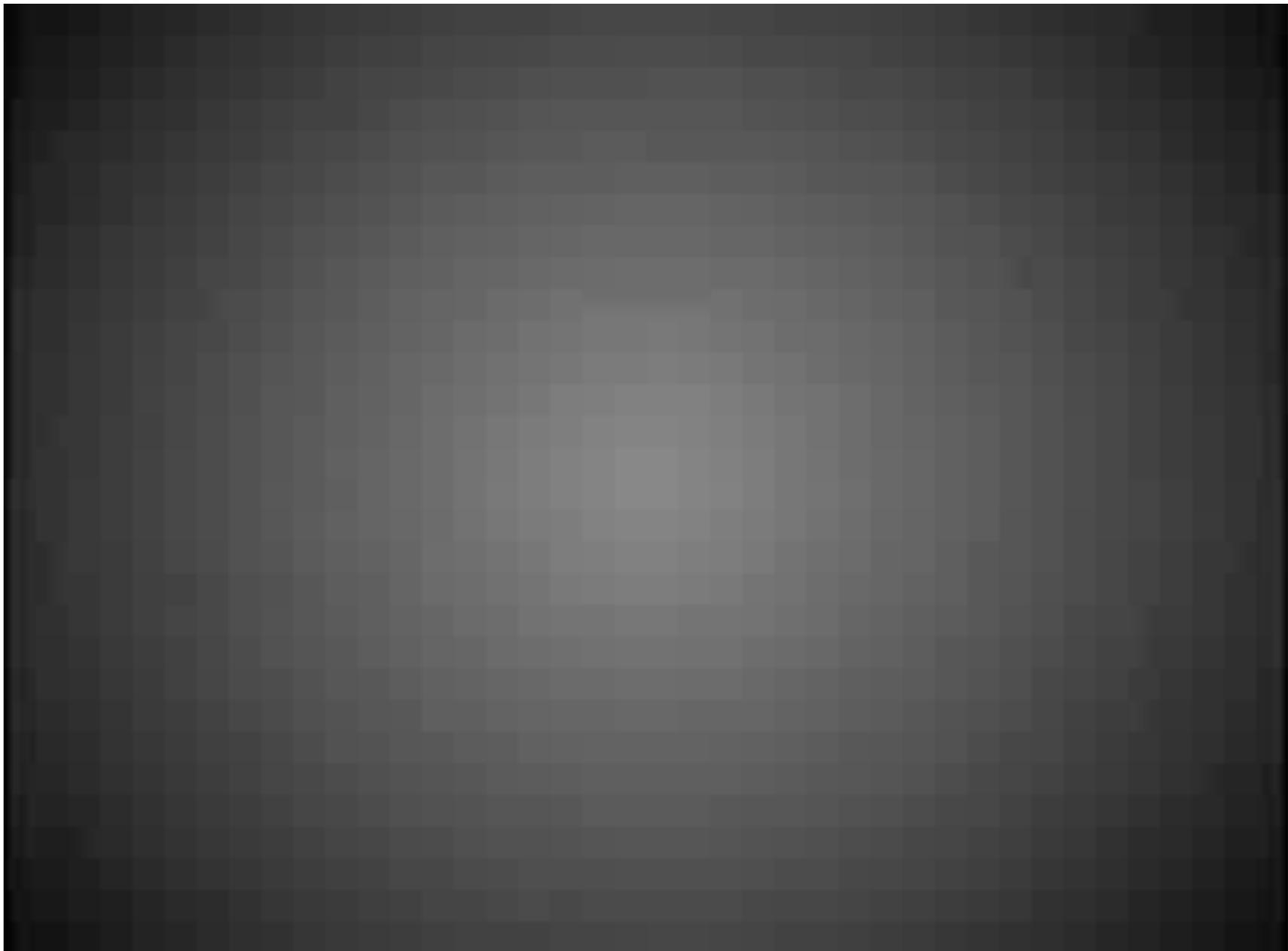


# Classical Conditioning

## Pavlov's Experiment







# Pavlov's Classical Conditioning in a dorm room



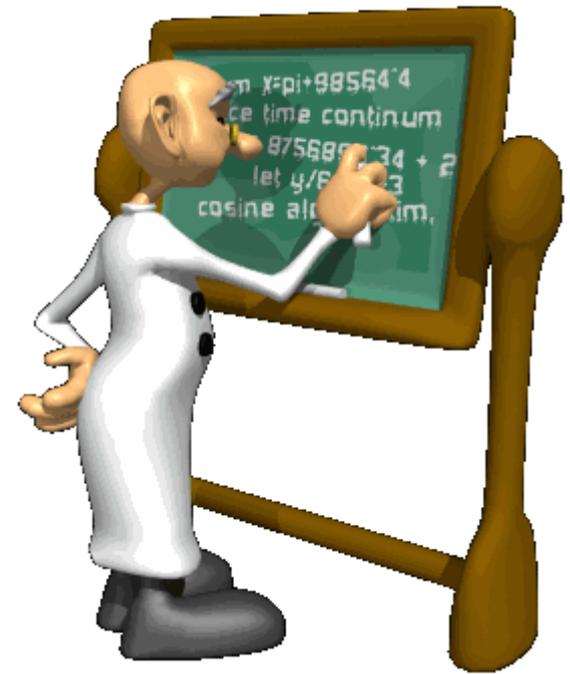
## **2a. Scenario 1 - The Troublesome Shower** –

Martin likes to take a shower in the men's locker room after working out. During one such shower, he hears someone flushing a nearby toilet. Suddenly, boiling hot water rushes out of the shower head, causing Martin serious discomfort. As he continues the shower, he hears another toilet flush and immediately jumps out from under the shower head.

**2b. Scenario 2 – The Water Show** – Jeanette was happy when she heard about her family’s plan to go to a water sports show. Then she heard the weather report, which predicted temperatures exceeding 100 degrees. Jeanette suspected that the weather would be hard to bear, but she went to the show. As she watched the water skiers perform taxing routines to the blaring organ music, she got more and more sweaty and uncomfortable. Eventually, she fainted from the heat. After the family outing, Jeanette could never again hear organ music without feeling a little dizzy.

Pavlov spent the rest of his life outlining his ideas. He came up with 5 critical terms that together make up classical conditioning.

- Acquisition
- Extinction
- Spontaneous Recovery
- Generalization
- Discrimination



# Acquisition

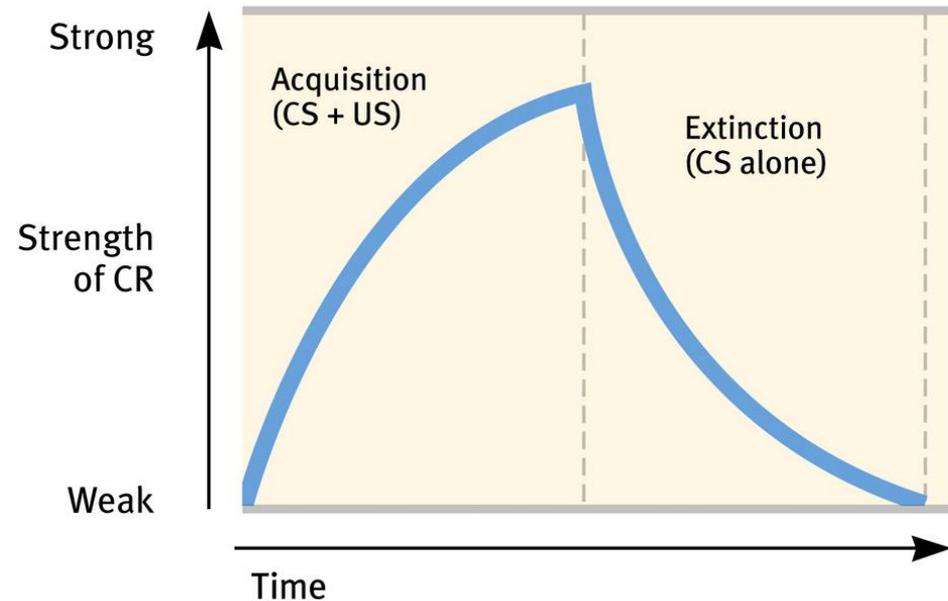
- The initial stage of learning.
- The phase where the neutral stimulus is associated with the UCS so that the neutral stimulus comes to elicit the CR (thus becoming the CS).

Does timing matter?

- The CS should come before the UCS
- They should be very close together in timing.

# Extinction

- The diminishing of a conditioned response.
- Will eventually happen when the UCS does not follow the CS.



Is extinction permanent?

# Spontaneous Recovery

The reappearance, after a pause, of an extinguished conditioned response

