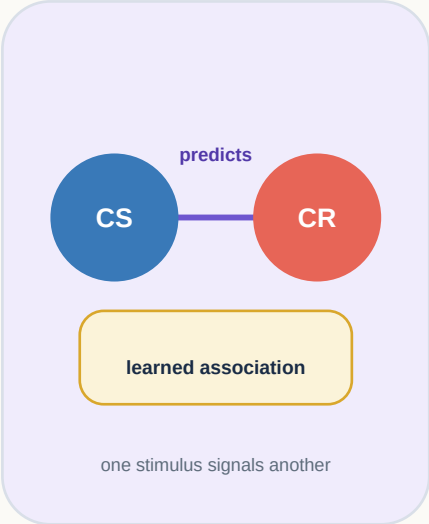
AP PSYCHOLOGY | UNIT 3

TOPIC 3.7

Classical Conditioning

A neutral stimulus becomes meaningful when it reliably predicts a stimulus that already produces a response.



FOUR KEY LABELS

UCS
natural stimulus

UCR
unconditioned response

CS
learned signal

CR
learned response

BY THE END, YOU SHOULD BE ABLE TO...

1. Label the UCS, UCR, neutral stimulus, CS, and CR in a scenario.
2. Explain acquisition, extinction, recovery, generalization, and discrimination.
3. Apply conditioning to emotions, taste aversion, preparedness, and therapy.

BIG IDEA

Classical conditioning is about prediction between stimuli. The conditioned stimulus comes to signal the unconditioned stimulus.

1 Label before and after learning

Start with what naturally causes the response, then identify the formerly neutral predictor.

BEFORE CONDITIONING

UCS: FOOD

naturally causes

→

UCR: SALIVATION

unlearned response

NS: BELL

no target response

DURING ACQUISITION

BELL (NS) + FOOD (UCS) → SALIVATION (UCR)

Repeated, predictive pairing builds the association.

AFTER CONDITIONING

CS: BELL

learned predictor

→

CR: SALIVATION

learned response

WHAT HAPPENS TO THE RESPONSE?

ACQUISITION

CS predicts UCS

response grows

EXTINCTION

CS appears alone

CR weakens

SPONTANEOUS RECOVERY

pause after extinction

CR may return

EXAM ROUTINE

1. Find the natural pair (UCS -> UCR). 2. Find the learned signal (CS). 3. Name the learned response (CR).

2 Patterns, applications, and limits

Conditioned responses may spread, narrow, weaken, return, or reflect biological preparedness.

GENERALIZATION VS DISCRIMINATION

GENERALIZATION

Similar stimuli produce a similar CR. Fear of one white rat spreads to other furry objects.

DISCRIMINATION

Similar stimuli produce different responses. A dog salivates to one tone but not another.

IMPORTANT APPLICATIONS

EMOTIONAL

fear and anxiety can become conditioned responses

COUNTER-CONDITIONING

pair a feared stimulus with a new, incompatible response

TASTE AVERSION

taste + illness can produce avoidance after one trial

BIOLOGICAL PREPAREDNESS

Evolution may make some associations easier to learn. Taste aversion can form after one pairing and even with a delay.

DO NOT CONFUSE

EXTINCTION

Learned CR weakens because the CS no longer predicts the UCS.

HABITUATION

Response decreases after repeated stimulation; no paired-stimulus association is required.

SCENARIO CLUE

Paired stimuli point to classical conditioning. A response fading to one repeated stimulus points to habituation.