

Learning

Learning about Stimuli

- our response to unchanging stimuli decreases over time
- *habituation*: adaptation is a simple form of learning
- It can occur in relation to sights, sounds, smells, tastes or touches.
- Sensation, it is through habituation that you eventually lose awareness of your glasses or your watch, and that after being in a room for a while, you no longer smell its odour or hear its ticking clock.
- Habituation is especially important for adapting to initially startling but harmless events
- After our response to a stimulus has habituated, it may quickly return if the stimulus changes.
- dishabituation: Reappearance of your original response when a stimulus changes is called.
- Habituation and sensitisation provide organisms with a useful way of adapting to their environments, but notice that these kinds of learning result from exposure to a single stimulus.
- Habituation and sensitisation are referred to as **non-associative learning**.
- After our response to a stimulus has habituated, it may quickly return if the stimulus changes.
- Second type of learning is **sensitisation; appears as an increase in responsiveness to a stimulus**.
- Occurs when we show exaggerated response to unexpected, potential threatening sight or sounds.
- Provides a way to adapting to their environment, but kinds of learning is from exposure to a stimulus.

How habituation occurs:

- Opponent process theory, new stimulus events, arouse strong positive and negative emotions- disruption in the individuals physiological state of equilibrium or homeostasis
- Disruption triggers an opposite or opponent new stimulus events.
- Habituation occurs because the initial, pleasurable reaction, followed by and increased opposing reaction that counteracts, the individual becomes habituated.
- Explains drug tolerance and accidental overdoses
- The counteracting process allowing the user to tolerate larger drug doses. Supposing the person takes this stimulus is present.
- Strength of the drug effects will remain the same, and the counteracting process may be weaker
- The opponent process explanation of drug abuse are also based on learned association between environmental stimuli and opponent process,
- Associative learning is called classical conditioning.

CLASSICAL CONDITIONING LEARNING SIGNALS AND ASSOCIATIONS

PAVLOV'S DISCOVERY

- First state of the digestion process salivation or drooling when there's no food present.

- Pavlov experimented why salivation occurs with no physical cause.
- He diverted a dog's saliva into a container so that the amount of salivation could be measured precisely.
 1. first phase of the experiment, Pavlov and his associates confirmed that when meat powder was placed on the dog's tongue, the dog salivated, but it did not salivate in response to a neutral stimulus
- two basic components for Pavlov's experiment:
 - (1) a reflex, which is a quick, automatic response to a stimulus, and (2) a neutral stimulus that does not trigger that reflex.
 - second and third phases of the experiment that showed how one type of associative learning can occur. In the second phase, the tone sounded, and then a few seconds later, meat powder was placed in the dog's mouth.
 - pairing – the tone followed immediately by meat powder – was repeated several times.
 - classical conditioning – a procedure in which a neutral stimulus is repeatedly paired with a stimulus that already triggers a reflexive response. As a result of this pairing, the previously neutral stimulus itself comes to trigger a response that is similar to that reflex.
 - The stimulus that elicits a response without conditioning, such as the meat powder in Pavlov's experiment, is called the unconditioned stimulus (UCS).
 - automatic reaction to this stimulus is called the unconditioned response (UCR).
 - neutral stimulus is repeatedly paired with the unconditioned stimulus, it becomes a conditioned stimulus (CS),
 - response it comes to elicit is called the conditioned response (CR).

EXTINCTION AND SPONTANEOUS RECOVERY

2. Continued pairings of a conditioned stimulus with an unconditioned stimulus strengthen conditioned responses.
3. if the conditioned stimulus continues to occur without being followed at least occasionally by the unconditioned stimulus, the conditioned response will gradually disappear.
4. fading process is known as extinction
5. extinction not accurate, conditioned simply suppressed by a counteracting tenancy not to respond.
6. Two kinds of evidence support the conclusion that extinction suppresses but does not destroy a conditioned response.
7. *conditioned response* will return to its original strength after as few as one or two trials.
8. This reconditioning process occurs much faster than the original conditioning did, suggesting that extinction did not entirely erase the association between the conditioned stimulus and the conditioned response
9. temporarily reappear if the conditioned stimulus occurs again. This phenomenon is called **spontaneous recovery**, the temporary reappearance of a conditioned response after extinction (and without further CS–UCS pairings).
10. longer the time between extinction and the reappearance of the CS, the stronger the recovered conditioned response