

Classical Conditioning

Background

Classical Conditioning works on the basis that learning occurs due to a stimulus-response pattern of behaviour. It suggests that we learn by **associating** one thing with another and if this pairing is repeated enough times the pattern of behaviour is learned.

Ivan Pavlov (1849-1936) a Russian physiologist received a Nobel Prize for his work on digestion in dogs and in 1904 he stumbled across the phenomenon that is recognised today as Classical Conditioning. His famous experiment explains how unconditioned stimuli can be paired with a neutral stimulus eventually becoming a conditioned stimulus. Experiments like these help our understanding of the acquisition and treatment of phobias (as seen in with the case of Little Albert, by **Watson & Rayner, 1920**).

Evidence

In 1927 **Pavlov** studied the concept of the conditioned reflex by training a hungry dog to salivate to the sound of a bell, which was previously paired with the sight of food. This influential study in Psychology emphasised the importance of conditioning in learning.

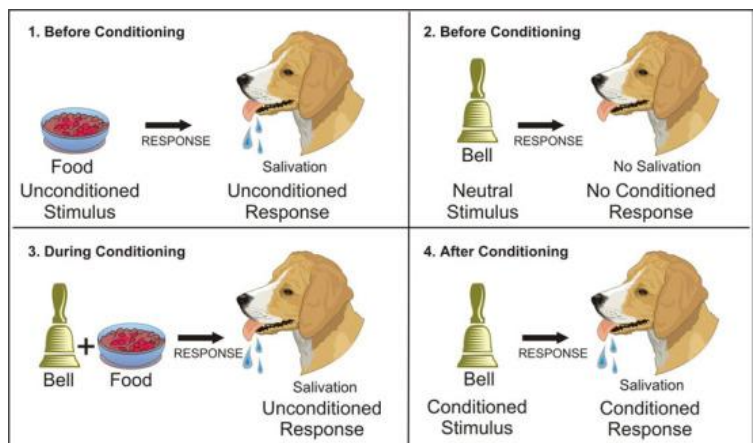
Unconditioned Stimulus (UCS) – Food

Unconditioned Response (UCR) – Salivation

Neutral Stimulus (NS) – Bell

Conditioned Stimulus (CS) – Bell

Conditioned Response (CR) – Salivation



Pavlov noticed that once the neutral stimulus had been associated with an unconditioned stimulus, the conditioned stimulus could vary and the dogs would still generate a similar response. This is called **Generalisation**. For example, when a specific tone of buzzer sound was associated with the food, he noticed that differing toned buzzer sounds would then solicit the same conditioned response.

If a conditioned stimulus (e.g. bell) is repeatedly presented without the unconditioned stimulus (e.g. food), then the conditioned response will disappear. This is known as **Extinction**. If a dog learns to associate the sound of a bell with food and then the bell is rung repeatedly, but no food is presented, the dog will soon stop salivating at the sound of the bell. This needs to occur for several trials and often, to reproduce the effect. **Spontaneous Recovery** occurs following extinction, this is the emergence of a previously extinct response. For example, a dog may have stopped salivating to the sound of a conditioned bell (CS), but may suddenly show the conditioned response (CR) to the sound of a new bell at a later date.



Application

Many of our behaviours are shaped by the pairing of stimuli, using Pavlov's principles. Not only do we learn as children using Classical Conditioning (e.g. knowing that red signals the hot tap and blue signals the cold) but we adopt these patterns throughout our adult life. The sound of a certain song, the smell of perfume or the occurrence of a specific day of the year can trigger distinct memories, emotions, and associations. When we make these types of associations, we are experiencing Classical Conditioning.

As well as helping owners train their pets, Classical Conditioning is useful for treating people with phobias or anxiety problems. For example, a therapist could pair something that provokes anxiety or fear with relaxation techniques to create a new positive, less anxious association.

Also teachers are able to apply Classical Conditioning in their classroom by encouraging students to learn things that go together as pairs and there is also a need for teachers to try to make sure that students associate positive emotional experiences with learning.

Evaluation



Classical conditioning has many useful applications as it gives us an insight into how learning through association occurs. It has practical applications in behavioural treatments such as systematic desensitisation and aversion therapy.



Many of the principles can be scientifically tested and are supported with evidence suggesting they are objective.



As many of the supporting studies are carried out under controlled conditions in the laboratory, the research evidence gathered is more likely to be reliable. However, this does mean the findings may lack ecological validity due to the artificial nature of the setting.



This approach does not account for the nature debate which claims that biological influences may play a larger role in determining our behaviour. Although Pavlov recognised that stimulus-response training was the result of natural reflexes.



There are also issues with the fact that Pavlov studied animals and then applied his findings to humans, so it can be argued that generalisation from animal findings to humans is problematic.



Also it is suggested that when learning something new people do not just learn through passive association, but rather through active manipulation of the environment they are in. This means that there are other explanations for learning; like Operant Conditioning or Social Learning.

