Classical Conditioning

Classical conditioning is one way in which animals (including humans) learn: learning by association.
Previously neutral stimuli become associated with naturally occurring reflexes.
Classical conditioning can happen by itself or it can be done deliberately.

Before conditioning

Before conditioning the unconditioned stimulus (US) produces an unconditioned response (UR).
Essentially, a stimulus in the environment has caused an unlearned response in the animal.

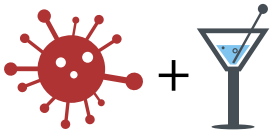
Virus (US) → *Feeling nauseous (UR)*

Food (US) → *Salivating (UR)*

During conditioning

During the conditioning a conditioned stimulus (CS) is presented at the same time as the unconditioned stimulus (US) and produces an unconditioned response (UR)

Virus (US) + Drink (CS) → *Feeling nauseous (UR)*



Food (US) + Bell (CS) → *Salivating (UR)*

After conditioning

After conditioning the conditioned stimulus (CS) leads to a conditioned response (CR).

Drink (CS) → *Feeling nauseous (CR)*

Bell (CS) → *Salivating (CR)*

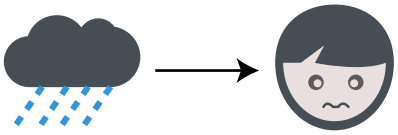
Reversing the conditioning process

The process of conditioning can be reversed by (repeatedly) presenting the CS without the US. If the CS is presented on its own then the association between the CS and the US becomes weaker. This process is known as extinction. With time the CS stops leading to the CR and the CR is said to be extinguished.

Why is classical conditioning important to therapists?

Often neutral stimuli become associated with fearful situations and cause difficulties in people's lives.
E.g. John is driving on a rainy day (CS) when he is involved in a car crash (US) - he finds this terrifying (UR)

Afterwards, John feels nervous whenever it rains (CR). He stops driving altogether



John sees a therapist who explains that he can overcome his fear by extinguishing his conditioned response. The therapist recommends that John needs to go driving repeatedly, particularly if it is raining. He is reassured that his fear will reduce over time if he does so.

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