Chapter 5- Reinforcement: Positive and Negative

Defining reinforcement

- Reinforcement refers to the process in which a consequence of a behaviour strengths that behaviour, making it more likely to occur in the future. The consequence is contingent on the behaviour – that is, the consequence occurs if the behaviour does. The object or event that serves as the consequence in reinforcement is the reinforcer (a stimulus that is introduced or changed when the behaviour occurs).
- Natural reinforcers are consequences that happen spontaneously as a normal part of everyday events and are not planned and given systematically to affect behaviour, even though they do. Eg: Telling a joke is reinforced by the enjoyment of other people express.
- Automatic reinforcement is when a behaviour produces a reinforcer directly, without other people playing a role. Some evidence suggests that automatic reinforcement can maintain in the repetitive/ritualistic behavioural excess.
- Programmed reinforcers are provided within a program of reinforcement with the goal of increasing or strengthening specific behaviours.
- In positive reinforcement, the consequence involves presenting or adding a stimulus called a positive factor.
- In negative reinforcement, the consequence of a behaviour involves decreasing or removing an aversive stimulus. Eg: Drinking alcohol to reduce unpleasant feelings.
- Reasons for confusion between negative reinforcement and punishment:
  1 .Both involve aversive stimuli, which we tend to link with some types of punishment, but in punishment the aversive stimuli such as scolding occurs after and in negative reinforcement its before.
  2. The word negative could suggest the process or behaviour that is undesirable, but it doesn't. The word positive means a stimulus is being added and negative means a stimulus is being subtracted or removed.
- Unconditioned reinforcers (primary reinforcers) are consequences that function as reinforcers even when the individual has had no learning history with them.
- Conditioned reinforcers (secondary reinforcers) are stimuli that did not have the ability to strengthen behaviour until they became reinforcing as a result of learning.

Types of positive reinforcers

- Tangible : material objects we can perceive, such as toys, clothing or musical recording.
- Consumable: things we can eat or drink such as candy, fruit or soft drinks.
- Premack Principle is a rule which involves performing high-probability behaviours, and these will work as reinforcers only for less frequent behaviours.
- Studies shows that having the opportunity to engage in high-probability behaviours can increase people's performance of infrequent behaviours.

- Response deprivation hypothesis: using a high-probability behaviour as a rewards makes the activity contingent on performing an infrequent behaviour, thereby restricting or depriving the person of his or her usual opportunities to perform the high probability behaviour.
- Social reinforcers are consequences consisting of interpersonal acts that strengthen one's behaviour, as when our behaviour receives praise, attention, or a smile, nod or affectionate touch.
- Using social reinforcers to improve people's behaviour has 3 advantages:
    - Social reinforcers can be administered easily and quickly in almost any setting, thereby disrupting ongoing behaviour very little.
    - They can be given immediately after the target behaviour, which enhances their effectiveness.
    - Social reinforcers occur naturally in people's everyday lives for most of kinds of behaviour. As a result, social consequences may continue to reinforce a target behaviour after the intervention ends.
- Feedback is information that asses or guides people's performance. Using feedback has essentially the same advantage as using social reinforcers. Combining feedback with other rewards, such as praise, usually works better. A feedback example is Biofeedback.
- Tokens are conditioned reinforcers that are like money because they can be accumulated and exchanged for good or privileges, which are called backup reinforcers. The backup reinforcers are generally some form of tangible, consumable, activity or social rewards.
- Tokens have the advantage of:
    - Bridging the delay between performing the target behaviour and getting tangible, consumable or activity reinforcers for it.
    - Offering the possibility of a variety of backup reinforcers, thereby maintaining the token's value at consistently high level.

Factors that influence the effectiveness of reinforcement

- The degree to which an individual values a specific consequences determine how likely it is to reinforce a behaviour. The greater its value, the greater its strengthening effect on a behaviour.
- Reinforcers can vary in quantity and quality.
- In positive reinforcement, the quantity and quality of a reinforcer determine its value. Studies of positive reinforcement have found the reinforcement with greater value produce stronger responding then lesser reinforcers do, as reflected in the frequency or magnitude of the behaviour.
- Reward value in negative reinforcement seems to be determined by 2 factors:
    - Quantity - the amount by which the aversive situation is reduced.
    - Intensity of the aversive condition - negative reinforcement is more effective when the behaviour reduces a very aversive stimulus than when it reduces a milder one.
- We can maximize the effect of reinforcement by delivering it immediately after each and every correct response.
- Motivational operations (MOs) are procedures that temporarily alter the effectiveness of a consequence on behaviour and performance of behaviour that normally leads to those consequences. The consequence can be either a reinforcer or a punisher.

Negative reinforcement in Escape and Avoidance

- Escape conditioning involves learning to make a response that reduces or eliminates an aversive stimulus we are currently experiencing.
- A response that succeeds is strengthened through the process of negative reinforcement.
- Avoidance conditioning is when people learn to respond in ways that prevent them from experiencing aversive events.