

Chapter 6 Extinction

I. What is Operant Extinction?

- Extinction usually has two meanings:
 - 1) A procedure or condition in which a previously reinforced response no longer receives reinforcement
 - 2) A process whereby the rate and force in performing the no-longer-reinforced response decrease.
- Extinction can occur as a haphazard condition in everyday life or as a careful and deliberate procedure in an intervention.
- Extinction can apply to behaviours that have received either positive or negative reinforcement.
 - 1) Extinction for positive reinforcement
 - > Making sure the rewards are no longer provided
 - E.g.: Bob and the digital reversals
 - 2) Extinction for negative reinforcement
 - > Preventing the individual from escaping or avoiding the unpleasant situation.

II. The Process and Characteristics of Extinction

Two usual problems of the extinction:

- **Extinction burst:** when reinforcement fails to occur, the response often increases temporarily in its frequency and magnitude -> result from frustration
- **Aggression:** Extinction often increases the target person's aggression and other emotional behaviours

Two ways to reduce the two problems above:

- **Competing response:** an action that is incompatible or interferes with performance of target behaviour.
- **Alternative behaviour:** take the place of the target behaviour as a desirable act, but the two actions aren't necessarily incompatible and could occur together.

Gradual decline & reappearance of the behaviour

- 1) The behaviour tends to decline gradually or irregularly rather than immediately and smoothly
 - 2) An extinguished behaviour can reappear temporarily, even though reinforcement is not given for the behaviour.
 - Can occur in more than one way:
- **Spontaneous recovery:**
 1. Placing another behaviour on extinction
 2. The antecedents that were present with the behaviour had been reinforced in the past are present again.
 - **Renewal:** the main factor is the context in which conditioning and extinction occur.
 - **Reinstatement:** the main factor leading to the reappearance of the extinguished behaviour is that, without performing the behaviour

III. What Factors Affect Extinction Effectiveness?

- When any of these conditions is less than ideal in an extinction program, the behaviour will show more **resistance to extinction** – or take longer to extinguish
- **Knowing & controlling all relevant reinforcers**

To conduct extinction very effectively, we must know that all of the reinforcers are that maintain the behaviour and then stop them all.
- **Past pattern of reinforcement**
 - Continuous reinforcement vs. Intermittent reinforcement
 - In general, a behaviour received intermittent reinforcement show more resistance to extinction
 - The reinforcement history of a behaviour can also affect its resistance to extinction in two other ways:
 - 1) The more times the behaviour was reinforced in the past, the longer it is likely to take to become extinguished
 - 2) The greater the reward value of the reinforcers the behaviour produced in the

past, the longer it is likely to be extinguished

- **Combining extinction with reinforcing other actions**

Another benefit to reinforcing other actions while extinguishing a target behavior: we can increase the effectiveness of the extinction procedure.

- **Instruction in the new contingencies**

People's behaviour often extinguishes faster when they are told their responses will no longer be reinforced than when reinforcement simply ceases to appear.

E.g.: teacher asks the students to answer questions in a specific time