*LEARNING

Most human thought and behaviour is the result of learning.

How are sensation and perception related to learning?

Step one:

Sensation – Our senses provide the raw information through sight, sound, touch, taste and smell

Step two:

Perception – Our mind then works with that information: selecting, organizing, interpreting

Step three:

Cognition/Learning – We then use this information to acquire knowledge and retain it so we can apply it in new situations

Cognition: a term used by psychologists to describe how we acquire, store and use knowledge

Learning: a change in knowledge or behaviour as a result of experience

Learning is not the only influence on our behaviour.

Innate Drives and Instinctive Reactions: responses that members of a species are born with and that help them survive

Instincts: inborn patterns of behaviour that are characteristic of a species

*Kinds of Learning

Two major types of Learning:

1. Conditioned Learning
2. Observational Learning

CONDITIONED LEARNING

Conditioned Learning: acquiring patterns of behaviour in the presence of an environmental stimulus

* We learn to respond to a particular stimulus in a particular way.
* We share this type of learning with other species.

Examples of behaviours we are conditioned to do:

* Smile back when someone smiles at us
* Respond when someone says good morning
* Stop for a red light at the intersection

* CONDITIONED LEARNING

Two types of Conditioning:

1. Classical
2. Operant

*CONDITIONED LEARNING

CLASSICAL CONDITIONING

* Involves learning to transfer a natural response from one situation to another
* A learning procedure in which associations are made between a natural stimulus and a neutral stimulus
* Discovered by Ivan Pavlov (1849-1936) – a Russian psychologist studying digestion
* Description of dog study - Page 53

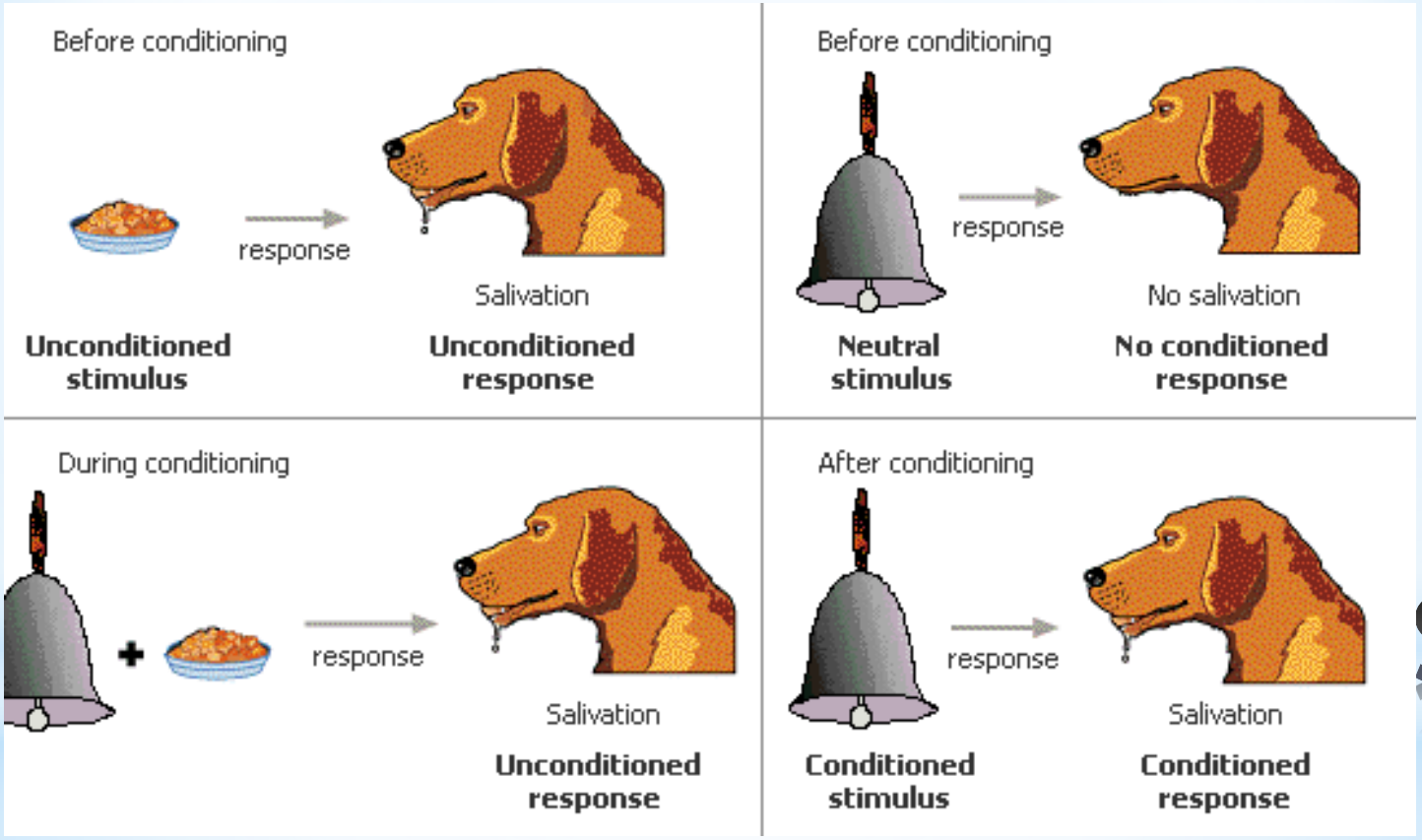
CLASSICAL CONDITIONING

* ***Unconditioned Response (UR):*** an automatic, unlearned (or natural) reaction to a stimulus

* ***Conditioned Response (CR):*** a learned reaction

* ***Unconditioned Stimulus (US):*** an event that elicits a certain predictable response typically without previous training

* ***Conditioned Stimulus (CS):*** a once-neutral event that elicits a given response after a period of training in which it has been paired with an unconditioned stimulus


Before conditioning
response
Salivation
Unconditioned stimulus
Unconditioned response
Before conditioning
response
No salivation
Neutral stimulus
No conditioned response
During conditioning
response
Salivation
Unconditioned response
After conditioning
response
Salivation
Conditioned stimulus
Conditioned response

*PAVLOV'S DOGS

The Pavlovs get new neighbors.

Examples:

* Taste Aversions
* Music signals
* Bed-wetting treatment
* Conditioned emotions (fear)

* CLASSICAL CONDITIONING

Extinction: the Conditioned Response gradually dies out

Spontaneous Recovery: previously extinguished Conditioned Response may occur again when the Conditioned Stimulus is presented with the Unconditioned Stimulus

*CLASSICAL CONDITIONING

*CLASSICAL CONDITIONING

OPERANT CONDITIONING

- Learning by consequence
- Learning in which a certain action is reinforced or punished, resulting in corresponding increases or decreases in occurrence
- Formulated by B.F. Skinner to describe behaviour that occurred before being triggered by outside events (no stimulus)
- Description of study – Page 55

Examples:

* Waving a hand to call a cab and it stops
* A child asking for juice and receiving it
* A driver slowing down at a red light to avoid an accident

* OPERANT CONDITIONING

Reinforcement: a stimulus or event that follows a response and increases the likelihood that that response will be repeated

Positive reinforcement: something good is presented, which encourages the behaviour in the future

Negative reinforcement: something bad is removed, which encourages the occurrence of the behaviour

*OPERANT CONDITIONING

*OPERANT CONDITIONING

Punishment: a stimulus or event that follows a response and <u>decreases</u> the likelihood that that response will be repeated

Positive punishment: something bad is presented, which discourages the behaviour in the future

Negative punishment: something good is removed, which discourages the behaviour in the future

Disadvantages of ***punishment***:

* can produce unwanted side effects such as rage, aggression and fear
* people learn to avoid the person delivering the aversive consequences (aversive control: process of influencing behaviour by means of unpleasant stimuli)
* likely to suppress, but not eliminate, behaviours
* punishment alone does not teach appropriate and acceptable behaviour; desirable behaviours also need to be taught

*OPERANT CONDITIONING

Escape conditioning: a person's behaviour causes an unpleasant event to stop

Avoidance conditioning: a person's behaviour has the effect of preventing an unpleasant situation from happening; can be part of sustaining an anxiety disorder

*OPERANT CONDITIONING

*https://youtu.be/zxkaLQwl34c

*OPERANT CONDITIONING

Classical Conditioning	Operant Conditioning
- Always a specific stimulus (US) that elicits the desired response - US does not depend upon the learner's response - Learner responds to environment	- No identifiable stimulus; learner must first respond, then behaviour is reinforced - Reinforcement depends upon learner's behaviour - Learner actively operates on its environment

*Classical Conditioning vs. Operant Conditioning

OBSERVATIONAL LEARNING

* Formulated to describe learning that occurs as we observe other people performing a new task

Examples:

* Playing a musical instrument
* Driving a car
* Playing a sport

Four processes crucial to observational learning (Bandura):

Process	Definition	Example
Attention	You must pay attention to the behaviour of others to learn through observation.	Paying attention as someone shows you how to play a song on a piano.
Retention	You must store a mental representation of what you observe in your memory.	Noting what piano keys the person pressed and in what order so you can remember it.
Reproduction	You convert your stored memory into action.	Practicing the same song, trying to recall which keys to press and in what order.
Motivation	You must believe the skill is useful or important in order to practice the skill.	***Internal motivation:*** enjoying the song and wanting to play it. ***External Motivation:*** wanting to please your parents who have paid for your piano lessons

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*https://youtu.be/zerCK0lRjp8

*OBSERVATIONAL LEARNING