

PSYCHOLOGY UNITS 3 & 4  
ODETTE GHOBRIAL

## RESEARCH METHODS

ETHICS - a set of moral principles psychologists must adhere to, to protect both participants and researchers

- values underpinning ethics - *justice* (procedures should be fair and non-exploitative, and there should be fair access to research benefits), *beneficence* (likely benefits should justify potential harm) and *respect* (researchers must respect the beliefs, customs and welfare of participants)
- ethical guidelines
  - protection of participant rights - it is the researcher's responsibility to protect participants' physical and psychological wellbeing
  - informed consent - participants must express in writing that they will take part (get written consent from a parent/guardian if under 18). Consent forms must outline the risks, benefits and the purpose of the experiment
  - voluntary participation - participants should not be pressured/coerced into taking part
  - confidentiality - participant info. must be stored securely and findings/identifying information should not be disclosed to anyone outside of the experiment (different from anonymity, where not even the researcher has identifiable info. about participants)
  - withdrawal - participants have the right to withdraw from an experiment at any time, and may refuse the use of their data without consequences
  - debrief - after the experiment, participants should be told of the experiment's true purpose and researchers must ensure participants did not suffer physical/psychological harm (should be guided to resources if they did)
  - deception - occurs when a researcher intentionally gives misleading information/does not disclose all information about a study to participants. It should be avoided but may be necessary when knowing certain information affects findings. If deception is used, participants must be told in the debrief

## ROLE OF THE EXPERIMENTER

- to be objective so that the researcher does not influence findings
- monitor participants' physical/mental wellbeing
- stop the study if are distressed or in danger, and take steps to reduce harm

## SOURCES OF ERROR

- order effect - differences in behaviour that result from the order that material is presented to participant groups
  - resolved through counterbalancing (one half completes the conditions in one order and half the participants complete it in a different order)
- hawthorne effect - participants change their behaviour because they know they are being tested
  - resolved through single-blind procedures (participants don't know whether they are in the experiment or control group)
- placebo effect - change in behaviour caused by the belief that one has been exposed to a treatment that will affect them in some way
  - placebo - inactive substance that looks like a real treatment being tested and is given to the control group
  - resolved through single-blind procedures
- experimenter bias - experimenter's personal factors/expectations of behaviour cause results to be biased
  - prevented through double-blind procedures (neither the participants nor the experimenter know who is in the experimental and control group)
- participant differences - differences in personal characteristics of participants e.g. mood, memory, age etc.
  - prevented by random allocation of participants into the control and experimental group, matched pairs (people with similar characteristics are paired - one member is allocated to the experimental group and one is in the control) and repeated measures (same participants are exposed to the control and experimental conditions)

EXTRANEIOUS AND CONFOUNDING VARIABLES - sources of error may act as **extraneous variables** (variables besides the IV that might cause changes in the DV). If these variables are not anticipated and controlled, they become **confounding variables**. confounding variables compromise the reliability and validity of findings.

RELIABILITY - the extent to which a test produces consistent results over time the same conditions

- 1) internal reliability - different parts of a test should measure the same concept, which is shown using the 'split-half method' (two halves of a test are tested to determine if they produce similar scores)
- 2) test-retest reliability - tests should produce the same results if administered under the same conditions at a different time

VALIDITY - extent to which findings of a study apply to people outside of the study

- 1) face validity - extent to which a measure appears to test what it claims to
- 2) construct validity - extent to which aspects of a test measure the theoretical construct they intend to
- 3) external validity - extent to which findings from a study apply to people outside of the study
  - population validity - degree to which study results from a sample can be generalised to the population from which the sample was selected from
  - ecological validity - extent to which findings of a study can be generalised to real-life settings

RESEARCH TERMINOLOGY

**scientific** - involve a systematic approach to planning, conducting and the reporting of research, usually in the form of experiments. Researchers use empirical evidence (info. received by the senses) to draw conclusions

**non-scientific** - something that has no grounding in science and is not systematic as procedures vary from field to field e.g. astrology

**experimental** - test to see whether or not a variable influences/causes a change in another; Determines cause-and-effect through the manipulation of variables

- steps of the experimental method:

- 1) identify the research problem - conduct a literature search to find background info.
- 2) formulate a hypothesis - prediction about what you think will happen in the study
- 3) design the method - decide how participants will be selected and which data collection method to use
- 4) data collection - collect data from participants using a selected data collection method
- 5) analyse the data - use statistics to determine the relationship between variables
- 6) interpret results - use findings to come to a conclusion and determine whether the hypotheses supported or rejected
- 7) report findings

**non-experimental** - often involve observation (collection of data by watching and recording the behaviour of others)

- other methods - interviews, surveys, case studies, archival research and correlational studies
- cannot determine causation and may be use when experimentation is difficult/unethical

SAMPLING METHODS

	Convenience	Random	Stratified
	participants are selected because of their availability to the researcher	everyone in the population has an equal chance of being selected	people in subgroups/ strata of the population are selected based on the ratios in which they appear in the target population

	Convenience	Random	Stratified
<b>strengths</b>	affordable and time-efficient	representative, meaning findings can be generalised	ensures the data is representative/applicable to all strata
<b>limitations</b>	sample is likely to be unrepresentative the target population (thus findings can't be generalised)	difficult to obtain data from all the selected participants	requires access to all strata

CORRELATIONAL STUDIES - observes a relationship between two variables without establishing cause and effect - variables are measured and the researcher determines if they are statistically related

- no IV or DV: all variables are behavioural variables and extraneous variables are unaccounted for
  - positive correlation - increase in one variable causes an increase in another
  - negative correlation - increase in one variable causes a decrease in the other
- correlation coefficient is denoted by  $r$  and ranges from -1 to 1 (closer the number is to 1 or -1 = stronger correlation)

+ produce quantitative data (less open to interpretation)

- cannot establish cause and effect due to the lack of control of variables

CASE STUDIES - intensive study regarding an individual or group without the use of experimental methods (often interviews and observation)

+ gather in-depth information which can be used to develop new theoretical ideas, also acknowledge participant differences

- sample sizes are often small and ungeneralisable and cannot establish cause and effect

QUANTITATIVE DATA - expressed numerically and can be measured or ranked, collected through controlled procedures and may be **subjective** or **objective**

• collection methods - surveys, interviews, experiments

+ trend/patterns can be seen when data is analysed

+ reliable - can be repeated consistently with less interpretation of results by different researchers

- may not explain why results occurred

- data is summarised collectively (ignores individual scores)

**subjective** quantitative: values collected through observation or from a participant's self-report e.g. Likert scale

**objective** quantitative: values from physiological measures e.g. beats per minute

QUALITATIVE DATA - information *not* expressed numerically and instead, measures characteristics being studied

• collection methods - interview and observation

+ may be used to describe data lost in quantitative analysis

+ may be most practical methadone situations such as case studies

- low reliability - findings may be inconsistent due to interpretation by different researchers

- focus groups - social desirability may compromise the honesty of answers

CROSS-SECTIONAL STUDIES - study age-related differences between groups (often used to study development)

• study participants of different ages at the same time

+ used to compare multiple variables at the same time

- cohort effect (results are impacted by the shared characteristics/experiences of a cohort)

LONGITUDINAL STUDIES - data is repeatedly collected from the same group across a long time period

+ allows changes in participant responses to be observed

- high dropout/attrition rate - large amounts of data are lost

STATISTICAL SIGNIFICANCE - denoted by  $P$ ; Probability that the null hypothesis (opposes the research hypothesis) is correct. The P-value accepted in psychology is 0.05/5%

- smaller the P-value, the less likely is it that the null hypothesis is true and the more likely it is that the IV caused findings
- if  $P \leq 0.05$ , results are statistically significant but if  $P > 0.05$ , results are not significant and the null hypothesis should be accepted (results are likely due to chance)

#### DRAWING CONCLUSIONS

**conclusion** - decision about whether findings obtained from a sample are representative of the populations and support the hypothesis

- criteria for making a conclusion - generalisable, reliable/valid/ethical and statistically significant

#### BIOLOGICAL BASES OF BEHAVIOUR

THE NERVOUS SYSTEM - controls all of the body's functions by coordinating info. from one's internal and external environment

- **sensory/afferent** neurons in sense organs gather information from external stimuli (e.g. pressure and touch) which is brought up to the CNS to be processed
- **motor/efferent** neurons allow a person to respond to external stimuli once it has been processed by the brain - messages are transported to muscles organs and glands
- **interneurons** relay messages from sensory neurons to motor neurons, or other interneurons
- Nervous System is made up of the Central Nervous System (brain and spinal cord) and the Peripheral Nervous System (cranial and spinal nerves that connect the CNS to organs)

SPINAL CORD - bundle of neurons connected to the brain; Passes sensory info. from sensory receptor organs and internal organs to the brain, and to pass motor information from the brain to the PNS

BRAIN - coordinates external information to produce a motor response, also responsible for all higher-order processing

**cerebrum** - largest part of the brain, divided into the left and right hemispheres. Hemispheres are contralateral (left hemisphere controls the right side of the body and vice versa)

- left - logical reasoning, analytical thought, language/writing and mathematics

- right - imagination, intuition and musical awareness

both sides are joined the **corpus callosum** (bundle of nerves allowing communication between the hemispheres)

**cerebral cortex** - outside of the cerebrum, consists of 4 lobes (frontal, parietal, occipital and temporal)

Frontal Lobe - controls cognitive abilities such as problem-solving, memory, language, personality and judgement. Symptoms of frontal lobe injury are memory loss, sudden behavioural changes and impaired motor control (contains the Primary Motor Cortex)

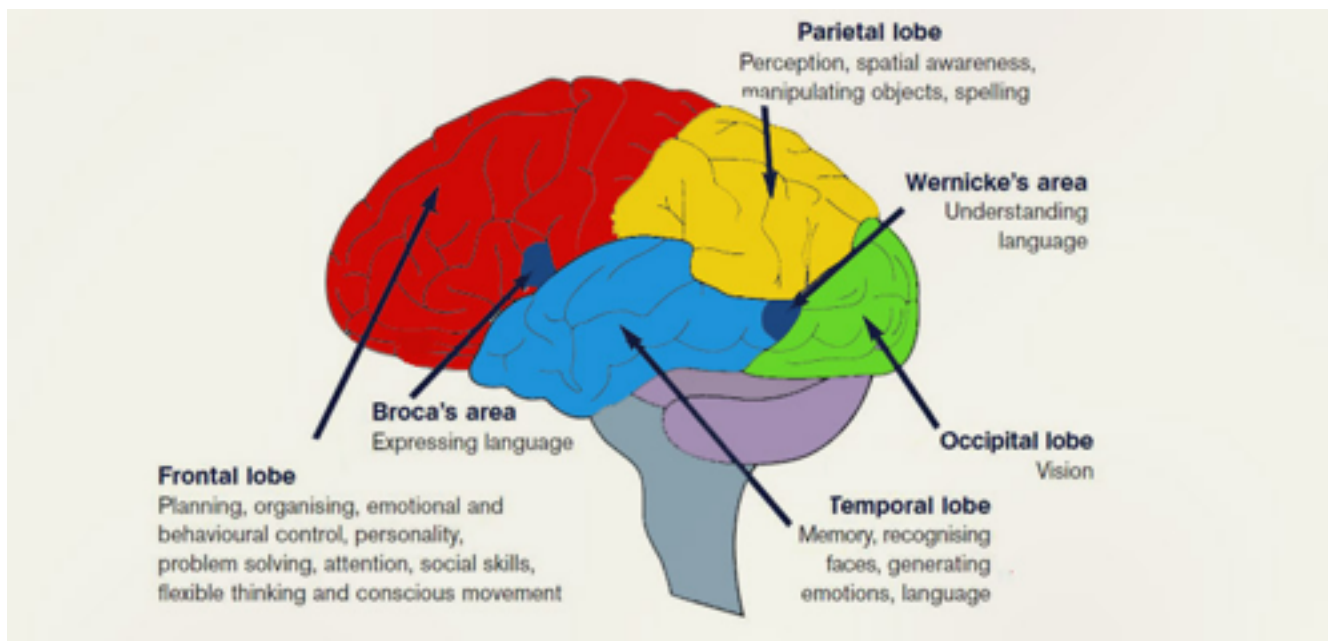
Parietal Lobe - located in the upper-back portion of the brain and contains the Primary Somatosensory Cortex, which processes tactile information such as touch, pressure, temperature and pain. Different parts of the lobe control the movement and sensitivity of different body parts (more sensitive areas take up more cortical space). Damage to this lobe may cause left-right confusion, lack of spatial awareness and difficulty understanding direction

Temporal Lobe - located in the lower-middle part of the brain and contains the Primary Auditory Cortex. Each lobe contains a hippocampus (associated with formation of long-term memory) and an amygdala (links emotion to memory). Temporal lobe damage may cause hearing loss, inability to recognise words and inappropriate emotional responses

Occipital Lobe - Primary Visual Cortex receives info. from photoreceptors in the retina; Allows colour differentiation, assesses size and distance and identifies visual stimuli e.g. facial recognition. Damage may cause vision loss, inability to identify colours and visual hallucinations.

**Broca's Area** - part of the left Frontal Lobe that allows one to pronounce words and structure sentences (damage causes Broca's aphasia, where a person finds it difficult to pronounce words and complete sentences, despite knowing what they want to say and understanding others)

**Wernicke's Area** - at the back of the left Temporal Lobe, allows people to comprehend speech and choose the right words to express meaning. Damage causes Wernicke's aphasia, where a person can't understand spoken or written language



PERIPHERAL NERVOUS SYSTEM (SOMATIC AND AUTONOMIC) - entire network of neurons outside of the CNS (spinal and cranial nerves that extend from these structures)

- communicate information from the body's organs, muscles and glands from both the outside world (temperature, sensation, smell etc.) and the internal environment (e.g. aches and pains)

- communicate information from the CNS to organs, muscles and glands

somatic nervous system - responsible for voluntary movement of the body

- contains neurons of the skeletal muscles and skin (primary role is to pass sensory info. to the brain, and to pass motor information from the brain to muscles)

autonomic nervous system - responsible for involuntary functions *not* consciously controlled

- only has motor neurons as it controls involuntary movements and does not require external stimuli

- communicates info. from the CNS to internal organs, visceral muscles and glands

- works regardless of one's arousal level, maintaining survival

**sympathetic nervous system** - stimulates the 'fight-or-flight' response in times of perceived threat by increasing the activity of organs, muscles and glands, and stopping functions not necessary for survival

- stimulates the release of adrenaline and noradrenaline

- effects of fight-or-flight: increased heart rate, muscle contraction, pupil dilation, decreased stomach movements, dilated bronchi and paleness (blood moves from the periphery to organs)

**parasympathetic nervous system** - works when the body is at rest to maintain homeostasis, counteracts fight-or-flight

- effects of rest-and-digest - decreased heart and breathing rate, pupil constriction, increased saliva production

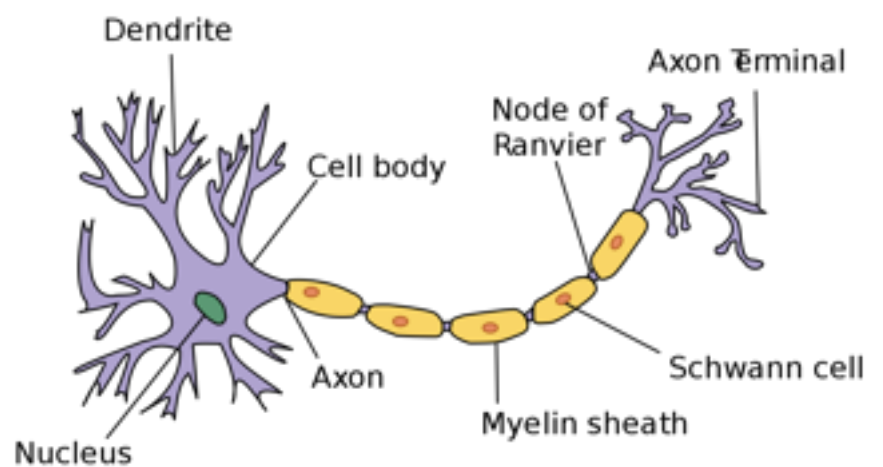
NEURONS - specialised cells that receive and process information from other cells, carrying electrical and chemical signals down their length and transmit it to other cells

- synapse - point of connection between two neurons where electrochemical signals are passed to other neurons

neural transmission

- 1) a neuron is stimulated when the dendrite receives information from neighbouring neurons, or sensory input

- 2) if the neuron is stimulated to its threshold (-55 millivolts), an **action potential** (electrical impulse that is generated and travels down the neuron once it is stimulated) fires





- 3) the action potential travels down the axon until it reaches the axon terminal, where vesicles of the pre-synaptic neuron release a neurotransmitter across the synaptic gap, turning the electric signal into a chemical one
- 4) chemical signal diffuses over the synaptic gap and binds to concave-shaped receptor sites on the post-synaptic neuron
- 5) pre-synaptic neuron returns to resting potential (-70mV) and excess neurotransmitters get reabsorbed through reuptake/are broken down by enzymes

**neurotransmitters** - chemical substance at the end of a nerve fibre stimulated by the arrival of a nerve impulse

- can be *excitatory* (make the neuron likely to fire) or *inhibitory* (make the neuron unlikely to fire)

Serotonin	Dopamine
<ul style="list-style-type: none"> <li>• affects mood by regulating anxiety and happiness, and regulates sleep cycles by stimulating parts of the brain responsible for sleep/wakefulness</li> <li>• produced in CNS and intestines</li> <li>• lack of serotonin is linked to depression</li> </ul>	<ul style="list-style-type: none"> <li>• affects learning (rewards + punishments are learned as dopamine is released during pleasant experiences), maintains attention and controls movement</li> <li>• low dopamine - linked to Parkinson's and ADHD</li> </ul>

**HORMONES** - chemical compounds secreted by endocrine glands which travel through the bloodstream to affect other cells/organs

- work in the same way as neurotransmitters (attach to receptor sites)
- produced and stored in the Pituitary and are secreted to target cells

**adrenaline** works on the heart to increase cardiac output and contraction, **noradrenaline** works by constricting blood vessels to increase blood pressure (noradrenaline is synthesised from dopamine and is the main neurotransmitter of the Sympathetic NS)

**PSYCHOACTIVE DRUGS** - chemical substance (besides food or water) that is foreign to the body and alters behaviour, emotion, perception or thought. They promote, inhibit or mimic the activity of neurotransmitters and hormones

**agonists** increase the activity of neurotransmitters while **antagonists** decrease the effect of neurotransmitters

\*\*when drugs mimic neurotransmitters, the body is flooded with the chemical, meaning the body produces less when the drug is not used and the brain makes an association that the substance had that response, causing addiction

	Depressants	Stimulants	Hallucinogens
<b>how they work/effect</b>	slow down the CNS by acting on the inhibitory neurotransmitter GABA, which prevents neural transmission	increase the activity of the CNS by increasing dopamine levels in the brain	alter perception and cause one to have sensory experiences without input (hallucinations) - mimic serotonin
<b>symptoms</b>	decreased heart and breathing rate, muscle relaxation, disinhibition	increased heart and breathing rate, increased body temp., agitation, increased confidence	increased heart rate, dilated pupils, increased body temp., hallucinations, mood swings, distorted sense of time
<b>examples</b>	alcohol and benzodiazepines	cocaine and ecstasy	LSD and marijuana

**HEREDITY** - transmission of genes from parents to offspring at the time of conception

**epigenetics** - studies the difference in gene expression as a gene is passed from one generation to the next, without changes in the genes themselves (genes lay out the potential for development, but environmental factors influence the expression or silencing of genes)

twin studies

Dr Thomas Bouchard's study focused on the similarities between identical twins that had been raised apart, and studied the correlation of characteristics such as height (80%), weight (60%) and smoking and divorce rates (50%)

limitations of twin studies:

- some randomly chosen pairs will coincidentally have similar characteristics
- twins may have found out about the study and contacted each other, making findings invalid
- adoptive families tend to have similar incomes, values etc., meaning the environment may have caused results

nurture and epigenetics

James Fallon - neuroscientist who studied his own brain scans and found that areas of his brain linked to empathy (frontal and temporal lobes) had similar activity to that of a psychopath. Fallon concluded that the environment he was raised in caused his genes related to violence/lack of empathy to be silenced

**MEMORY** - internal record of some previous event or experience

encoding - the input of information into the memory system

duration - amount of time information is stored in memory

capacity - amount of information that can be held

storage - creation of a permanent record of information

retrieval - process of location and recovering stored information from memory so that it enters conscious awareness

encoding -> storage -> retrieval

ATKINSON AND SHIFFRIN MODEL (1968)

1) Sensory Memory

- sense organs detect sensory information from one's environment, which becomes part of the sensory register

- **duration** - iconic/visual information is stored for less than a second and echoic/auditory information can be held for 3-4 seconds

- **capacity** - unlimited

- **encoding** - fast and sense-specific

2) Short-Term Memory (STM)

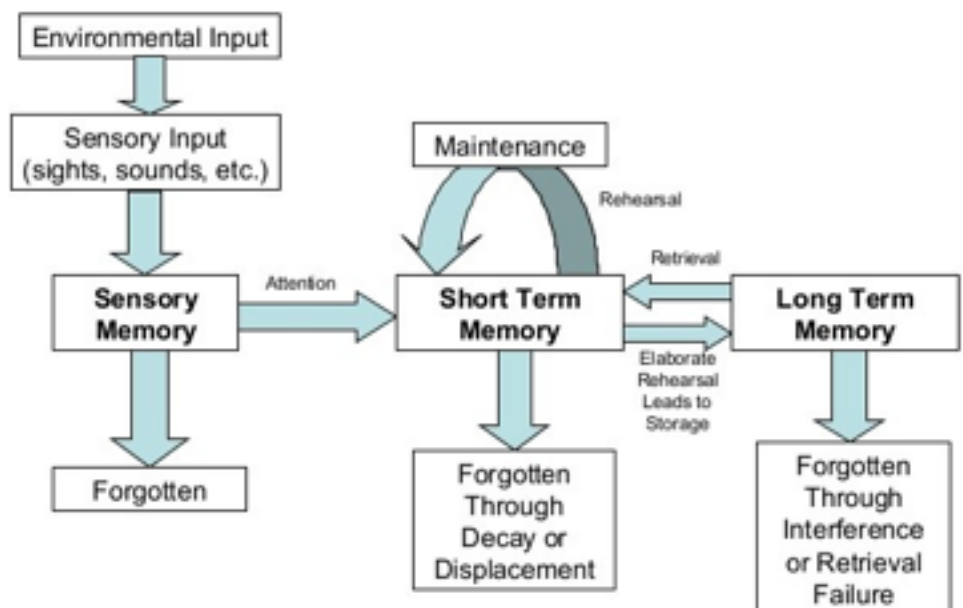
- sensory information that is attended to enters the STM - memory store for holding sensory events, movements and cognitive information

- **duration** - 0-18 seconds unrehearsed, but stays in the STM for longer when rehearsed, allowing it to enter the LTM

- maintenance rehearsal - repetition of information to keep it in the STM e.g. repeating a phone number

- elaborative rehearsal - linking of new info. to info already in the LTM e.g. mnemonics

- **capacity** - 7 +/- 2 items (Miller, 1956) but capacity can be increased through chunking (grouping of information)





into categories based on patterns in the info.)

- **encoding** - mainly auditory

3) Long-Term Memory (LTM)

- rehearsed information enters the LTM
- **duration** - relatively permanent, but may decay over time
- **capacity** - unlimited
- **encoding** - mainly semantic through elaborative rehearsal

\*\*model assumes that information must pass through all of the memory stores before storage in the LTM

#### Evaluation of the Multi-Store Model

- + case studies of stroke patients have supported the evidence of separate memory stores
- brain scans show that the idea of 3 stores is too simplistic - there are LTM stores for episodic, procedural and semantic memory - scans show that these stores are different

#### WORKING MEMORY MODEL (BADDELEY AND HITCH, 1974)

**working memory** - part of the STM concerned with immediate conscious perpetual and linguistic processing

- manipulates info. from other memory stores to perform cognitive functions as opposed to being a discrete memory store

Central Executive - main component, acts like a system rather than a store

- controls attention and integrates information from the other stores and info. retrieved from the LTM
- determines what a person attends to and what cognitive processes occur next
- limited ability to perform more than one task at a time

Phonological Loop - deals with spoken and written information and has 2 parts - phonological store and articulatory control process

- phonological store holds spoken information, with spoken words entering the store directly
- articulatory control process rehearses info. from the phonological store like a tape loop so that it stays in working memory (also turns written information into spoken code so that it can enter the phonological store)

Visio-Spatial Sketchpad - temporarily stores visual and spatial info. e.g. shape, colour, motion

\*\*stores have a limited capacity but their capacities are independent (i.e. filling up one store does not affect the other)

Episodic Buffer - integrates visual info., verbal info. and time

- added in 2001 after the model failed to explain the link between working and long-term memory

Evaluation of the WMM:

- + researchers agree that short-term memory is made up of a number of subsystems, replacing the idea of it being a unitary store
- + supported by the KF case study - suffered brain damage after a motorcycle accident and his impairment was mainly related to verbal info. while his visual processing was unaffected
- does not explain changes in processing ability due to practice or time
- only involves the STM, so it is not a comprehensive model of memory

#### TYPES OF LONG-TERM MEMORY

**procedural/implicit memory** - the memory of actions and skills that have been learnt previously

- demonstrated through behaviour, are often difficult to put into words and can be retrieved with little conscious effort e.g. memory of how to brush your teeth

**declarative/explicit memory** - memory of information that requires conscious effort to be retrieved (split into episodic and semantic)

- episodic - memory of personal past events and is one's interpretation of events e.g. remembering your first day of school
- semantic - memory of facts/information based on understanding e.g. remembering the names of theorists for a psych exam

#### TYPES OF REMEMBERING/MEASURES OF RETENTION

**recall** - the retrieval of information without prompts/cues

- improved by rehearsal as the more often the brain is made to recall info., the more easily it can be done without effort

**recognition** - identifying information from options, with the presence of the correct answer acting as a trigger

**relearning** - learning information that has previously been learned and thus, stored in the LTM (occurs faster than original learning as some information from original learning should be retained)

FORGETTING - the inability to access/recover information previously stored in memory

theories of forgetting

**retrieval failure** - inability to retrieve information when cues do not assist as the cues are not stored in the first place

- retrieval cue - any stimulus that assists in the process of recovering info. by focusing the search for it

**interference** - disruption of retrieving information due to previous or future learning - competing/ similar information is stored and mixed up in encoding

- pro-active interference - occurs when one cannot learn new information as a result of learning old information (what we know interferes with what we are learning)

- retro-active interference - forgetting previously learnt info. due to the learning of new information

**motivated forgetting** - not remembering info. as there is an advantage to forgetting it (i.e. the memory is traumatic)

- based on Freud's Psychoanalytical Theory -forgetting is used as a defence mechanism, either consciously (suppression) or unconsciously (repression)

**decay** - fading of a memory over time due to disuse

- assumption of decay theory - memories leave a physical/chemical change in the Nervous System - more rehearsal = greater synaptic connections, thicker myelin and less chance of decay

**LEARNING** - the process of acquiring new or modifying existing knowledge, behaviours and skills.

CLASSICAL CONDITIONING - two or more stimuli are repeatedly paired together to produce an anticipated, reflexive response

- 3 stages - before, during and after conditioning

- **before conditioning** - must be a natural association between an *Unconditioned Stimulus* (UCS) and an involuntary behaviour called an *Unconditioned Response* (UCR)

- **during conditioning** - UCS is presented immediately after a *Neutral Stimulus* (NS) repeatedly to produce a *Conditioned Response* (CR)

- **after conditioning** - NS becomes the *Conditioned Stimulus* (CS) as it produces the conditioned response

\* extinction - decrease in the strength of a conditioned response over time due to the unconditioned stimulus not being presented with the conditioned stimulus

\* stimulus generalisation - tendency for an organism to produce a conditioned response to stimuli that resemble the original stimulus

\* stimulus discrimination - tendency for an organism to only produce a CR to the stimulus they have been conditioned to

\* acquisition stage - number of times the UCS and NS are paired to produce a CR

\* spontaneous recovery - reappearance of a conditioned response after extinction

Pavlov's Experiment (1899)

- studied dogs' saliva secretions in response to food and saw that dogs did not only salivate when food was presented, but in anticipation to it e.g. sight/sound of person bringing food

- tube was attached to a dog's mouth to measure their saliva secretions when given food

- dogs were initially given food alone (caused salivation) and then presented food immediately after a bell was rung

- later salivated to the sound of the bell alone

- concluded the presentation of a UCS (food) with an NS (bell) caused the UCR (salivation) to become a CR as dogs learned an association between the sound of the bell and food)

Watson and Rayner's Experiment (1920)

- aim - to investigate the role of associative learning on fear acquisition through classical conditioning

- little Albert - healthy 9 month old child who researchers exposed to a white rat

- when first shown the rat (NS), Albert was fascinated by it, but a loud noise made by hitting a rod (UCS) scared Albert (UCR), he cried in response to the rat alone

Evaluation of Classical Conditioning:

- + assumptions are based on observable actions, increasing validity
- only explains the acquisition of involuntary actions and cannot be used in the learning of voluntary behaviour
- describes learning as being solely dependent on environmental stimuli (ignores biological aspect)

OPERANT CONDITIONING - learning that occurs when an individual associates their behaviour with its consequences (learning of voluntary behaviour)

- principle: *Thorndike's Law of Effect (1898)* - behaviours that are satisfying to an individual are more likely to be repeated in a particular environment, and behaviours that have an unpleasant consequence are less likely to occur in that environment again

3 Phase Model of Operant Conditioning

**Discriminative Stimulus (SD)** - signals whether a specific response will lead to a certain consequence and allows one to anticipate the likely outcome of a response

**Response (R)** - voluntary behaviour after the SD that affects the environment to result in the consequence

**Consequence (C)** - environmental effect that occurs after the response (reinforcement or punishment) that determines if the response will occur again

Punishment and Reinforcement

- B.F. Skinner introduced *reinforcement* (process of a consequence strengthening the likelihood of a response)
- **positive reinforcement** - strengthens a response by presenting something pleasant after a desired response
- **negative reinforcement** - strengthens a response by removing an unpleasant stimulus after a desired response
- *punishment* - process of a consequence weakening the likelihood of a response
- **positive punishment** - weakens a response by introducing an unpleasant stimulus after an undesired response
- **negative punishment** - weakens a response by taking away a pleasant stimulus after an undesired response

B.F Skinner's Experiment (1938)

- used shaping (reinforcer e.g. food) to gradually guide the animal's actions to a desired response
- created the Skinner Box - has a lever that delivers rat pellets when pushed
- when a hungry rat was placed in the box, it scurried until it randomly pressed the lever. Pressing of the lever became less random when the rats continued to receive food (positive reinforcement) and rats began pressing the lever as fast as they could
- concluded that an organism's environment shaped their behaviour based on the consequences they received

Evaluation of Operant Conditioning

- + used to explain real-life behaviour such as addiction and gambling
- + behaviourism - one of the first areas of psychology to use experimental methods to produce valid and reliable results
- experiments were conducted on animals (e.g. rats) - lack population validity
- reductionist approach - does not account for the role of heredity and assumes humans have little control of their behaviour

OBSERVATIONAL LEARNING THEORY (BANDURA, 1961) - cognitive process where individuals learn behaviours, thoughts and feelings by observing role models and evaluating whether or not imitating the behaviour is beneficial to them

- factors that affect observational learning (ARRM) -
- **attention** - must attend to behaviour, consequences that follow and the environmental conditions the behaviour is performed in. People are more likely to attend to models that are similar/familiar to them, who the observer deems attractive and who experience positive consequences
- **retention** - must have the attended behaviour stored in memory

- **reproduction** - must have the physical and mental capabilities to replicate a behaviour
- **motivation** - person must have a reason to imitate behaviour. Motivation may be *extrinsic* (reinforcement for the environment, or vicarious reinforcement, where a response is strengthened when the individual sees others being rewarded) or *intrinsic* (self-reinforcement)

#### Bandura's Bobo Doll Study (1961)

- investigated whether aggression can be learned through observation
- 72 children aged 3-6, half male and half female
- before the experiment, participants were measured for aggression on a 5-point rating scale
- shown a film with an adult interacting with an inflatable doll
- one group shown a video of an adult abusing the doll and the other was shown a clip where model acted calmly towards the doll
- children were taken into a room with toys - children who saw aggressive model tended to exhibit aggressive behaviour
- conclusion - children exposed to aggressive role models were likely to be aggressive

#### Evaluation of Observational Learning:

- + highlights the importance of pro-social role models on children
- + involved a pre-screening of children's aggression, allowing Bandura to determine that exposure to the models alone caused behaviour
- conducted in a lab setting - lacks ecological validity
- sample was 3-6 year olds - findings cannot be generalised to populations such as adults

### TECHNIQUES FOR MODIFYING BEHAVIOUR

SYSTEMATIC DESENSITISATION - graded exposure therapy used in the treatment of phobias

- *principle of reciprocal inhibition* - a person cannot feel conflicting emotions such as fear and relaxation at the same time - person learns to feel relaxed while being exposed to fear-provoking stimuli
- 1) psychologist teaches patient relaxation techniques e.g. deep breathing
- 2) person creates a hierarchy about the subject of fear (least fear-inducing aspect at the bottom and most fearful at the top). Each aspect of the fear is given a rating out of 10 or 100
- 3) patient practice relaxation techniques while being exposed to the least-fearful aspect. Exposure may be *in-vitro* (visualising the stimulus) or *in-vivo* (actual exposure to stimulus)
- 4) when the patient feels relaxed while being exposed to the item, they move onto the next item and give the exposed stimulus a new rating. If the patient becomes too anxious, the session stops and the next session starts from the first stimulus

#### Evaluation of Systematic Desensitisation:

- + McGrath (1990) found that in-vivo treatment treated 75% of phobia patients
- + more ethical/less distressing than flooded exposure (person is exposed to the largest aspect of their fear with no buildup)
- only treats the symptoms of the fear, not the cause
- only treats phobias that have stemmed from personal experience

TOKEN ECONOMIES - systems where target behaviours are positively reinforced by tokens/secondary reinforcers

- secondary reinforcers given when desired behaviour occurs (e.g. stickers, fake money) are traded in for primary reinforcers/actual rewards
- tokens may be removed when undesired behaviour occurs

#### Evaluation of token Economies:

- + Hobbs and Holt found that it effectively treated young offenders in institutions
- low ecological validity as there is no one to issue tokens in everyday life
- people may become dependent on the tokens and only perform the behaviour when rewarded

COGNITIVE BEHAVIOURAL THERAPY (CBT) - form of psychotherapy used to modify dysfunctional thoughts, beliefs and behaviour through a goal-oriented process

- principle - it's not the event we experience that upsets us, but the way we think and behave in relation to them
- cognitive - person identifies unhelpful thoughts and replaces them with realistic appraisals

- behavioural - psychologists set the patients goals and practice tasks to change the patient's behaviour e.g. journaling
- + large amounts of research support that CBT can successfully treat anxiety, depression and addictions
- relies on a person's motivation to engage with the therapist

## RELATIONAL INFLUENCES

CONFLICT - behaviour that occurs when people perceive that their goals, behaviour or ideas differ. Two parties' views may be compatible, but the *belief* that their ideas differ is enough to create conflict

- mirror image perception - tendency for people in conflict to form negative perceptions of each other while viewing themselves as opposite to the party they are in conflict with i.e. each party believes their own views are correct and that the other party is incorrect (these assumptions lead to conflict and hostility) e.g. a mother may think her child does not do their chores to annoy her, while the child believes the mother nags them about chores to annoy them

### Conflict Resolution (Solutions)

#### **imposed solutions**

- value of own issue - high
- value of relationship - low
- goal - one view is favoured
- a solution is forced on the parties, usually resulting in one party's ideas being imposed
- winning party is decided by a third/ more authoritative party
- limitation - one party is left unsatisfied and the underlying conflict is not resolved

#### **distributive solutions**

- value of own issue - medium
- value of relationship - medium
- goal - both views are partly acknowledged (compromise)
- a compromise/mutual agreement where neither party gets exactly what they want but are somewhat satisfied

#### **integrative solutions**

- value of own issue - high
- value of relationship - high
- goal - solution benefits both parties
- decision where both parties benefit (win-win)

Conflict Resolution (Techniques) - all resolution techniques involve the conflicting parties talking to each other

#### **mediation**

- conflict is resolved by a *mediator* - neutral third party that guides the discussion by encouraging all members to actively participate and focus on the issues in order to reach a distributive and integrative solution
- parties have control over the resolution process but not the outcome
- *arbitration* - type of mediation where the third party decides upon an imposed solution after considering both sides
- mediation allows a time/place to be arranged for the meeting, mediators do not intensify, help the parties find common ground and offer an unbiased perspective

#### **negotiation**

- parties with shared and differing interests come together to reach an agreement
- aims to resolve points of difference and achieve outcomes that satisfy multiple interests

#### **counselling**

- a counsellor teaches one or both parties the skills needed to resolve conflict e.g. self-awareness, problem solving, social skills)
- these skills help resolve current conflict and prevent future conflict
- counsellors are professionally trained

SOCIALISATION - the process of acquiring beliefs, values and behaviours that are deemed important and necessary for participants in society

ATTACHMENT - the formation of a deep, enduring emotional bond between a primary caregiver and a child

Attachment Theory (Bowlby, 1958)

- **adaptive** - children have an innate need to develop an attachment to a caregiver (usually the mother) - helps the child's chances of survival and provides the child with a secure base for exploring the environment
- Bowlby hypothesised that infants and mothers have a biological need to stay in contact and for this reason, attachment is a two-way process (babies exhibit behaviours called **social releasers** e.g. crying, clinging, smiling to signal caregiving, and the mother responds)
- attachment should occur during a **critical period** (6 months - 2 1/2 years). If an attachment does not form during this period (privation) or is disrupted (deprivation), this causes long-term social, cognitive and emotional damage e.g. aggression, reduced intelligence and effectualness psychopathy
- this is Bowlby's *Maternal Deprivation Hypothesis*, with maternal deprivation referring to separation from/loss of a mother, or failure to form an attachment
- children can form multiple attachments, but form a primary attachment with one attachment figure (usually the mother) called a **monotropy**
- children develop mental representations that allow them to make sense of the world through attachment according to the *Internal Working Model*
- internal working model - children's past experiences shape their behaviour/relationships in the future, meaning successful socialisation relies on a secure monotropic attachment
- a child's IWM should contain
  - 1) a model of others as being trustworthy
  - 2) a model of the self as being valuable
  - 3) a model of the self as being effective when interacting with others

Bowlby's 44 Thieves Study

**aim** - to investigate the long-term effects of maternal deprivation in order to see if delinquents have suffered deprivation

**procedure** - 88 children sampled from Bowlby's clinic over 3 years (44 were juvenile thieves and 44 weren't).

Participants had their IQ tested and their attitude towards the test assessed by psychologists. A social worker interviewed the parents about the children's early lives

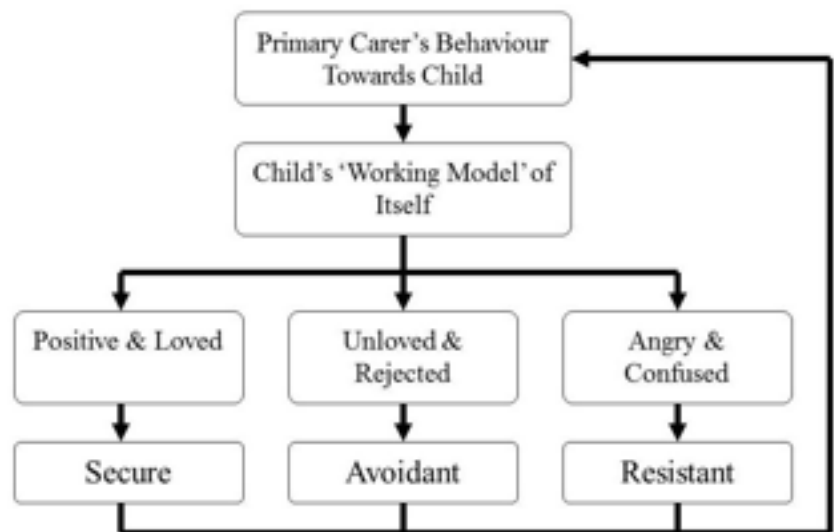
**findings** - more than half the thieves had been separated from their mothers for over 6 months in the first 5 years. 14 of the thieves showed affection psychopathy while none of the control group did and out of those with affectionless psychopathy, 86% had experienced prolonged maternal deprivation before the age of 5

**conclusion** - failure to form an attachment/ disrupted attachment early in life causes permanent emotional damage

Harlow's Rhesus Monkey Study - attachment theories before Bowlby's were based on behaviourism which assumed that attachments formed when children were classically conditioned to associate the mother with food. Harlow wanted to test both the behaviourist approach and Bowlby's approach

**aim** - to investigate whether the provision of food or contact comfort is more important in infant-mother attachments

**procedure** - 8 Rhesus monkeys separated from their mothers at birth were split into 2 groups - 1 had 4 monkeys in cages where a cloth mother provided food and a wire surrogate did not. The other had 4 monkeys where the cloth mother did not provide food and a wire mother did





**findings** - monkeys in both groups spent more time with the cloth monkey, regardless of which provided food (only went to the wire mother with food when hungry, then returned to the cloth monkey)

**conclusion** - contact comfort plays a greater role than feeding in the formation of attachments

Evaluation of Bowlby's Theory:

+ empirically tested through 44 thieves study and Harlow's monkeys study

- designed/conducted an experiment to test his own theory - experimenter bias

- contradicted by the Temperament hypothesis (Belsky and Rovine) - found that calmer babies were more likely to form strong attachments (assumes that personality affects attachment, not the other way round)

Strange Situation (Ainsworth, 1969) - Bowlby believed that attachment was an all-or-nothing process.

Ainsworth wanted to test if this was true, or if there was varying degrees of attachment, so she developed a measure of attachment called the *Strange Situation Classification (SSC)*

**aim** - to determine whether or not the quality of attachments formed differs between infants

**procedure** - 100 12-18 month old babies from middle class American families were sampled. The behaviour of the babies in 8 scenarios was observed and behaviour was recorded every 15 seconds:

- 1) observer takes mother and baby into testing room
- 2) mother sits in the room while the infant explores the room and plays
- 3) a stranger enters, is quiet for a minute, speaks to the mother and approaches the baby
- 4) mother leaves baby and stranger gears their behaviour towards the infant
- 5) mother returns, greets/comforts baby and tries to re-engage them in play, stranger leaves
- 6) mother leaves and baby is alone
- 7) stranger returns and gears behaviour towards the infant
- 8) mother returns and stranger leaves

\*\*scoring/classification is based on 4 observed behaviours, with each behaviour being scored from 1-7:

**proximity and contact seeking** - baby's intensity/persistence in trying to gain/re-gain proximity and contact, includes purposefully approaching the adult and signalling to be picked up (e.g. reaching)

**contact maintaining** - baby's persistence in their efforts to stay in contact once contact has been gained (e.g. clinging to the mother, approaching mother, resistance to release/not letting go and crying after being put down)

**avoidance of proximity and contact** - persistence in baby's efforts to avoid proximity and contact e.g. travelling across the room, avoiding eye contact and hiding the face

**contact and interaction resisting** - intensity of resistant behaviour towards people interacting with the child (anger, crankiness, temper tantrums, pushing away, kicking, hitting etc.)

\*\* other observed behaviours were **exploratory** (e.g. moving around the room, playing with toys) and **search behaviours** (e.g. following the mother and standing at the door)

**findings** - Ainsworth identified 3 attachment styles:

Type A - Anxious Avoidant (22% of the sample)

- independent of their attachment figure, do not seek contact with the attachment figure and are not joyful on reunion
- low separation and stranger anxiety
- as adults, they avoid confrontation and closeness with others

Type B - Securely Attached (66% of sample)

- feel confident that the mother will fulfil their needs
- medium stranger and separation anxiety
- seek the mother when distressed and are easily comforted by them

Type C - Insecure Resistant (12% of sample)

- exhibit clingy and 'hot and cold' behaviour, not easily comforted by the mother and regularly have temper tantrums
- high separation and stranger anxiety
- do not exhibit exploratory behaviour
- as adults, they are hostile and emotional in arguments and tend to take things personally

**conclusion** - proposed the *Caregiver Sensitivity Hypothesis* to explain different attachment styles

- caregivers who are responsive to their child's needs are more likely to have securely attached children

- mothers who ignore their children or are impatient are likely to have avoidant children
- mothers who respond to their child's needs incorrectly are likely to have resistantly-attached children

Evaluation - Strange Situation:

- reductionist - places too much emphasis on the mother while ignoring parenting style and biological temperament
- low population validity (sample is 100 middle class 1-2 year olds - findings cannot be generalised)
- low ecological validity (conditions do not match a child's everyday life - may test a child's unfamiliarity in a scenario as opposed to their attachment)

Cross-Cultural Attachment (Wolff and Ijzendoorn, 1997) - did a review of existing data and found that while there was a similar amount of securely-attached children in other countries, the proportions of the other 2 styles were different

- culture affects child-rearing techniques, which affect attachment styles e.g. Israel has a high proportion of resistant children - may be due to being raised in a communal environment, causing high stranger anxiety

## PARENTING STYLES

features of parenting styles - *responsiveness* (level of affection and support shown by parents) and *control* (extent that parents supervise and regulate their child's behaviour)

- Baumrind (1971) identified 4 parenting styles:

**authoritarian** (high control, low responsiveness) -

- set many rules without explanations and have high expectations of children
- enforce rules using withdrawal of love, and power

**authoritative** (high control, high responsiveness) -

- set limits for children that are reasonable and explain the reasoning behind their rules
- try to incorporate their children's viewpoints as children mature

**permissive** (low control, high responsiveness) -

- few rules that are typically not enforced
- children are allowed to express themselves as they please

**uninvolved** (low control, low responsiveness) -

- have rejected their children or do not have the time/energy to take care of their children
- lenient, but their discipline is erratic

## COMMUNICATION

COMMUNICATION STYLES - cultural and social aspect of language - involves accents, vocabulary, grammar and ideas being expressed

Social Background (Bernstein, 1971) - saw an association between social class and language style

- **language codes** - types of language used by different social groups

- believed the working class used *restricted code*

- short/simple sentences with little descriptive words
- requires context to make meaning of words
- used to discuss the present

- believed the middle class used both *restricted* and *elaborated code*

- complex sentences with descriptive language
- meaning is clear without context
- used to discuss the past, future or abstract ideas

- assumes different language issued for different purposes (*restricted* is ideal when there is shared knowledge between communicators. *Elaborated* is used when there is a lack of shared knowledge) - used this to explain why working class people experienced language deficits and got lower test scores in language-based subjects (they could not switch to *elaborated code*)

AAVE (Labov) - believed that differences in languages were also due to differences in background

- studied children in New York who spoke African American Vernacular English and compared this to standard English - found both were equally complex, governed by rules and could be used to make meaningful/articulate messages

- believed AAVE and standard English are simply different and neither is more complex (the way people choose to speak is not an indicator of language proficiency, but is affected by one's social situation)

Difference Theory (Tannen, 1990) - theorised that men and women have characteristic and different ways of speaking

- difference in speaking is attributed to different socialisation processes (i.e. different social roles)
- saw this in recording conversations between men and women (girls began to talk immediately and discussed the problems of one female while males were uncomfortable speaking and jumped from topic to topic)
- men use *report talk* and women use *rapport talk*:

Report Talk	Rapport Talk
use conversation to build status	use conversation to seek and offer support
offer solutions when given a problem	seek sympathy for their problems
conversations about communicating information	use conversation to strengthen social ties
use conflict to resolve differences/gain status	avoid conflict and try to compromise to maintain positive relationships
favour independence	use conversation to gain intimacy
use direct imperatives	use 'hedges' and indirect language to soften statements

\*\*differences in communication between men and women results in conflict between them i.e. women talk to men expecting the response of a female and vice versa

PERSUASION - language which aims to shape, reinforce or change individuals' beliefs, attitude or behaviour

factors that affect persuasion:

**source of the message** - the traits of the person presenting the message affect the way a person responds (persuasion is likely if the source is attractive, credible or trustworthy)

- Smith and Shaffer (1995) - we attribute expertise to fast talkers and speakers who use eye contact

**content** - what is being said and the nature of the message (e.g. speech, text, TV) - persuasion is likely to occur when we understand the message, or it has emotional appeal

**audience characteristics** - differences between people receiving the message and how these affect their view of the issue e.g. age, gender, culture, cognition

Elaboration-Likelihood Model (Petty and Cacioppo, 1986) - messages may be processed with thoughtful consideration of the content (central route) or superficially considering factors besides content (peripheral route)

**central route**

- only occurs when a person has the motivation/understanding to think about the content of the message
- actively participates in the persuasion as one evaluates whether the argument is compelling
- attitudes changed in this way are likely to last longer

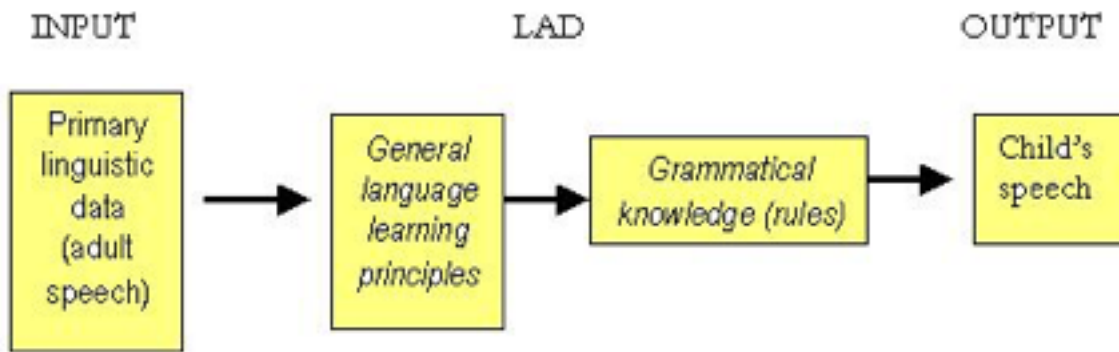
**peripheral route**

- not heavily affected by the strength of an argument as it is not carefully considered
- may occur when a person does not understand an argument/ don't have time to reflect on it
- this route is quick and takes little cognitive effort
- e.g. of peripheral cues - source of the message

LANGUAGE ACQUISITION

Nativist Theory (Chomsky, 1965) - children are born with an innate ability to acquire language as they have a mental structure called a *Language Acquisition Device (LAD)* which represents the genetic ability for humans to learn language

- LAD assumes all languages share similarities in sentence construction (called *universal grammar*) which is how children understand grammatical rules, create sentences and understand what they hear
- languages have the same *deep structures* (meanings behind words and phrases) so language acquisition only involves learning the *surface structure* of a language (lexicon/vocab. and phrases)
- LAD has parameter settings that allows one to speak a particular language depending on their environmental input
- *transformational grammar* - enables children to convert the meaning of words (deep structure) from different word combinations/surface structures



Evaluation - Chomsky:

- + innate nature of language is supported by the fact that the human brain has areas specifically for speech production (Broca's and Wernicke's areas)
- + children make grammatical mistakes such as "I singed", showing that language is not learned through imitation alone
- work was theoretical and not falsifiable - LAD, universal grammar etc. cannot be proven to exist or not

Language Acquisition Support System (Bruner, 1983) - believed language is learned through parents talking to their children (children learn the rules of grammar by experiencing them in routinised setting called **formats**)

- no social interaction = no language acquisition, and **joint attention** is required for language acquisition
- **object highlighting** - mother puts object in her and the child's line of sight - allows child to learn names of objects
- **reference** - signal to another person that they want to communicate (words and sounds eventually replace gestures)
- **scaffolding** - deliberate use of language at a level slightly beyond what the child can comprehend (expansion involves the parent increasing the complexity of a child's speech while recast is where the parent rephrases the speech and corrects its grammatical form)
- '**motherese**' - parent gears their speech to the infant by talking in a higher pitch, emphasising certain words ect.

**DEVELOPMENTAL PSYCHOLOGY** - study of the relatively enduring changes in a person's cognition, emotional, social and physical characteristics over a lifespan. A **stage theory** is a theory that divides development into distinct stages that are characterised by qualitatively differences in behaviour. These stages progress in sequential order.

PIAGET- studied **cognitive development** (enduring changes in a person's mental abilities e.g. problem-solving, judgement, memory)

- main assumption - driving force of development is one wanting to make sense of the world around them. People understand their world through schemata (**schema** - mental idea of an aspect of the physical world and how to act on it)

**assimilation** involves interpreting information and making it part of a pre-existing schema while **accommodation** involves changes in a person's pre-existing schema to account for new info. that does not fit the original schema (this is more complex than assimilation)

sensorimotor stage (0-2 years)

- learn about the world through sensory experiences and movement (most behaviour is reflexive)
- develop *object permanence* at approx. 8 months (understanding that an object continues to exist even when it cannot be seen or heard)

test for object permanence - blanket and ball study -

- **aim** - to investigate the age that children develop object permanence
- **procedure** - hid a toy under a blanket in front of child and observed whether or not the child looked for it. searching for it was evidence of object permanence
- **findings** - only children of at least 8 months searched for the ball
- **conclusion** - acquire object permanence at 8 months old as children develop a mental representation of the object

pre-operational stage (2-7 years)

- ages 2-4 -
  - *symbolic thinking* - children use symbols i.e. words and pictures to represent objects)
  - *animism* - belief that inanimate objects are real and have consciousness
- ages 4-7 -
  - can only focus on one dimension at a time (*centration*)
  - *egocentrism* - ability to only perceive the world from their viewpoint
  - *reversibility* - do not have the ability to mentally perform a series of steps backwards from a starting point

test for egocentrism - 3 mountain task -

- **aim** - to investigate whether children under the age of 7 understand that others see the world differently to them
- **procedure** - children aged 4-8 were shown a mountain scene. They sat on one side while being shown pictures of the model from different views. A doll was placed opposite to them and they had to pick the photo that showed what the doll would see
- **findings** - only 7-8 year olds consistently chose to correct photo of the doll's perspective
- **conclusion** - children younger than 7 are egocentric and fail to see perspectives besides their own

concrete operational stage (7-11 years)

- mental operations can be applied to concrete objects/events that are immediately present
- *conservation* - understanding that an object does not change in mass/weight/volume just because its form has changed
- *classification* - ability to categorise objects/events based on similarities
- *seriation* - ability to put objects in order in respect to a quality

formal operational stage (11+ years)

- develop abstract thoughts with imagined realities and symbols
- can solve hypothetical problems through *deductive reasoning* (using logic to come to conclusions)
- comprehend distance and time
- understand fairness and ideologies e.g. racism, sexism
- *idealistic thinking* - start to realise desirable aspects about themselves and compare themselves to others

test for formal operational - pendulum task -

- **aim** - to determine whether a child had reached the formal operational stage
- **procedure** - children were asked whether length of string, weight or force had the greatest effect on the speed of a pendulum. The children had a pendulum where they could change these variables
- **findings** - older children determined that length had the greatest impact by changing one variable at a time in a systematic way, while younger children changed multiple variables and did not reach the solution
- **conclusion** - children who determined that length had the greatest effect were in the formal operation stage as they used systematic reasoning to solve a problem

Piaget - Evaluation:

+ research has supported Piaget's observations the sequence of cognitive development cross-culturally

- conducted cognitive tests on his own children in a lab setting (lack population and ecological validity)
- lacks construct validity as the cognitive tests are dependent on the language used by the adult administering the test as opposed to the test itself

ERIKSON- studied **identity formation** (development of a person's long-lasting personality characteristics)

- main assumption - identity formation is a lifelong process that occurs through cognitive processes and social experiences (crises) as different stages in a person's life
- a **psychosocial crisis** is a personal conflict that acts as a turning point in development (every person experiences 8 crises with each crisis having 2 opposing outcomes. Successful development occurs when a stage is resolved through a balance of both outcomes (favouring the positive one) and this resolution crises shapes one's identity.

- 1) *trust vs mistrust (12-18 months)* - infants depend on parents for needs and if these needs are consistently met, children will view the world as safe and predictable, developing trust for others. If a caregiver provides inadequate/inconsistent care, the child will feel like they cannot trust others.
- 2) *autonomy vs shame and doubt (18 months-3 years)* - toddlers successfully establish autonomy (ability to act independently and feel self-reliant) when they feel confident in their ability to control their body and environment (e.g. walking, choosing own clothes). when children are controlled/criticised while trying to become autonomous, they doubt their abilities.
- 3) *initiative vs guilt (3-5 years)* - children develop initiative as their social and motor skills develop. Children who are given freedom during play are likely to resolve the crisis and lead others, while children who are discouraged when they show initiative are likely to feel guilty.
- 4) *industry vs inferiority (5-12 years)* - children who are praised by parents/teachers for their work will feel pride and confidence in their skills, while children whose efforts to be industrious are put down do not resolve the crisis, and feel inferior.
- 5) *identity vs role confusion (12-18 years)* - combines resolutions of earlier stages to develop a sense of identity/overall image of oneself. Successful resolution results in a person knowing who they are, who they will be in the future and their values. Unsuccessful resolution = confusion (lack of purpose, indecision and avoidance of commitment).
- 6) *intimacy vs isolation (18-25 years)* - people explore personal relationships this stage, with successful resolution meaning a person can form intimate/long-lasting relationships. If a person does not have a strong sense of self, they will find it hard to develop intimacy, causing them to feel isolated or develop shallow relationships.
- 7) *generativity vs stagnation (25-65 years)* - people become focused on needs beyond their own and try to contribute to society. This stage is resolved when adults feel they have left a legacy for the future, and unsuccessful resolution results in a lack of personal growth or concern with the interests of society.
- 8) *integrity vs despair (65+ years)* - people reflect on their lives and determine if they view their life with a sense of achievement and satisfaction (integrity). If they feel disappointment and regret towards their life choices, they do not successfully resolve the crisis and feel despair.

Erikson - Evaluation:

- + one of the first developmental theories to assess lifelong development, while other theories solely account for child development
- deterministic - first 4 stages assume that one's development is solely dependent on others e.g. parents and teachers

KOHLBERG - studied **morality** (system of behaviour about what constitutes right and wrong based on empathy and reasoning)

- main assumption - as people develop intellectually, they pass through 6 stages of moral development (2 stages in 3 basic levels of thinking) that change their responses to moral dilemmas over their lifespan. Like Piaget, Kohlberg believed development was motivated by a need to make sense of one's environment, resulting in looking to adults for understanding about right and wrong
- 3 levels of thinking:

**pre-conventional (stages 1 and 2)** - moral reasoning is guided but self-interest and wrong and right are determined by whether a person is punished or rewarded (egocentric)



**conventional (stages 3 and 4)** - moral reasoning is shaped by internalised expectations from society and models regarding right and wrong (concrete thinking)

**post-conventional (stages 5 and 6)** - moral reasoning is guided by one's personal set of ethics (requires abstract thinking)

scenario used to determine stages: Heinz Dilemma

a woman is suffering from a rare cancer but doctors say a drug could save her. The drug is \$4000 but only costs \$400 to make. The woman's husband, Heinz, went to everyone he knew for money but only raised half the amount. he asked the druggist for a discount but the doctor refused. Should Heinz steal the drug for his wife?

- 1) *punishment and obedience orientation* - children associate moral behaviour with avoiding punishment and obey authority for individual benefit
  - Heinz Dilemma - shouldn't steal because he will go to jail OR should because if his wife dies, he'll get in trouble
- 2) *individualism and exchange orientation* - moral behaviour focuses on personal gain - children obey when it benefits them
  - Heinz Dilemma - should steal as he will be happier if he saves his wife
- 3) *interpersonal concordance orientation* - conform to internalised societal rules which act as standards of moral behaviour (moral behaviour is that which helps or pleases others)
  - Heinz Dilemma - should steal because his wife expects him to OR shouldn't as if he does, he will be viewed as a bad person
- 4) *maintaining the social order orientation* - moral reasoning is guided by social rules and one's conscience (people 'do their duty' and social rules are blindly obeyed)
  - Heinz Dilemma - should steal as it is his duty to OR shouldn't as it violates society's rules
- 5) *social contract and individual rights* - aware that laws are made in the best interest of society, but may work against some individuals
  - Heinz Dilemma - should steal as everyone has the right to live OR shouldn't as the druggist has the right to fair compensation
- 6) *universal ethical principles* - develop their own morals which apply to everyone and are a person's conscience. These decide what is right and may contradict laws (prepared to face consequences to defend their morals)
  - Heinz Dilemma - should steal as saving a life is fundamentally more valuable than profit OR shouldn't as his love for his wife is not more important than others who could benefit from the drug

Kohlberg's Study

- **aim** - to investigate the development of a person's moral reasoning through different age groups
- **procedure** - conducted a cross-sectional study on 72 Chicago boys aged 10-16. Kohlberg asked the boys about Heinz and other hypothetical dilemmas where they had to justify their responses. The study went for 20 years and results were followed up every 3 years
- **findings** - found that as people get older, their responses increase in complexity
- **conclusion** - people pass through 6 developmental stages with different moral aspects. As people develop, their moral focus moves away from the individual and towards society

Kohlberg - Evaluation:

- biased sample - Gilligan argued that since the sample is all-male, it only reflects a male idea of morality and emphasises justice over compassion
- cultural bias - Shweder found that the dilemmas fail to account for cultural differences as it only considers a Western sample (e.g. Hindu morals prohibit stealing under all circumstances, meaning they would always be at the conventional level)

**BANDURA** - Social Learning Theory is based on the idea that learning occurs by observing people in one's social environment - acquire behaviours, attitudes and values

- learners play an active role in learning by choosing which models they attend to (more likely to attend to models that are consistent, who they identify with, who they like and who experience rewards through vicarious reinforcement)

**PERSONALITY** - the characteristic ways of thinking, feeling and behaving that make a person an individual

TRAIT THEORIES - a **trait** is an internal, relatively stable characteristic that defines an individual's personality and is exhibited in all situations

- assume that personality is defined by biologically-determined traits that are consistently present in a person's behaviour

McCrae and Costa's Five-Factor Model (FFM)

**openness** - one's readiness to new experiences

**conscientiousness** - extent to which one works thoroughly, is organised and acts carefully

**extroversion** - extent to which one is outgoing and enjoys social experiences

**agreeableness** - measures a person's willingness to help/be cooperative with others

**neuroticism** - measure a person's anxiety and emotional instability

- assessed personality through Likert Scale (self-report where people respond to statements with a score from 1-5 based on how much the individual agrees. Results show where people sit on the continuum for each factor)

Evaluation:

+ high internal validity as it measures observable behaviour

+ McCrae and Costa (1999) found that it had cross-cultural validity in 6 languages

- self-report is influenced by social desirability

- criticised by Mischel for ignoring situational factors and assuming people display traits in all situations

HUMANISTIC APPROACH - assumes all humans are inherently good, are rational and have free will (allows humans to strive towards self-actualisation)

**self-actualisation** - full use and exploitation of talents and capabilities in order to reach one's full potential

- holistic approach

Maslow's Theory of Motivation (1943) - person must fulfil a hierarchy of needs to achieve self-actualisation

- bottom 4 needs= D/deficiency needs - desire to satisfy the needs is motivated by their deficiency, and needs become more intense if unmet

- self-actualisation=B/being need - driven by a desire to be one's best self

- deprivation-gratification - cannot reach higher needs until lower needs are met, and when a need is unmet, behaviour is focused on satisfying it

- can move up and down the hierarchy

**Characteristics of Self-Actualisers** -

focusing on world issues instead of one's own problems, creativity and spontaneity and viewing the world objectively

\*\*findings came from studying the

biographies of 18 self-actualised people -

compiled a list of common characteristics that others do not possess

Evaluation:

+ categorises behaviour and provides an explanation for it (fulfilling different needs)

- ethnocentric - Diener (2010) found that while all needs were present in different cultures, they were not met in the same order

- predominantly male sample (only 2 female) - findings cannot be generalised

Rogers' Theory of the Self - assumes that for self-actualisation to occur, one must be in an environment where they are accepted and can grow

- self-actualisation is shaped by the significant people in one's life e.g. friends and family, allow one's *self-concept* (a consistent and organised set of feelings, perceptions and beliefs about oneself) to develop



- **unconditional positive regard** - the total acceptance and valuing of a person with no expectations/ conditions of change for this to occur
- **conditional positive regard** - partial acceptance and valuing under necessary standards
- proposed 3 components of self-concept:
  - *self-image* (who a person really is)
  - *self-worth* (who a person thinks they are/extent to which to which one values themselves)
  - *ideal self* (who a person strives to be)
- when a person feels unconditional positive regard, the 3 selves are likely to align (congruency) and the person will have a well-adjusted personality and achieve self-actualisation
- well-adjusted people have flexible self-concepts

Evaluation:

- + uses self-reports (results are reliable as they are not affected by a therapist's bias)
- emphasises role of childhood on self-concept - unlikely that a maladjusted personality could be resolved in adulthood
- lack validity - 'self-actualisation' is difficult to define and test

**SOCIAL-COGNITIVE APPROACH** - combines the assumptions of behaviourism and humanism by assuming that behaviour is affected by the individual and their situation - uses cognitive processes to determine how to act on the environment (personality is not static - people behave differently depending on the situation)

Mischel's Social-Cognitive Theory - 5 variables which determine how an individual responds to a situation:

- 1) **competencies** - one's physical, mental and emotional capabilities that allow an individual to behave and react to their environment
- 2) **expectancies** - pre-conceived ideas/beliefs an individual has entering a situation (stem from experience)
- 3) **encoding strategies** - way a person interprets a situation, processes it and stores it (also influenced by personal experience)
- 4) **subjective goals and values** - these values and goals differ from person to person and provide stability between situations
- 5) **self-regulation** - the ability to set and work towards goals

**personality signatures** - patterns of behaviour that differ between people and situations - consistent when a person is in a similar situation (explain inconsistencies in behaviour that trait theories do not account for, assume people only behave in the same way if the situation is perceived as similar)

\*\*Mischel and Shoda (1995) tested personality signatures by studying the aggressive nature of two boys at a camp - similar levels of overall aggression but were aggressive in different situations. Mischel concluded that unique personality signatures caused the varying patterns of behaviour between people

Bandura's Social-Cognitive Theory (1977) - when people observe a model performing a behaviour, they remember the behaviour and consequences, and use this to guide further behaviour

- social-cognitive - the social environment provides models that the observer uses cognitive processes to learn behaviours from
- *reciprocal determinism* - individual, environment and behaviour continuously influence one another to shape personality
- cognitive - outcome expectancies, self-regulation and *self-efficacy* (individual's belief in their capacity to execute behaviours and produce specific attainments)

\*\*evidence - Bobo Doll Study

Evaluation:

- + interactionist approach - combines the situation, cognition and behaviour
- + explains changes in personality that other approaches fail to address

**SOCIAL PSYCHOLOGY** - the scientific study of how people's thoughts, feelings and behaviour are influenced by the presence of others

**social influence** - change in behaviour (intentional or unintentional) that occurs as a result of a person's social environment

a **group** refers to two or more people who interact regularly, have interdependence on members, identify as a collective and share a common purpose

**SOCIAL FACILITATION** (ZAJONC, 1965) - tendency for individuals to perform better in the mere presence of others in comparison to performing the task their own

- may occur when people are observed without observers participating in the task (*Audience Effect*) or if a person is performing in front of co-actors performing the same task (*Co-Action Effect*)
- Triplett (1898) found that participants whirled a fishing line did so faster when doing this with other participants
- other studies found that the presence of others hindered an individual's performance (**social inhibition**)
- this may explained by the *Yerkes-Dodson Law (1908)* - empirical relationship between arousal and performance which states that performance increases with mental/physiological arousal up to a certain point, meaning there is an optimum level of arousal and an over or under-arousal leads to a decrease in performance
- Zajonc used the Yerkes-Dodson Law to theorise that since arousal from others can improve or worsen performance, the presence of others brings about a person's dominant/best-learned. Therefore, social facilitation occurs in simple tasks, where the dominant response is likely to be correct. Social inhibition occurs in complex tasks (where the dominant response is likely to be incorrect) as the arousal from others and the difficulty of the task bring arousal past its optimum level

**GROUP POLARISATION** - tendency for the opinions of individuals to become more extreme when they are in a group with people who hold similar attitudes

- principle - whatever the initial preference of the group prior to its discussion, the preference is strengthened during the discussion

Risky Shift Phenomenon - form of group polarisation referring to a change in the group's attitude that raises the chance for negative consequences (group decisions tend to be more risky than individual ones, but may be more careful i that is the group's initial leaning)

causes of group polarisation

**persuasion** - members of the group bring their own sets of arguments to a discussion, some of which other group members may not have considered. Being presented more arguments in support of the group shifts people's views towards the group's position

**social comparison** - group members evaluate the viewpoint of others in a discussion, and try to match it to gain group acceptance

**confirmation bias** - people will pay more attention to and readily accept information that confirms their views, strengthening the group's position

evidence - Myers and Bishop, 1970 - surveyed students and grouped students with a similar amount of prejudice. The students had group discussions about racial issues, with findings showing that students who were prejudiced to begin with were even more biased after group discussions, while less prejudiced students were even more accepting.

**CONFORMITY** - a change in attitudes, beliefs or behaviour as a result of real or imagined group pressure (unlike obedience, conformity lacks the presence of an authority figure or a direct command)

- according to Kelman (1958), there are 3 types of conformity:

**compliance** - a person changes their public behaviour to be accepted and avoid rejection in the short term, despite their private views staying the same

**identification** - person changes their public behaviour due to a need to gain entry into the group, as group membership is desirable

**internalisation** - person changes public behaviour and private beliefs, as the beliefs of the group become part of the individual's belief system. This means the change is long-term and even occurs in the absence of the group

explanations of conformity

**normative social influence** - conforming to group standards to feel accepted and fit into social/group norms. Humans conform in this way to gain social approval and avoid rejection (associated with compliance and identification)

**informational social influence** - conforming to gain knowledge, especially in an ambiguous situation to avoid standing out (associated with internalisation)

factors that influence conformity

### factors the influence conformity

- 1) *group size* - more likely to conform in large groups (up to 5 people) - more people increases fear of rejection or being wrong
- 2) *ambiguity of the situation* - conform in unfamiliar situations where they do not know how to behave (Asch found conformity increased when the difference between lines was smaller)
- 3) *culture* - collectivist cultures are more likely to conform than individualistic to feel a sense of group membership

### evidence - Asch (1951,1955) -

- investigated whether an individual would give an incorrect answer to conform to the group
- 123 American males were shown 3 lines and had to choose which one matched the target line. Each real participant was tested with 7 confederates who initially gave correct answers, but began choosing the wrong line intentionally for 12/18 trials, called critical trials
- 75% of participants conformed in at least one critical, while in the control group (no confederates), less than 1% gave the wrong answer

OBEDIENCE - a change in behaviour in response to a direct command from an authority figure

### evidence - Milgram (1963)

- investigated the extent to which people would obey an instruction while knowing the consequence
- 40 American males were recruited, who would play the 'teacher' in an experiment they believed was about learning, while confederates played the 'learner'. The learner was strapped to electrodes and asked to learn a list of word pairs. The learner was tested on these words and if they guessed incorrectly, the true participant was asked to administer an electric shock, increasing in voltage up to 450 volts. The learner intentionally gave wrong answers and did not feel the administered shocks (unknownst to the teacher). If a participant was hesitant to continue, the experimenter would say prods such as "the experiment requires you to continue" and "you have no choice but to continue"
- found that all participants continued to at least 300 volts and 65% continued to 450 volts
- conclusion - people tend to follow orders given by authority figures, even to the extent of endangering another person's life

### Why do we obey?

Milgram's Agency Theory (1974) - assumes that in social situations, people enter 1 of 2 states:

**autonomous state** - people direct their own actions and take responsibility for the outcomes.

Obedience is unlikely to occur in this state unless the individual's beliefs align with the command

**agentic state** - individuals act as agents for the will of others, meaning people allow others to direct their actions. Obedience is likely to occur as people feel less personal responsibility as they are carrying out the requests of others. Participants in Milgram's experiment entered the agentic state, with two factors allowing one to enter this state:

- 1) legitimacy of authority - must believe that the person giving the order is qualified to direct the behaviour of others/ in a position of power
- 2) should believe the figure will take responsibility of the outcomes

\*\*situational variables that influence obedience -

- *location* - original study was conducted in a university, but a variation was conducted in a run-down building. Obedience fell to 47.5% as the experimenter is perceived to have less authority
- *uniform* - experimenter wore a lab coat in the original study, but in a variation, the experimenter was replaced by a confederate in everyday clothes. Obedience fell to 20% as the confederate was not seen as a legitimate authority figure
- *proximity* - participant and confederate were in the same room in a variation, resulting in obedience dropping to 40% as participants could see the consequence of their actions, increasing personal responsibility

### Conformity and Obedience - Stanford Prison Experiment (Zimbardo, 1973)

- investigated whether prison brutality was due to guard's sadistic personalities or situational factors
- 24 male university students were selected and Zimbardo set up a mock prison, where participants were randomly assigned the roles of prisoner or guard. Prisoners were arrested, brought to the prison and addressed with ID numbers, and guards were given uniforms and told to enforce rules for the prisoners. the study was meant to go on for 2 weeks, but was halted after 6 days due to concerns about participants' welfare
- found that both guards and prisoners quickly took on their assigned roles, with guards asserting their authority through physical punishment, while prisoners obeyed or conducted rebellions



- conclusion - people will readily conform to the roles they are assigned, meaning the prison environment has a greater effect on brutality than the guards' personalities

**conformity in SPE** - guards identified with their social roles as they carried out the roles of the group (treating prisoners badly) and believed this was the right thing to do until they were not in the group anymore (normative social influence and identification)

**obedience in SPE** - many prisoners obeyed the guards' commands without question. The prisoners believed in the legitimacy of the guards' authority (reinforced by uniforms) and believed that the guards would take responsibility for the prisoners' actions, allowing them to undergo an agentic shift

**ATTRIBUTION** - mental explanation regarding the cause of behaviour/events of others or oneself.

Attribution Theory (Heider, 1958) - theorises that people have a need to make sense of the actions of others as our judgements about people depend on how we explain their behaviour

*types of attribution* -

**internal/dispositional** - explains a person's behaviour by attributing it to personal characteristics (attitudes, personality, motives)

**external/situational** - explain behaviour by attributing it to environmental factors outside of a person  
*fundamental attribution error*: assumes that people tend to favour dispositional attribution and overlook the situation when explaining others' behaviour. This may be due to saliency bias (person's behaviour is more noticeable than the environment) or the Just World Phenomenon (people get what they deserve)

\*\* *actor-observer bias*: inconsistency between the attributions one makes when observing and taking part in a scenario (one attributes their own behaviour to external factors while attributing others' behaviour to disposition)

\*\* *self-serving bias* - attributing positive events to one's own character while attributing negative events to situational factors (unlike actor-observer bias, this only explains one's own behaviour)

Kelley's Co-Variation Model (1973) - proposes that to be able to make conclusions about why behaviour occurred, a person must know what happened before and after the behaviour. To determine this, people investigate 3 variables:

**consistency** - extent to which a person reacts than event in the same way regularly

**distinctiveness** - extent to which a person's behaviour differs to that in other situations

**consensus** - extent to which other people behave the same way in the particular situation

internal - high consistency, low distinctiveness, low consensus

external - low consistency, high distinctiveness, high consensus

**COGNITIVE DISSONANCE** - feeling of discomfort or psychological tension caused by a person holding conflicting views, or behaving in a way that conflicts with their beliefs

- *Festinger (1959)* - theorised that people try to reduce the discomfort of dissonance by changing their thoughts to match their behaviour e.g. reducing the importance of the conflicting belief or paying more attention to supportive beliefs

evidence - Festinger and Carlsmith (1959)

- aimed to see if people would change their beliefs to match their actions
- university students were asked to complete a series of dull tasks. Half were paid \$1 to tell the next participant the task was fun, while half were paid \$20 to tell participants this. The participants told them this and were asked to rate their enjoyment of the task
- those who were paid \$1 rated the task more enjoyable than those who were paid \$20. This is because those who were \$20 had less cognitive dissonance as they had sufficient reason to lie, while those who received \$1 had less incentive to lie. This meant those who received \$1 had greater dissonance and thus, changed their cognition (i.e. believed the task was fun)

## CULTURE AND VALUES

**STRESS** - a state of physiological or psychological arousal that results from the individual's interpretation of stressors

characteristics of stressful events

**predictability** - extent to which a person can anticipate when and under what circumstances an event will occur. Unpredictable events are typically more stressful, as a person is unable to prepare for events they cannot anticipate - seen in a study by Weiss (1970) who found that rats who could predict when they would be shocked developed less stomach ulcers (an indicator of stress)



**controllability** - belief in one's ability to influence their environment to produce desired results. People experience stress in situations they cannot control, as a person can predict events they have control over

**experience of threat or loss** - sudden change in a person's life, including threat/loss of life, bodily integrity, family and money. These are likely to induce stress as these experiences cause a person to change their worldview while worsening their belief in their ability to cope with adversity

#### POSITIVE STRESS RESPONSES

**resilience** - the capacity to act positively in the face of difficult or frightening circumstances

- experiencing a crisis and returning to the same mental state pre-crisis, with resilient people being optimistic, having emotional regulation and having a strong support network

\*\***evidence** - Kobasa (1982) aimed to investigate whether stress responses could be explained by personality. The longitudinal study involved 600 managers who completed two questionnaires (one assessed personality while the other measured stressful vents and illnesses experienced). Kobasa found that all participants had high stress levels, but one group scored highly on illness, while the other did not. Kobasa concluded that despite both groups experiencing high stress, the group that experienced low illness did so as they had 'hardy' personalities

**hardiness** - a constellation of personality characteristics that function as a resilience resource (hardiness has 3 components) -

*commitment* - tendency for an individual to take a genuine interest in the world around them. This causes committed people to exert all their effort into tasks, allowing them to perceive through challenges

*control* - people with an internal locus of control believe they are responsible for the outcome of events in their lives (which they try to influence) - resilient as they believe their effort will pay off

*challenge* - hardy individuals view change as normal and as an opportunity for growth rather than a threat (overcome adversity as they view it in an advantageous way)

**Post-Traumatic Growth** - a positive psychological change resulting from a traumatic life event or highly challenging life circumstances (*Tedeschi and Calhoun, 2004*)

- involves growth in 5 areas:

1) *awareness of new possibilities in life* - re-evaluate their values and abandon old worldviews

2) *improvement in personal relationships* - strengthen their support network, become more compassionate and empathetic

3) *increased personal strength* - increased belief in their resources (e.g. skills, thoughts) that allow them to cope

4) *better appreciation of life* - people become more grateful, particularly for aspects they previously took for granted

5) *positive spiritual change* - become more spiritually connected e.g. strengthening religious beliefs or having a greater appreciation for nature

#### NEGATIVE STRESS RESPONSES

**Post-Traumatic Stress Disorder (PTSD)** - severe and continuing reaction to the trauma of experiencing actual or perceived threats to life, violence or injury. It is a clinically-significant condition with symptoms lasting for at least one month after exposure to trauma

#### symptoms

- *physical* - disturbed sleep, nightmares, headaches and exhaustion
- *cognitive* - flashbacks, disorientation, impaired memory and concentration
- *emotional* - fear, anxiety, guilt, depression

\*\*re-experiencing symptoms (flashbacks), avoidance and numbing symptoms (e.g. substance abuse) and arousal symptoms (hyper-vigilance/feeling 'on edge')

#### Why does PTSD develop? Shattered Assumptions Theory (Janoff-Bulman, 1992)

- assumes that experiencing trauma changes how individuals view themselves in the world as information from their traumatic experience changes their ideas about the world

- people develop 3 assumptions about the world throughout their lives:

1) *world benevolence* - belief that the world and people in it are fundamentally kind

2) *meaningfulness* - belief in a cause and effect relationship between one's actions and the outcomes (people get what they deserve)

3) *self-worth* - belief that a person is moral and decent (if a person is good and good things happen to good people, good things will happen to them)

- when an event occurs that challenges these assumptions, this experience shatters one's worldview, causing PTSD symptoms
- \*\*treatment - medication (e.g. SSRIs), cognitive behavioural therapy and systematic desensitisation
- SENSE OF COMMUNITY - a feeling that members have of belonging, that members matter to one another and the group, and a shared faith that members' needs will be met through their commitment to be together
- according to *McMillan and Chavis (1986)*, sense of community has 4 components -
- membership - feeling of belonging to something bigger than oneself (has 5 sub-components)
    - *boundaries* - separate the in-group and the out-group e.g. language and rituals
    - *emotional safety* - members feel secure and able to express themselves
    - *sense of belonging and identity* - faith that a person has acceptance by the group
    - *personal investment* - meaningful contribution to the group
    - *common symbol system* - shared symbol that shows who belongs in the group e.g. logos
- influence - influence is bidirectional (individual influences the group and group membership influences the individual)
- integration and fulfilment of needs - members experience positive reinforcement when the needs of the group are met and the group's interdependence on each other increases cooperation
- shared emotional connection (the basis of sense of community) - members feel connected through shared events (contact hypothesis - assumes a greater amount of interaction causes positive bonds to form)