Ethics

* Standards that guide individuals to identify good, desirable or acceptable conduct
* The National Statement on Ethical Conduct in Human Research is referred to by ethics committees to decide whether or not to give approval to proposed psychological research
* Underpinning values: research merit and integrity, justice, beneficence + respect

Research Merit and integrity – research must have potential benefit, be soundly based and well designed, and be conducted and supervised by competent people

Justice – participants must be fairly recruited and not exploited, there should be fair access to the benefits of the research

Beneficence – likely benefits must justify any risks or discomfort

Respect – researchers must have proper regard for the welfare, beliefs and customs and culture of the participants

Ethical Guidelines

Informed consent: participants must be given the details about the nature of the research, its benefits and risks as well as what they will be expected to do in language they can understand. They will need to give permission to participate.

Deception: sometimes giving participants information about study may influence results, the experimenter must ensure that participants do not suffer stress, distress or embarrassment from research procedures. Afterwards, they must be informed about the study and be debriefed.

Privacy: right of protection from unwanted intrusion by government or other people into one’s affairs. Relates to type of personal information collected, stored and shared and who can have access to it. Common wealth privacy act came into force in 1988 and covers private sector and government business and the health sector.

Anonymity: protection of a person’s identity through not disclosing their name or not knowing it.

Confidentiality: resides in the relationship between a professional and refers to the degree of secrecy attached to the information given by the patient. An understanding that information given by participant will not be disclosed to anyone unless participant consents, results are kept securely and properly disposed of.

Voluntary participation: participants must agree to participate on their own accord for its own value, must not be coerced into it through bribery or through threats.

Withdrawal Rights: participants have the right to withdraw from research at any stage and for any reason, they must be informed of this before they give consent. There must be no penalty if they withdraw.

Professional conduct -

Any psychological, medical or scientific research work in Australia must comply with the most recent version of the *National Statement on Ethical Conduct in Human Research* (2007). This is a document that governs the processes of professional conduct when conducting research on humans. Fundamental principle = beneficence (benefits outweigh risks)

Role of the Experimenter

* Objective to ensure the researcher has no effect on the behaviour being observed or recorded or on the results
* Can be influenced if they treat experimental and control group differently
* Can be influenced by giving non-verbal feedback, such as smile or grimace to right or wrong answers
* Can be influenced by verbal feedback to correct responses

Participants Sources of Error

Hawthorne Effect: participants may change their behaviour because they know that they are part of a study

* Participant expectation is extraneous variable as it can potentially affect outcome of experiment
* A participants self-presentation characteristics refers to their desire to look good or perform appropriately

Reduce Hawthorne Effect – Single Blind Procedure

* Participants are unaware of what group they have been placed into (experimental group or control group)

Placebo Effect: a participant’s belief that a treatment has led to an improvement in symptoms, not just a psychological process

* Placebo = a neutral or inactive substance or procedure that looks like a real substance or treatment being tested and which is delivered in a similar way, given to control group
* Participant expectation is extraneous variable + self-presentation with desire to look good

Experimenter Sources of Error

Experimenters Effect: own personal variables as well as his or her expectations and behaviours create bias in the results by making inaccurate observations, making inaccurate recordings or interpretations of data, presenting experiment to the participants in a biased way.

Reduce via Double-Blind Procedure –

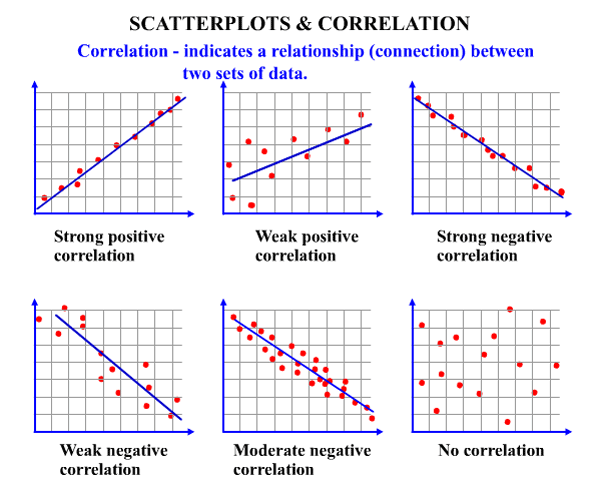
* Neither experimenter nor participants know if the placebo or treatment is given

Placebo: control group is given placebo drug whilst the experimental group is given actual treatment, both groups unaware of their status, effects should be due to the drug rather than participants belief

Experimenters effect: person who designs experiment does not conduct it thus reducing possibility of person collecting data in a biased way

Randomised Controlled Trials: considered gold standard of research, participants randomly allocated to experimental group/control group

**Scatter Graphs**



* Correlation does not equal causation

Sampling: process of selecting a number of individuals for a study in such a way that the individuals represent the larger from which they were selected

Sample (n): representatives selected for a study whose characteristics exemplify the larger group from which they were selected

Population (N): larger group from which individuals are selected to participate in a study

Sampling Error: chance and random variation in variables that occurs when any sample is selected from the population

Avoid/control sampling error: census of entire population taken, use various sampling methods

Sampling Bias: non-random differences, generally the fault of researcher, cause sample to over-represent individuals or groups within the population and lead to invalid findings

Steps in sampling

1. Define population to be sampled
2. Determine sample size
3. Control for bias and error
4. Select sample

Random Sampling: process of selecting a sample that allows individual in defined population to have equal chance of being selected for sample

Advantages: easy to conduct, requires minimum knowledge

Disadvantages: need names of all population members, may over-represent or under-estimate sample members, difficulty in reaching all selected in sample

Stratified Sampling: process of selecting a sample that allows identified subgroups in the defined population to represented in the same proportion that they exist in the population

Advantages: more precise sample, can be used for both proportions and stratification sampling, sample represents desired strata

Disadvantages: need names of all population members, there is difficulty in reaching all selected in the sample, costs more money, takes longer to do

Convenient sampling: process of including whoever happens to be available at the time

Advantages: cheap, easy, quick

Disadvantages: difficulty determining how much effect results from the cause

Reliability –

Measures used in an experiment must be consistent within themselves + over time

Internal Consistency: evidence provided by the split-half method, within the test/measure the variable should be tested more than once and yield similar results each time

Test-Retest Reliability: how people perform on a test at one time is similar as how they perform on it at a later time, if not consistent can assume what is being measured is not real

Validity –

Test measures what the test developer intends them to measure

Face Validity: experts in the field judge whether the material in a measure is appropriate, does the test appear to be measuring what it claims

Construct Validity: do the test items relate to the aspects/constructs of the theory being tested

Concurrent Validity: does the new test/scale that we are using as a measure yield the same results as a scale/test that we already know well

Predictive Validity: the extent to which the measure can predict other attributes thought to be related to the constructs being tested

Nervous System

Central Nervous System (CNS): Brain + spinal cord

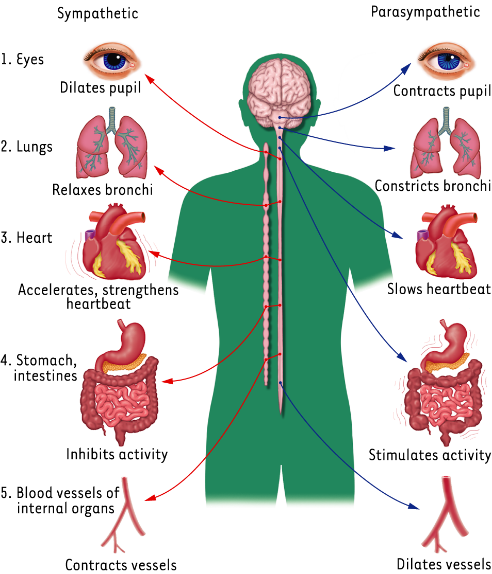
Peripheral Nervous System (PNS): sensory neurons + motor neurons (somatic + autonomic)

Somatic Nervous System: voluntary movements via skeletal muscles

Autonomic Nervous System: organs, smooth muscles

Sympathetic: Fight or Flight response

Parasympathetic: maintenance

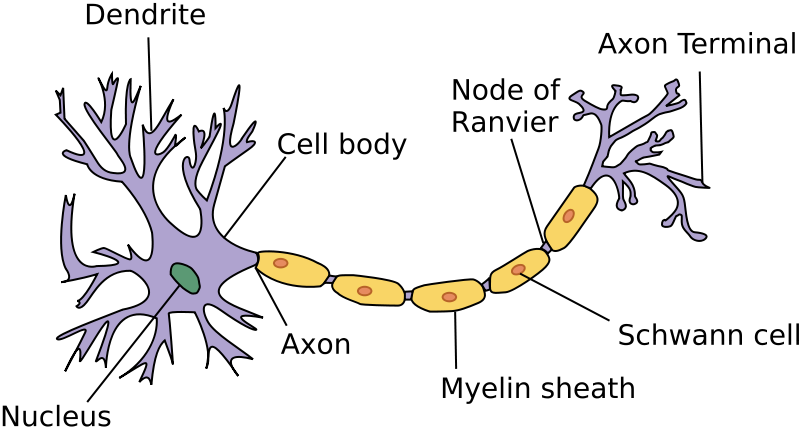


Neurons –

Basic units of the nervous system. Receive, integrate and transmit information. Operate through electrical impulses. Communicate with other neurons through chemical signals.

Sensory Neurons: send information from sensory receptors towards the CNS

Interneurons: send information between sensory and motor neurons

Motor Neurons: send information away from CNS to muscles or glands

Dendrite: receive messages and conduct impulses toward the cell body

Axon: messages are sent to other neurons or to muscles or glands

Synapse: junction between the axon tip of the sending neuron and the dendrite or cell body of the receiving neuron. Tiny gap at this junction is called synaptic gap.

Resting Potential: when an axon is at rest the anions give it a negative charge. The sodium pumps keep sodium out and potassium in, and the sodium gates and potassium gates are all closed. Because of the positive-negative difference between the inside and outside.

Action Potential: when dendrites are stimulated, polarity of the membrane is altered. Positively charged ions rush in (depolarisation) and increase the voltage from -70mV to -55mV (increase of 15mV) which is the threshold for the message to fire – all or nothing. This impulse is propagated (moved) along the neuron. Causes release of neurotransmitters (chemicals) from terminals to receptors on next neuron.

Communication

Impulse releases neurotransmitter from vesicles. Neurotransmitter enters synaptic gap, neurotransmitter binds to receptors on the receiving neuron.

Myelin Sheath –

Fatty material made by glial cells, insulates the axon, and allows for rapid movement of electrical impulses along axon.

Type of Neurotransmitters:

Dopamine: influences movement, learning, attention, and emotion.

Excess linked to schizophrenia, under linked to Parkinson’s disease.

Serotonin: affects mood, hunger, sleep and arousal

Under linked to depression

Endorphins:

Released from exercise. Interact with receptors in brain reducing perception of pain. Trigger positive feeling in the body. Euphoric feeling (runners high)

Factors that Affect Behaviour, Emotion + Thought

Heredity: passing of genetic characteristics from one generation to another

Genetics: the study of heredity and the passing on of inherited characteristics from one generation to the next

* Plays big role in physical growth, development, intelligence

Their Role:

* Determine which cells become brain cells, muscle cells or nerve cells
* Regulate pigment production and therefore determine skin, eye and hair colour
* Regulate pace and timing of development including onset of puberty and menopause

Hormones are chemical messengers produced by endocrine glands

Interaction with Environment:

Our environment effects the outcome of our genes

Heredity/genes set the limits but the environment determines if those limits are met or not, or even surpassed.

Genes: carry genetic information from parents to offspring

Environment: nutrition, upbringing, opportunities

Nature: how much are our differences shaped by genetics (genetics/biology)

Nurture: how much are our differences shaped by our environment/upbringing (environment)

Twin Studies

Identical twins (separated at birth)

* Same genetics different environments
* Any recorded differences are due to differences in the environment (nurture)

Fraternal twins

* Different genetics same environment
* Any recorded differences are due to differences in genetics (nature)
* Fraternal twins are no more genetically alike as two siblings
* If they are identical they have developed from the same fertilized egg that has split, therefore they have exactly the same inherited material

|  |  |
| --- | --- |
| **Degree of Relationship** | **Degree of Gene Similarity** |
| MZ | 100% |
| DZ | 50% (approximately) |
| Siblings | 50% (approximately) |
| Adopted Children | None |

Twin studies

Strengths:

* Produced lots of data in support of biological roots of disorders
* Helped psychologists to stress prevention
* High cross-cultural reliability of concordance levels

Limitations:

* Identical twins rarely separated at birth

Adoption Studies

Can see whether adopted children are more like their adopting parents who provide their living environment or more like their biological parents who provide their genes

* Children’s characteristics more like their biological parents = genetics (nature)
* Characteristics more like adoptive parents = environment (nurture)

Strengths:

* Allow researchers to isolate variables
* Shows evidence genes play a strong role in development of traits

Limitations:

* Selective placement is a problem
* Act of being given up for adoption may affect child’s behaviour

Bouchard & McGue – Meta Analysis of Siblings

* Conducted meta analysis of 111 studies of siblings
* Found closer the siblings were, the more similar their IQ
* Large study, easy to generalise
* Siblings raised in same environment, so influence may not be purely genetic

Bouchard et al – Minnesota Twin Study

* Twins separated in infancy, reared apart – compared on ability, personality, social attitudes and leisure time and hobbies
* Investigate concordance rates for a number of variables such as IQ
* Results = IQ concordance rate was 69% for identical twins raised apart and 88% for identical twins raised together
* Researchers concluded that environmental factors do play a role in development of intelligence
* IQ is a large extent inherited, 70% of observed variation in the sample could be attributed to genetic variation
* No cause-effect relationship

Wahlsten – French Adoption Study

* Well controlled adoption study in france
* Transferred infant from family with low socio-economic status to one with high economic status parents
* Increased IQ of children by 12-16 points
* Suggest that environment has a lot to do with intelligence

Daniels & Plomin

* Longitudinal study, tested socialbility vs shyness of children adopted at 1-2 years
* Found heredity played a role in shyness – extreme shyness in biological mother = shy child at 2 years
* Family environment also important in the development of shyness, shyness in adoptive mum = shy child at 2 years
* Followed children of two groups of mothers low + high intelligence
* Adopted at birth by parents of above average income + education
* Children from low IQ mothers scored above average in IQ
* Children from high IQ mothers scored even higher
* Shows both heredity and environment play a part in IQ development

Hormones

* Released by glands and then travel through your blood to affect different parts of your body
* Nerves and nervous system send signals rapidly controlling which hormones are released, how much + when
* Attach to specific receptor sites on cells triggering a change in the cell

Adrenaline

* Increase heart rate & force of heart contraction
* Relaxes lung muscles to be able to breathe faster to provide more oxygen to tissues
* Dilates particular blood vessels to divert blood to muscles and brain
* Decreases response to pain
* Slows digestive system function
* Fight or flight response

Noradrenaline

* Constricts some blood vessels to maintain blood pressure
* Increases blood sugar to be used to give body energy
* Breaks down fats for energy
* Helps to keep brain focused and attentive to action

Drugs

* Affect body chemistry and lead to changes in the way we feel, think and behave
* Hi-jack receptor sites of hormones to alter our body chemistry

Psychoactive drug: is a chemical substance that acts primarily upon the central nervous system, alters brain function resulting in temporary changes in perception, mood, consciousness and behaviour

Recreational drug:

* Use to make us feel better, not to treat medical condition
* Most were used as medical drugs
* Legal vs illegal

Pharmaceutical drug:

* Used for medical condition
* Teat disease
* Controlled under legislation
* Prescribed or over the counter

Depressants

* Calm the activity of the nervous system and slow body functions
* Alcohol

Physiological effects

* Reduced motor control/ movement coordination
* Slows reaction time

Psychological effects

* Lowers inhibitions
* Reduces feelings of self consciousness

Disinhibition: reduction of self-consciousness and people often act in ways they normally wouldn’t

Stimulants

* Excite the nervous system and arouse body functions
* Caffeine, nicotine, amphetamines, cocaine
* Very addictive

Physiological effects

* Increase heart and breathing rate
* Rise in blood sugar
* Increase in temperature, blood pressure
* Irregular heartbeat

Psychological effects

* Increases energy
* Hyperactivity
* Impulsive behaviour + self confidence
* Poor attention
* Mood swings

Hallucinogens

* Change your perception and give you sensory images
* LSD, magic mushrooms

Physiological effects

* Increase sensitivity to sounds, colours, tastes & smells
* Accelerated heart rate
* Dilated pupils

Psychological effects

* Gives sensory images without input from the senses
* Hallucinations
* Blurring of the senses
* Relaxation
* Feelings of intense pleasure

Ecstasy

* Stimulant and mild hallucinogen
* Results in heightened feeling of emotions and connectedness to those around them
* Dehydration major problem
* Long term use can result in deflated mood, memory loss and damage to immune system

The brain

3 main physical sections

forebrain: most highly developed and largest part of brain, major role in how we think feel and behave

* Cerebral cortex (2 hemispheres) joint by the corpus callosum (allows messages to be sent between hemispheres)

Right hemisphere: receives sensory info from and controls the movements of left side of the body

* Non-verbal activities, drawing, puzzles, appreciating art, spatial

Left hemisphere: receives sensory info from and controls the movements of the right side of the body

* Verbal functions, speaking reading, writing and understanding language, reasoning, analysing, interpreting info

Cerebral cortex (4 lobes of the brain)

1. Frontal lobe

Higher order mental abilities, decision making, problem solving, planning, reasoning, thinking, personality, initiative, emotions

Left side: language abilities, speech production

Voluntary motor control, left side controls right body vise versa

If damaged –

Persons personality changes drastically, capacity to reason and problem solve reduced (Phineas gage)

Broca’s Area

* Production of speech and understanding grammatical structures of sentences
* In left hemisphere
* Responsible for control of mouth and tongue

If damaged –

Broca’s aphasia, can understand language but cannot properly form words or produce speech

Primary motor cortex

* responsible for all voluntary movement
* in both left and right hemispheres
* left side responsible for right body side
* top is responsible for voluntary movement of the bottom of the body vise versa
* amount of motor cortex devoted to body part depends on their sensitivity and importance (not size)

if damaged –

loss of initiative and ability to adjust behavior to make it appropriate to the situation

loss of reasoning

personality and emotional control drastically altered

1. Parietal lobe

Involved in sensing and monitoring of body parts as well as sensory association areas and coordination, responsible for control of bodily sensations (touch, temperature, orientation), controls judgement of texture, weight, size and shape

If damaged –

Reduction in bodily feelings

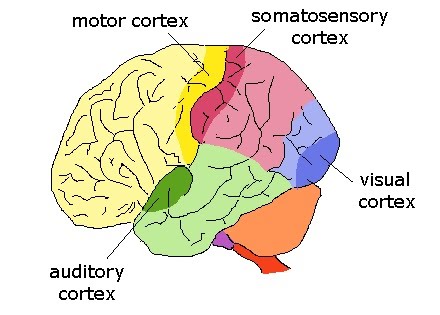
Unable to recognize whole objects by sight (visual agnosia)

Difficulty in spatial skills

Neglect syndrome – don’t recognize one side of their body belongs to them

Loss of the ability to associate senses

Primary sensory cortex

* Sensations are detected by sensory receptors in the sense organs and transmitted via sensory neurons to primary sensory cortex to be organized and interpreted
* Sensory info from the left side of the body first travels to the right side of the primary sensory cortex
* Devoted to body parts depends on their sensitivity not size
* Sensitivity – measure of the number of sensory receptors found in that body part

1. Temporal lobe

Involved in hearing, speech, language & memory

Right – visual memory

Left – verbal memory

Helps to differentiate between sounds and smells

If damaged –

Specific deficits in language

Inability to recognize faces

Wernicke’s area

* Responsible for language comprehension
* Understanding written and spoken language

If damaged –

Receptive aphasia

Difficulty understanding spoken language but are able to produce sound, phrases, and word sequences

Hear words but unable to locate them within memory, becoming meaningless

Primary auditory cortex

* Auditory info is received & processed then a response is coordinated
* Micro-electrode stimulation produces dream like memories
* Hear a series of sensations

1. Occipital lobe

Receive infro from both eyes, processes and interprets it

Micro electrode stimulation produces flickering patterns of light and colour

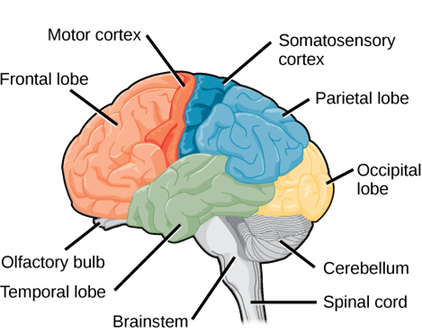
Primary visual cortex

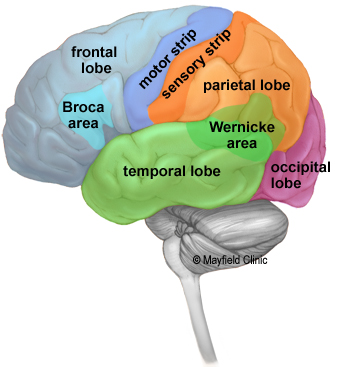
* Visual info is first received and processed
* Assembles the bits of visual info into a whole picture

If damaged –

One side will produce blind spots in the visual field of the other side

Or no visual awareness

See hallucinations



Cognition

* How people think
* How we take in, use, understand and remember information so that we can solve problems and make decisions

Memory

* Process in which information is encoded, stored and retrieved

1. Encoding: conversion of sensory info into a form that can be processed by the brain

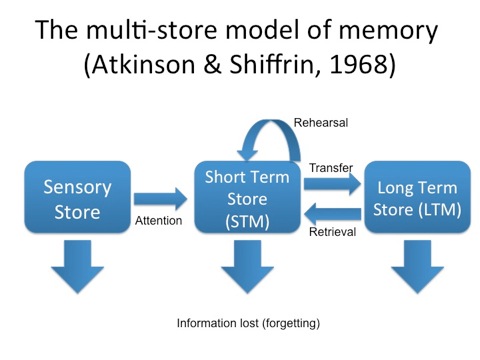
* 3 ways = visually, acoustically, meaning

1. storage: retention of info via networks of neurons, brains form associations between neural networks to aid later retrieval
2. retrieval: recovery of info stored in the brain

* if memory cannot be retrieved, then it cannot be shown to exist at all

multi-store model of memory (Atkinson & Shiffrin 1968)

* 3 separate stages

1. sensory memory
2. short-term memory
3. long-term memory

* each stage characterised by 3 differences

1. capacity: how much info can be stored
2. duration: how long can the info be stored
3. function: what is done with the stored info

sensory memory

* info from the senses
* allows us to develop representation of a stimulus
* main function is to hold incoming info for long enough to be processed further
* 5 separate sensory registers act as temporary storage bins for the different senses
* info remains in sensory registers for varying amounts of time (auditory longer than visual)

capacity

* 3-7 units
* stores all incoming sensory info in memory registers for different senses
* most discarded
* important info passed to short term memory

storage

* less than 5 seconds
* quickly fade

encoding

* rapid, based on physical properties of the stimulation
* helps us experience a constant flow of info
* selective attention focuses your mental resources on only some of the sensory stimuli
* iconic – visual memories
* echoic – auditory memories (disappears slower)

short term memory

* refers to info we are aware of
* thoughts, words + images available for decision making and problem solving

rehearsal

* enables info to be retained in working memory for longer than usual
* able to transfer material to long term memory
* two types: maintenance rehearsal. Elaborate rehearsal

1. maintenance rehearsal

remembering info for immediate use, not to transfer to long term memory

often just repeating, eg a phone number to use straight away

1. elaborate rehearsal

active processing and encoding of info by associating it with other info in long term memory to make it more meaningful so it can be stored in LTM for later use

eg, psychology course content

chunking

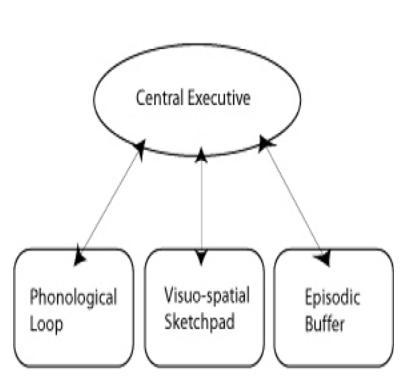
* used to increase WM capacity (George miller)
* process of combining info into larger, meaningful groups based on patterns
* stm has the capacity to remember 5-9 chunks of meaningful info

capacity

* between 5-9 units of info
* greatest foe digits
* lowest for letters or words
* better for auditory info

duration

* 30 seconds
* 5-18 seconds without rehearsal
* adaptive

working memory model – Baddeley & Hitch (2000)

working memory

* current, preferred term of STM
* broader, emphasises the active nature of processing memory rather than earlier notions of passive maintenance
* consistent back and forth of info between area
* allows us to mentally work with or manipulate info

Original model has two slave systems for short term maintenance of info and one central executive

Central executive

* responsible for organising info and coordinating slave systems
* directs attention to relevant information and suppresses irrelevant info

articulary/phonological loop

* stores and processes sounds of language and rehearses it silently

visuo-spatial sketchpad

* stores visual and spatial info, constructs and manipulates visual images including details of shape, colour, motion, pattern, position and represents mental maps

episodic buffer (added in 2000)

* links info across domains to form integrated units of visual, spatial, and verbal info with time such as memory of a story or movie
* also has links to long term memory

short term memory (Baddeley & Hitch)

* sensory info is logged into a sensory store for short period
* info that is attended to is passed into working memory where it is held briefly in a limited capacity system
* info that is acted on is passed on to LTM
* at each step executive control processes are needed to regulate attention, select memory processes and problem-solving strategies and to monitor long term storage and retrieval

encoding

* rehearsal
* chunking
* acoustic encoding dominates
* kinaesthetic encoding (physical movements)

multi-store model of memory (Atkinson & Shiffrin)

long term memory

* relatively permanent store of info
* info moves from WM to LTM through physical changes in neurons and neural networks to make the associations and hence the storage permanent
* two types: procedural memory, declarative memory

1. procedural memory

the ‘how’ of memory, memory of actions and skills learned

not a conscious memory process, mainly refers to learning of motor skilss

require little effort to retrieve as skills are well established

eg, how to ride a bike

1. declarative memory

the ‘what’ of memory, memory of declaring how things are or what you remember

requires conscious effort for retrieval

2 types: episodic memory, semantic memory

1. episodic memory: memory of specific past or personal events, linked to feelings of a particular time
2. semantic memory: memory of facts and info based on understanding and interpretation, often spoken or written material

LTM

* sometimes can be difficult to retrieve a particular memory
* can decay over time
* info can be interfered with, both during storage and retrieval where associations become confused over time

capacity

* unlimited
* no way to prove it
* subject to distortion

duration

* more than 30 seconds up to forever
* unlimited

encoding

* some info is encoded even if it makes no conscious effort

dual coding theory: pictures remembered better than words as people tend to create a verbal label

eg, frog to memorise pictures as well as look at the pictures visual features

measuring memory

1. recall
2. recognition
3. relearning

recall

* questions which ask you to retrieve info from memory without any prompts or cues

recognition

* questions which ask you to identify info from a number of alternatives

relearning

* involves a person relearning info they have previously learned
* if the info is learned more quickly the second time it is assumed the info must have been retained
* most sensitive measure of memory

recall vs recognition

* regardless of the type of info to be remembered, people find recognition easier than recall

Forgetting

* a failure to retrieve info that has been previously stored, or use it as required
* was the info stored and now cannot be accessed
* was the info not stored in the first place
* is it the inability to retrieve stored info
* 4 types: retrieval failure, interference, motivated forgetting, decay

1. retrieval failure: inability to retrieve a certain piece of info, successful retrieval requires cues, cues cause a search to be activated
2. interference: suggests forgetting is a result of retrieval difficulties due to competing, similar info being stored. Info isn’t lost, but cant be successfully retrieved because it gets mixed up.

two types: retroactive interference, proactive interference

1. retroactive interference: learning of new info interferes with remembering old info
2. proactive interference: info previously learned interferes with new learning
3. motivated forgetting: inability to retrieve info because there is an advantage to not remember it, self protection defence, not deliberate
4. decay: fading away of memory over time

ways to improve memory

* paying closer attention to the material
* having experience with the material
* using info to be remembered
* use of mnemonics/memory aid tricks
* using same contextual cues

Learning

* relatively permanent change that occurs as a result of experience
* early theories described learning as a result of responding to a stimulus in the environment – stimulus response

classical condition (stimulus-response theory)

* learning caused by pairing, or association of two stimuli
* forms between two stimuli, one which is not normally associated with desired response, so that the appearance of that stimulus results in desired behaviour
* neutral stimulus triggers a conditioned response
* learn to associate stimulus with response
* response is involuntary

extinction: learning is undone, can happen naturally, or can happen through therapy

Ivan Pavlov

* trying to study digestive system of dogs + found that dogs started salivating when the scientists appeared
* food was the unconditioned stimulus, unconditioned response was salivation
* neutral stimulus was the bell, no condition response was no salivation
* bell + food = salivation (unconditioned response)
* bell (conditioned stimulus) = salivation (conditioned response)

stimulus: object or event that can be detected by the senses

unconditioned stimulus: a stimulus that triggers a response naturally

conditioned stimulus: a normally neutral stimulus that through learning is associated with a specific response

response: resulting behaviour from a given stimulus

unconditioned response: a response that is triggered naturally

conditioned response: the response that is triggered by the learnt stimulus

Watson – Little Albert

* used 11 month old
* presented him with a white rat and a loud noise
* after pairing these several times, albert showed fear of white rat
* albert generalised fear to stimuli that were similar to original

operant conditioning (stimulus response theory)

* learning through responses to experiencing consequences
* thorndike observed cats learned better when rewarded with food
* reffered to as thorndikes law of effect
* conditioning voluntary behaviours, response comes before stimulus

skinner – skinner box

* box devised to study conditioning in animals
* number of levers and food chamber
* as the animals press the lever they receive a food reward for the pressing behaviour being learned

reinforcement: a consequence that causes a behaviour to increase

punishment: a consequence that causes a behaviour to decrease

Positive: where a stimulus is added

Negative: where a stimulus is taken away

Shaping behaviour

* reinforce any response that in some way resembles desired behaviour, then one that is closer
* used when desired behaviour occurs rarely or not at all

factors effecting reward/punishment

1. satiation/deprivation: effectiveness of a positive stimulus is reduced if individual has received enough of the stimulus to satisfy them.
2. Immediacy: an immediate consequence is more effective than a delayed one.
3. Contingency: reinforcement should occur consistently after responses and not at other times.
4. Size: size or amount of stimulus affects its potency. Engage in cost-benefit analysis.

Extinction

* Occurs when the behaviour is no longer reinforced
* During the behaviour becomes less probable

Generalisation

* Involves elicitation of a response to a stimulus that resembles the discriminative stimulus

Discrimination

* Involves elicitation of a response only in the presence of the specific stimulus

Observational learning (modelling-imitation)

* New behaviour is learnt as a result of watching others behaviours

1. Attention: pay attention in order to observe the modelled behaviour
2. Retention: mentally represent and retain what has been observed
3. Reproduction: convert the mental representations into actions
4. Motivation: having a good reason to imitate the behaviour
5. Reinforcement: learnt behaviour is more likely to be reproduced by observer if there is prospect for a reward

Bandurah – bobo doll experiment

* Aim to determine if children will imitate modelled behaviour
* One group shown video of women playing aggressively with bobo doll, other group not shown a video
* Children put in a room with bobo doll and observed
* Children who observed aggressive model were much more aggressive than those in control group
* Girls showed more physical aggression of model was male, more verbal aggression if model was female
* Children imitate behaviour even without reinforcement or punishment

Behaviour modification

* Application of classical and operant conditioning techniques to human behaviour and learning
* Based on questions: what behaviours are desired? Are these behaviours measurable? What reinforces these behaviours?

1. Token economics: artificial systems of reward and reinforcement where symbolic markers are used to reward behaviour

Strengths: more effective than simple reinforcement, can never get full of the reinforcement

Criticisms: difficulty in maintaining behaviour once left institution, tokens need to be replaced with other social reinforcers

1. Systematic desensitisation: application of classical conditioning to fears whereby they are replaced with relaxation techniques

Step one: try to find extent of fear

Step two: try to find source of the fear

Step three: create a list – least to most fearful situation

Step four: patient is taught to relax through applying relaxation techniques

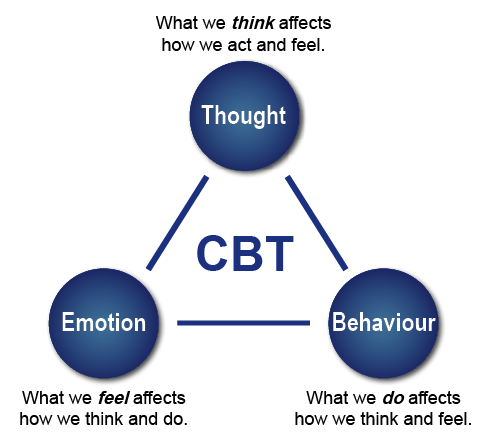
Step five: start gradually introducing the fears from least to most fearful and pairs them with practicing relaxation techniques until they are comfortable to move to the next step (graded exposure)

1. Cognitive behaviour therapy: based on the premise that thoughts influence feelings and behaviours and that subsequent behaviours influence thoughts. Patients are assisted in changing their behaviour by being taught to recognise their unhelpful thoughts and replacing them with ones that can be managed.

* Regular appointments set for a length of time
* Appointments become less frequent over time

How it treats depression

1. Helps identify and change negative thinking associated with depressed feelings
2. Helps to focus on things that make you feel positive
3. Helps to manage your problems



Socialisation

* Process of acquiring the beliefs, values and behaviours that are thought to be appropriate to function effectively as a member of society
* Agents of socialisation are factors that affect our socialisation

Attachment

* Formation of a strong emotional tie that binds a person to an intimate companion

Babies:

* Follow (proximity seeking behaviour)
* Suck and cling
* Smile and vocalize
* Express negative emotions

Adults:

* Respond to infants signals
* Hormone oxytocin promotes attachment
* Tending to child

Bowlby (attachment)

* Studied predisposition of infants for constant contact with their mothers
* Created attachment theory
* Defined attachment as the lasting psychological connectedness between human beings

His beliefs:

* Children who were always close to their mothers would have avoided predators, improving chances of survival
* Infants are biologically programmed to coo, smile and flirt to get an emotional response from their caregiver
* Child elicits contact to mother to increase chances of receiving care
* Mothers have a biological need to be close to their child

Imprinting: instinctive reciprocated mental image of infant and caregiver which provides protection and allows them to learn behaviour important for survival (called this bond attachment)

Monotropy: attachment to one person for comfort and security

Infants early contact with mother to develop monotropy (first 2 years) = sensitive/ critical period

* Believed there should be a primary bond, more important than any other

Bowlby ethological theory

* Retained freuds psychoanalytical idea that quality of attachment to the caregiver has profound implications for child’s security and capacity to form trusting relationship
* Mothers who are available and responsive establish sense of security in their children

Features of attachment:

1. Proximity maintenance: the need to be physically close to the attachment figure
2. Separation anxiety: emotional distress seen when separated from the attachment figure
3. Safe haven: retreating to the attachment figure when scared
4. Secure base: feeling of being able to explore the world because of dependability of attachment figure

Maternal separation can be seen through 3 phases:

1. Protest: involves demonstration of stress at separation and attempts to regain her by crying loudly, throwing oneself around etc
2. Despair: quiet stage in which the child is in a state of mourning and is withdrawn, intermittent or monotonous, crying may occur
3. Detachment: considered a sign of recovery as the child shows more interest in the environment, when the mother visits the child shows no interest in her and may turn away

Bowlby 4 phases of attachment development:

1. Pre-attachment phase (birth- 6 weeks)

* Babys innate signals attract caregiver (grasping, smiling, crying) and caregivers remain close by
* Infants encourage adults to remain close as the closeness comforts them and meet their survival needs
* Not yet attached to mother, so they have no fear of strangers and don’t mind being left with them

1. Attachment in making phase (6 weeks – 6/8 months)

* Starting to recognise caregivers
* Infant responds differently to familiar caregiver than to strangers
* Begin to develop sense of trust
* Does not usually show attachment responses when separated

1. Clear cut attachment phase (6/8 months – 2 years)

* Attachment to familiar caregiver becomes evident
* Display separation anxiety show distress when mother leaves
* If caregiver is supportive and sensitive, then this anxiety could be short lived
* Mar cry or cling when caregiver moves away

1. Formation of reciprocal relationship (2 years and onwards)

* By 2 years the toddler is able to understand some of the factors that influence parents coming and going and to predict their return
* Separation protests decline

Internal working model

* Childs attachment with caregiver leads to development of internal working model
* Help to evaluate their contact with others and thus their future interactions with others
* Three main features: others as being trustworthy, the self as valuable, self as effective when interacting with others
* These elements guide social and emotional behaviour

Maternal deprivation: failure to develop an attachment to the mother, as well as the separation from, or loss of, the mother

Long term consequences: impacts on cognitive, social and emotional development of the child. Delinquency + reduced intelligence, increased aggression and depression, affectionless psychopathy

Bowlby - 44 thieves experiment

Aim: to determine the long term effects of maternal deprivation on people in order to see if delinquents suffered deprivation

Participants: 88 children selected from clinic where Bowlby worked

Group 1: 44 juvenile thieves referred to him because of their stealing

Group 2: 44 juveniles referred to him due to emotional problems but had not yet committed any crimes

Procedure:

* Each child had their IQ tested + child’s emotional attitudes towards their tests assessed
* Same time, social worker interviewed a parent to record details of child’s early life
* Psych and social worker made separate reports
* A psychiatrist then conducted an initial interview with the child and accompanying parents

Results:

* More than 50% of juvenile thieves had been separated from their mothers for longer than 6 months during their first 5 years
* 14 of the juvenile thieves showed affectionless psychopathy
* none of the control group were affectionless psychopaths
* 86% of the affectionless psychopaths had experienced a long period of maternal deprivation before the age of 5 years having spent most of their early years in residential homes or hospitals and were not often visited by their families
* 17% of thieves not diagnosed as affectionless psychopaths had experienced maternal separation

conclusion:

* maternal deprivation in child’s early life caused permanent emotional damage
* diagnosed this condition as affectionless psychopathy which involves a lack of emotional development

strengths:

* Bowlby was first to consider the pair and not just the infant
* Considered dominant explanation of how and why attachment develops
* Imprinting is supported by lorenz’s geese

Criticisms:

* Schaffer + emerson: specific attachments started at 8 months and shortly thereafter infants became attached to other people, 87% of children were attached to more than one person (argues against monotropy theory)
* Rutter: pointed out several indicators of attachment when attached person leaves for a variety, arguing monotropy theory
* Idea that attachment behaviours have evolved to promote child development has good face validity but evolutionary ideas are difficult to test