Self

# Chapter 12: Lobes of The Brain, Neurons, Synapses

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| Behavioural Neuroscience | * the study of the **biology** of the brain and its relations to **behaviour** * aims to understand how the **structure and function of the central nervous system** (CNS, consisting of the brain and spinal cord) **relates to ABCs** |
| Cerebral Cortex | * most visible part of the brain * Thisis a thin, 3-5mm thick, highly folded **outer layer of the brain**. * The cortex is further divided into areas that have specialised functions – FPOT. |
| Frontal Lobe | * **1. Primary motor cortex**   + Plans/initiates voluntary body movements of skeletal muscles   + The amount of cortex devoted to a certain body part corresponds to the **precision and frequency** of the movement of the body part.     - E.g. Your fingers or tongue make more frequent and precise movements than your shoulders which are used less often. * 2. **Pre-Frontal Cortex** * Executive functioning such as planning and organising, make decisions, initiates higher thinking * May also have an effect on personality: PHINEAS GAGE CASE STUDY * Examples: motivates, controls social, emotional and cognitive control, problem solving |
| Parietal Lobe | * **Primary Somatosensory Cortex**   + Receives, analyses and interprets sensory information from the skin (temperature, touch and pain)   + More areas of cortex are dedicated to highly sensitive areas |
| Occipital Lobe | * **Primary Visual Cortex** * Receives, analyses and interprets visual information from the retina * Examples: Motion, Colour, Shape |
| Temporal Lobe | * HEARING AND UNDERSTANING OF SPEECH * **PRIMARY AUDITORY CORTEX:** * Receives, analyses and interprets auditory information or sound information from the sensory receptors in the ears * EXAMPLES: sound and listening to music |
| Broca’s Area | * Specific cortical area located in the left frontal lobe next to the motor cortex, next to the area that control the muscles of the face, tongue, throat and jaw. * **Thought to be responsible for the production of articulate speech (speech that is clear and fluent)** * Also involved in coordinating movements of the muscles required for speech and supplying this information to the appropriate cortex areas * **DAMAGE: Broca’s aphasia – babbling, poor speech production, slurring** |
| Wernicke’s Area | * Specific area in the temporal lobe of the left hemisphere only, next to the primary auditory cortex and connected to **Broca’s area** by a bundle of nerves. * **Involved with comprehension of speech; more specifically with interpreting the sounds of human speech.** * Word is heard- auditory sensation processed by the primary auditory cortex of the left temporal lobe cannot be understood until it has been processed by Wernicke’s area. * Also locates appropriate words from memory to express meanings. * **DAMAGE: Wernickes aphasia – lack of understanding of speech, language meaningless** |

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| Association Cortex | * Areas which integrate sensory, motor and other information and are involved in more complex mental abilities such as perceiving, thinking and problem solving. |
| Roles of the four lobes of the cerebral cortex | * The human brain is characterised by a large surface area known as the cerebral cortex which is divided into a number of lobes, each associated with different functions or behaviours * These structures have been identified based on anatomists knowledge on the evolution of the human brain from a simple neural tube structure * The posterior end of the brain has evolved into the spinal cord and hindbrain * The dorsal and ventral brain area are composed of the cortex and divided into four main parts |
| Neurons | * Your nervous system is made up of nerve cells called neurons (about 100 billion in NS). * Neurons are grouped together to form nerves. * Neurons transmit electrical impulses throughout the body |
| Structure of a Neuron – 3 main parts | [Dendrites](http://www.emc.maricopa.edu/faculty/farabee/BIOBK/BioBookglossD.html) receive information from another neuron and transmit the electrical messages to the cell body.  - The [cell body](http://www.emc.maricopa.edu/faculty/farabee/BIOBK/BioBookglossC.html) contains the nucleus, mitochondria and other organelles  - The [axon](http://www.emc.maricopa.edu/faculty/farabee/BIOBK/BioBookglossA.html) conducts messages away from the cell body. |
| Extra Parts of a Neuron | * Most axons are covered in a myelin sheath (schwann cells) which speeds up the conduction of messages along an axon and acts as a supportive, nutritive layer for neurons. * The gap between Schwann cells is known as the No[de of Ranvier](http://www.emc.maricopa.edu/faculty/farabee/BIOBK/BioBookglossN.html), and serves as points along the neuron for generating a signal. * Signals jumping from node to node travel hundreds of times faster than signals travelling along the surface of the axon. This allows your brain to communicate with your toes in a few thousandths of a second. |
| **An electrical impulse moves in only one direction through a neuron** | **Stimulus 🡪Dentrite🡪Cell body🡪Axon** |
| Action Potential | **Electrical impulse that is carried through a neuron to transmit information** |
| Synapse | * A **synapse** is a gap between neurons. * Can also be called a **synaptic cleft/junction** * No neurons actually touch each other * The synaptic cleft- 20 nanometres (one millionth of a centre metre wide) |

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| Synaptic Transmission | * When the **nerve impulse** reaches the **axon terminal**, tiny vesicles containing chemicals called **neurotransmitters** are released into the **synapse**. * The neurotransmitters move across the synapse and bind to **receptors** of the membrane of the dendrites of the next neuron. * This can trigger the receiving neuron to **convert** themessage into a nervous impulse and conduct it along its length. * Via a motor neuron the message eventually reaches an **effector**, which is a muscle or gland. * Models rely on chemical balances in the cell and electrical transmission of impulses through the neuron |
| The Axon Terminal and Neuro Transmitters | * Within the axon terminal are many mitochondria to provide energy for all cell functions and a number of vesicles (membrane bound sacs) that contain special chemicals called NEUROTRANSMITTERS. * When an action potential (brief electrical current) arrives in the axon terminal it causes the vesicles to move towards the membrane of the axon terminal and to merge with it. * NT’s spill into the synaptic gap and diffuse across the gap to the post synaptic dendrite membrane and attach to receptors. |
| Neurotransmitters | * Different behaviours are associated with the release of particular transmitters in different parts of the nervous system * Can assist (excite) or block (inhibit) transmission of info from one neuron to another * Chemicals that enable activity to travel across the synaptic gap between neurons * Common neurotransmitters: dopamine and serotonin |
| Dopamine | * Neurotransmitter in the brain, inhibits certain synapses in the brain and dampens down motor responses. * Involved in emotional responses, attention, learning, pleasurable sensations, movement * Helps control brains reward and pleasure centres * Deficiency in this is believed to be partially responsible for Parkinson’s disease, characterised by involuntary contraction of the muscles in the hands and legs. * Also believed to be implicated in addiction and schizophrenia |
| Serotonin | * An inhibitory neurotransmitter and is believed to play a part in emotional arousal, mood, sleep, appetite, memory. * Also known as ‘Happiness hormone’ = contributes to feelings of wellbeing * Deficiencies of serotonin have been linked to anxiety, aggression, mood disorders (depression) and insomnia. * Some drugs (eg. Prozac) increase availability of serotonin to try and increase mood |
| Noradrenaline | * Acts with the sympathetic nervous system to increase heart rate and other bodily processes involved in arousal (excited). Believed to affect learning and memory. * Excesses and deficiencies lead to mood disorders * Amphetamines = increase amount of noradrenalin that is released, stimulating * Helps the body deal with danger or threat and memory retrieval * Associated with mental disorders especially depression |
| Endorphins | * Regulate feelings and perception of pain * When bind to a post-synaptic membrane, neurotransmitters are prevented from occupying their normal sites therefore there is excess levels of them and they cause the ‘mood boost’ associated with exercise = ‘runners high’ * Also have an inhibitory effect on the NS, e.g. Causes a reduction in pain levels, don’t feel a pulled muscle when running a race until after. * Regulate our feelings and perceptions of pain * Natural painkilling drugs and are manufactured and released when the body is stressed * Released when you experience a positive mood * Example: athletes associate a high feeling when running due to an endorphin rush |
| Methylendioxymethamphetime (MDMA)/ ecstasy | * MDMA affects the brain by increasing the activity of at least three neurotransmitters (the chemical messengers of brain cells): serotonin, dopamine, and norepinephrine. * MDMA causes these neurotransmitters to be released from their storage sites in neurons resulting in increased neurotransmitter activity. * The excess release of serotonin by MDMA causes the mood elevating effects experienced by MDMA users. * By releasing large amounts of serotonin, MDMA causes the brain to become significantly depleted of this neurotransmitter, contributing to the negative behavioural after effects . * Studies in animals have demonstrated that MDMA can damage serotonin-containing neurons; some have shown these effects to be long-lasting. * Heavy MDMA users may also experience long lasting confusion, depression, and selective impairment of memory and attention processes. * Imaging studies in MDMA users have shown changes in brain activity in regions involved in cognition, emotion, and motor function |

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| Motor Neuron | * Also known as efferent or effector nerves * Control muscle contractions and have a cell body on one end, a long axon in the middle and dendrites on the other * Structural Characteristics: Dendrites relay into cell body and has long axon leaving it which feeds to muscles or organs * Functional Characteristics: Carries info from CNS to effectors eg. Muscle or gland which produces a response |
| Sensory Neuron | * Also known as Afferent Nerves or receptor nerves * Structural Characteristics: Receptors detect sensation and send msg down long dendrite which feeds past cell body to axon which sends msg to CNS * Functional Characteristics: Carries info from receptors into CNS * Have dendrites on both ends and are connected by a long axon with a cell body in the middle |
| Connector Neuron | * Also known as relay neuron * Structural Characteristics: Have lots of dendrites which relay info to cell body. Axon relays info out * Functional Characteristics: Carries impulses from sensory to motor nerves and found throughout the CNS |

# Chapter 12: Factors that Affect Behaviour

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| Factors that affect behaviour, emotion and thought | * Heredity * Hormones * Psychoactive drugs |
| Heredity | * Genetics * Important factors which influence not only our physiological development but also in our rate of development and intelligence |
| Genetics | * Is the study of inheritance of features from parents to offspring *  What we inherit from our parents determines much of our development |
| How does heredity work? | * Conception: * Sperm (from a man) penetrates the lining of an ovum or egg they each release their genetic material and form new cell called zygote * The ‘recipe’ for development is contained within the 46 threadlike bodies called chromosomes of the Zygote * Chromosomes contain ‘genes’ = the basic units of heredity * 23rd pair of chromosomes = sex chromosomes * Male= XY Female= XX |
| Genetic information | * Inside each cell is a nucleus. * Inside the nucleus are 46 chromosomes. * Each chromosome contains thousands of genes. * Chromosomes are made of a chemical called DNA. |
| Mitosis | * Cell replication via the dividing of cells. * Occurs in body cells * As the cell divides each new cell gets half the chromosomes |
| Meiosis | * Chromosome pairs cross and break, exchanging genetic material before cells spilt. * Each chromosome is combined in different ways to the original one when the cell splits, only one pair goes to each new cell resulting in a sperm or egg with 23 chromosomes when they unite = full 46 * Occurs in sex cells |
| Genes | * Guide how we develop physically * Example: production of pigments resulting some people having blue eyes and some having brown * Regulate the pace and timing of development : * Example: age teeth first appear, timing of puberty and menopause * Abnormalities in the genes or chromosomes can result in a variety of different conditions * Example: * Down Syndrome : Extra 21st chromosome (flat facial features, small nose) * Klinefelter’s Syndrome: Males have an extra x chromosome (maybe infertile) * Turner’s Syndrome: Female with only 1 x chromosome (absence of menstruation) |

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| Environmental Impact on Development | * Our genes provide the recipe for our features but our environment affects the outcome * Heredity has set limits, environment determines how things turn out within those limits * Inadequate nutrition ( a child who inherits genes for being tall may not turn out to be tall if he or she has inadequate nutrition for a prolonged period early in life) * Lack of education * no opportunity for education * Drug and or alcohol consumption by mother during pregnancy * Trauma * Natural disaster |
| Nature vs Nurture | * The extent to which our development is influenced by genetic information (nature) from our parents and how much is the result if environmental influences both physical and social in our world (nurture.) * E.g. Early enrichment = higher brain mass and better learners * Twin studies |
| Epigenetics | * refers to heritable changes in gene expression that does not involve changes to the underlying DNA sequence * Believed to be due to environmental factors that may terms genes on or off - leads to a change in phenotype without a change in genotype * Research: * Behavioural Epigenetics: experiences like child neglect or drug use are examined to see if they or other stressors can create epigenetic changes to the brain’s neurons without altering DNA |
| Hormones | * Chemical messengers produced by the endocrine glands * Travel through the bloodstream and affect different parts of the body * When they act on the brain they influence our interest in food and sex, influence our moods and affect our growth * Slow acting in comparison to the nervous system |
| The Endocrine System | contains endocrine glands which produce endocrine hormones |
| Adrenal Glands | * Secrete hormones which help prepare us to deal with emergency situations and trigger what is known as ‘fight or flight response’ * Release adrenaline noradrenaline which work in conjunction with the sympathetic n.s to speed up bodily reactions to danger : * Raises blood pressure • Increases heart rate and breathing rate (respiration) • Dilates pupils • Increased muscle contraction • Decreases activity of bladder and intestines • Raises blood sugar concentration * Even after the emergency has passed you may continue to feel some sensation due to hormones still being in the bloodstream |
| Thyroid Gland | * Releases thyroxine * Brain and nervous system development - Controls body metabolism * Develops by month 4 after conception * Babies born with a thyroxine deficiency that is not quickly treated= intellectual defects |
| Pituitary Gland | * Releases the Growth Hormone * - Stimulates growth and development of body cells * - Gland also triggers release of hormones from other glands eg. ovaries and testes (plays a role in puberty) * Children lacking this hormone will usually grow proportioned but will only reach about 130cm in adulthood * Released into the blood stream about 60 to 90 minutes after a child falls asleep |

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| Ovaries | * Stimulate the development and maintenance of the female sex characteristics eg. breasts, pubic hair etc. * Act with other hormones released by the pituitary to regulate the menstrual cycle and are involved in the changes that occur during pregnancy * Secrete oestrogen |
| Testes | * Responsible for the development and maintenance of the male sex characteristics eg. voice change, facial and pubic hair, penis growth, muscle growth etc. * Secrete testosterone |
| Menopause | * Sex glands act differently as males and females age * Women experience usually in late forties or early fifties as their menstrual cycle stops completely and there is a dramatic decline in the production oestrogen * Women may feel uncomfortable symptoms such as hot flushes, irritability and depression |
| Male Menopause | * Men experience hormonal changes in their late fifties and sixties * But they do not have the dramatic drop in the production of hormones the way women do * While there is a slight drop in men do not loose sexual fertility * More to do with changes of physical ability and increased pressure. |
| Role of Adrenaline and Noradrenaline | * Both act as hormone and NT * - speed up body reactions during fight or flight responses: * • Raises blood pressure • * Increases heart rate and breathing rate (respiration) * • Dilates pupils * • Increased muscle contraction * Adrenalin – hormone – increases production during exercise * Noradrenaline – NT’s in SNS – Keeps us alert |
| THREE MAJOR DRUGS | * Stimulants – excite NS and arose body functions * Eg. Amphetamines, Nicotine and Caffeine * Depressants – calm NS and slow body functions * Eg. Alcohol * Hallucinogens – change perceptions and give sensory images without input from senses * Eg. Marijuana, Magic Mushrooms and LSD |
| Hallucinogens | * Are mind-altering that change perceptions and result in images that are not related to sensory input * Marijuana can reduce inhibitions but also increase sensitivity to sounds, colours, tastes and smells * LSD(lysergic acid diethylamide): can alter a user’s mood and expectations ranging from one of euphoria with intense pleasant images to one of terror and panic. |
| Heroin | * A narcotic or opiate * Opiates mimic endorphins (the body’s pain killers) and when use medically alter patients reaction to pain by reducing the brain’s perception of brain (i.e morphine) * Heroin is taken intravenously and when injected it reaches the brain quickly creating a feeling of euphoria followed by feelings of calmness and peacefulness * Withdrawal produces side effects such as fevers, cramps, gastro-intestinal problems |

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| Cocaine and Amphetamines | * Stimulants * Amphetamines- elevate mood and produce a sense of euphoria * Cocaine is inhaled in powder form and reaches the brain quickly producing euphoria and increased mental alertness and self confidence * Prolonged use can result in a form of psychosis with auditory hallucinations and strange paranoid ideas * Tolerance builds up quickly so larger doses are required to maintain their effects |
| Methylendioxymethamphetime (MDMA)  (ecstasy) | * MDMA affects the brain by increasing the activity of at least three neurotransmitters (the chemical messengers of brain cells): serotonin, dopamine, and norepinephrine. * MDMA causes these neurotransmitters to be released from their storage sites in neurons resulting in increased neurotransmitter activity. * The excess release of serotonin by MDMA causes the mood elevating effects experienced by MDMA users * By releasing large amounts of serotonin, MDMA causes the brain to become significantly depleted of this neurotransmitter, contributing to the negative behavioural after effects * Studies in animals have demonstrated that MDMA can damage serotonin-containing neurons; some have shown these effects to be long-lasting. * Heavy MDMA users may also experience long lasting confusion, depression, and selective impairment of memory and attention processes. * Imaging studies in MDMA users have shown changes in brain activity in regions involved in cognition, emotion, and motor function * Stimulant and mild hallucinogen |
| Helping Drugs | * Anti-anxiety Medications * Anti-psychotic Medication * Anti-depressant Medication |
| Methylamphetamine (Meth/Ice) | * Powerful stimulant can be in powdered, liquid or crystal (ice) form * Produces a very intense high that can last between four and 12 hours * Experience a feeling of exhilaration and increased arousal and activity levels * Feeling more awake and also suppresses appetite * When used the receptors in the brain are flooded with monoamines (forms of neurotransmitters) * The more taken, these receptors can be destroyed and prolonged use can lead to a point when the user no longer feels pleasure without further use * Prolonged use is associated with brain and mental health conditions such as memory loss, depression and psychosis |

# Chapter 13: Learning and Cognition

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| Steps of memory formation in our brain | * Informational processing is a term that can be used to describe memory and remembering * STIMULUS→ ENCODING →LEADS TO STORAGE →ENABLING RETRIVAL →RESPONSE * If anyone of these processes fail, information will not be remembered |
| Memory | * Memory involves taking something that we have observed (e.g. a written phone number) and converting it into a form that we can store, retrieve and use. * Memory can store information -Temporarily and Permanently * However…. We can also… Forget and misremember * is defined as an internal record of a previous event or experience * allows us to learn * memory is complex it involves paying attention to what you are doing or what you see and converting it to a form which can be stored in the brain and retrieving the information when it is required and using it * can also be argued as the most important mental process * represents the things we have seen, thought, spoken or experienced without the original stimulus being present |
| Mental Representation | * For a sound or image or thought to return when the original stimulus is no longer present, it is represented or presented again mentally * A Mental representation is a psychological version or mental model of a stimulus (sound, object, thought, concept) |
| Mental Representation involves… | • Encoding – the conversion of sensory information into a form that can be processed by the brain   * For example: visually: such as faces or views; acoustically such as ringtones or through meaning (such as words being remembered by their meaning than form   • Storage – storage of information for retention at a later date (occurs through work of neurons)   * Humans form associations via neurons for later retrieval   • Retrieval – recovery of information that has been stored in the brain   * If a memory cannot be retrieved than it cannot be shown to exist at all |
| Two Types of Mental Representation | * Sensory - Store information in a sensory mode e.g sound of a dog barking, the sight of Perth skyline, smell of your favourite perfume * Verbal - The storing of information in words e.g more complex ideas need words to describe |
| Information Processing: An Evolving Model | * Psychologists began studying memory in the late 19th century * 1890 William James proposed a distinction between 2 kinds of memory * Primary- immediate memory, for information momentarily held in consciousness ( e.g. a website address) * Secondary vast store of information that is unconscious until called into memory (10- 20different websites) * James model known as the standard model of memory or the modal model (modal meaning most typical or common) |
| The Atkinson- Shiffrin Multi-Store/Stage Memory | * Represents memory consisting of three stages called: * Sensory memory * Short-term memory * Long-term memory * Each component represents a place where information is held and processed however the capacity, duration and function(encoding) of each stage is different. |
| Sensory Memory | * Sensory memories (stimuli) are usually held for a very brief period of time - < 5 secs υ * Sensory Registers hold information about a perceived stimulus for a split second after the stimulus disappears, allowing a mental representation of it to remain in the memory briefly for further processing * Information is encoded rapidly, based on the physical properties of the stimulation; often a sound or vast visual image * Stores all incoming information in memory registers for different senses * Most sensory information is lost quickly (not consciously aware of it) however if information is considered important and we ‘attend’ to it, it passes into our short-term memory |

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| Sensory Memory Registers | * Visual Sensory Register - ICONIC MEMORY: visual sensory register that processes visual images. * Auditory Sensory Register - ECHOIC MEMORY: auditory sensory register that processes sounds. |
| Short Term Memory | * Memory system with a limited storage capacity where information is retained for a relatively short period of time (20-30 seconds), unless the information is renewed/person deliberately tries to remember it. * Limited capacity, doesn’t hold much information - Approximately 5 – 9 items (7 + 2 pieces of info) e.g. phone numbers 8 digits. * Information that reaches Short-Term Memory can : * Decay (not being used) - Displacement (being pushed out) Be rehearsed and transferred to Long Term Memory |
| Transfer of Information from Short Term Memory to Long Term memory | * Maintenance Rehearsal * Elaborative Rehearsal υ * Chunking |
| Rehearsal | * Enables information to be retained in WM for longer than usual * Used to transfer material to LTM in cases where you want to remember the information |
| 2 forms of Rehearsal | * Maintenance Rehearsal = repeat information over and over to maintain it in the STM. Can be spoken or in your head eg. Repeat phone number to make call in 30 seconds * Elaborative Rehearsal = Process and understand information to make it meaningful and store in LTM e.g. understanding the information to help remember, such as remembering a speech from Shakespeare |
| Chunking | * To enhance the storage capacity of Short-Term Memory, information can be consolidated into ‘chunks’ totaling 7 + 2 units. * CHUNKING: the grouping of separate bits of information into a larger single unit or ‘chunk’ of information. * Chunks can be numbers, images, words, sentences, phrases or abbreviations (eg: RACV) * For example: when remembering phone numbers we may chunk them into three groups: the first four, then three, then three |
| Working Memory | * Short Term Memory is a component of WM (model of how STM works) * WM refers to the temporary storage and processing of information that can be used to solve problems, respond to environmental demands or achieve goals. * Working memory is active memory * Information remains in the WM only so long as a person is consciously processing, examining or manipulating. * Information is retained for a brief period and the amount of material retained is also limited * Millar (1956): proposed the capacity of WM is around seven (plus or minus 2) with the capacity being greatest in digits and lower for letters and words |
| Baddley and Hitch’s Working Memory | * Baddeley and Hitch therefore proposed that working memory has three components: * • PHONOLOGICAL LOOP • VISUO-SPATIAL SKETCHPAD • CENTRAL EXECUTIVE * • The three components are separate and can function independently but also interact * • The phonological loop and visuo-spatial sketchpad are the subsystems, while the central executive is the attentional controller |

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| Phonological Loop | * Known as verbal working memory υ * Encodes and stores auditory information (spoken and written information) υ * Temporarily stores a limited number of sounds, such as words υ * The verbal information is held in a sound-base and rehearsed by repeating it over and over like a ‘loop’ υ * Word length effect – As the length of the words increase the number of words you can remember decline |
| Visuo- Spatial Sketchpad | * Known as Visual working memory υ * Stores a limited amount of visual & spatial information for a brief time eg. Colour, motion υ * Visual information is anything you can see or visualise υ * Spatial information is the visual location of objects in space |
| The Central Executive | * Controls attention υ * Integrates information from the phonological loop and visuospatial sketchpad as well as retrieves information from LTM υ * Is the working component of working memory υ * Decides what deserves attention and what should be ignored υ It is only able to perform one task at a time * The CE has it’s own limited capacity independent of the information it is storing or holding momentarily in mind. υ * Other research has shown that WM as a whole does seem to have a limited capacity- people cannot do and remember too many things at the same timebut working memory capacity varies across individuals and is more than likely related to general intellectual abilities. |
| The functions of the Central Executive | * Switching – changing attention from one item to another υ * Inhibition: screening out irrelevant material υ * Updating: modifying items brought in from LTM before re-committing them to memory through the episodic buffer (accommodation |
| Episodic Buffer | * A sub-system of working memory that enables different components of working memory to interact with the LTM and links to time * • Limited in capacity and temporary storage that holds about four chunks of information and can combine auditory information and visual-spatial information and connects with LTM such as the memory of a movie or story * • Under the control of the central executive |
| How does Working Memory work? | * Imagine you want to send an SMS to a friend to arrange to meet. * 1 Your central executive gets the episodic buffer to access language from LTM. * 2 Your central executive forms the message you want to send: Coffee at Dome at 12. OK? * 3 Your central executive obtains the visual images of your mobile keypad from your visuospatial sketchpad and coordinates the keystrokes that write the message. * 4 Your central executive encodes the memory of sending the message through the episodic buffer into LTM. As you can see, the central executive is the controller, manager and decision-maker in working memory. |
| Evidence for Separate Components of WM | * Some evidence has been collected to support that visual and verbal storage are indeed distinct components of working memory. * This has largely been through working with people with brain damage or acquired brain injury who have a normal working memory but impaired visual working memory. υ * Others have been seen to store visual information but have difficulty with verbal storage. |
| Long Term Memory | * Relatively permanent storage of information υ * Tends to be more important information υ * Representations of facts thoughts, feelings, skills and experiences may reside for a lifetime. υ * Receiving information from the LTM involves bringing the information back into the STM or consciousness, known as retrieval. υ = Information storage >30 secs υ * Occurs via neurons and their connections/networks |

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| Two Types of Long Term Memory | * Procedural Memory * stores the way you do things – actions and skills that have been learnt previously (memory of “how to” do things) * Sometimes called implicit memory because it is not conscious process and mainly refers to the learning of motor skills * • Require little effort to retrieve and occur automatically * • Declarative Memory * • Memory of facts or events (The “what” of remembering) * • Sometimes called explicit memory as requires conscious effort for retrieval Two types: Episodic – memory of events or personal experiences and the internal representation of a life experience (time, place, feeling) such as your first day of school * Semantic – knowledge of facts and information based on understanding and interpretation often of spoken or written material. |
| Recall, Recognition, Relearning | * Research has shown that the amount of information that we can retrieve from our memories depends on the sort of questions we ask * We can measure the types of information has remembered by asking questions involving: recall, recognition, relearning |
| Recall | Questioning that involves retrieving information from memory without prompts or cues eg. What colour is the Japanese flag? |
| Recognition | - Questioning that involves identifying information from stated alternatives/prompts or cues. Easier than recall – eg. MCQ’s |
| Relearning | Sometimes, even with prompts/cues, we can’t retrieve information υ   * Relearning involves learning information again that has been previously learned and stored in long-term memory. υ * If information is learned more quickly the second time, it is assumed that there must be some information retained from the first learning experience. υ * Relearning is also called the “method of savings” as it can be used to measure the amount of information saved from previous learning |
| Forgetting | * Forgetting refers to the inability to retrieve previously stored information or use it as required. * There is a characteristic pattern in which information is forgotten, as demonstrated by various experiments. * The FORGETTING CURVE shows the pattern (rate & amount) of forgetting that occurs over time. * Forgetting is rapid at first, then declines gradually as time passes. * More than HALF the memory loss occurs within the first hour after learning. υ * However, the more meaningful the information, the slower the rate of forgetting |
| Retrieval Failure Theory | * We forget because the right cue or prompt is not used to retrieve the information stored in memory. υ * Retrieval cues act prompts/hints that guide the search and recovery process within memory. υ * RETRIEVAL CUE: any stimulus that assists the process of locating and recovering information stored in memory. * Retrieval Failure Theory – We sometimes forget because we fail to use the right cues to retrieve information stored in memory * Inability to retrieve a certain piece of information |
| Tip of the Tongue | * Tip Of The Tongue phenomenon is the feeling of being aware that you know something, being confident you will remember it at any moment but not being able to retrieve the information at that point in time. * Partial Retrieval Process – Bits of information can act as retrieval cues for the required information υ e.g. knowing that the person’s name started with a K |

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| Interference Theory | * Forgetting in LTM occurs because other memories interfere with the retrieval of what we are trying to recall, particularly if the other memories are similar. υ * The more similar the information and the closer the time of learning, the more likely it is to interfere with retrieval. υ |
| There are 2 kinds of interference: υ Retroactive Interference υ Proactive Interference | * RETROACTIVE INTERFERENCE: υ When new information interferes with (or inhibits) the ability to remember old information υ * New learning interferes with (or inhibits) the retrieval of previously learned information. * PROACTIVE INTERFERENCE: υ When information learned previously interferes with (or inhibits) our ability to encode and store newly learnt information. |
| Forgetting Theory | Forgetting that results from a strong motive or desire to forget, usually because the experience is too disturbing or upsetting to remember. υ There are two types of motivated forgetting:   1. REPRESSION: the unconscious process through which an individual blocks a memory of an event or experience from entering conscious awareness.  * Repression is a form of self-defence from the anxiety or distress associated with the experience   2. SUPRESSION :m the deliberate, conscious effort to keep an event or experience out of conscious awareness. |
| Decay | * Decay is the fading of memories over time. * We assume that when something new is learnt, a physical/chemical memory trace containing the information is formed in the brain as the information is consolidated in LTM * Forgetting occurs because a memory (or memory trace) fades through disuse as time passes, unless it is reactivated by being used occasionally. * MEMORY TRACE: a physical or chemical trace in the brain that contains the stored information. * This theory provides a physiological explanation for forgetting. * Research shows that there is a pattern of gradual deactivation of neural pathways in the hippocampus υ * However, there is usually a considerable savings score when re-learning information, indicating that some of the memory remains * Remembering = successful retrieval so forgetting= retrieval failure |
| Organic Theories of Forgetting | * Assume that amnesia or memory loss occurs because of some brain damage caused by factors such as a blow to the head, misuse of alcohol or other drugs, ageing or brain surgery * Damage to different areas of the brain can lead to different forms of memory loss. |

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| Enhancing Memory Retrieval | * Memory can be improved through:  1. The use of improved organisation of memory 2. Paying closer attention to material being remembered 3. Having experience with the information to be remembered 4. Using the information to be remembered 5. Rehearsing the material to be remembered as it is transferred from WM to LTM  * Use of mnemonics or memory air tricks * Contextual cues being used to trigger memory * Example: quiet well lit study room will lead to learning that will be successfully retrieved in the exam room compared to laying in bed listening to loud music as these conditions are not available in the exam room * Emotional State when learning affect ability to retrieve information and material learned in one mood state is likely to be better remembered under conditions of same mood state |
| Definition of Learning | * A relatively permanent change, often of behaviour that occurs as a result of experience * Examples: learning to walk and talk, feeding yourself, how to hold a pencil, how to write or read |
| Learning Theories | * Explain certain types of learning or what happened in certain circumstances * Early Approaches described learning as a result of humans responding to stimuli in the environment * Stimulus- response approach: assumed that changes in observed behaviours as result of environment we are learning * Learning by responding to environmental stimuli  1. Classical Conditioning 2. Operant Conditioning  * Recent theories more interested in humans making sense of the world and problem solving * Shifts to internal, cognitive, mental processes rather than changes in observable behaviours as a result of environmental stimulus → Observational Learning |
| Classical Conditioning | * Learning caused by the pairing of two stimuli or the learning of conditional behaviour * An association forms between two stimuli and one of which is not normally associated with the desired response, such that the appearance of the stimulus alone results in the desired response behaviour * Early approach initially shown in animals * Learning of behaviour through the repeated association of two events (stimuli) * Leads to a conditioned response to a stimuli due to an association that has been developed between two prior stimuli * Can lead to maladaptive practise, Three specific cases:  1. Conditioned taste aversion 2. Conditioned emotional response 3. Conditioned immune response |
| Operant Conditioning | * The learning of behaviour through its association with reward or punishment * A form of learning where the likelihood of a particular response occurring is determined by the consequences following the response * Thorndike: proposed that animals learn responses through experiencing consequences; animals repeat desired responses that are rewarded and drop other responses that are punished * Law of Effect: through observing the behaviour of cats in puzzle boxes and rats with mazes behaviours can be learned if the consequences are rewarded (such as food) |
| Observational Learning | * Learning through watching others and copying their behaviours sometimes called modelling or imitation * Developed by Albert Bandura * **Reciprocal Determinism** * The environment causes behaviour and learning , behaviour can change the environment * Learning also occurs when we observe and imitate the behaviour of others * Takes place when a new behaviour is learned or modified as a result of watching others and copying their behaviours or after watching the consequences of the behaviour of others * Found in research on children’s aggressive behaviour in playgrounds and in the effects of television viewing on children’s behaviour |
| Techniques for modifying behaviour | 1. Token Economies 2. Systematic desensitisation 3. Behaviour Modification 4. Positive and Negative reinforcement including rewards and punishment  * Behaviour modification can occur through the use of therapy and reinforcement (and possibly punishment to modify and change unwanted behaviours) |
| Token Economies | * Artificial systems of reward and reinforcement where symbolic markers such as coloured counters or fake money are used to reward behaviour * These markers can be exchanged for something more tangible such as goods and privileges * It is a system widely used in classrooms, psychiatric hospitals and prisons to alter undesirable behaviours * Major theory is operant conditioning eg: behaviour is controlled by consequences * Token economies are more effective than simple reinforcement schemes because in reinforcement the person whose behaviour is being changed can become full * The person ceases to respond to reinforcement * Tokens are not usually withdrawn as a penalty instead a different, unpleasant consequence should occur * Slow accumulation of tokens means secondary goals are not attained * For Example: a person ceases to respond to a chocolate square because they are full but the accumulation of counters or gold stars can lead to a secondary reinforcer (such as a dvd or t-shirt) so you can never get full = behavioural changes continue * Also used in frequent flyer loyalty programs, casino chips and ‘fly buys’ where points accumulated for later use (exchanged for cash or buying gifts) |

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| Criticism of token economies | * After patients have left institutions such as hospitals is the difficulty of maintaining improvement after the patients have left * Tokens are replaced with social reinforces which are often not successful * For Example: Alcoholic Anonymous where behavioural contract (not to drink alcohol) is set on a mutually agreed-upon standard of behaviour → acts as a reinforcer for group members to maintain abstinence |
| Systematic Desensitisation + 4 steps | * Earliest and most widely used * Application of classical conditioning to fears and phobias in humans * Considered undesirable behaviours which need to be replaced with a more productive and desirable behaviour * Overtime the therapy aims to remove the fear response of a phobia and substitute a relaxation response to the conditional stimulus, gradually using counter conditioning  1. Practice relaxation as the therapist teaches the patient relaxation exercises 2. Questions are asked about the person’s fears  * Therapist tries to find the source of the problem and how much the problem interferes with daily living  1. Information is used to create a hierarchy of feared imagined stimuli from scenes that provoke mild anxiety to intense fear 2. The person relaxes using the techniques taught and then the person is guided to visualise the phobic stimulus that is the least threatening to the most threatening  * Example: a picture of a spider to a spider crawling up your arm |
| Classical Conditioning Terminology | * **Unconditioned Stimulus (UCS)** : a stimulus that consistently produces an automatic unlearned response (i.e: food) * **Unconditioned Response(UCR):** the unlearned/automatic response that occurs when the UCS is presented (example: salivation) * **Conditioned Stimulus (CS):** an initially neutral stimulus that is associated with an USC eventually producing the formerly UCR (e.g bell paired with food) * **Conditioned Response (CR):** after conditioning the response produced when the cs is present (e.g: Salivation to bell) * It is important to note that in this example the UCR and CR are the same behaviour (salivation) * What distinguishes them is the stimulus that preceded them (i.e: the bell of the food) * UCR: natural response * CR: learned response |
| Classical Conditioning Experiment: Ivan Pavlov’s (1849-1936) Dogs | * Won a noble prize for his work * Originally investigated the digestive system of dogs * Like humans when dogs are presented with food they salivate which can be described as a simple reflex * A stimulus is something in the environment that stimulates a response e.g: a bell * Pavlov noticed that if a noise was made when a dog was presented with food, the dog would begin to associate that noise with food * The dog would then salivate upon only hearing the noise of the bell even if they did not receive food * The dogs had learned to associate the bell with food |
| J.B Watson (1878-1958) | * Founder of American Behaviourism * Considered mental events to be outside the province of scientific psychology altogether * Focused on behaviour not the thought and unconscious * Conducted Little Albert Study |
| Investigating Classical Conditioning Case Study: Little Albert | * Conducted to investigate classical conditioning and stimulus generation in humans * Subject : 11 month old baby called Albert B * Conducted by John Watson and his assistant Rosalie Raynor in 1920 * Discovered that conditioned and emotional responses occur when a formerly neutral stimulus is paired with a stimulus that evokes an emotional response * Study was not ethically beyond reapproach or methodologically soung * Provocative and was the catalyst for decades of research |
| Little Albert Experiment | * When Albert was nine months old Watson and Raynor presented him with a variety of white objects such as: a Santa mask, a white rat, a fur coat * Albert showed no fear in response to any of these objects, he in fact regularly played with the rat * A few days later Watson tested Albert’s response to a loud noise (UCS) by banging a steel bar directly behind his head * Albert reacted by jumping, falling forward and whimpering * 2 months later Watson and Rayner selected the white rat to be the CS in the experiment and proceeded to condition a fear response in Albert * Each time Albert reached out to touch the rat they would strike the metal bar behind Albert * After only a few pairings, Albert learned to fear the rat * He would become distressed and cry whenever the rat was presented (without the loud noise) * Albert generalised his fear to other white fluffy objects such as a rabbit, dog and Santa Claus mask * Watson & Rayner were not able to reverse the conditioning process and Albert developed a phobia of anything cute, fluffy and white |
| Trial and Error/Instrumental Learning: Edward Lee Thorndike (1874-1949) | * Taught cats to escape from a puzzle box in New York * Placed a hungry cat in a ‘puzzle box’ with a plate of food outside the box * Cat was keen to escape but the only way out of the box was to pull a string that opened the door * After making random movements attempting to escape (trial and error), the cat eventually pulled the string and was rewarded by being able to eat the food * Concluded that organisms learnt via ‘trial and error learning’ until they discovered the correct response which gets the desired reward |

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| Thorndike’s Law of Effect | * A behaviour which is followed by a desired event or consequence is more likely to be repeated * A behaviour that is followed by an undesirable event or consequence (or no outcome at all) is less likely to be repeated because is does not gain the individual any reward |
| Burrhus Frederic Skinner (1904-1990) | * Rats or pigeons were placed inside what is known as a ‘Skinner Box’ which has a number of levers that can be pressed by the animals * Also included a feeding chamber that delivers food and water in response to the lever pressing behaviour that is being learned * Boxes also sometimes contained devices that provide the trigger stimulus such as a light or buzzer * Shaped the animals behaviour so that it went from random responses to eliciting only the response which would gain a satisfactory outcome |
| Comparison of Thorndike and Skinner (Observational Learning) | * Thorndike’s research involved cats in puzzle boxes, trial and error learning and law of effect * Skinner’s research involved pigeons or rats in Skinner boxes * Both psychologists contributed to the discovery of learning process known as operant conditioning |
| Albert Bandura (1925-) Bobo Doll Experiment | * Vicarious Conditioning: learning by observing the consequences of a behaviour for someone else * Bandura(1965) placed children in a room and viewed another person be aggressive to a Bobo Doll * The experiment had three different consequences for the model’s aggression to the three groups of children  1. One group saw the model be rewarded with sweets and a drink for a championship performance 2. One group saw the model be punished for aggression through scolding 3. One group saw no consequence, this was the control group  * When allowed to enter the playroom children in the reward and control conditions imitated more of the aggressive actions of the model then the children in the punishment condition * Children in model punish group had clearly learnt the aggression by observational learning but did not imitate it because they expected negative consequences = vicarious reinforcement |
| Classical Conditioning: Procedure, result, example, theorist | * P: a neutral stimulus is paired with an unconditioned stimulus * R: neutral stimulus becomes a conditioned stimulus- it elicits a conditioned response * E: a bell elicits a salivary response from a dog * T: Pavlov |
| Operant Conditioning: Procedure, result, example, theorist | * P: a behaviour is followed by a consequence of reinforcement or punishment * R: the behaviour increases or decreases in frequency * E: a pigeon will peck on a key 20 times per hour to receive a food reward * T: Skinner and Thorndike |
| Observational Learning: Procedure, result, example, theorist | * An observer attends to a model to learn a behaviour * R: the observer learns the sequence of behaviours and becomes able to perform it at will * E: after watching television violence a child is more likely to show aggressive behaviours * T: Bandura |
| Graded exposure (step 5 of systematic desensitisation) | * Over time the learner is exposed to a series of situations (stimuli) that invoke feeling of anxiety in order of least distressing to most distressing in order to reduce or eliminate anxiety at each stage * Person is first taught to relax generally then is exposed to the least frightening situation or event and practices the relaxation techniques until they are comfortable enough to proceed to the next least frightening situation and so on until they reach the most frightening situation * Takes place over time and the person is assisted with relaxation techniques and is also given cognitive arguments about the real danger (none) of each step * Following ethical principles, the learner can stop at anytime when the anxiety reaches an uncomfortable level |

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| Exposure Techniques | * Uses the technique of flooding * Person with the phobia is exposed to the stimulus directly in real life and confronts the stimulus all at once * The theory is inescapable exposure eventually desensitises the person through extinction or related mechanisms * Leads to a person recognising that the stimulus is not really catastrophic and they have the self-efficacy to deal with it |
| Operant Conditioning Approach- MODELLING | * Participatory Modelling: a person is encouraged to engage in a behaviour by watch a psych model the desired behaviour * Eg: Bandura would handle a live snake and show no anxiety fear then invite his client to the same |
| Operant Conditioning Approach- SKILLS TRAINING | * Skills are taught to the person * Behaviours that are needed are broken down and taught methodically * Encourage making behaviours routine * E.g: social phobias, lack of assertiveness |
| Behaviour Modification | * The application of classical and operant conditioning techniques to human behaviour and learning * Uses reinforcement and sometimes punishment to modify or change unwanted behaviours and strengthen the desirable ones * Can be used to treat psychological problems, such as fears or aim of altering the individuals environment and how the individual acts with that environment * The underlying causes of the behaviours are not considered * Aim is to change the behaviour to match altered situations and is shaped to meet certain consequences * A typical behaviour modification program is based on answers to the following questions: * What behaviours are desired or undesired? * Are these behaviours observable and measurable? * What reinforcements applied? * What are the consequences of these reinforcements * How can the reinforcement pattern be improved? |
| Reinforcement | * Occurs when a stimulus or event follows an action and increases the likelihood of a behaviour * Increases or strengthens the occurrence of a behaviour in the future * Are typically pleasant, desirable and satisfying |
| Positive Reinforcement | * Any stimulus that strengthens the probability of a response recurring by providing a pleasant or satisfying consequence therefore PR occurs when behaviour is followed by a pleasant reward * Example: Parent encourages child to earn good grades giving them $5 per A |
| Negative Reinforcement | * Any stimulus that strengthens the probability of a response recurring by the removal or prevention of the unpleasant consequence therefore NR occurs when a behaviour is followed by removal of unpleasant outcome * Example: parent encourages child to earn good grades by giving them a week off chores for each ‘A’ |
| Punishment | * Any stimulus that weakens or decreases the likelihood of a behaviour * Maybe positive or negative |

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| Positive Punishment | * The addition of an aversive or unpleasant consequence to reduce the undesired behaviour * Example: a parent increases the amount of chores the child must do each week for obtaining poor grades, to discourage them from getting poor grades in the future |
| Negative Punishment (response cost) | * The removal of a pleasant stimulus to reduce the likelihood of an undesired behaviour * Example: Parent withholds pocket money for a week for obtaining low grades to discourage the child from getting low grades in the future |
| Effectiveness of Reinforcement or Punishment | * Factors that contribute: * **Order of presentation** * Consequences must follow behaviour in order to be effective for example: you don’t give detentions before a person has done something wrong * **Timing of the reinforcer** * Must occur immediately after the desired response has been elicited so that the organisms is clear on which behaviour is reinforced * **Appropriateness of reinforcement** * What one organisms sees as a reinforcer another may not |
| Cognitive Behavioural Therapy | * Technique used by psychologists based on the premise that cognitions (thoughts) influence feelings and behaviours and subsequent behaviours and emotions influence thought * Therapists help the client identify unhelpful thoughts, feelings and emotions which cause distress & distraction to everyday living * Consists of replacing the dysfunctional thoughts with ones that can be managed * Used to treat depressive disorders, anxiety disorders (for which it is highly recommended and successful) post traumatic stress disorder, obsessive compulsive disorder, childhood behavioural and anxiety disorders * Used to modify a person’s negative/dysfunctional thoughts beliefs, feelings and behaviours into those that are more helpful and positive * Type of psychotherapy that helps challenge unhelpful thoughts and behaviours into healthy ones= teaches people to have control over their life * Can be used in conjunction with medication and usually involves a number of therapy sessions over time * Patients develop positive feelings and therefore positive thoughts and behaviours * Teach via education, goal setting, practice strategies, homework = learning new habits to take focus away from dysfunctional ones |
| How does CBT assist in treating depression | 1. Helps Identify and change negative thinking associated with depressed feeling 2. Helps focus on positive things and motivate you to do things you enjoy 3. Helps manage problems that may seem overwhelming |
| CBT TREATMENT METHOD EXAMPLES | * Used with limited success to treat schizophrenia a mental illness characterised by distorted thinking and emotions by reducing some of the symptoms * CBT can also be used to assist families in helping their family member (patient) avoid relapsing or having another schizophrenic episode * Works well in conjunction with medicine when treating schizophrenia then medication alone * CBT can treat depression which has a strong effect on the way people think * In situations that could end positively or negatively people with depression are more likely to think the situation will have a negative outcome * CBT will help replace the negative thoughts with positive ones as well as positive actions * Has been shown to be more successful in the treatment of depression and anxiety with better outcomes then medication alone * Also proved successful in reducing relapse after treatment of depression and anxiety |

# Chapter 16: DEVELOPMENTAL PSYCHOLOGY

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| Theories of Human Development | * Some of these theories have only attempted to cover one aspect of development such as cognitive * Others have attempted to be wider reaching to show how various aspects of development relate to each other |
| Stage Theories | Consider that development progresses in a discrete, qualitatively distinct steps or stages that are reached in a set order |
| Jean Piaget | * A swiss biologist and psychologist * Interested in how children think after administering intelligence tests to children and being intrigued by reasoning that led to children giving wrong answers * Considered we build an understanding of our world and develop our thinking through active interaction with our environment |
| Schemas | An idea about what something is and how to deal with it   * By adulthood, we have vast numbers of schemas ranging from those for chairs and tables to concepts of love and democracy |
| 2 Processes by which we gain and change our schemas | 1. Assimilation 2. Accommodation |
| Assimilation | We interpret new experiences and information in terms of our current understanding |
| Accommodation | Changing our schemas to include new information and experiences that do not fit into our current schemas |
| Piaget’s Stages of Cognitive Development | * Children progress gradually through a fixed sequence of four development stages and have different characteristics * Piaget though that other aspects of development (such as social, emotional and moral) depended on the level of cognitive development that a child had reached  1. Sensorimotor (0-2) 2. Pre-operational (2-7) 3. Concrete Operational (7-11) 4. Formal Operational (11+) |

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| Sensorimotor Stage | Babies develop their understanding of the world through their sensory and motor interactions with it   * By mouthing, touching, looking and listening * The child seems to live in the present and have little understanding that things continue to exist even if they are not within sight * Piaget tested this idea by presenting infants of different ages with an interesting toy then covering it with a beret to see if they would look for it * Piaget thought infants did not have an idea of object permanence until about 8 months because they did not look for the toy once it had been covered up |
| Object Permanence | The concept gained by infants that an object continues to exist even if it cannot be seen |
| Pre-Operational Stage | Children at this stage are not able to carry out mental operations that would allow them to think logically   * Children are also egocentric : they can only perceive the world from their viewpoint * Can explain some irritating behaviour such as children standing between you and a television screen, they are simply unaware that you cannot see the television, they are not being deliberately annoying * Assume that you can see the television because they can |
| Pre-Operational Example | Susie is four years old and complains that she does not have enough lemonade   * Her mother pours her drink from the short wide tumbler into a tall thin glass * Susie is now satisfied that she had enough lemonade * She was unable to carry out the mental process of reversal to understand the quantity of the drink had not changed only its appearance |
| Three Mountains Task (Egocentrism) | In it the child had to sit on one side of a model and determine what the person sitting on the other side of a model can see   * Until about six years of age children cannot understand that another person can hold a different perspective from their own |
| Concrete Operational Stage | Children are able to think logically and carry out mental operations, provided they are working with concrete materials – items they can experience through their senses   * Key achievements in this stage: * Conservation * Classification * Seriate * Towards the end of this stage children are able to use mental pictures of objects and events rather than having to use concrete materials to help them solve problems |
| Conservation | Understanding that an object does not change its weight, mass, volume or area simply because it changes shape   * In checking whether a child understood conservation Piaget showed the child two balls of Plasticine that were the same size * He would then roll out one of the balls to make a long thing sausage shape and ask the child whether the sausage had as much Plasticine as the ball or less   A child who can conserve knows that there is still the same amount of Plasticine where a child at the pre-operational stage will usually say the sausage now has more plasticine |
| Classify | Ability to group objects or events by features they have in common  Example: Classify the cars from the airplanes |

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| Seriate | The ability to order objects with respect to common properties  For example: arranging cars from smallest to tallest |
| Formal Operational Stage | Occurs by the time children start secondary school and they are capable of:   * Abstract Thinking: * Thinking that does not reply on being able to see or handle concrete materials in order to reason about them * Adolescents can talk about concepts such as honestly and morality, they can discuss possible outcomes of actions without having experienced them * Logical Thinking: * Individuals develop strategies to work through problems systematically, developing hypothesis and testing them until a solution is found |
| Piagets Pendulum Problem (Logical Thinking) | * Used pendulums that varied in weight and length of string which the weights hung * Weights could be dropped from different heights and pushed with different amounts of force * Piaget asked children to work out which of these factors or combinations of factors affected the rate at which the pendulum swung * Concrete Operational Children * Typically changed one or more of the factors in a haphazard way to try to work out what affected the rate of the swing = DID not reach right answer * Formal Operational Children * Systematically tested the factors to enable them to conclude it was the length of the string that determined how quickly the pendulum swung |
| PIAGETIAN TASKS WITH INDIGENOUS AUSTRALIANS- Segrim and Lendon 1980 | Reported findings of the Hermannsburg project which compared the cognitive performance of children from Aranda and Loritja, reared in the isolated Lutheran Mission Station in Central Australia with other Aboriginal Children reared elsewhere in different circumstances   * Intellectual performance was based on performance on Piagetian tasks of conservation, classification and seriation * Some participants were retested between 1965 and 1978 |
| Segrim and Lendon - AIM | To investigate the universality of Piaget’s theory   * To test whether the developmental stages as specified in the theory unfolded according to a predetermined pattern or whether they were subject to external pressures * Claimed: cross-cultural research could begin to answer this question and predicted that various Aboriginal groups with varying degrees of experience of contact with white culture could demonstrate differences in intellectual development |
| Segrim and Lendon CONCLUSIONS | Australian Aboriginal Children were as capable as white children in different types of thinking at similar ages and with similar educational experiences   * Only the case if children has been totally immersed in white culture * Other circumstances, Aboriginal children lagged considerably behind or failed to exhibit types of thinking tested by the tasks * Now: cross-cultural research in Piagetian tradition is ceased due to the recognition that formal schooling plays a large role in the development of the types of thinking investigated in Piagetian tasks |
| Criticisms of Piaget | * Underestimated young minds * Failed to distinguish between competence and performance * Gave insufficient attention to social influences on performances   Studies that have modified Piaget’s tasks so they involved materials and situations that are common to young children indicate that children in Piaget’s studies may have failed tasks due to lack of familiarity with the situation rather than lacking cognitive skill required |
| Martin Hughes’ Policeman Experiment as cited in Donaldson 1978 | * Found that children between 3.5 and 5 years could take another person’s perspective so it no longer appeared egocentric * Asked to carry out tasks that involved hiding a boy soy so that the ‘policeman’ cannot see him’ * Hughes decided to make the task more complex and produce a second policeman, however 90% of Children could correctly hide the boy from the policeman * Donaldson argued that this occurs because they are familiar with hiding; the policeman task makes sense to them * By contrast the 3 Mountains task is more abstract and makes little real world sense to young children |

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| Michael Siegal 1991 | Argued younger children’s apparent inability to conserve can be explained by adults breaking down the conversational rules that children hold   * Problems arise when experimenters ask questions where the answer is obvious or repeat questions when an answer has already been given * Young children are likely to assume that their answer must be wrong and so in an effort to please the examiner they change their responses |
| Siegal’s Plasticine | * In checking whether a child understood conservation * Two balls of plasticine child asked if they’re the same amount * One ball is rolled to be more of a sausage and child is asked again if they are the same amount   **Siegal considers that children are likely to change their answers to please the examiner**   * Even if they think the balls have the same aount |
| Was Piaget actually testing children’s competence? | Piaget assumed that if a child failed a particular cognitive task, it was because he or she lacked the competence to perform it   * Possible: answer a question correctly yet provide a different answer to please the examiner * Possible: children are capable of doing reasoning involved in a task but are unable to explain the principles involved * Due to tasks relying on verbal responses, lack of skill in verbal expression may mask competence in reasoning |
| Did Piaget put little emphasis on how children’s minds develop through interactions with others? | * Piaget often wrote as if a child was a little scientist exploring the world alone * Contrasted Lev Vygotsky whose central theme was that cognitive growth developed from children’s social interactions and occurs in a sociocultural context * Piaget’s later writings: indicate he thought social interaction influenced the rate at which children move from one stage to the next, but some psychologists consider that he still underplayed the role of social and cultural influences |
| Piaget’s Influence | Piaget may have been wrong on the ages at which milestones were reached, he was correct in their sequence   * Emphasis on children as active beings who construct understanding through their interactions with the world has transformed education and removed the notion of children as empty vessels waiting to be filled |
| Lawrence Kohlberg’s Theory of Moral Development | There is a universal sequence to the development of morality and the stages begin in early childhood   * Six stages of moral development were based on children’s responses to various moral dilemmas * Dilemmas focused on the value of human life and property and the meaning of social rules and laws, value of honesty and importance of upholding contractual agreements with others * No ages associated with ages * Stage 1: under 7 years since they cannot take the perspective of another person * Stage 2: judgements appear 7 when exchanges become a more common place * As each stage builds and depends on previous ones, sequence is invariant * Without the knowledge and perspectives acquired at earlier stages it is impossible to get to later stags |
| Kohlberg’s Stages | Level: Pre Conventional  Stage 1: Punishment and Obedience, Egocentric  Stage 2: Individual, Instrumental and Concrete  Level: Conventional  Stage 3: Mutual Interpersonal expectations, conformity and relationships  Stage 4: Social System and Maintenance of One’s Conscience  Level: Post Conventional  Stage 5: Rights and Social Contract  Stage 6: Universal Principles and Moral Point of View |
| Stage 1: Punishment and Obedience, Egocentric | * Does not recognise different points of view * Confuses perspective of Authority with one’s own |

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| Stage 2: Individual, Instrumental and Concrete | * Aware of different interests and that these may conflict * Instrumental exchange of service, goodwill and fairness |
| Stage 3: Mutual Interpersonal expectations, conformity and relationships | * Following rules, * living up to the expectations of others * and maintain trust, gratitude, respect and loyalty |
| Stage 4: Social System and Maintenance of One’s Conscience | * Doing one’s duty * Taking the view of the system * Obeying laws * And upholding social order |
| Stage 5: Rights and Social Contract | Asserting and integrating basic rights, values and legal contracts   * Laws as social contracts |
| Stage 6: Universal Principles and Moral Point of View | * Committing to the universal principles of justice * Respect for others |
| The Heinz Dilemma | * Scenario: Heinz’s wife has a near death kind of cancer, a drug could save her costing $4000, getting money through legal means he raises $2000. He is not given a discount when asking for one.   SHOULD HEINZ BREAK INTO THE LABORATORY TO STEAL THE DRUG FOR HIS WIFE? – why or why not?   1. No steal because he could go to prison 2. Steal because he will be happier if he saves his wife even if he goes to prison 3. Steal because his wife expects it 4. Not steal because the law prohibits it 5. There are two possible answers  * Steal: everyone has the right to live regardless of the law * No: doctor has the right to fair compensation  1. Two Answers:  * Yes: because saving a human life is more fundamental value than the property rights of another person * No: violates the rule of honesty and respect |
| Kohlberg Support | * If stages are true developmental sequence we should find a strong positive correlation between age and level of moral reasoning (proven by Shaffer 1999) * These were cross sectional studies and therefore could not show stages reached were invariant * To show invariance * Longitudinal design followed the same people over time * Ann Colby & Colleagues (1983) followed a group of Kohlberg’s original participants for 20 years * Found stages occurred as Kohlberg proposed |
| Kohlberg Criticisms | Suggested his use of only male participants in his original study and his choice of dilemmas have led him to develop a very Western, male- oriented POV of moral development |

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| Is Kohlberg Culture Biased? | Richard Shwder proposed Kohlberg’s methods fail to take into account the implicit structures and views of social order from other cultures   * Babaji Case Study (Hindu Teacher) * Heinz Scenario of stealing a drug to save wife * Issues as the Hindu Dharma (moral duty) forbids stealing under any circumstances as stealing is a sin therefore there is no virtue in saving a life * Babajii placed in Stage 3 / 4 (following rules, doing one’s duty) * Shweder argues Kohlberg does not take into account the reasoning of a man with a sophisticated understanding of his own culture |
| Was Kohlberg Gender Biased? | * Women typically reached Stage 3 and Men Stage 4 * Carol Gilligan considered this was due to the different socialisation of girls and boys resulting in different values rather than males being more morally advanced * Argued males are socialised to be independent and achievement oriented, so they see moral dilemmas as a conflict of interest between individuals which rules and laws are designed to resolved= morality of justice (Stage 4) * Girls are brought up to be socially responsible and nurturing, which lead to a morality of care (Stage 3) |
| Gilligan’s Moral Dilemma for women | Showed women’s reasoning was not inferior to men but different   * Examined moral reasoning of 29 American women with the dilemma: whether or not to continue a pregnancy * Posed a conflict between personal choice and traditional female values of self- sacrifice and care for others |
| Gilligan’s three levels of Moral Reasoning | 1. Self Interest: women justified their responses solely in terms of their own needs and wishes 2. Self-Sacrifice: women at this level argued in terms of the rights of others, referring to the wishes of the partner or the rights of the unborn child 3. Care as a universal obligation: women tried to reach a balance between care for others and personal wellbeing |
| Gilligan’s Criticisms | * Sex differences in her original study of moral reasoning have not supported her in later research * Recent studies indicate that most research using Kohlberg’s technique do not shot sex differences * If they do, they do not always favour males * Basing theory on interviews with a small number of only women |
| Sense of Identity | Describes the enduring personality characteristics of each and every one of us   * Developed by each child as we establish the distinct nature of self * As children grow, our sense of self and of others develops as we work out the similarities and differences between themselves and others |
| Erik Erikson | Described the development of identity not just in childhood but across the entire lifespan   * Development of identity to be a series of continual challenges that have to be met by the individual to successfully move onto the next phase of life * Search of identity if a life-long process * Describes how normal conflicts or crises that have to be overcome during our lives and shows how successful resolution of these crises can lead to the next stage and to successful resolution of these future conflicts * These stages are regarded as a mode   of normal personality development derived from Erikson’s clinical observations of the patients he was treating   * Adapts a lifespan perspective and links development in infancy with development in older age |
| Identity Formation | A continuous challenge with dominant crises characterising various phases of life starting from infancy through to old age |

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| Unsuccessful Resolution | Can lead to children, adolescents and adults becoming stuck at a particular stage and then not developing normally   * Abnormal Personality Development: traced to failure to resolve a particular identity crisis at an earlier stage of development |
| Stage 1: Infancy : Trust VS Mistrust | * 0-1   Infants are dependent on others for food, warmth and love and must trust others to provide these   * Needs are met consistently and responsively: infants develop secure attachment to their parent or caregiver and learn to trust others * Failure to bond: lead to mistrust of the world around them |
| Stage 2: Toddler: Autonomy vs Shame and Doubt | * 1-3   Toddlers learn to walk, talk, feed themselves and use toilets so they become autonomous and less dependent on others   * Success at becoming independent → leads to self-confidence and self-control and mistakes are easily fixed or corrected * Over protection and disapproval from parents can lead to shame and doubt on the toddler’s ability to be independent |
| Stage 3: Early Childhood: Initiative vs Guilt | * 3-6   Children’s motor and social skills become highly developed during early childhood and dilemma for these children is to balance the wish to achieve more and take more responsibility while accepting parental control and discipline without guilt |
| Stage 4: Middle Childhood: Industry vs Inferiority | * 6-12   Industry can be regarded as competence and this is achieved through learning at school   * Relationships with friends and peers increase * Children who are rewarded for their industry and achieve success at school will develop a sense of competence and mastery * Failure= feeling of inferiority |
| Stage 5: Adolescence: Identity vs Role Confusion | * 12-18   To answer the question; ‘Who am I’ successfully an adolescent must integrate all the resolutions from earlier crises and achieve a sense of identity incorporating all the elements of self   * Major crisis to be resolved for successful transition to adulthood * Failure= identity conflict, role confusion, indecision and avoidance of commitment |
| Stage 6: Early Adulthood: Intimacy vs Isolation | * 18-40   The achievement of intimacy with another person is important   * Failure: young adult is incapable of forming intimate relationships and thus sinks into isolation |
| Stage 7: Middle Adulthood: Generativity vs Stagnation | * 40-65   Main focus is on work and maintenance of family relationships   * Success leads to a sense of accomplishment and leaving a legacy for the future * Failure: lead to self-centredness and stagnation |
| Stage 8: Late Adulthood: Integrity vs Despair | * 65-death   Towards the end of one’s life, is a time of reflection of one’s contribution and view it as positive and satisfactory or disappointment and unsatisfactory   * Life fulfilled: older person can view death with a sense of integrity * Not: death will be despaired and feared |
| Bandura’s Social Learning Theory | How people learn social behaviour, strongly emphasising on observational learning   * Children watch other people and copy their behaviour * Children learn complex behaviours ranging from aggression and altruism to sex roles * Original: Bandura proposed that children passively took in information from watching the behaviour of others and then simply copied it * Applications: found in research on children’s aggressive behaviour in playgrounds as a result of the effects of television viewing to children’s behaviour |
| BOBO DOLL | * Children watched the tape and changed their behaviour without reinforcement or punishment * Bandura conducted variations of the experiment, the young children imitated the behaviour of young female student beating up the clown |
| Bandura Later Versions | Learners play an active role in the modelling process, choosing which models they attend to and deciding whether the behaviour they are observing is consistent with their beliefs and values and what produces wanted outcomes   * Example: If a captain of a soccer team is encouraging others when things are bad we may want to copy this behaviour especially if we admire them |

# Chapter 17: Personality

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| Personality | The characteristic way in which a person, thinks, feels and behaves   * Makes people who they are |
| Temperament | The physical and hereditary parts of personality such as sensitivity, emotion and irritability   * Problems later in life can be traced to difficult temperament in infancy and how this influences behaviour through childhood |
| Trait Theories | Measure and describe personality in terms of stable/enduring characteristics which develop over time  Describe the stable forms of behaviour that people display in any and every situation   * Traits are inferred from behaviour and you expect people to behave in similar ways in different circumstances * Used to predict future behaviour * Categorises people by using more than one dimension * Allows researchers to capture people’s personality fully * Differ from each other on the number of dimensions considered important * Eyesenck Three * McCrae and Costa 5 * Michael Ashton Lee Kiebom: honesty-humility (6th factor) |
| McCrae and Costa’s Big 5 Factors in personality | 1. Openness to experience  * Unadventurous- daring * Down to earth- imaginative  1. Conscientiousness  * Lazy- hardworking * Late-punctual  1. Extraversion  * Loner-joiner * Quiet-talkative  1. Agreeableness  * Ruthless- soft-hearted * Suspicious- trusting  1. Neuroticism(Emotional Stability)  * Calm- anxious * Secure- insecure |
| Are personality traits consistent over time? | If there is continuity in personality over time, each of us should be basically the same person we were 3-4 years ago and be the same person in 5, 10, 15 years time   * Personality is stable once adulthood is reached |
| Helle Pullman and Collegues (2006) | Conducted Longitudinal Research on adolescents ranging from 12-18 years to look at several aspects of personality stability   * Rank Order Stability * Mean Level Consistency * Individual Continuity |
| Individual Continuity | * Do personality traits of individuals remain stable over time?   Using the Neo Five Factorial Inventory; a measure of the Big 5 Factors, Pullman found that mean levels of personality traits among adolescents were very similar to adults from the same population   * Comparing different age groups they found a modest change in the mean level of trait scores on 3 of 5 dimensions and no change on the other two dimensions * Level of openness increased and levels of agreeableness and conscientiousness decreased between 12-18 years |
| Mean Level Consistency | * Are there changes in mean scores on each of the traits for each group over time?   Most of the group remains stable   * Some of the group change in one direction and others in the other * Approx 80% of individuals in age groups reported that their personality traits in a consistent manner over two years * Indicates a very low mean level of personality change should be taken at face value * Also indicates the adolescents are very similar to young adults in the stability of their personality traits at an individual level |

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| Rank Order Stability | Does a person who scores high or low on a particular trait compared with his or her peers remain high or low relative to peers even if the whole group changes?   * Determines the degree to which the relative ordering of individuals on each of the 5 trait dimensions was maintained over time * 16 years: adolescents had reached rank-order stability typical of young adults * Stability levels were lower for younger adolescents they were still remarkably high * If a person started high on exratversion relative to the group, he or she usually stayed high |
| Does the fact that we report our personality in remarkably consistent ways mean that we express our personality consistently across situations? | Reporting high on conscientiousness and agreeableness does not mean we will always behave that way in each task we do or the company we’re in   * Walter Mischel found that conscientiousness in college students could only be predicted with a moderate degree of success * Students who were conscientious on 1 occasion (being punctual to class) were not always conscientious on another occasion (handing assignments on time) * Scores on personality tests only mildly predicted behaviour |
| Contributions and Limitations of Trait Theories | Contribute: research on personality development and understanding different personality types  Limitations:   * Debate about the degree to which traits are inherited vs developed within environment * No agreement on the number or types of traits that exist * Fail to consider unconsciousness processes which may influence personality |
| Humanistic Theories | Personality results from people striving to achieve their full potential   * Based on the belief that people are born good and try to reach their potential throughout their lives * Theorist: Abraham Maslow and Carl Rogers |
| Maslow’s hierarchy of needs | 1. Physiological needs, safety and security, love and belonging, self-esteem, self actualisation   Suggests that must fusil basic needs before higher needs can be achieved   * If you reach self-actualisation your personality suggests you are open and self aware, secure and enjoy deep relationships |
| Carl Rogers | Believed people are born good with the potential for enormous growth   * Unconditional Positive Regard: an accepting person is prepared to take us as we are with all our shortcomings we do not need to change, improve to be valued or accepted * A person who is genuine, honest and open with us who does not put up a front * A person who shows us empathy when they try to see the world from our perspective and understand how we feel   We need to experience these conditions from significant people in our lives in order to feel free to make any changes we want to make in ourselves in order to grow and self actualise |
| Roger’s Concept of Self or Personal Identity | There needs to be a good match between:   * Our ideal self: the person we would like to be * Self-image: the person we think we are * True Self: the person we really are   For example: if we value kindness and think of ourselves as a kind person, we need to act with kindness and compassion  Rogers acknowledged we are never all we want to be   * The greater the gap between our ideal self, self image and behaviour, the more likely we are to be anxious and stressed |
| Scott and O’Hara | Supported Rogers  Students whose ideal and self images were discrepant were anxious and departed compare with students whose ideal self and self images were a better closer match |

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| Q-Sort Tests used to measure Personality | * Humanistic theories   Uses cards with statements such as ‘I try hard to please others’ ‘If I put my mind to it I can do anything’   * These cards when working with clients in his clinic to look at the match between the ideal self and self image  1. Ideal self: Arrange the cards that you would most like to be like and lease like to be like 2. Self Image: Arrange the statements from most like you to least like you  * A person with a well-adjusted personality to arrange the cards in similar orders   Q-sort is a flexible measurement technique and provides an insight into a person’s self concept   * Limitations: depends on participant to be honest and open |
| Contributions and Limitations of Humanistic Theories | Contribute: impact on areas such as child rearing and counselling , influenced study of healthy and unhealthy personality  Criticism:   1. The vagueness of self-actualisation: Maslow’s description of a self-actualised person are characteristics he found in his heroes and his values 2. It is overly optimistic and fails to take into account the human capacity for evil  * We need to acknowledge both good and evil in the world to be realistic |
| Contemporary Personality Theories | * People who have the same cluster of characteristics are said to have the same personality type * Contemporary theories are no longer one dimensional, being used in diverse settings such as health and business |
| Personality and Health | Myer Freidman and his colleagues researched what type of person was susceptible to heart attacks   * Proposed 2 Personality Types * TYPE A: ambitious, competitive, busy, highly motivated , pushy impatient and are easily irritated frustrated and become angry * TYPE B: easy going with low levels on time urgency, competiveness and hostility |
| Friedman and Rosenman (1974) | Carried out a longitudinal study following 3524 men between 35 and 59 years over period of 8 years   * Interviewed participants and observed their manners to classify them as either TYPE A or TYPE B   By then end of the study 257 men had suffered heart attacks   * 69% were type A * Not one pure type B (most laid back) had suffered a heart attack   Further research on whether these were reliable and what aspect of TYPE A caused heart attacks |
| Myertek 2001 | Indicates only some components of TYPE A put a person at risk for heart disease   * Negative emotion of hostility and anger * Respond more quickly and strongly to stress than type B   Results in increased blood pressure and heart rate so more wear and tear of the cardiovascular system |
| Milligan and Colleagues 1997 | Found that people with TYPE A personalities have less healthy eating habits, get involved in more accidents and drink more alcohol   * More indirect link |
| Temoshok 1985: TYPE C | Found that a delay in seeking medical attention had the strongest relationship with prognosis related to characteristics of a proposed TYPE C personality   * Passive, bland, helpless, appeasing   Suggested bottled up emotions weakened the immune system and made them more prone to cancer   * PRICE: discovered woman with breast cancer had no relationship with the TYPE C, there are factors considered such as type of cancer before a relationship can be determined |

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| Personality and Business | Over the past 10-20 years have increased using personality measures to try to determine an individual’s suitability for a particular job and the compatibility of workers within teams   * Working in businesses and organisations |
| MYERS BRIGGS TYPE INDICATOR TEST | This personality test was developed to identify personality preferences. In this test the taker was asked 126 questions   * EG: would you prefer to talk to someone new/ or meet someone new |
| Four areas of Myers Brigg Indicator | 1. Where do you prefer to direct your energy?  * Outer world, people situations (EXTRAVERSION) * Inner world of ideas and beliefs (INTROVERSION)  1. How do you prefer to process information  * Intuition(N), seeing relationships through insight * Gaining primarily through senses (Sensing)  1. How do you prefer to make decisions  * Thinking : based on objective information and analytical approach * Feeling: based on what you value and what you believe is important in life  1. How do you prefer to organise your life  * Judgement: life preference is planned stable and well organised * Perceiving: Go with the flow |
| Social Cognitive Theory | Personality develops as a person thinks about and responds to their social environment (such as work home and school)   * Albert Bandura * Walter Mischel |
| Bandura’s Reciprocal Determinism | A model composed of the interaction between the environment, cognitive and behavioural factors   * Observational learning studies that we not only copy the actions of others but we watch the consequences , the rules and standards which apply to behaviour and the ways people regulate their behaviour * Environmental influences are important but so are the conscious, self-generated goals and standards that influence our thoughts feelings and actions   Each factor influences the other factors and is influenced by other factors  For Example: we might choose where we live (our environment) and that environment determines how we act (our behaviour) but it was our individual characteristics that let us choose this environment in the first place |
| Reciprocal Determinism Elaborated | **individual**things like your *personality, beliefs and unique characteristics*. It also includes whether you have been rewarded for a certain behaviour in a certain situation in the past. If so, you're likely to repeat that scenario.  The **environment**includes your *physical surroundings*and stimuli, such as *other people or objects*in the environment that influence your behaviour. The environment can influence the frequency of a behaviour or how likely we are to keep doing something.  The **behaviour**aspect consists of *what you are doing*, or *things you are saying*, that *may or may not be reinforced*, depending on where you are and who you are with.  Eg. Classroom Learning shaped by factors in the enviro (eg. Teacher), students own thoughts and beliefs about themselves (am I good at psych?) and these then underpin your behavior (how much |
| Bandura and Classroom Learning | Predict that learning would be shaped by factors in the environment especially reinforcements that students and their peers experienced   * However students own thoughts and beliefs about themselves and their interpretation of what does on in the classroom would also influence their behaviour |
| Bandura’s Self- Efficacy | The degree to which you are sure to your own ability and capability to manage and be effective in meaning the demands of particular situations   * Self system: comprises of cognitive skills, attitudes, abilities and guides on how we perceive, evaluate and control behaviour * Acquire a strong sense by mastering new skills and meeting challenges in specific situations * Develops in early childhood as we learn to master skills like walking and talking * Evolves throughout the lifespan as we meet, conquer new task and experiences |

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| People can fail at tasks | Even if they have the necessary skills because they do not believe in themselves to do them   * Self-doubt and imagining dire consequences can prevent successful achievements   For Example: knowing to swim in order to scuba dive |
| Self Esteem is very flexible | How we regard ourselves and our abilities varies depending on the situations we face   * Belief in ourselves influences the type of challenges we are willing to try and how persistent we will be in our attempts to succeed and overcome obstacles * When we succeed our self- efficacy is enhanced * When we fail it is undermined |
| Walter Mischel | Reconcile within a single framework both trait and social cognitive approaches to explain human behaviour   * Necessary to deal with apparent inconsistences in personality in varying situations * Marshmallow Effect: found a person’s personality was inconsistent and was based on the situation cues   For Example: a person can seem confident in one situation and shy and anxious in another = INRECONCILABLE   * Bolger found that neuroticism affects reactions to stress in both exposure and reactivity to stressful events |
| Social Cognitive Theory Contributions and Limitations | Contributions:   * Concepts are scientifically tested * Influential due to its wide applicability and robust theory   Limitations:   * Ignores unconscious influences such as not as rich as humanistic theories which study the whole person including unconscious elements and irrational behaviour * Doesn’t consider changes across the lifespan. |