**BIOLOGICAL INFLUENCES/BASES OF BEHAVIOUR**

**Structure and Function of the Nervous System**

**Central Nervous System:** comprised of the brain and spinal cord and is involved in receiving sensory information from the body and sending motor information to the body.

**Spinal Cord:** part of the CNS that relays messages between the brain and Peripheral Nervous System.

**Brain:** receives sensory information and decides on the appropriate response and sends these messages to the spinal cord for transmission to specific body parts.

**Peripheral Nervous System:** comprised of all the muscles, organs and glands outside the CNS. It sends sensory information and receives motor information from the CNS.

**Somatic Nervous System:** a branch of the Peripheral Nervous System that controls voluntary movement of skeletal muscles.

**Autonomic Nervous System:** a branch of the Peripheral Nervous System that functions automatically to control physiological functions, such as heart rate.

**Sympathetic Nervous System:** a branch of the ANS that increases arousal to prepare the body for action.

**Parasympathetic Nervous System:** a branch of the ANS that maintains homeostasis and decreases the body’s arousal following activation of the Sympathetic Nervous System.

**Process of Neural Transmission**

**Three types of neurons:**

1. **Sensory neurons (afferent):** Specialised nerve cells that receive information from the body’s external and internal environments and take it to the CNS.
2. **Motor neurons (efferent):** Specialised nerve cells that carry information about motor movement from the CNS to the rest of the body.
3. **Interneurons:** Specialised nerve cells that communicate between sensory and motor neurons, also involved in initiating the spinal reflex.

Parts of the neuron in order:

(Don’t swim naked around my aunt)

**Dendrite:** the part of the neuron that receives incoming information.

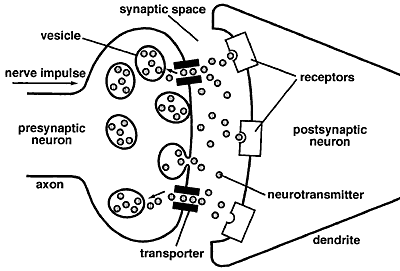
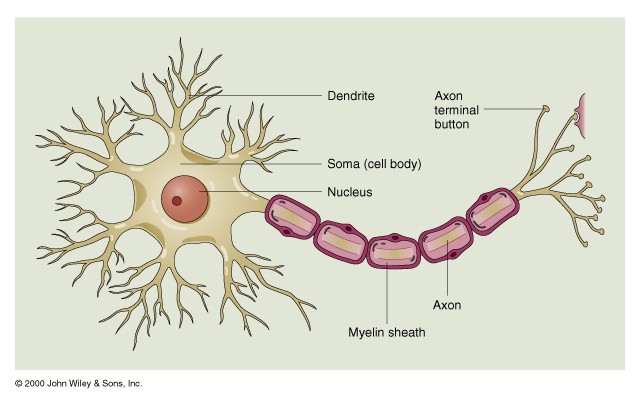
**Soma:** the body of the neuron that sends neural messages down the axon.

**Nucleus:** the centre of the soma that contains the neurons genetic material.

**Axon:** a thin fibre that carries the neural message away from the soma.

**Myelin sheath:** A fatty tissue that protects the axon.

**Axon terminals:** Points which a chemical substance can be released to enable communication between neurons.



**Neurotransmitter:** A chemical substance that transmits nerve impulses across the synapse. Can be excitatory, inhibitory or both.

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| **Neurotransmitter** | **Major functions** | **Excess is associated with** | **Deficiency is associated with** |
| Acetylcholine | Excitatory  Muscle movement, attention, arousal, memory, emotion |  | Alzheimer’s disease |
| Dopamine | Excitatory and inhibitory  Voluntary movement, learning, memory, emotion, sleep, wakefulness, appetite, mood, pleasure. | Schizophrenia | Parkinson’s disease |
| Serotonin | Inhibitory  Mood and appetite regulation, sleep cycles, dreaming and hallucination. |  | Depression, decreased immune system function |
| Endorphins | Excitatory  Pain relief, pleasure, learning, memory, dreaming, awakening, emotions |  | Depression |
| Norepinephrine | Excitatory  stress-related increase in heart rate, stress-related slowing of digestive processes. | Difficulty concentrating | Depression, difficulty concentrating |
| GABA | Inhibitory  Calming, soothing, relaxing | Stress, anxiety |  |
| Glutamate | Excitatory  thinking, memory and learning | Multiple sclerosis |  |

**Agonists:** are chemicals that mimic the action of a particular neurotransmitter. They bind to receptors and generate postsynaptic potentials. E.g. nicotine is an acetylcholine agonist.

**Antagonists:** are chemicals that block the action of a particular neurotransmitter. They bind to receptors but can’t produce postsynaptic potentials. Because they occupy the receptor site, they prevent neurotransmitters from acting. E.g. Curare is an acetylcholine antagonist, it causes paralysis.

**Roles of the Four Lobes of the Cerebral Cortex**

**Frontal lobe role:** involved in higher order processes (decision making, planning, reasoning and thinking) and voluntary motor control of the body.

**Structures:** Broca’s area, primary motor cortex.

**Broca’s area:** located in the left frontal lobe.Its major function is articulate speech production; it contains the motor neurons involved in the control of speech. If damaged (Broca’s aphasia): people can understand what is said to them and know what they want to say but cannot produce articulate speech, some cannot speak at all.

**Primary motor cortex:** located in both the left and right frontal lobe, it is an arch of tissue that initiates voluntary movement.

**If damaged 🡪 would experience:**

* less rational decisions
* impaired movements
* less logical thinking
* shift in personality (e.g. Aggressive- see Phineas gage), & attention

**Parietal lobe:** receives and processes sensory information.

**Structures:** somatosensory cortex.

**Somatosensory cortex:** receives information regarding touch, temperature and pressure from around the body.

**If damaged 🡪 would experience:**

* clumsy movements
* Difficulty with spatial skills
* Confuse left and right
* Suffer spatial neglect- disorder in which you do not recognize that one side of your body belongs to you (e.g. Will apply make-up to only half of their face)

**Occipital lobe:** processes and responds to visual information.

**Structures:** primary visual cortex.

**Primary visual cortex:** receives and processes visual information.

**If damaged 🡪 would experience:**

* Tumors (rapid cell growth interfering with brain activity)- can experience blind spots in vision
* Schizophrenia- visual hallucinations linked (neural activity creating vision

**Temporal lobe:** responsible for processing and responding to auditory information and plays a key role in facial recognition.

**Structures:** Wernicke’s area, primary auditory cortex.

**Wernicke’s area:** located in the left temporal lobe, it isresponsible for understanding language and often referred to as the language comprehension centre. Patients with Wernicke’s aphasia often hear words but cannot locate that word in their memory, therefore sentences remain relatively meaningless to them. They also have difficulty producing coherent speech. Speech may be fluent and sentences grammatically correct; however, they do not make sense.

**Primary auditory cortex:** registers auditory information, processes it and then responds.

**Hindbrain**

**Medulla:** controls vital bodily functions.

**Pons:** involved in sleep, arousal, helps control breathing and fine muscle movements.

**Cerebellum:** balance and posture, voluntary movement and fine muscle movements.

**Midbrain**

**Reticular formation:** motor control, sensory control, visceral control, and control of consciousness

**Forebrain**

**Amygdala:** production and regulation of emotions.

**Thalamus:** filters information from almost all sense receptor sites (except smell) and passes it to relevant areas of the brain for further processing.

**Hypothalamus:** vital role in maintaining the body’s internal environment (homeostasis) by regulating the release of hormones from various glands in the body and influencing behaviors associated with basic biological needs (thirst, hunger, mood, sex drive).

**Hippocampus:** formation of new long term memories, helps store and locate memories, important for spatial navigation, Past events and facts.

**Stress**

**Two types (Hans Selye):**

1. Eustress = good stress/stress that is healthy
2. Distress = psychological and physiological tension.

**General Adaption Syndrome (GAS):** All individuals respond to all types of threatening situations in the same manner.

**Three stages:**

1. Alarm = state of temporary shock, then mobilizes resources to cope.
2. Resistance = mobilizes further to cope, at the cost of other systems.
3. Exhaustion = if resistance is inadequate the body becomes exhausted as its resources are diminished.

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| **Stage** | **Effects** |
| Alarm | Release of epinephrine and cortisol (stress hormones). Epinephrine = increased heartrate, blood pressure, strength, breathing and release of sugar from the liver. Cortisol = reduces pain and inflammation in event of an injury, reduces immune response. |
| Resistance | Release continues for long periods of time. Can cope with increased metabolic functions for extended period of time. |
| Exhaustion | Can no longer cope. Organs and function of body become impaired. Which can lead to infectious and non-infectious diseases, back and neck problems, heart disease, strokes, heart attack, diabetes and even death. |

**Factors that affect behavior, emotion and thought.**

**Heredity:** transmission of characteristics from biological parents to their offspring via genes at the time of conception. Also referred to as nature.

**Gene:** the basic unit of heredity which is transferred from a parent to offspring and is held to determine some characteristic of the offspring.

**Genetics:** the study of heredity and the variation of inherited characteristics.

**Deoxyribonucleic acid (DNA):** a self-replicating material which is present in nearly all living organisms as the main constituent of chromosomes. It is the carrier of genetic information.

**Chromosomes:** threadlike bodies within a cell that consist of thousands of genes.

**Phenotype:** the set of observable characteristics of an individual resulting from the interaction of its genotype with the environment.

**Genotype:** the genetic constitution of an individual organism.

**Dizygotic twins:** two genetically non-identical individuals who develop when the female produces two separate ova which are independently fertilized by two different sperm cells. Also called fraternal twins.

**Monozygotic twins:** two genetically identical twins who develop when a single fertilized egg splits into two in the first few days after contraception. Also called identical twins.

**Epigenetics:** the study of changes in organisms caused by modification of gene expression rather than alteration of the genetic code itself.

**Twin studies**

Twin studies have most commonly been used to conduct research on the development of personality and intelligence as they can be easily measured using personality or intelligence tests.

**Twin studies rest on two very important assumptions:**

1. That identical twins have been separated from the very beginning of their lives
2. That the environment that the twins experience is the same. *(i.e.) that they will be treated in the same way, thus experiencing the same environment/nurture.*

If monozygotic twins are more similar in a trait than dizygotic twins the heredity is considered to play an important role in the development of that characteristic, since both fraternal and identical twins are thought to share similar environments.

**Empirical evidence - Bouchard (1990):**

* Found 111 sets of twins around the world that were separated at infancy and reared apart.
* Compared them on ability, personality, leisure and vocational interest and social attitudes.
* Identical twins reared apart had similar IQ quotas, not as similar as identical twins reared together but more similar than fraternal twins raised together.
* This suggests heredity makes a relatively strong contribution to differences in IQ scores.

**Results:**

* Same person tested twice 87%
* Identical twins reared together 86%
* Identical twins reared apart 76%
* Fraternal twins reared together 55%
* Biological siblings reared together 47% (studies show that reared apart about 24%)
* Parents and children living together 40%
* Parents and children living apart 31%
* Adopted children living together 0%
* Unrelated people living apart 0%
* Identical reared apart still have second highest correlation (NATURE)
* Identical twins reared together (86%) and identical twins reared apart (76%)- higher correlations with those reared together (NURTURE)

**Weaknesses:**

* No way to ensure similarities in environment
* Identical twins are treated more alike than fraternal twins and therefore share more similar environments in addition to having identical genes
* Not ethically or practically possible to split up pairs of twins to be raised in different environments
* Can’t infer a cause and effect relation as it is based on level of correlation of traits
* Twins are not necessarily reflective of the wider population
* IQ testing is culturally bias
* Frequency of contact between twins not controlled
* Twins reared together may not have experienced the same environment

**Strengths:**

* Identical twins raised apart tend to provide a strong understanding of the relative influence of biology (genetics) and environment
* Influence of genes on behavior has been demonstrated and repeatedly in research, e.g. genes affecting intelligence, personality, and mental health. Same results have been found time and time
* Size of the study makes it more appropriate to generalize
* Cross cultural study

**Adoption studies**

Adoption studies work by investigating a particular behavior or trait of a child and comparing it with the biological parents and the adoptive parents. A greater/strong level of similarity with the biological parent suggests that the trait or behavior is significantly influenced by genetics (i.e.) nature. Conversely, a notable level of similarity with the adoptive parent suggests that the trait/behavior is significantly influenced by environmental factors (i.e.) nurture

**Empirical evidence - Denis Daniels and Robert Plomin (1985):**

* Tested shyness and sociability in children adopted at 12 and 24 months to see whether they were more similar to their adoptive or biological mothers
* Extreme shyness in biological mother = shyness in child at age 2 years 🡪 confirming role of heredity in development of this trait
* Toddlers whose adoptive mothers were extremely shy also showed an above-average shyness level at 2 years
* Both heredity and environment play a role in development

**Hormones**

**Hormones:** chemicals that help to regulate bodily functions.

**Adrenaline:** released from adrenal glands 🡪 increased heartrate, blood pressure, strength, breathing and release of sugar from the liver 🡪 fight or flight response

**Noradrenaline:** Released from brain and adrenal glands and cardiovascular system and increases arousal shifts blood flow away from areas where it might not be so crucial, like the skin, and toward more essential areas at the time, like the muscles, so you can flee the stressful scene

**Cortisol:** Released in response to stress 🡪 releases sugar to increase energy 🡪 fight or flight response

**Psychoactive Drugs**

**Methamphetamine** *– Stimulant, Agonist (mimics* ***Dopamine****)*

Once inside the cell, meth enters the dopamine vesicles and forces the dopamine molecules out.

**How it works:**

1. The excess dopamine in the cell causes the transporters to start working in reverse, actively pumping dopamine out of the cell and into the synapse.
2. Excess dopamine becomes trapped in the synaptic cleft.
3. Excess dopamine repeatedly binds to the receptors, overstimulating the cell

* Meth is highly addictive as it works directly on the brains reward pathway, making the user feel intense pleasure and exhilaration.
* Meth is 10x stronger than dopamine released from cocaine or alcohol.

**Alcohol** *– Depressant, Antagonist (blocks* ***Glutamate****), Agonist (mimics* ***GABA****)*

(effects both GABA and Glutamate)

* **GABA** neurotransmitters act to control neural activity along many brain pathways; when GABA binds to its receptor, the cell is less likely to fire.
* **Glutamate** acts as the brain’s general-purpose excitatory neurotransmitter.

**How it works:**

1. Alcohol interacts with GABA receptors to make them even more inhibitory.
2. Alcohol binds to glutamate receptors, preventing glutamate from exciting the cell.
3. Affects areas of the brain involved in memory formation, decision making, and impulse control.

**Cocaine** *– Stimulant, Antagonist (blocks* ***Dopamine****)*

* Dopamine transporters are responsible for removing dopamine molecules from the synaptic cleft after they have done their job.

**How it works:**

1. Cocaine blocks the dopamine transporters, leaving dopamine trapped in the synaptic cleft.
2. As a result, dopamine repeatedly binds to the receptors, overstimulating the cell.

* Cocaine concentrates in the reward pathway.
* Cocaine is also active in the part of the brain controlling voluntary movements.

**LSD** *– Hallucinogen, Agonist (mimics* ***Serotonin****)*

**How it works:**

1. LSD chemically resembles serotonin and elicits its effect by binding to serotonin receptors.
2. There are several types of serotonin receptors in the brain. Each is responsible for performing specific functions.
3. LSD interacts with particular receptors, but not always in the same way;
   * Sometimes LSD may inhibit them and sometimes it may excite them. (This is one reason why LSD has complex sensory effects).

**Heroin** *– Opiate + Depressant, Agonist (mimics* ***Natural Opiates****)*

* Before heroin enters the system, inhibitory neurotransmitters are active in the synapse. These neurotransmitters inhibit dopamine from being released.

**How it works:**

1. When the body’s natural opiates activate opiate receptors, the release of inhibitory neurotransmitters is shut down. Without inhibition, dopamine can be released.
2. Heroin mimics natural opiates and binds to opiate receptors, turning off dopamine inhibition.
3. Dopamine floods the synapse, producing immediate feelings of sedation and well-being.

* Neurons with opiate receptors are in parts of the brain responsible for the transmission of pain signals, stress response, and emotional attachment.
* Our body’s natural opiates are natural painkillers, effective when we have sustained massive injury.
  + This Is why morphine, a drug related to heroin, is used as a painkiller.

**Marijuana** *– Depressant, Mild hallucinogen, Agonist (mimics* ***Anandamide****)*

* Before marijuana enters the system, inhibitory neurotransmitters are active in the synapse. These neurotransmitters inhibit dopamine from being released.
* When activated by the body’s own native cannabinoid (*anandamide*)*,* cannabinoid receptors turn off the release of inhibitory neurotransmitters. Without inhibition, dopamine can be released.

**How it works:**

1. THC, the active chemical in marijuana, mimics anandamide and binds to cannabinoid receptors.
2. Inhibition is turned off and dopamine is allowed to squirt into the synapse.

* Anandamide is known to be involved in removing unnecessary short term memories. It is also responsible for slowing down movement, making us feel relaxed and calm.
* Unlike THC, anandamide breaks down very quickly in the body.
  + Therefore Anandamide doesn’t produce a perpetual natural ‘high’.

**Ecstasy** *– Stimulant, Agonist (mimics* ***Serotonin****)*

* Serotonin transporters are responsible for removing serotonin molecules from the synaptic cleft after they have done their job.

**How it works:**

1. Ecstasy mimics serotonin and is taken up by serotonin transporters.
   * Ecstasy is even more readily taken up than serotonin.
2. This interaction with ecstasy alters the transporter. The transporter becomes temporarily ‘confused’ and starts to do its job in reverse.
3. The transporter starts transporting serotonin out of the cell.
4. Excess serotonin becomes trapped in the synaptic cleft.
5. Excess serotonin repeatedly binds to the receptors, overstimulating the cell.

* Ecstasy affects serotonin pathways responsible for mood, sleep, perception and appetite.
* Ecstasy also indirectly interacts with the reward pathway.
  + The excess serotonin stimulates a milder release of dopamine along the reward pathway giving ecstasy slightly addictive properties.

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| **Type of drug** | **Psychological** | **Physiological** | **Brain structures** | **Neurotransmitter Levels** |
| Depressants   * Alcohol * Heroin * Marijuana | * Decrease in inhibitions * Feelings of relaxation * Aggressive * Focus of attention is internal * Marijuana: increased attention on an object | * Loss of co-ordination * Decrease in temperature * Loss of balance |  | * Alcohol *= Antagonist (blocks* ***Glutamate****) and Agonist (mimics* ***GABA****)* * Heroin = *Agonist (mimics* ***Natural Opiates 🡪 Dopamine*** *floods system)* * Marijuana = *Agonist (mimics* ***Anandamide****)* |
| Stimulants   * Cocaine * Meth | * Increased attention levels * Faster decision making * Increased agitation * Paranoia * Psychosis * Addiction * Prone to rages/ extreme anger | * Reaction times increase * Sweat * Increase in energy * Jittery; poor dental health * Loss of appetite * Skin discolour | * Frontal lobe * Limbic system * Amygdala | * Meth *= Agonist (mimics* ***Dopamine****)* * Cocaine *= Antagonist (blocks* ***Dopamine*** *transporters)* |
| Hallucinogens   * Ecstasy * LSD | * Euphoria * Changes perception: hallucinations | * Overheat * Dehydrate | * Frontal lobe * Reward pathways | * Ecstasy = Agonist *(mimics* ***Serotonin****)* * LSD = same^ |

**COGNITION**

**Theories and processes of learning**

**Learning:** a relatively lasting change in behavior that is the result of experience.

**Reflex:** an automatic inherent response to a stimulus.

**Acquisition:** the learning itself; the gaining of knowledge or skill

**Acquisition process:** the process of learning the conditioned response

**Acquisition phase:** the period of time between presentation of a stimulus and receiving reinforcement

**Classical conditioning**

**Classical conditioning:** A form of learning based on repeated association of two normally unrelated stimuli. It depends on reflex responses.

**Neutral Stimulus (NS):** A stimulus that does not naturally elicit any response.

**Unconditioned Stimulus (UCS):** A specific stimulus that is innately capable of eliciting a reflex response.

**Unconditioned Response (UCR):** The natural, automatic response to a specific unconditioned stimulus.

**Conditioned Stimulus (CS):** A stimulus that evokes a specific response due to learning.

**Conditioned Response (CR):** A reflex response to a previously neutral stimulus that occurs after learning has taken place.

**Classical extinction:** the gradual decrease in strength or frequency of a conditioned response when the unconditioned stimulus is no longer available

**Classical spontaneous recovery:** the reappearance of a conditioned response to the conditioned stimulus after a period of apparent extinction

**Classical stimulus generalization:** when stimuli similar to the conditioned stimulus produce the conditioned response. **Pavlov** found after a dog had been conditioned to salivate in response to the sound of a bell, it would also salivate when a buzzer was sounded.

**Classical stimulus discrimination:** the ability to discriminate between stimuli so that only a specific stimulus produces the conditioned response

**One trial learning:** A change in behaviour due to one intense experience

* A form of classical conditioning; involves reflexive response, the paring of the UCS & CS and the learner is passive E.g. Phobia or taste aversion

**Differences to classical conditioning:**

* Occurs once
* Often large time lapse up-to 2 hours; association develops later
* Highly resistant to extinction, therefore the response is powerful
* Unlikely to be generalised
* Intensity of response
* Survival mechanism

**Taste aversion:** conditioned response in which a person establishes an association between a particular food and being & feeling ill (food poisoning).

**Empirical evidence - Pavlov’s conditioning experiments:**

1. Ring bell (NS)
2. Give food to dogs(UCS)
3. Salivation (UCR)
4. Dogs salivate (CR) when bell (CS) alone rings

**Empirical evidence - Watson’s ‘Little Albert’ experiment:**

* 11-month-old baby showed how emotions are learned
* Presented a white rat (NS) and a loud noise (UCS)
* After several pairings Albert showed fear (CR) of the white rat (CS)
* Later Albert generalized this fear onto stimuli that were similar to the CS such as a beard or fur coat.

**Operant conditioning**

**Operant conditioning:** A learning process in which the likelihood of a behavior being repeated is determined by the consequences of that behavior.

**Trial-and-error learning:** when an organism continues to explore their environment until they discover a response that will allow them to reach their goal.

**Operant extinction:** when the learnt response gradually decreases in strength or rate of response after reinforcement stops

**Operant spontaneous recovery:** the reappearance of a previously reinforced response after a period of apparent extinction

**Operant stimulus generalization:** explains how we can learn something in one situation and apply it to other similar situations. E.g. Potty trained at home, uses toilet at school.

**Operant discrimination:** Discrimination involves the elicitation of a response only in the presence of a specific discriminative stimulus, and not in the presence of similar stimuli. Discrimination is useful when a particular response is not appropriate in similar situations. For example, behaviour that is appropriate in a fast-food restaurant, such as eating with your hands, may not be appropriate in a French restaurant.

**Punishment:** Any event following a response that decreases the likelihood of the response occurring again because it introduces an unpleasant stimulus or removes a rewarding one (**response cost**).

**Positive reinforcement:** when a pleasant event follows a response and generally increases the likelihood of that response reoccurring.

**Negative reinforcement:** when a response removes or prevents an unpleasant stimulus and creates a positive consequence; it increases the likelihood of that response occurring again.

**The Response Rate:** Measure of the amount of responses which take place during a particular time period.

**The Extinction Rate:** The rate at which the CR becomes extinct.

**Continuous reinforcement:** A schedule of reinforcement where a reinforce follows every correct response. Response rate is SLOW. Extinction rate is FAST.

**Partial reinforcement:** A schedule of reinforcement where a reinforcer follows only some (not all) correct response

**Types of partial reinforcement:**

* **Fixed ratio:** a set number of correct responses must be made before obtaining reinforcement. Response rate is FAST. Extinction rate is MEDIUM.
* **Variable ratio:** A varied number of correct responses must be made before reaching reinforcement. Response rate is FAST. Extinction rate is SLOW.
* **Fixed interval:** After a correct response is made a reinforce is given once a fixed amount of time has passed. Response rate is MEDIUM. Extinction rate is MEDIUM.
* **Variable interval:** After one correct response has been made, reinforcement is given after an unpredictable amount of time has passed. Response rate is FAST. Extinction rate is SLOW.

**Empirical evidence - Edward Thorndike** put forward a “Law of effect” which stated that any behavior that is followed by pleasant consequences is likely to be repeated, and any behavior followed by unpleasant consequences is likely to be stopped.

* Cat placed in puzzle box
* Piece of fish just out of reach
* Lever opened door so cat could get to the fish

**Empirical evidence - B.F Skinner:**

* Skinner box and rat studies
* Hungry rat placed in box
* When rat accidentally pressed the leaver a food pellet or drop of water would dispense
* Soon learned to press leaver to receive positive reinforcement
* Subjected the rat to an unpleasant electric current
* When the rat accidentally pressed the lever the current stopped
* Soon learned to press the leaver to receive negative reinforcement

**Weaknesses:**

* Punished behavior is not forgotten, it's suppressed - behavior returns when punishment is no longer present.
* Causes increased aggression - shows that aggression is a way to cope with problems.
* Creates fear that can generalize to undesirable behaviors, e.g., fear of school.
* Does not necessarily guide toward desired behavior - reinforcement tells you what to do, punishment only tells you what not to do.

**Observational Learning/SLT**

**Observational learning:** when learning occurs by watching others and noting the consequences of their actions, then imitating or not imitating their behavior.

**Model:** someone who serves as an example in observational learning. Live or symbolic.

In social learning theory Albert Bandura (1977) agrees with the behaviorist learning theories of classical conditioning and operant conditioning. However, he adds **two important ideas**:

* Mediating processes occur between stimuli & responses.
* Behavior is learned from the environment through the process of observational learning.

**Attention**: The extent to which we are exposed/notice the behavior. For a behavior to be imitated it has to grab our attention. We observe many behaviors on a daily basis and many of these are not noteworthy. Attention is therefore extremely important in whether a behavior has an influence in others imitating it.

**Retention**: How well the behavior is remembered. The behavior may be noticed, but is it not always remembered which obviously prevents imitation. It is important therefore that a memory of the behavior is formed to be performed later by the observer. Much of social learning is not immediate so this process is especially vital in those cases. Even if the behavior is reproduced shortly after seeing it, there needs to be a memory to refer to.

**Reproduction**: This is the ability to perform the behavior that the model has just demonstrated. We see much behavior on a daily basis that we would like to be able to imitate but that this not always possible. We are limited by our physical ability and for that reason, even if we wish to reproduce the behavior, we cannot. This influences our decisions whether to try and imitate it or not. Imagine the scenario of a 90-year-old-lady who struggles to walk watching Dancing on Ice. She may appreciate that the skill is a desirable one, but she will not attempt to imitate it because she physically cannot do it.

**Motivation**: The will to perform the behavior. The rewards and punishment that follow a behavior will be considered by the observer. If the perceived rewards outweigh the perceived costs (if there are any) then the behavior will be more likely to be imitated by the observer. If the vicarious reinforcement is not seen to be important enough to the observer, then they will not imitate the behavior.

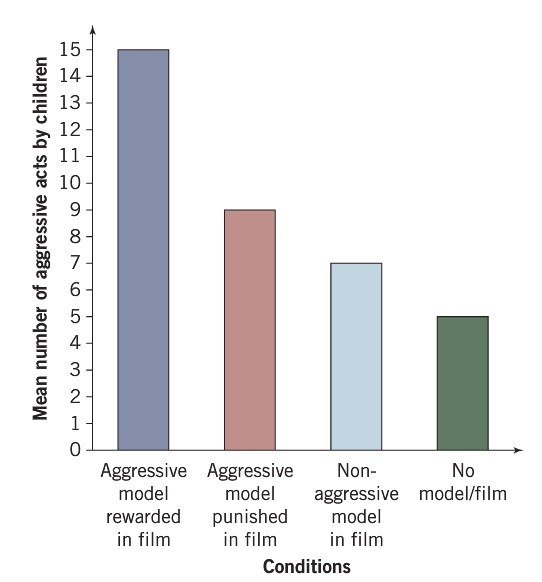
**Factors that influence imitation:**

* Relevance (age + gender), likeability, credibility, prestige
* Punishment or reinforcement. Will behave in a way which we believe we will earn approval because we desire approval.
* Vicarious reinforcement/punishment. A person learns by observing the consequences of another person’s (i.e. models) behavior e.g. a younger sister observing an older sister being rewarded for a particular behavior is more likely to repeat that behavior herself.

**Empirical evidence - Bandura’s Bobo Doll experiment (1961):**

* tested preschool aged children, on way to toy room were instructed to watch one of four videos
* videos: aggressive model rewarded, aggressive model punished, no aggression between models, no model 🡪 then taken to room to play alone with various toys.

**Results:**



**Strengths:**

* Easily handles inconsistencies in behavior
* Accurate picture explaining how behavior is learned
* Offers a way to integrate social and cognitive theories
* Allows and accounts for cognitive processes
* Explains a large number of behaviors
* Accurate and easy to understand

**Weaknesses:**

* Too heavy of an emphasis on what happens instead of what the observer does with what happens
* Does not take into account physical and mental changes (maturation)
* Doesn’t explain all behavior
* Doesn’t explain behavioral differences
* Doesn’t take in account that what one person views as punishment, another person may view as a reward

**Techniques for modifying behaviour**

**Phobia:** An intense and irrational fear of an object, situation or thing, which persists over time.

**Techniques based on principles of operant conditioning**

**Token economy:** desirable behavior is rewarded with a secondary reinforce that can be exchanged for a primary reinforce.

**Shaping:** An operant training technique that involves reinforcing successive responses that closely resemble or progress towards the desired response.

**Techniques based on principles of classical conditioning**

**Counter conditioning:** A behavior therapy based on classical conditioning principles, which conditions new, pleasant responses to stimuli that trigger unwanted responses.

**Graduated exposure/Systematic desensitization:** A type of behavior therapy used to reduce a phobia, involving exposing a person to their phobia-causing stimulus or situation very slowly, by degrees, under relaxed conditions until the fear response it extinguished.

**Empirical evidence - Wolpe (1964)** successfully used the method to treat an 18-year-old male with a severe handwashing compulsion. A follow-up 4 years later revealed complete remission of the compulsive behaviors.

**Flooding:** A form of behavior therapy whereby an individual with a phobia is exposed to the fear producing object or situation in a ‘flood-like’ manner, so they are completely immersed in the situation.

**Aversion therapy:** A type of behavior therapy that uses classical conditioning principles to change an undesirable behavior by associating it with an unpleasant stimulus. E.g. Vomiting from drinking alcohol.

**Techniques based on principles of cognitive restructuring**

**Cognitive Behavior Therapy:** Negative thoughts = negative feelings = negative behaviors. Learn to identify and challenge destructive thought processes (cognitive restructuring).

* **Socratic questioning** encourages people to apply logic to their thoughts and critically challenge them e.g. “is that thought realistic?”.
* **Thought diaries** monitor maladaptive feelings and when they were experienced allowing the patient to self-regulate.
* **Homework** allows people to set social tasks to complete in order to overcome maladaptive thoughts.

**Memory**

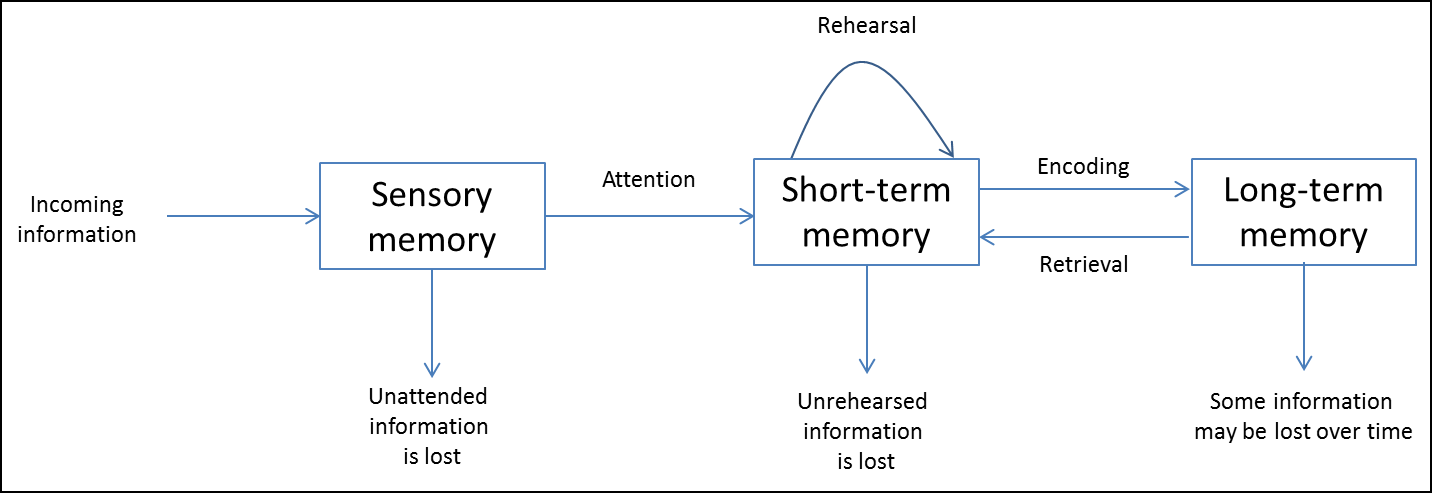
**Memory:**  the process of maintaining information over time.

**Stages of memory:** Encoding 🡪 storage 🡪 retrieval

**Encoding:** the process that converts information into a useable form (code) that can be stored and represented in the memory system. Information may be encoded in three ways; visual (picture), acoustic (sound) or semantic (meaning).

**Storage:** people have three memory stores; the sensory memory, short term memory and long term memory. Storage is the retention of information in the memory over time. Storage concerns where the information will be stored, how long it will last (duration) and how much can be stored at any time (capacity).

**Retrieval:** Retrieval is the process of locating information stored in the memory and bringing it into consciousness when needed, to complete a cognitive task.

**Atkinson and Shiffrin’s** multi store model of memory:

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Sensory store** | **Short term memory** | **Long term memory** |
| **Encoding** | Visual processing Phonetic/acoustic | Acoustic/sound inner ear | Semantic: meaning  Deep processing |
| **Capacity** | unlimited | Limited 7 + or - 2 | Unlimited |
| **Duration** | Iconic = ⅓ – ½ of a sec  Echoic = 3-4 secs | 0 - 18/20 seconds | Permanent |
| **Sub-stores** | Iconic 🡪 sight  Echoic 🡪 auditory | ONLY ONE STORE | Procedural  Declarative – semantic and episodic |

**Iconic:** holds replica of vis info for approx. 1/3 - 1/2 of a sec unlimited capacity

**Echoic:** holds replica of auditory info for approx. 3-4 secs unlimited capacity

**Procedural memory:** is a part of the long-term memory that is responsible for knowing how to do things, also known as motor skills.

**Declarative memory:** a type of LTM specific for factual information that can be expressed in words

**Semantic:** a type of declarative memory for impersonal factual knowledge about the world

**Episodic:** a type of declarative memory for personally significant events associated with specific times and places

**Maintenance rehearsal:** the repetition of information a number of times so that it may be held in STM for longer than the usual 0-18/20 seconds.

**Elaborative rehearsal:** involves linking new information, in some meaningful way, with information stored in the long term memory to increase duration of information held in the STM.

**Theories of forgetting**

**Decay theory:** suggest that over time memory traces fade.

**Retroactive interference:** new information blocks the retrieval of old information

**Proactive interference:** old information blocks the retrieval of new information.

**Displacement:** When the number of items entering STM exceeds 7 +/- 2 (Miller’s Law) the first items are lost and no longer able to be recalled.

**Retrieval failure:** occurs when we don't have the necessary cues to access memory. The memory is available but not accessible unless a suitable cue is provided.

**Motivated forgetting:** people may forget unwanted memories, either consciously or unconsciously.

**Repression:** unconsciously blocking a memory entering conscious awareness because it is psychologically unpleasant to remember.

**Suppression:** making a conscious effort to keep the memory out of your conscious awareness.

**Measures of retention types**

**Free recall:** recalling information from memory in any order with no cues for assistance

**Serial recall:** recalling information from memory in the order or sequence in which it was learnt, with no cues for assistance

**Cued recall:** recalling information from memory with some cues or hints for assistance

**Recognition:** a measure of retention that involves identifying previously learnt information from a list or group of alternatives

**Relearning:** learning something that has been previously learnt, to measure the amount of information retained from the original learning

**Savings equation:** time for original learning – time for relearning x 100

time for original learning 1

**Murdock (1962)**:

* asked participants to learn a list of words that varied in length from 10 to 40 words and free recall them.
* Each word was presented for one to two seconds.
* Found that the words positioned at the beginning of the list and the words positioned at the end of the list were more often recalled, whilst the words in the middle of the list were most often forgotten.
* This is known as the serial position effect.
* when people display evidence of the serial position effect they are recalling information from the STM and LTM, supporting the notion of a multi store model of memory

**Glanzer and Cunitz:**

* presented two groups of participants with the same list of words.
* One group recalled the words immediately after presentation, while the other group recalled the words after waiting 30 seconds.
* These participants had to count backwards in threes (the Brown-Peterson technique), which prevented rehearsal and caused the recency effect to disappear.
* Both groups could free recall the words in any order.
* Results = The words at the end of the list are only remembered if recalled first and tested immediately. Delaying recall by 30 seconds prevented the recency effect

**Primacy effect: t**he improved recall of words at the beginning of a list

**Recency effect:** the improved recall of words at the end of a list

**H.M.:**

* had brain surgery in 1953 when he was 27 yrs. old. The surgery involved removal of part of the brain known as the hippocampus to alleviate the severe symptoms of epilepsy.
* Although the surgery controlled the epileptic seizures H.M. suffered serious and debilitating memory impairment as a side effect.
* His short-term memory was normal but he was completely unable to transfer any new information into his long-term memory.

**Anterograde amnesia:** refers to loss of memory for events after an incident.

**Retrograde amnesia:** a loss of memory-access to events that occurred, or information that was learned, before an injury or the onset of a disease.

The **KF** **Case Study** supports the Working Memory Model. KF suffered brain damage from a motorcycle accident that damaged his short-term memory. KF's impairment was mainly for verbal information - his memory for visual information was largely unaffected. This shows that there are separate STM components for visual information (VSS) and verbal information (phonological loop).

**Clive Wearing:**

* Clive has an impaired Short term memory this is shown as he has a poor duration in STM of only 7 seconds.
* unable to rehearse new information as he loses the sentence he is in and cannot remember the question when giving an answer.
* unable to transfer any new long term memories
* has difficulty retrieving his existing Long term memories as he is unable to distinguish between the tastes of foods. Interestingly however he is able to remember procedural memories. (piano)
* demonstrates how the Short-term memory and long term memory are different stores as one store is more impaired than the other illustrating that these therefore must be independent of one another.

**Baddeley and Hitch Working Memory Model**

**Central executive:** involved in problem solving/decision making. Controls attention and plays major role in planning and synthesizing information Has a limited storage capacity.

**Phonological loop:** stores a limited number of speech based sounds for brief periods.

**Visuo-spatial sketchpad:** stores visual and spatial information. Sets up and manipulates mental images. Has limited capacity.

**Episodic buffer:** integrates and manipulates material, binds information into chunks.

**Baddeley and Hitch Working memory model:**

**Strengths of MSM:**

* gives us a good understanding of the structure and process of the STM 🡪 allows researchers to expand on this model
* the model is influential as it has generated a lot of research into memory
* The model can account for primacy & recency effects.
* The model is supported by studies of amnesiacs: For example, the HM case study.

**Weaknesses:**

* The model is oversimplified, in particular when it suggests that both short-term and long-term memory each operate in a single, uniform fashion
* Baddeley and Hitch’s WM showed that short term memory is more than just one simple unitary store and comprises different components
* different types of long-term memory have been identified, namely episodic (memories of events), procedural (knowledge of how to do things) and semantic (general knowledge).
* Rehearsal is considered a too simple explanation to account for the transfer of information from STM to LTM. For instance, the model ignores factors such as motivation, effect and strategy (e.g. mnemonics) which underpin learning.
* rehearsal is not essential to transfer information into LTM.

**RELATIONAL INFLUENCES**

**Conflict**

**Conflict** occurs when there is a perception that two parties, whether individuals or groups, have incompatible goals, ideas or behaviour, or when an individual’s needs are not being met.

**Mirror image perceptions:** refer to the reciprocal views of one another often held by parties in conflict; for example, each may view itself as moral and peace-loving and the other as evil and aggressive. Each party tends to form reciprocal and distorted perceptions of the other that are remarkably alike.

**Types of solutions to resolve conflict**

* **Imposed solutions:** are dictated solutions. Sometimes one party is stronger and will impose a solution. At other times a third party may impose a solution. Usually lead to one party winning and one party being dissatisfied and the underlying conflict staying unresolved.
* **Distributive solutions:** involve compromise or mutual concessions. This type of solution can be seen in industrial disputes where wages may be set at a level somewhere between that desired by employees and employers.
* **Integrative solutions:** are often called win-win solutions because both sides can benefit from the decision reached. Finding an integrative solution is more difficult than reaching a compromise because it involves understanding both parties’ motives, values and goals. This type of solution tries to ensure that the motives of each party are addressed, rather than focusing on explicit demands.

**Empirical evidence – Follet Solutions:**

* Difference between integrative and distributive solutions.
* Two sisters want an orange and compromise by cutting it in half.
* Had they discussed it the would have discovered one wanted the pulp for juice and one wanted the peel for cake 🡪 this would have helped them split the orange in a way that each gets the most individual utility out of the agreement.

**Processes/Techniques for resolving conflicts**

**Arbitration**

A dispute resolution process in which a third party imposes a solution after listening to the conflicting parties present their cases.

**Associated solution type:** Imposed.

**Examples:** parents solving issues between children, teachers solving issues.

**Disadvantages:**

* One party ‘loses’ so conflict may reoccur.
* Success largely dependent on arbitrator.
* If information is withheld decision may not be just.
* May not be a clear victim or bad person.

**Advantages:**

* Faster than going to court.
* Two groups don’t have to interact 🡪 two parties are hostile.
* Bring about impartial decisions.

**Negotiation**

The process by which parties that have some shared interests but some interests that are opposed strive to reach agreement.

**Associated solution type:** Integrative or distributive.

**Examples:** Two people deciding what to do on a Saturday night.

**Disadvantages:**

* Power differential leads to win lose
* Process of resolving conflict is slower
* Have to put aside emotional bias

**Advantages:**

* Doesn’t involve a third party 🡪 cheaper.
* Maintains privacy.
* Faster 🡪 don’t have to find third party.
* More likely to adhere to the solution 🡪 no feeling of loss.

**Mediation**

The process in which a third party helps two parties that are in dispute to reach voluntary agreement. (Guiding and giving direction)

**Associated solution type:** Distributive or integrative.

**Examples:** Divorce

**Disadvantages:**

* Can be difficult to come to conclusion by self.
* Expensive 🡪 often ex judges and lawyers.

**Advantages:**

* Less time consuming.
* Maintains positive relationship between two parties.
* Mediator reduces emotional conflict.
* Can arrange times 🡪 increases ease of outcome.
* Parties have more control in comparison to arbitrator.
* Parties are treated equally.
* Less likely for conflict to be unresolved.
* Private.

**Counselling**

Assisting in solving problems within families and offers solutions for conflict and teaches them how to solve conflict themselves.Support in working through a problem provided to an individual or group by a professional.

**Associated solution type:** integrative or distributive

**Examples:** family relationships.

**Disadvantages:**

* Costly
* Difficult to find a suitable counsellor

**Advantages:**

* Active listening 🡪 not accusatory
* Give people skills to sort out own problems
* Helps prevent further conflict

**Socialisation processes observed within families**

**Attachment Theory**

Infants develop attachment to their caregivers—upon whom they are dependent—as a means of survival.

**Attachment:** an emotional bond between two people which is enduring across time and space, and is ideally reciprocal.

**Separation anxiety:** A psychological condition in children characterized by apprehension when separated from a parent.

**Learning Approach (‘cupboard love’) - B.F. Skinner**

* that a child becomes attached to their caregiver due to the caregiver’s relation with food.
* attachment 🡪 due to associations made between different stimuli (classical conditioning) or that behaviour can be altered by patterns of reinforcement/reward (operant conditioning).
* In terms of classical conditioning; The food played the role of the unconditioned stimulus 🡪 the caregiver was the neutral stimulus that became the conditioned stimulus.
* In terms of operant conditioning; the food was the primary reinforcer.

**Konrad Lorenz’s Attachment Theory**

* **Imprinting** 🡪 species socially bond to the first moving object they encounter.
* Carried out an experiment to show that young goslings could form an attachment to him, as they had an **innate desire** to do so.

**Bowlby’s Attachment Theory**

* Highly influenced by **ethology**; the scientific study of human and animal behavior. Believed humans did not imprint but rather attached.

**Key points (SCAMMI):**

* Suggested children are **biologically predisposed** to develop attachments to caregivers.
* Studied mother-infant interactions and concluded that infant smiling, babbling, crying, and cooing are innate behaviors (**social releasers**) which ensure proximity and contact with the attachment figure 🡪 ensures the infant will avoid danger.
* Attachment is **adaptive** as it enhances the infant’s chance of survival.
* A child has an innate need to attach to one main attachment figure (i.e. **monotropy**).
* **Critical period:** child **should receive the continuous care** of this single most important attachment figure for approximately the **first two years of life**.
* **Maternal deprivation:** the separation or loss of the mother as well as failure to develop an attachment.
* The child’s attachment relationship with their primary caregiver leads to the development of an **internal working model;** a cognitive framework comprising mental representations for understanding the world, self and others. Main features:
* a model of **others as being trustworthy**
* a model of the **self as valuable**
* a model of the **self as effective** when interacting with others.

**Long term consequences of maternal deprivation (DRIDA):**

* delinquency
* reduced intelligence
* increased aggression
* depression
* affectionless psychopathy

**Characteristics of attachment (PSSS):**

* **Proximity maintenance:** the child aims to explore the world but still remain close to his caregiver.
* **Safe haven:** child can rely on caregiver for comfort at times when he feels threatened.
* **Secure base:** The caregiver gives a good and reliable foundation to the child as he goes on learning and sorting things out by himself.
* **Separation anxiety/distress:** the child becomes unhappy and sorrowful when separated from his caregiver.

**Phases of attachment (PPCG):**

* **Preattachment**(0 to 3 months): Social releasers ensure proximity. Complete attachment has not yet occurred, so the baby is still comfortable being left with an unfamiliar person.
* **Preliminary attachment**(3 to 12 months): Attachment is getting stronger during this stage, and infants respond differently to familiar people than they do to strangers. Parents continue to build attachment by meeting the baby's basic needs for food, shelter, and comfort.
* **Clear-cut attachment** (1 to 2.5 years old): Attachment to trusted caregivers continues to strengthen in this stage, and **separation anxiety** is likely in a caregiver's absence. Parents and other important adults in the child's life continue to strengthen attachment by being receptive to the child's needs for attention, meeting basic needs, and playing with the child.
* **Goal-directed partnership** (2.5 years onwards): Begin to understand a parent's coming and going 🡪 separation anxiety lessens—although the child may do things to gain extra time with the parent prior to departure or to keep the parent from leaving.

**Harry Harlow – Rhesus monkeys**

* Studied attachment in monkeys 🡪 stated that monkeys must form their attachments during their first year of life (critical period).
* Wanted to investigate factors influencing attachment.

**Infant Monkeys reared with surrogate mothers procedure:**

* 8 infant Rhesus monkeys separated from mother at birth.
* Kept in cages containing two surrogate mothers made of wire mesh; one covered in soft cloth one left uncovered.
* Half were placed in a cage with feeding bottle on cloth mother and other half plaed in cage with feeding bottle on wire mother.

**Results:**

* Regardless of which mother provided nourishment the cloth mother was preferred.
* No monkey spent more than 1-2 hours a day on the wire mother in any 24 hour period. Supports **evolutionary theory** of attachment. By age 3 weeks all monkeys spend around 15 hours a day in contact with the cloth surrogate.
* Supports **evolutionary theory** of attachment 🡪 it is sensitive response and security of caregiver that is important, not food.
* Much more timid, didn’t know how to act with other monkeys, were easily bullied and wouldn’t stand up for themselves, had difficulty with mating.
* The females were inadequate mothers.

**Introducing a ‘stressor’ results:**

* Monkeys sought comfort from the cloth surrogate.

**Conclusion:**

* Contact comfort and a desire for protection is more important than feeding when forming an attachment.

**Infant Monkeys reared in isolation procedure:**

* Isolated monkeys from birth.
* No contact with each other or anybody else.
* Kept some this way for three months, some for six, some for nine and some for the first year of their lives.
* Put them back with other monkeys to see what effect their failure to form attachment had on behavior.

**Results:**

* Monkeys engaged in bizarre behavior such as clutching their own bodies and rocking compulsively.
* Then placed back in the company of other monkeys. Initially were scared of the other monkeys, and then became very aggressive towards them. Also unable to communicate or socialize with other monkeys.
* The other monkeys bullied them.
* They indulged in self-mutilation, tearing hair out, scratching, and biting their own arms and legs.

**Conclusion:**

* **Privation** (i.e. never forming an attachment bond) is permanently damaging.
* Those kept in isolation for 3 months were the least affected, but those in isolation for a year never recovered the effects of privation.

**Mary Ainsworth – The Strange Situation**

**Maternal/caregiver sensitivity hypothesis:** a child’s attachment style is dependent on the behaviour their mother shows towards them.

**Sensitive mothers:** more likely to have **securely attached** children (type B).

**Less sensitive mothers:** more likely to have **insecurely attached** children (type A and type C).

**Unresponsive mothers:** more likely to have **insecure avoidant** children (type A)

**Procedure:**

* Participants = 100 American middle-class families, infants aged between 12 and 18 months
* Method = controlled observation.
* observing the behavior of the infant in a series of eight episodes lasting approximately 3 minutes each
* (1) Mother, baby and experimenter (lasts less than one minute).
* (2) Mother and baby alone.
* (3) Stranger joins mother and infant.
* (4) Mother leaves baby and stranger alone.
* (5) Mother returns and stranger leaves.
* (6) Mother leaves; infant left completely alone.
* (7) Stranger returns.
* (8) Mother returns and stranger leaves.

**Results:**

* Identified three main attachment styles, secure (type B), insecure avoidant (type A) and insecure ambivalent/resistant (type C).

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Secure Attachment (B)** | **Avoidant Attachment (A)** | **Ambivalent Attachment (C)** |
| **Separation Anxiety** | Distressed when mother leaves. | Infant shows no sign of distress when mother leaves. | Infant shows signs of intense distress when mother leaves. |
| **Stranger Anxiety** | Avoidant of stranger when alone, but friendly when mother present. | Infant is okay with the stranger and plays normally when the stranger is present. | Infant avoids the stranger - shows fear of stranger. |
| **Reunion behavior** | Positive and happy when mother returns. | Infant shows little interest when mother returns. | Child approaches mother, but resists contact, may even push her away. |
| **Other** | Will use the mother as a safe base to explore their environment. | Mother and stranger are able to comfort the infant equally well. | Infant cries more and explores less than the other 2 types. |
| **% of infants** | 70 | 15 | 15 |

**What causes development of particular attachment types?**

* **Secure:** mother is sensitive to infant’s signals, and responds appropriately to their needs.
* **Avoidant:** caregiver who is insensitive and rejecting of their needs, may withdraw from helping during difficult tasks and is often unavailable during times of emotional distress. E.g. Post-natal depression.
* **Ambivalent:** infant receives an inconsistent level of response to their needs from the primary caregiver. E.g. mother has multiple kids.

**Characteristics of people who form particular attachments:**

* **Secure:** able to create meaningful relationships, empathetic, able to set boundaries.
* **Avoidant:** Avoids closeness or emotional connection, distant, critical, rigid, intolerant.
* **Ambivalent:** anxious and insecure, controlling, blaming, erratic, unpredictable, sometimes charming.

**In what way is the experiment biased:**

* **Cultural:** not the norm to leave infants with baby sitters in a lot of countries. E.g. Japan.
* **Primary caregiver was always the mother:** time biased nature of family unit.
* **Class:** implies a certain level of education or occupation. E.g. can afford to be a stay at home mother.

**Temperament:** the physical foundation of personality, including emotional and perceptual sensitivity, energy levels and moods. Temperament of the child and caregiver greatly affects the type of attachment formed. E.g. a child with anxiety is more likely to develop insecure attachment.

**Michael Rutter (1981):**

* argued that if a child fails to develop an attachment this is **privation**, whereas deprivation refers to the loss of or damage to an attachment.
* problems are not due solely to the lack of attachment to a mother figure, as Bowlby claimed, but to factors such as the lack of intellectual stimulation and social experiences which attachments normally provide.

**Genie Case Study – Curtiss (1977)**

* Her father subjected her to severe confinement and ritual ill-treatment in an attempt to "protect" her.
* Spent 12 years locked in her bedroom.
* During the day 🡪 tied to a child's potty chair in diapers
* Night 🡪 bound in a sleeping bag and placed in an enclosed crib with a cover made of metal screening.
* Father beat her if she vocalized, barked and growled at her like a dog in order to keep her quiet. Forbade wife and son to speak to Genie.
* When discovered: Could not stand erect, had a vocabulary of about 20 words, scored as low as a normal one-year-old on a social maturity scale, could only understand her own name, didn’t socialize, didn’t know how to chew, salivated constantly, and was not toilet trained.
* Few months of therapy 🡪 advanced to one-word answers, learned to dress herself. But never asked questions, did not understand grammar, and had no advancements in vocabulary.
* After considerable therapy 🡪 learned to vocalize and express herself through sign language, became social with adults she was familiar with. However, never reached any sort of normal cognitive or emotional development.

**Parenting Styles**

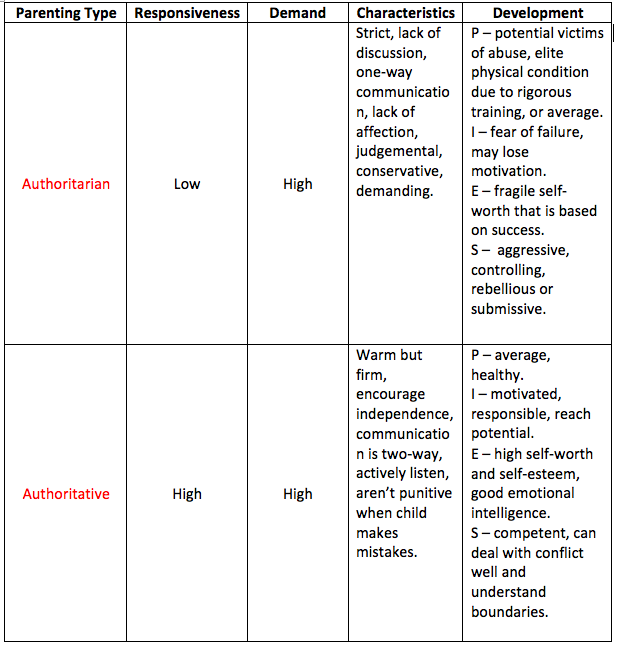
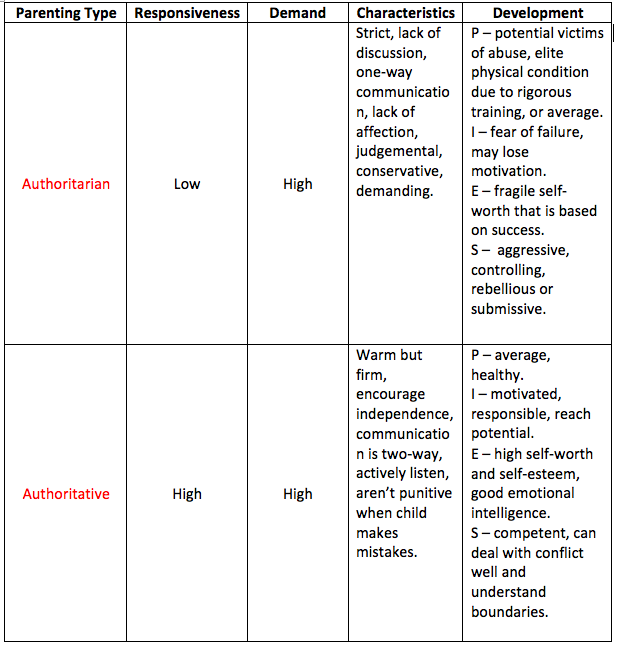
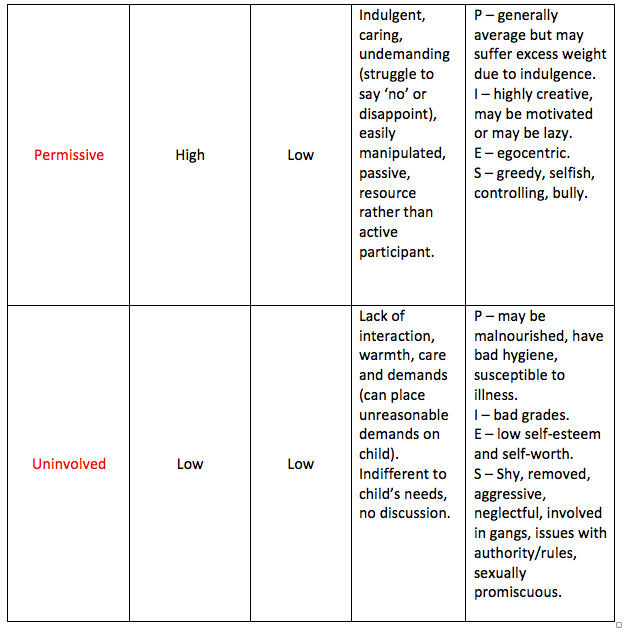
**Diana Baumrind (1966):**

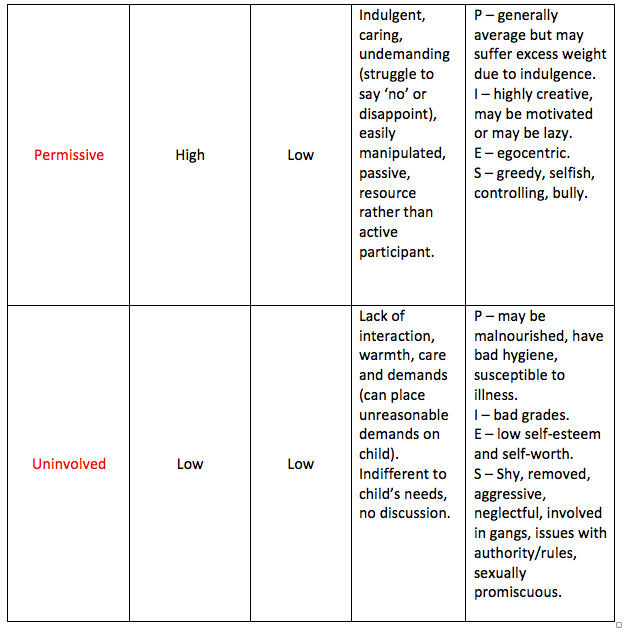
* found two basic elements that help shape successful parenting: parental responsiveness and parental demandingness.
* Identified three initial parenting styles:**authoritative parenting, authoritarian parenting, and permissive parenting.**
* **Maccoby and Martin (1983)** later expanded upon Baumrind’s three original parenting styles by adding the **uninvolved or neglectful style**

**Parenting styles:** a psychological construct representing standard strategies that parents use in their child rearing.

**Parental warmth/support:** refers to the degree to which parents are accepting and responsive of their children’s behaviour as opposed to being unresponsive and rejecting.

**Parental control:** refers to the degree to which parents manage their children’s behaviour – from being very controlling to setting few rules and demands.





**COMMUNICATION**

**Communication styles**

**Communication style:** the cultural and social aspects of language. It involves accents, vocabulary, grammar and ideas being expressed.

**Bernstein – Elaborated + Restricted Code (1971)**

* Construct introduced by Basil Bernstein in 1971 (he was an educator)
* Way of accounting for relatively poor performance of working-class pupils on language based subjects, when they were achieving as well as their middle-class counterparts on mathematical topics. 🡪 disparity.
* Argued that working-class students had access to their restricted code(s) – but middle-class students had access to both restricted and elaborated codes, because the middle-classes were more geographically, socially and culturally mobile.
* Suggested that even working-class children might sometimes use elaborated code; the difference between classes is said to lie rather in the occasions on which they can use the codes (e.g. working-class children have difficulty using the elaborated code in school.)
* **Code:** refers to a set of organising principles behind the language employed by members of a social group.

**Empirical evidence:**

* One of Bernstein’s research studies involved showing a group of children a strip cartoon and recording their account of what it depicted.
* **Working-class child:** “they’re playing football and he kicks it and it goes through there it breaks the window and they’re looking at it and he comes out and shouts at them because they’ve broken it so they run away and the she looks out and she tells them off”
* **Middle-class child:** “three boys are playing football and one boy kicks the ball and it goes through the window the ball breaks the window and the boys are looking at it and a man comes out and shouts at them because they’ve broken the window so they run away and then that lady looks out her window and she tells the boys off”

**Restricted code:**

* Who uses it: both middle and working class.
* Appropriate: works better for situations in which there is a great deal of shared and taken for granted knowledge in the group of speakers. E.g. friends and family.
* Because it draws on a store of shared meanings and background knowledge a restricted code carries a social message of inclusion, of implicitly acknowledging that the person addressed is “one of us”.
* Its essential feature is that it works within, and is tuned to, a restricted community.
* Examples: texting, emojis.

**Elaborated code:**

* Who uses it: middle-class.
* spells everything out; not because it is better, but because it is necessary so that everyone can understand it.
* It has to elaborate because the circumstances do not allow speakers to condense.
* Works well in situations where there is no prior or shared understanding and knowledge, where more explanation is required.
* Examples: within class room, essays/academic context.
* When appropriate: when there is little shared knowledge e.g. meeting someone new for the first time.

**Features of the two codes:**

* Syntax is more formally correct in elaborated code, but loser in restricted code.
* There are more logical connectives like ‘if’ and ‘unless’ in elaborated code, whereas restricted code uses more words of simple coordination like ‘and’ and ‘but’.
* There is more originality in the elaborated code; there are clichés in restricted code.
* The elaborated code is used to convey facts and abstract ideas, the restricted code attitude and feeling.

**Two factors that contribute to development of either an elaborated or restricted code within a system:**

* The nature of the socialising agencies (family, peer group, school, work) present in a system.
* Values within the system.
* When the socialising agencies are well defined and structured you find a restricted code. Conversely, when the agencies a malleable, an elaborate code is found.

**Criticisms of Bernstein:**

* Fails to recognise the diversity of speech 🡪 assumes all middle-classes speak in elaborated codes and all working-class speak in restricted codes.
* Provided very little evidence to back up his claims.
* Labov (1973) suggested working-class speech codes aren’t inferior, they are just as complex but differ from middle-class speech.

**Labov – BEV and AAEV**

Argued that AAEV should not be stigmatised as substandard, nut respected as a variety of English with its own grammatical rules.

**Empirical evidence:**

A series of interviews with Harlem children aged from 10 to 16 years old 🡪 asked to correct to classroom English such sentences as the following:

‘He pick me.’

‘He don’t know nobody.’

‘He never play no more, man.’

‘The man from U.N.C.L.E. hate the guys from Thrush.’

**Features:**

* omission of the final consonant in words like ‘past’ (*pas’* ) and ‘hand’ (*han’*)
* pronunciation of the *th* in ‘bath’ as *t* (*bat*) or *f* (*baf*)
* pronunciation of the vowel in words like ‘my’ and ‘ride’ as a long *ah* (*mah, rahd*).
* dropping *b*, *d*, or *g* at the beginning of auxiliary verbs like ‘don’t’ and ‘gonna’, yielding *Ah ‘on know* for “I don’t know” and *ama do it* for “I’m going to do it.”
* Double negatives

**Tannen – Genderlect**

**Genderlect:** a type or style of speech used by a particular gender.

**Deborah Tannen** coined the term 'Genderlect' to describe the way that the conversation of men and women are not right and wrong, superior and inferior -- they are just *different*.

**Empirical evidence:**

* studied videotapes another researcher had made of best friends asked to have a conversation together.
* In contrast to the girls, boys were extremely uncomfortable with this request.
* Girls in all age groups would face each other and immediately began to talk, eventually ending up discussing the problems of one girl.
* Boys, on the other hand, sat parallel to each other and would jump from topic to topic--centered around a time when they would do something together.
* Also studied children interacting in playgrounds.

**Tannen observed that:**

* Women use **rapport** talk to establish meaningful connection with others, while men use **report** talk to gain status in relation to others.
* "For males, conversation is the way you negotiate your status in the group and keep people from pushing you around; you use talk to preserve your independence. Females, on the other hand, use conversation to negotiate closeness and intimacy; talk is the essence of intimacy, so being best friends means sitting and talking. For boys, activities, doing things together, are central. Just sitting and talking is not an essential part of friendship. They're friends with the boys they do things with."

**Connection and status:**

* The fundamental difference that drives much other behavior is that women have a deep drive to seek *connection*, whilst men have a deep drive to seek *status*.

**Emotion and rapport:**

* To create rapport and connection, women will talk more about feelings, relationships and people. They will include more emotional elements in their talk and will encourage others to do the same. For example, they will use emphasized intensifiers such as 'so' and 'such' ('I was *so* happy', 'He is *such* an idiot').
* In seeking status, men will tend avoid emotion as a sign of weakness, unless they are using in an way that does not expose them to attack. They prefer facts and taking objective positions and will tend to 'tell' others, taking an authoritative or expert stance that puts them above others and discourages interruption.

**Private and public:**

* Women talk more in private conversations, using talk as a way of gaining rapport and connection with others. In public, there is less opportunity for creating individual relationships and so they may talk less. They may also be drowned out by the men.
* Men talk more when in a public forum, where their audience has the power to recognize them and give them the status they seek. The public stage brings out their competitive instinct and they will vie with other men to be top dog.

**Listening and interrupting:**

* Women will listen just to create empathy as well as to find hooks by which to connect better to the other person. They will listen carefully and attentively for a long period without interrupting. Where they do interrupt it is to show support or to ask questions to better understand the other person.
* Men, on the other hand use interruption as a power play by which they can grab attention and demonstrate status. In a male-dominated business meeting, when the boss interrupts, others will immediately allow this to happen. Men will avoid asking questions as this exposes their limitations and hands back control to the other person.
* Men's conversations will thus tend to jump around different topics as they compete to take the lead, whilst women will allow a conversation to go on for a long time in order to achieve greater relationship depth.

**Conflict:**

* Conflict, for a woman, is a process whereby connections are *reduced*, and so they will work hard to avoid them.
* Men, on the other hand, will use conflict as a short-cut to gaining status. A short, sharp fight quickly establishes the hierarchical order that they prefer, establishing who has more status and position.
* Thus, when given an order, women will be more likely to comply than a man, who (especially if status levels are unclear) may well challenge back. Men thus initiate far more conflict than women.

|  |  |
| --- | --- |
| Why We Communicate: Women seek connection, men seek status. | Women engage in communication to build and maintain relationships with others. By contrast, men are more likely to engage in talk only when it makes them look good, strong, competitive, or independent. |
| Style of Communicating: Women use rapport talk, men use report talk. | Women express emotions, share personal feelings, relate stories, and listen empathically (rapport talk). Men engage in competitive joking and assertive speech that wins control of the conversation (report talk). |
| Language: We speak the same language, but each gender has its own dialect. | Each gender has its own set of vocabulary and preferred topics, and they use spoken language differently: men talk to get things done (instrumental approach); women talk to interact with others (relational approach). |

**Features of of persuasive communication**

**Persuasion:** the process of changing attitudes.

**Attitude:** a general enduring positive or negative feeling about some person, object or issue. It cannot be observed or measured directly.

**Hovland-Yale approach:**

* first studied by Carl Hovland and his colleagues at Yale University
* based on his experiences during World War II attempting to boost morale in US soldiers with propaganda.
* sought to discover which factors influenced the success or failure of persuasion.

**Four cognitive processes linked to persuasion:**

* Attention
* Comprehension
* Yielding/acceptance
* Retention

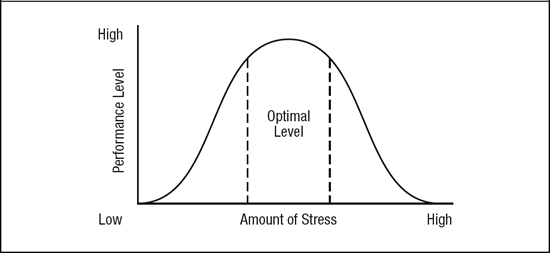
Audience must first pay attention to and comprehend the message 🡪 yield/accept the message. (When a persuasive message succeeds at changing the audiences attitudes, the audience has yielded to the message) 🡪 Retention refers to how long the attitude change lasts.

**Four elements that influence persuasion & attitude change:**

1. **The Source:** who is it that is seeking to persuade us?
2. **The Message:** what is the content of the message?
3. **The Audience:** to whom is the message directed?
4. **The Channel:** how is the message conveyed?

**The source: TEARS**

* **Similarity:** people who have similar values to the audience on a range of topics more 🡪 likely to be persuasive. Conformation bias 🡪 favouring info that confirms/is consistent with previously held beliefs. Process of identification 🡪 trust.
* **Attractiveness:** more attractive 🡪 more persuasive. Halo effect 🡪 positive view of individual due to attractiveness extends to message they are conveying. Classical conditioning 🡪 neutral stimulus may take on positive attributes of presenter.
* **Rate at which individual speaks:** fast 🡪 increased persuasiveness 🡪 perceive those who speak fast as knowing what they are talking about.
* **Expertise:** more persuasive than non-experts. Same arguments are more convincing if audience believes person delivering message knows what they are talking about. (i.e.) expert power. **Baron & Byrne (1997)** suggest that this is why TV adverts often put their experts in white coats, to emphasise the scientific status of the message. **Sorokin & Baldyreff (1932)** played listeners 2 records of a classical music piece; unbeknownst to them they heard exactly the same performance. However, listeners were told beforehand that one of the performances had been judged as significantly better by music critics; 96% of ppts considered the performances were different & 59% agreed with the alleged opinion of the experts.
* **Trustworthiness:** perceived as trustworthy 🡪 more likely to persuade.



**The message: FAR**

* **Fear:** effective if moderate levels of fear, provides solution and if the recipients believe that the dire warnings will definitely affect them. If a message simply frightens people & these 3 criteria are not met then the message is more likely to be ignored, rejected or denied. Yerkes-Dodson curve 🡪 also may cause suppression or rationalisation.
* **Two-sided argument:** more persuasive 🡪 make people more resistant to later arguments that contradict the original message and reduce the perception of bias/being manipulated. **McGuire (1964)** suggested that 2-sided arguments mean that people become ‘inoculated’ against later conflicting arguments. He suggested that messages that weakly attack their arguments should be put forward in order to make the favoured message more resistant to conflicting arguments **(Baron & Byrne, 97)**
* **Repetition:** Persuasiveness increases more times you hear the message. **Zanjonc (1960s)** ‘mere repeated exposure of the individual to a stimulus is a sufficient condition for the enhancement of his attitude towards it’. Multistore model of memory 🡪 more likely to be encoded and stored in memory.

**The audience: GAINC**

* **Gender:** Women are more likely to be persuaded than men 🡪 more susceptible to social influence due to socialization processes women are more likely to comply to be ‘nice’.
* **Age:** Aged less than 8 🡪 cognitive skills/processes aren’t well developed 🡪 take ads at face value 🡪 don’t understand/recognize ad’s persuasive intent or motive. Elderly 🡪 cognitive impairments/loneliness increase likelihood of being persuaded.
* **Culture:** Persuasiveness is heightened when appeals are made to cultural values. E.g. independence, autonomy 🡪 Western cultures. Emphasis on outcomes for groups/family 🡪 Eastern/collective cultures.
* **Need for cognition:** People with a desire to think about things are more influenced by a 2 sided argument.
* **IQ:** Persuasive levels are optimal when people have a moderate IQ. Lower IQ 🡪 unable to comprehend the message. Higher IQ 🡪 harder to persuade see persuasive intent and require 2 sided arguments.

**The channel: FMPV**

* **Face to face** 🡪 message can be tailored to fit the individual.
* **Mass media communication** 🡪 can persuade lots of people at the same time
* **Printed media** 🡪 more effective than visual messages with complicated messages, possibly because people pay more attention to and can recap written material.
* **Viral campaigns that exist/begin online** (e.g.) YouTube, Facebook, Twitter etc 🡪 bring about/raise awareness of issues related to social change in a very short period of time 🡪 shallow, short lived nature of our engagement with anything “viral”

**Pros of the Hovland-Yale model:**

* Provided a useful framework for further research. This model represented the first systematic approach to understanding attitude change. Its emphasis on considering the message, communicator, and recipient has been very helpful in providing a template for further research.
* Many specific predictions of the model have been supported. For example, that attitude change depends on the expertise and trustworthiness of the source.
* Has shown the importance of cognitive factors. It has outlined the processes (e.g. attention, comprehension) that recipients use when presented with a message.

**Cons of the Hovland-Yale model:**

* It does not clearly indicate how the factors influence each other. There are many factors to consider and, although the model covers some of the interactions, such as how personal knowledge relates to whether a one- or two-sided argument should be used, a lot of the interactions are not considered.
* Processing through attention, comprehension, acceptance, and retention successively is too simplistic. The idea that these stages are followed in order is not necessarily the case. For example, once we start to think about the meaning of the message, we go back and pay some or all of it more attention, so we are not processing in a simple stage-by-stage manner.
* It does not take sufficient account of internal factors. The Hovland–Yale model concentrates on external processes (the communication, the communicator, etc.) but does not take sufficient account of the underlying internal factors (e.g. attention, comprehension).
* Attitudes cannot be observed or measured directly.
* Questionnaires and surveys are not reliable forms of data collection and result in invalid data.
* Much of the early research carried out by Hovland to develop this model used students and army personnel.  
  As Hovland himself pointed out, it is perhaps inappropriate to generalise from these samples to the general population.

**Features and limitations of theories of language development**

**Language Acquisition**: Process in which people develop the ability to comprehend language as well as effectively communicate with those around them.

**Conditioning/Learning Theory – Skinner**

* Reinforcement
* Punishment
* Observational Learning
* Imitation of adults

**Evidence that language has a biological basis:**

* We have vocal cords
* We have a Wernicke and Broca’s Areas
* People who suffer from aphasia’s have language deficits
* Children over the world show similar courses of development phonologically, syntactically + semantically
* By the age of 5, they have over 6000 words in their vocabulary (i.e.) average of learning a new word every 90 minutes

**Conclusion:** Language ability is “hardwired”

**The Nativist Approach - Chomsky**

* American Academic: Professor at MIT
* Viewed as the “father” of modern linguistics
* Highly Critical of Skinner approach to Language Acquisition

**KEY TERMS:**

* **Poverty of the Stimulus** - the linguistic input received by young children is in itself insufficient to explain children's detailed knowledge of their first language.
* **Universal Grammar** - argued that children will never acquire the tools needed for processing an infinite number of sentences if the language acquisition mechanism was dependent on language input alone.
* **L.**A.**D (Language Acquisition Device)**
* **Critical Period**
* **Mere Exposure**

**Poverty of the stimulus:**

* Language input is too insufficient and full of errors.
* Children aren’t directly rewarded thus it can’t account for how well children can use language.

**Universal Grammar:**

* All languages share common features: nouns, adjectives, pronouns, verbs.

**Languages Acquisition Device:**

* Tool in the brain that innately contains the fundamental rules of human language. (i.e.) universal grammar.
* There is no brain-scan that has ever been able to detect evidence of a L.A.D

**Mere exposure and Critical Period:**

* Exposure to language will activate/trigger the L.A.D and thus the language acquisition process.
* It must happen within the critical period. If it doesn’t then language acquisition will never occur.

**Empirical evidence - Genie Case Study – Curtiss (1977):**

* Her father subjected her to severe confinement and ritual ill-treatment in an attempt to "protect" her.
* Spent 12 years locked in her bedroom.
* During the day 🡪 tied to a child's potty chair in diapers
* Night 🡪 bound in a sleeping bag and placed in an enclosed crib with a cover made of metal screening.
* Father beat her if she vocalized, barked and growled at her like a dog in order to keep her quiet. Forbade wife and son to speak to Genie.
* When discovered: Could not stand erect, had a vocabulary of about 20 words, scored as low as a normal one-year-old on a social maturity scale, could only understand her own name, didn’t socialize, didn’t know how to chew, salivated constantly, and was not toilet trained.
* Few months of therapy 🡪 advanced to one-word answers, learned to dress herself. But never asked questions, did not understand grammar, and had no advancements in vocabulary.
* After considerable therapy 🡪 learned to vocalize and express herself through sign language, became social with adults she was familiar with. However, never reached any sort of normal cognitive or emotional development.

**Interactionist/Learnt - Bruner**

* Doesn't dismiss the conclusions drawn by Chomsky.
* But argues they are limited as they don't acknowledge the role of the environment in which a child grows up
* Every “LAD needs a LASS”
* **Language Acquisition Support System (LASS**): described how parents guided and supported their children’s emerging language through interaction.

**Scaffolding:** a framework to support learning.

**Formats:** routines used to assist language development.

**Reference:** the use of language or non-linguistic means to manage and direct the attention of others.

**Joint attention:** sustained eye-contact between a parent and a child, or a parent and a child and an object, to encourage language development.

**Empirical evidence:**

* Longitudinal studies of two boys aged between 3 – 24 months

**DEVELOPMENTAL PSYCHOLOGY**

**Stages and characteristics of developmental theories**

**Piaget – cognitive development**

**Constructivism:** construct your own knowledge through experiences with the world/environment.

**Active learners:** everyone has an implicit desire to learn.

**Schema:** a mental structure, a way of organizing and categorizing thoughts and experiences.

**Assimilation**: the application of existing mental patterns to new situations.

**Accommodation:** the modification of existing mental patterns to fit new demands or the creation of a new schema.

**Equilibrium:** when existing schemas are capable of explaining what it can perceive around it, a state of cognitive balance.

**Disequilibrium:** existing schemas aren’t enough/useful to explain the world around you.

* According to Piaget, development is driven by the process of equilibration. Equilibration encompasses assimilation and accommodation.
* Piaget suggested that equilibration takes place in three phases.
* First children are satisfied with their mode of thought and therefore are in a state of equilibrium. Then, they become aware of the shortcomings in their existing thinking and are dissatisfied (i.e., are in a state of disequilibria and experience cognitive conflict). Last, they adopt a more sophisticated mode of thought that eliminates the shortcomings of the old one (i.e., reach a more stable equilibrium).

**Piaget’s Stages of Cognitive Development:**

|  |  |  |
| --- | --- | --- |
| **Stage** | **Age range** | **Key terms** |
| **Sensorimotor** | 0-2 | * Object permanence |
| * Goal directed behaviour |
| **Pre-operational** | 2-7 | * Egocentrism |
| * Animism |
| * Transformation |
| * Centration |
| * Reversibility |
| **Concrete operational** | 7-12 | * Conservation |
| * Classification |
| **Formal operational** | 12 onwards | * Abstract thinking |
| * Logical thinking |

**Sensorimotor Stage:**

* **Object permanence:** an understanding that objects can still exist even if they cannot be seen or touched.

**Empirical evidence – blanket and ball:**

* Piaget hid a toy under a blanket, while the child was watching, and observed whether or not the child searched for the hidden toy.
* Searching for the hidden toy was evidence of object permanence.
* Piaget assumed that the child could only search for a hidden toy if s/he had a mental representation of it.
* **Results**: Piaget found that infants searched for the hidden toy when they were around 8-months-old.
* **Conclusion**: Children around 8 months have object permanence because they are able to form a mental representation of the object in their minds.
* **Criticisms:** child could become distracted or lose interest in the object and therefore lack the motivation to search for it, or simply may not have the physical coordination to carry out the motor movements necessary for the retrieval of the object
* **Goal directed behaviour:** intentional behaviour to bring about a desired result.

**Pre-operational stage:**

* **Egocentrism:** refers to the child's inability to see a situation from another person's point of view. According to Piaget, the egocentric child assumes that other people see, hear, and feel exactly the same as the child does.

**Empirical evidence – Three mountains task:**

* child sits at a table, presented in front are three mountains. Mountains were different, with snow on top of one, a hut on another and a red cross on top of the other. Child was allowed to walk round the model, to look at it, then sit down at one side. A doll is then placed at various positions of the table.
* The child is then shown 10 photographs of the mountains taken from different positions, and asked to indicate which showed the dolls view.
* Piaget assumed that if the child correctly picked out the card showing the doll's view, s/he was not egocentric. Egocentrism would be shown by the child who picked out the card showing the view s/he saw.
* **Results:** 4 year-olds almost always chose a picture that represented what they could see + showed no awareness that the doll’s view would be different from this. 6 year-olds frequently chose a picture different from their own view but rarely chose the correct picture for the doll’s point of view. Only 7 and 8 year-olds consistently chose the correct picture.
* **Conclusion** - At age 7, thinking is no longer egocentric as the child can see more than their own point of view.
* **Animism:** the belief that everything which exists has some kind of consciousness or awareness. An example of this is that children often believe that a car won't start because it is tired or sick.
* **Transformation:** understanding that something can change from one state (form or structure) to another. E.g. child presented with an ice block in a glass could identify both ice block in its solid state and the liquid after it had melted, but the child could not explain or understand the melting process.
* **Centration:** can only focus on one quality or feature of an object at a time. E.g. two lines of six tokens, when one line is bunched up they perceive the longer line as containing more tokens. Focused on length rather than quantity and space.
* **Reversibility:** the ability to follow a line of reasoning back to its original starting point. E.g. child asked whether they have a brother replies with “yes, his name is Jim” then asked whether Jim has a brother, child replies “no”.

**Concrete operational stage:**

* **Conservation:** the concept that mass, volume and weight remain unchanged when the shape of the object changes

**Empirical evidence:**

* conservation of *mass* experiment 🡪 a bit of clay is rolled into a ball. A second ball of clay the same size is shown to the child, who agrees that they are equal. Then one of the balls is rolled between the palms of the adult's hands, forming a sausage shape. Most children when asked which had more clay in it answered by pointing to the sausage shaped piece.
* Conservation of *number* 🡪 set out a row of counters in front of the child and asked her/him to make another row the same as the first one. Piaget spread out his row of counters and asked the child if there were still the same number of counters. Most children aged seven could answer this correctly, and Piaget concluded that this showed that by seven years of age children were able to conserve number.
* **Classification:** the ability to organise information (things or events) into categories based on common features that sets them apart from other classes or groups.

**Formal operational stage:**

* **Abstract thinking:** a way of thinking that does not rely on being able to see or visualise things in order to understand concepts.

**Empirical evidence – Third eye task:**

* Children were asked where they would put an extra eye, if they were able to have a third one, and why.
* Schaffer (1988) reported that when asked this question, 9-year-olds all suggested that the third eye should be on the forehead.  However, 11-year-olds were more inventive, for example suggesting that a third eye placed on the hand would be useful for seeing round corners.
* **Logical thinking:** the ability to develop strategies to solve problems, identify a range of possible solutions to problems, develop hypotheses and systematically test solutions.

**Empirical evidence:**

* pendulum task 🡪 Participants had to consider three factors (variables) the length of the string, the heaviness of the weight and the strength of push. Task = work out which factor was most important in determining the speed of swing of the pendulum.
* To find the correct answer the participant has to grasp the idea of the experimental method -that is to vary one variable at a time (e.g. trying different lengths with the same weight).
* Children in the formal operational stage approached the task systematically, testing one variable (such as varying the length of the string) at a time to see its effect.
* However, younger children typically tried out these variations randomly or changed two things at the same time.
* **Conclusion:** that the systematic approach indicated the children were thinking logically, in the abstract, and could see the relationships between things.

**Criticisms:**

* Stage model depicts children’s’ thinking as being more consistent than it is.
* Infants and young children are more cognitively competent than Piaget recognised. His tests were sometimes confusing or difficult to understand
* Understates the contribution of the social world to cognitive development.
* Tasks are culturally biased.
* Vague about the cognitive processes that give rise to children’s thinking and the mechanisms that produce cognitive growth.
* concentrated on the universal stages of cognitive development and biological maturation 🡪 failed to consider the effect that the social setting and culture may have on cognitive development.
* Piaget’s methods (observation and clinical interviews) are more open to biased interpretation than other methods.
* Piaget conducted the observations alone the data collected are based on his own subjective interpretation of events. It would have been more reliable if Piaget conducted the observations with another researcher and compared the results afterwards to check if they are similar (i.e. have inter rater reliability).
* Not only was his sample very small, but it was composed solely of European children from families of high socio-economic status. Researchers have therefore questioned the generalisability of his data.

**Support:**

* The influence of Piaget’s ideas in developmental psychology has been enormous. He changed how people viewed the child’s world and their methods of studying children.
* He was an inspiration to many who came after and took up his ideas. Piaget's ideas have generated a huge amount of research which has increased our understanding of cognitive development.
* His ideas have been of practical use in understanding and communicating with children, particularly in the field of education (re: Discovery Learning).

**Kohlberg – moral development**

**Moral dilemma:** a social problem which has two or more solutions, each of which is ‘wrong’ in some way.

**Moral behaviour:** behaviour that is considered proper or ethical according to a society or culture.

**Moral development:** Involves the gradual development of an individual’s concept of right and wrong.

**Kohlberg’s stages of moral development**

|  |  |
| --- | --- |
| **Level 1. Pre-conventional morality: little awareness of moral behaviour which is socially or culturally acceptable. (age 0-9). EGOCENTRIC.** | |
| Stage 1: Obedience and punishment orientation. | * Follow rules to avoid punishment. * Authority is absolute/all knowing. * Behaviour based on fear rather than belief that it is right or wrong. E.g. justify not cheating because of fear of being caught. * Punishment determines whether behaviour is ‘right’ or ‘wrong’. * Degree of punishment determines degree of ‘wrongness’. |
| Stage 2: Individualism and exchange or self-interest. | * Think they will be rewarded if they do something right. * Authority can be challenged. * Will do things to please others rather than because they think it is right. E.g. cheating because parent promised $5 if they received an A grade. * Begin to show signs of moral behaviour and empathy. |
| **Level 2. Conventional morality: aware of and understand the accepted norms/standards of your society/culture. (age 9-15). LOGICAL THINKING AND REDUCTION OF EGOCENTRICISM.** | |
| Stage 3: Good interpersonal relationships or good boy/good girl. | * Conform to gain social acceptance, not because they fear punishment. * Wish to avoid disapproval or feeling guilty. * Having others think you are ‘good’ or ‘nice’ is considered important. * Have difficulty saying ‘no’ or resisting peer pressure. E.g. likely to share answers on a test to help a friend. |
| Stage 4: Maintaining the social order. | * Focus shifts to social institutions such as the law, school or church. * Seek to avoid guilt and shame which come from criticism by authority figures. * Conform to maintain social order. * Accept rules and law without question. * Moral behaviour = law-abiding behaviour. |
| **Level 3. Post-conventional morality: are aware of/understand the conventions of society, but have chosen to use a different set of internalised standards/values/principles. (age 15+). ABSTRACT AND LOGICAL THINKING.** | |
| Stage 5: Social contract and individual rights. | * Law seen as a social contract. * Choose moral principles to guide behaviour, being careful not to interfere with the rights of others. * Likely to challenge a law that interferes with human rights. * Follow rights rather than laws. * Realise that laws are not completely fixed and can be changed. * Have to engage in democratic processes, emphasise democratic non-violent change. |
| Stage 6: Universal principles. | * Knows that what is moral is not simply what the majority of people want to do. * Don’t consider civil disobedience and damn the majority. * Have highly individualistic moral beliefs. * Their moral views sometimes conflict with their society’s views of what is right and wrong. * Follow their conscience even if it means getting their friends or society ‘offside’. * Want the laws that are best for everyone regardless of whether society agrees. |

**Heinz Dilemma:**

* A woman was near death from a special kind of cancer. There was one drug that the doctors thought might save her. It was a form of radium that a druggist in the same town had recently discovered. The drug was expensive to make, but the druggist was charging ten times what the drug cost him to produce. He paid $200 for the radium and charged $2,000 for a small dose of the drug. The sick woman's husband, Heinz, went to everyone he knew to borrow the money, but he could only get together about $1,000 which is half of what it cost. He told the druggist that his wife was dying and asked him to sell it cheaper or let him pay later. But the druggist said: "No, I discovered the drug and I'm going to make money from it." So Heinz got desperate and broke into the man's store to steal the drug for his wife.
* Should Heinz have broken into the store to steal the drug for his wife? Why or why not?
* Kohlberg considered the reasons given for why Heinz should steal the drug rather than the answer itself.
* **Cross-sectional study** 🡪 compared groups of children at different ages, assumed if children in various age groups differed consistently from each other in their moral reasoning for a particular dilemma, then it was likely due to age. Investigated the moral development of 72 boys aged 10-16 from Chicago. Presented each participant with various moral dilemmas. Were required to judge the ‘rightness’ or ‘wrongness’ of the behaviour of the people involved in each dilemma. He was interested in the kinds of thinking participants used to arrive at their decisions and the reasons they gave for their judgement.
* **Longitudinal study (Colby) 🡪** followed58 of the original 72 Chicago boys over a 20 year period and tested the every 3 years, results supported Kohlberg's assumptions for stages 1-4, none of them however reached above these stages.

**Criticisms:**

* **Culturally biased:** individuals in western societies appear to reach higher levels faster than those in non-industrialised societies 🡪 problematic for a universal theory.
* **Gendered:** based on research with *exclusively male* samples. Scenarios prioritise *justice* – only *one* perspective on morality (favoured by males). Women will score lower on Kohlberg’s measures as the approach their duty of *caring.* Women are not inferior to men but *think differently*. Their higher forms of moral reasoning emphasise connections between people and compassion (stages 3 and 4 in Kohlberg’s focus on justice).
* What people say they would do is not always consistent with what they would actually do in the situation.

**Erikson’s eight-stage theory of psycho-social development**

Believed that social development occurs through a combination of the effects of psychological processes which take place within individuals (psycho) and the experiences of individuals during their lifetime, particularly their interaction with other people (social).

**Crisis:** not a catastrophe but a turning point in life.

**Psychosocial crisis:** a social dilemma or problem an individual faces in adjusting to society.

**Virtue:** a personal strength that develops when a person effectively deals with a crisis.

**Key points:**

* Each crisis involves a struggle between two opposing tendencies, one of which comes from our internal personal needs and the other from the demands of society, but both are experienced by the person.
* According to Erikson, our personality and how we interact with others are shaped by how we deal with resolve the psychosocial crisis.
* Order in which individuals progress through the 8 stages is fixed.
* It is necessary to experience each crisis (but not necessarily resolve each crisis) before proceeding to the next stage.
* Also believed different stages can overlap 🡪 possible for an individual to be dealing with more than one crisis at a time.
* The better an individual deals with a psychological crisis in any stage 🡪 the healthier the psychosocial development.
* If a crisis is not resolved it will have a negative effect on the individual’s social relationships.

**Stage 1: Infancy**

**Age range:** birth to 12-18 months

**Life stage ‘virtue’:** Hope

**Basic conflict:** Trust vs mistrust

**Important events:** Parental responsiveness to their needs.

**Summary:**

* Infant is uncertain about the world in which they live.
* To resolve these feelings of uncertainty 🡪 looks towards their primary caregiver for stability and consistency of care.
* If care is consistent, predictable and reliable 🡪 develop a sense of trust which will carry with them to other relationships + able to feel secure even when threatened.
* Developing a sense of trust 🡪 can have hope that as new crises arise, there is a real possibility that other people will be there as a source of support.
* Failing to acquire the virtue of hope will lead to the development of fear.
* E.g. if the care has been harsh or inconsistent, unpredictable and unreliable, 🡪 infant will develop mistrust 🡪 will not have confidence in world around them or their abilities to influence events.
* Will carry the basic sense of mistrust with them to other relationships + may result in anxiety, heightened insecurities, and an over feeling of mistrust in the world around them.

**Stage 2: Early childhood**

**Age range:** 18 months to 3 years

**Life stage ‘virtue’:** Will

**Basic conflict:** Autonomy vs shame

**Important events:** Begin to assert independence, by walking away from their mother, picking which toy to play with, and making choices about what they like to wear, to eat, etc. Discovering that he or she has many skills and abilities, such as putting on clothes and shoes, playing with toys, etc. 🡪 illustrate the child's growing sense of independence and autonomy.

**Summary:**

* Erikson states it is critical that parents allow their children to explore the limits of their abilities within an encouraging environment which is tolerant of failure.
* E.g. rather than put on a child's clothes parent should allow the child to try until they succeed or ask for assistance.
* Parents need to encourage the child to become more independent while at the same time protecting the child so that constant failure is avoided.
* A delicate balance is required from the parent. They must try not to do everything for the child, but if the child fails at a particular task they must not criticize the child for failures and accidents (particularly when toilet training).
* If encouraged and supported in their increased independence 🡪 become more confident and secure in their own ability to survive in the world.
* If criticized, overly controlled, or not given the opportunity to assert themselves 🡪 feel inadequate in their ability to survive + may become overly dependent upon others, lack self-esteem, and feel a sense of shame or doubt in their abilities.

**Stage 3: Preschool**

**Age range:** 3-5 years

**Life stage ‘virtue’:** Purpose

**Basic conflict:** initiative vs guilt

**Important events:** Primary feature involves the child regularly interacting with other children at school. Central to this stage is play, as it provides children with the opportunity to explore their interpersonal skills through initiating activities.

**Summary:**

* Begin to plan activities, make up games, and initiate activities with others 🡪 develop a sense of initiative + feel secure in their ability to lead others and make decisions.
* If not given this opportunity 🡪 children develop a sense of guilt. May feel like a nuisance to others 🡪 remain followers, lacking in self-initiative.
* Will begin to ask many questions as thirst for knowledge grows.
* If the parents treat the child’s questions as trivial, a nuisance or embarrassing or other aspects of their behavior as threatening then the child may have feelings of guilt for “being a nuisance”.
* Too much guilt can make the child slow to interact with others and may inhibit their creativity. A healthy balance between initiative and guilt is important.

**Stage 4: School age**

**Age range:** 5-12 years

**Life stage ‘virtue’:** Competency

**Basic conflict:** Industry vs inferiority

**Important events:** learning to read and write, to do sums, to do things on their own. Child’s peer group will gain greater significance and will become a major source of the child’s self-esteem.

**Summary:**

* The child now feels the need to win approval by demonstrating specific competencies that are valued by society and begin to develop a sense of pride in their accomplishments.
* If encouraged and reinforced for their initiative 🡪 feel industrious + confident in their ability to achieve goals.
* If not 🡪 begins to feel inferior, doubting his own abilities and therefore may not reach his or her potential.
* If the child cannot develop the specific skill they feel society is demanding (e.g. being athletic) then they may develop a sense of inferiority.
* Some failure may be necessary so that the child can develop some modesty 🡪 a balance between competence and modesty is necessary.

**Stage 5: Adolescence**

**Age range:** 12-18 year

**Life stage ‘virtue’:** Fidelity

**Basic conflict:** Ego identity vs Role confusion

**Important events:** During this stage, adolescents search for a sense of self and personal identity, through an intense exploration of personal values, beliefs and goals. Becoming more independent, and begin to look at the future in terms of career, relationships, families, housing, etc. The individual wants to belong to a society and fit in.

**Summary:**

* Has to learn the roles he will occupy as an adult 🡪 will re-examine his identity and try to find out exactly who he or she is.
* Erikson suggests that two identities are involved: the sexual and the occupational.
* During this stage the body image of the adolescent changes 🡪 may feel uncomfortable about their body for a while until they can adapt and “grow into” the changes.
* **Fidelity** involves being able to commit one's self to others on the basis of accepting others, even when there may be ideological differences.
* Explore possibilities and begin to form their own identity based upon the outcome of their explorations.
* Failure to establish a sense of identity within society 🡪 lead to **Role confusion** involves the individual not being sure about themselves or their place in society.
* In response to role confusion or identity crisis an adolescent may begin to experiment with different lifestyles (e.g. work, education or political activities).
* Pressuring someone into an identity 🡪 rebellion in the form of establishing a negative identity, and in addition to this feeling of unhappiness.

**Stage 6: Young adulthood**

**Age range:** 18-25 years

**Life stage ‘virtue’:** Love

**Basic conflict:** Intimacy vs isolation

**Important events:** Begin to share ourselves more intimately with others. Falling in love.

**Summary:**

* Explore relationships leading toward longer-term commitments with someone other than a family member. (Can be with friends too)
* Successful completion of this stage 🡪 happy relationships and a sense of commitment, safety, and care within a relationship.
* Avoiding intimacy, fearing commitment and relationships can lead to isolation, loneliness, and sometimes depression.

**Stage 7: Middle adulthood**

**Age range:** 25-65 years

**Life stage ‘virtue’:** Care

**Basic conflict:** Generativity vs stagnation

**Important events:** Establish our careers, settle down within a relationship, begin our own families and develop a sense of being a part of the bigger picture.

**Summary:**

* We give back to society through raising our children, being productive at work, and becoming involved in community activities and organizations.
* Failing to achieve these objectives 🡪 become stagnant and feel unproductive.

**Stage 8: Maturity**

**Age range:** 65+ years

**Life stage ‘virtue’:** Wisdom

**Basic conflict:** Ego integrity vs despair

**Important events:** slow down productivity and explore life as a retired person.

**Summary:**

* Contemplate accomplishments and can develop integrity if they see themselves as leading a successful life.
* If they see lives as unproductive 🡪 feel guilty about their past, or feel that they did not accomplish life goals, become dissatisfied with life and develop despair, often leading to depression and hopelessness.
* Success in this stage will lead to the virtue of wisdom. Wisdom enables a person to look back on their life with a sense of closure and completeness, and also accept death without fear.

**PERSONALITY**

**Features and limitations of contemporary personality theories**

**Personality:** the characteristic ways of thinking, feeling and acting that make a person unique.

**Trait theory of personality – Costa and McCrae**

**Traits-** consistent characteristics inferred from behavior that collectively reflect personality. They are used to predict that individuals behave in similar ways in different circumstances, and are stable and consistent over time. They are relatively independent of each other and vary in degree from person to person.

**Five factor model:**

Openness to experience = creative and willing to try new things

Conscientiousness = reliable, responsible, thorough, dependable, hard-working  
Extraversion = outgoing, social, active, talkative  
Agreeableness = easy to get along with, pleasant, sympathetic, warm, cooperative  
Neuroticism = emotional stability

**Empirical evidence – McCrae:**

* Conducted a study on people from 50 different cultures and found that the big five could be applied and accurately used to describe personality across cultures.

**Limitations:**

* Circular reasoning: Which comes first the behavior or the trait?
* Lack of situational consistency - e.g. Extroverts can be shy at job interviews
* No explanation for what causes these many different traits to occur
* Lack of agreement on the number and type of traits
* Does not address development
* Not applicable for clinical practice
* Overestimates the influence of biological factors and underestimates environment

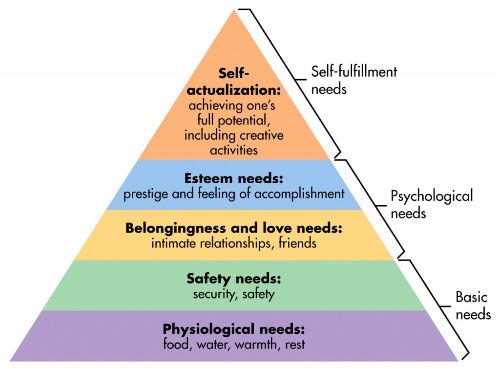
**Strengths:**

* useful descriptions of personality and its structure
* led to the development of valid and reliable ways to measure personality
* offers explanation for why personality is stable and enduring over time
* cross cultural applicability

**Humanistic theories of personality – Maslow and Rogers**

**Humanism:** emphasizes the study of the whole person, and the uniqueness of each individual.

**Maslow’s Hierarchy of needs:**



**Self-actualization:** refers to the person’s desire for self-fulfillment, namely, to the tendency for him to become actualized in what he is potentially. The specific form that these needs will take will of course vary greatly from person to person. In one individual it may take the form of the desire to be an ideal mother, in another it may be expressed athletically, and in still another it may be expressed in painting pictures or in inventions.

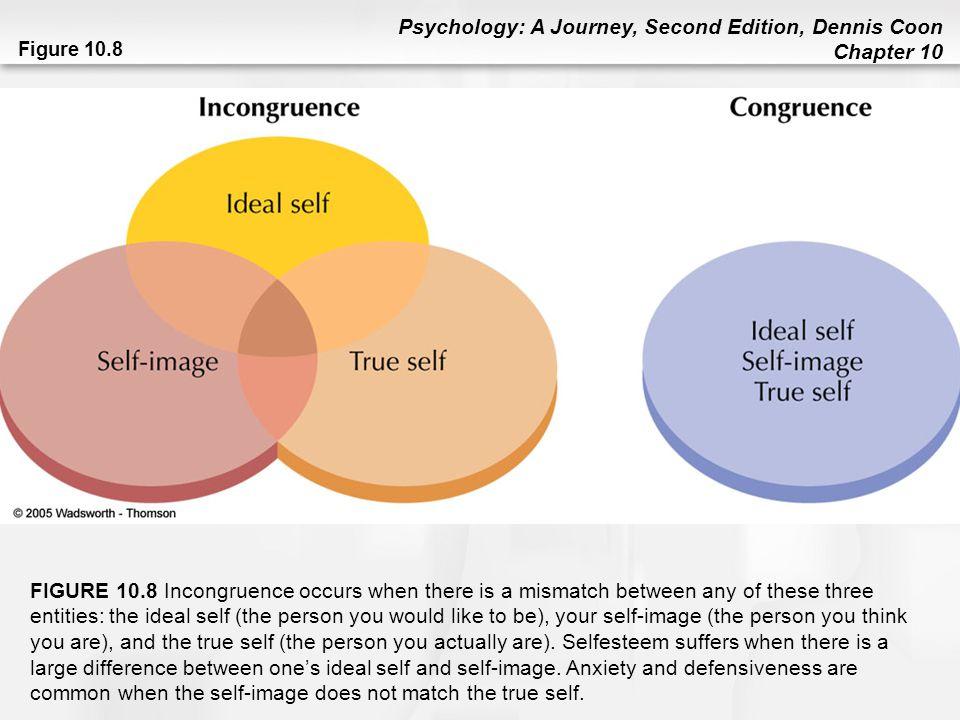
**Weaknesses:**

* The most significant limitation of Maslow's theory concerns his methodology. Maslow formulated the characteristics of self-actualized individuals from undertaking a qualitative method called biographical analysis.
* He looked at the biographies and writings of 18 people he identified as being self-actualized. From these sources he developed a list of qualities that seemed characteristic of this specific group of people, as opposed to humanity in general.
* Extremely subjective 🡪 personal opinion is prone to bias which reduces validity
* Maslow's biographical analysis focused on a biased sample of self-actualized individuals, prominently limited to highly educated white males. Females were a very small portion of the sample 🡪 Difficult to generalize his theory to females and individuals from lower social classes or different ethnicity
* extremely difficult to empirically test Maslow's concept of self-actualization in a way that causal relationships can be established
* assumption that the lower needs must be satisfied before a person can achieve their potential and self-actualize.

**Strengths**:

* Gives a complete picture of how healthy personality develops and explains development of unhealthy personality
* Helps clients help themselves

**Roger’s person centered theory:**



**Congruence:** Where a person’s ideal self and actual experience are consistent or very similar, a state of congruence exists. Rarely, if ever, does a total state of congruence exist; all people experience a certain amount of incongruence

**Self-worth (or self-esteem):** what we think about ourselves. Rogers believed feelings of self-worth developed in early childhood and were formed from the interaction of the child with the mother and father.

**Self-image:** How we see ourselves, which is important to good psychological health. Self-image includes the influence of our body image on inner personality. At a simple level, we might perceive ourselves as a good or bad person, beautiful or ugly. Self-image has an effect on how a person thinks, feels and behaves in the world.

**Ideal self:** This is the person who we would like to be. It consists of our goals and ambitions in life, and is dynamic – i.e. forever changing. The ideal self in childhood is not the ideal self in our teens or late twenties etc.

**Unconditional positive regard:** is where parents, significant others (and the humanist therapist) accepts and loves the person for what he or she is. Positive regard is not withdrawn if the person does something wrong or makes a mistake.

**Conditional positive regard:** regard is where positive regard, praise and approval, depend upon the child, for example, behaving in ways that the parents think correct. Hence the child is not loved for the person he or she is, but on condition that he or she behaves only in ways approved by the parent(s).

**Conditions of worth:** conditions we think we must meet in order for other people to accept us as worthy of their love or positive regard

**Assumptions:**

* People want positive regard and are born good.
* People have free will
* Childhood experiences from ages 0-5 are crucial in development

**Weaknesses:**

* Like Maslow's theories, Rogers' were criticized for their lack of empirical evidence used in research.
* The holistic approach of humanism allows for a great deal of variation but does not identify enough constant variables to be researched with true accuracy.
* Psychologists also worry that such an extreme focus on the subjective experience of the individual does little to explain or appreciate the impact of society on personality development.
* Ignores biology
* Unscientific – subjective concepts. E.g. cannot objectively measure self-actualization.
* Ignores the unconscious mind.
* Qualitative data is difficult to compare.
* Ethnocentric (biased towards Western culture).
* Too optimistic – Does not account for evil acts

**Strengths:**

* many of its aspects fit well with other approaches 🡪 many therapists have adopted a humanistic undertone in their work with clients.
* Gives a complete picture of how healthy personality develops and explains development of unhealthy personality
* Helps clients help themselves

**Social-cognitive theories of personality – Bandura and Mischel**

**Reciprocal Determinism:** Interaction between personal factors, behavior and environment

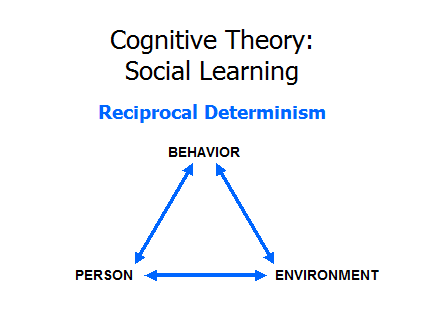
**Personal:** Physiological (illness, temperament, genetics), affect (mood), cognition (beliefs, goals, attitudes, expectancies, memories, values)

**Behavior:** Skills and actions

**Environment:** Physical (location) or social (role models, culture values, types of punishment or reinforcement)

**Self-efficacy:** An individual’s belief in their ability to succeed in a specific situation or accomplish a task. It is determined largely in early childhood and based on four things; **past mastery experience, vicarious experiences, physiological/psychological state, social persuasion.**

People who base their success on their own work and believe they control their life have an **internal locus of control**. In contrast, people who attribute their success or failure to **outside influences have an external locus of control.**



**Strengths:**

* Offers an explanation for why personality develops
* Combines behavior, cognition and environment

**Limitations:**

* Doesn’t account for unconscious thought processes
* Doesn’t explain how personality changes over time and as people develop.
* Subjective

**Walter Mischel’s cognitive approach**

**Person situation debate:** a key assumption/belief is that while traits exist, we over-estimate their influence/significance and underestimate the role of situations in determining our behavior.

**Behavior specificity:** Behaviors displayed by individuals tend to be specific to the situation they find themselves in. There is consistency of behaviors across situations only when the consequences are the same.

**Person variables:** Our perception/how we make meaning of a situation also determines the behavior we display 🡪 5 person variables

In Mischel's study, individuals who were similar in average levels of behavior, such as aggression, differed predictably and dramatically in their aggressive behavior depending on the type of situation they were in.

**Self-regulation:** refers to the ability to set and work toward goals; it is often described as willpower and often relates to the ability to delay gratification.

**Delayed gratification:** is the concept of denying oneself a reward in the present to get a better reward in the future.

**Stanford marshmallow experiment:**

* examined the processes and mental mechanisms that enable a young child to forego immediate gratification and wait for a better, but delayed, reward.
* Preschoolers were presented with a marshmallow and offered the choice of eating the snack immediately or getting *two* snacks if they waited 15 minutes to eat it (while the researcher left the room
* young children differ in their degree of self-control.
* continued to follow this group of preschoolers through high school 🡪 found that children who had more self-control in preschool were more successful in high school 🡪 Higher SAT scores and more positive peer relationships, less likely to have substance abuse issues; as adults, they also had more stable relationships
* children who had poor self-control in preschool were not as successful in high school and were found to have academic and behavioral problems.

**Strengths:**

* is well grounded in psychological research and its comment has been empirically tested
* wide applicability in range of areas such as education
* takes into account the social setting of an individual

**Weaknesses:**

* Ignores the unconscious influences of behavior
* Doesn’t explain how personality changes over time and how people develop

**SOCIAL PSYCHOLOGY**

**The influence of groups on behaviour**

**Social psychology:** the scientific field that seeks to understand the nature and causes of individual behavior in social situations

**Status and social power within groups:**

**Status:** the importance of an individual’s position in the group, as perceived by the members of the group.

**Power:** an individual’s (or group’s) ability to control or influence the thoughts, feelings or behaviour of another person (or group).

**Types of social power**

|  |  |  |
| --- | --- | --- |
| **Type of power** | **Source of power** | **Example** |
| **Reward power** | Ability to give positive consequences or remove negative consequences in response to a specific behaviour. | An employer has the power to give a pay rise or promotion. |
| **Coercive power** | Ability to give negative consequences or remove positive consequences in response to a specific behaviour. | A teacher can give a student detention or prevent them from attending a function. |
| **Legitimate power** | An individual’s status or position in a group, institution or society in general gives them the right to exercise power over those with a lower status. | Police officer. |
| **Referent power** | Individuals identify with or want to be like or liked by this person. | Celebrities. |
| **Expert power** | Having special knowledge or skills that are desirable or needed. | Classroom teacher seen as knowledgeable in their subject. |
| **Informational power** | Having resources or information that are useful and not available elsewhere. | Someone who knows exactly what needs to be done in order to meet an important team goal within a strict deadline. |

**Obedience and conformity:**

**Obedience:** when an individual follows the commands of someone with authority, or the rules or laws of society.

**Conformity:** the tendency to adjust one’s thoughts, feelings or behaviour in ways that are in agreement with those of a particular individual or group, or with accepted standards about how a person should behave in certain situations.

**The Milgrim experiment (1974):**

* Aim = to determine whether people will commit atrocities if required to do so by an authority figure.
* Sample = all males, Sampling method = convenience (volunteers).
* Participant was paired with a confederate then drew lots to determine who would be the ‘learner’ and who would be the ‘teacher’ 🡪 lot was fixed so the participant was always the ‘teacher’.
* The participant saw the confederate be taken into a room and have electrodes attached to his arms.
* The participant and researcher went into another room next door that contained an electric shock generator and a row of switches marked from 15 (slight shock) volts to 375 volts (Danger: severe shock) to 450 (XXX).
* The participant was instructed to read a pair of word’s that the learner had to remember 🡪 if they got one wrong or said nothing the participant had to administer a shock, increasing the voltage each time.
* At 180 volts the learner shouted that he could not stand the pain, at 300 he begged to be released and at 315 there was silence.
* If the participant asked advice from the experimenter, he would be given encouragement to continue with a sequence of standardised ‘prods’.
* Results = all participants shocked up to 300 volts and 65% shocked all the way up to 450.

**The Zimbardo experiment (1973):**

* 24 men judged to be healthy, average young men with no psychological problems chosen from 70 volunteers.
* Half randomly assigned to role of prisoner and half assigned to guard.
* Guards were issued uniforms and dark glasses and were instructed to enforce rules.
* Prisoners were stripped, deloused and issued smocks with numbers on them and made to share a small cell with two other inmates.
* Guards became increasingly brutal towards prisoners, placing ringleaders in solitary confinement.
* Four prisoners had to be released after the first four days and after six the experiment was halted.
* Results = Social roles influence behaviour, social environment influenced was participants behaved.

**Factors that influence obedience:**

* **Proximity:** The closer the authority figure the more obedience is demonstrated. The further the victim the more likely to obey. E.g. Milgrim observed a drop to 40% full obedience when participant and confederate in the same room.
* **Legitimacy:** Authority figures that appear more legitimate elicit more obedience. E.g. the basic obedience rate in the original experiment was 65%, but significantly declined to 20.5% when the experimenter left the room and continued to give his instructions via the telephone.
* **Presence of an Ally/dissenting voice:** presence of just one confederate that goes against the majority choice can reduce obedience by as much as 80%.
* **Agentic shift/agency theory:** Move from autonomous state (taking responsibility for own actions) to agentic state (pass responsibility to authority figure). E.g. participants in Milgram’s experiment could be seen as ‘agents’, particularly as the severity of the ‘shocks’ increased. For example, when the participant became increasingly strong, the experimenter proclaimed his responsibility for what happened to the ‘learner’. This may have allowed the ‘teacher’ to make the agentic shift away from autonomy.
* **Buffers:** The term ‘buffer’ is used to refer ‘any aspect of a situation that protects people from having to confront the consequences of their actions’. E.g. when the teacher and learner were in different rooms, the basic obedience rate was 65%. However, when they were in the same room (i.e. no physical buffer) the obedience rate dropped to 40%.
* **Gradual commitment:** explains obedience in terms of the individual being asked to perform trivial, seemingly harmless tasks. Once the person has complied with such requests, they find it increasingly difficult to refuse to carry out more serious (& escalating) requests. E.g. Milgram’s participants were encouraged to obey the experimenter by the **gradual steps** they were asked to take. They started with a practice session, then went on to take part in ‘the real thing’. The first ‘shock’ administered was ONLY 15 volts.
* **Locus of control:** people with a high internal locus of control tend to be less obedient as they take responsibility for the way they behave and don’t like loss of control.

**Asch’s study of conformity (1951):**

* **Aim =** investigate the extent to which social pressure from a majority could affect a person to conform.
* 50 male students from Swarthmore College in the USA participated in a ‘vision test’.
* Placed a naïve participant in a room with 7 confederates (had agreed in advance what their responses would be when presented with the line task)
* Each person had to say which line was most like the target line with the participant answering last.
* **Results =** 32% of participants conformed with the clearly incorrect majority. 75% conformed at least once and 25% never conformed. In the control group less than 1% gave the wrong answer.

**Jenness (1932):**

* Asked participants to individually estimated an amount of beans in a glass bottle.
* Asked them to provide a group estimate through discussion.
* Participants the sked to make an estimate on their own again 🡪 almost all changed their original guesses to be closer to the group estimate.

**Sherif (1935):**

* **Aim =** demonstrate that people conform to group norms when they are put in ambiguous situations.
* **Autokinetic effect:** small spot of light in a dark room will appear to move, even though it is still.
* When participants tested individually estimates on how far the light moved varied considerably.
* Placed in groups of three (two people had similar estimates one had a differing estimate) 🡪 then asked to say aloud how far the light moved.
* **Results =** person with a different estimate conformed to the other two.

**Conformity Types**

|  |  |  |  |
| --- | --- | --- | --- |
| **Term** | **Change in public behaviour** | **Change in private beliefs** | **Short or long term** |
| **Compliance** | Yes | No | Short |
| **Identification** | Yes | Yes (between) | Short |
| **Internalisation** | yes | Yes | Long |

**Compliance:** where one goes along with group behavior, without changing personal opinions or ways of thinking and it only lasts as long as group pressure exists. E.g. Paul’s friends regularly smoke, although Paul thinks smoking is stupid he chooses to smoke around his friends to gain acceptance.

**Identification:** where one changes their behavior to be like an individual or group. E.g. Paul is vegan because all of his friends are vegan, however, when he has Christmas dinner with his mother he happily eats roast turkey. It may also be defined as the tendency for a person to conform to the role that society expects them to play. E.g. Paul conforms to the expectation that police officers are very strict and aggressive. It lasts only as long as the group remains attractive and does not always involve a change in private opinion

**Internalisation:** where one changes their behavior based on a group’s belief. It is relatively permanent and changes one’s way of thinking. E.g. Paul’s flat mates are Christian and soon Paul converts to the same faith, even when Paul moves out he continues to uphold his Christianity.

**Explanations of conformity:**

* **Normative social influence:** is when one yields to group pressure because they want to fit in with a particular group. It usually involves compliance and tends to occur out of fear of rejection.
* **Informational social influence**: usually occurs when one lacks knowledge and looks to the group for guidance or when a person is in an ambiguous situation and socially compares their behavior with the group. It usually involves internalisation e.g. Paul is not confident he knows the answer to a question on a class task so he asks his smart friends how they responded and changes his answer to match theirs.

**Factors that influence conformity:**

* **Task difficulty:** the more difficult a task was the higher levels of conformity occurred. When comparison lines were made more similar in length the task became more ambiguous, therefore participants looked to the majority for guidance and conformity levels increased.
* **Group size:** individuals are more likely to conform if the majority is larger, but only to a certain point. When one confederate is present conformity was just 3 percent, when increased to two confederates the conformity reached 13 percent and when increased to three confederates the conformity peaked at 32 percent. It was discovered that Increasing the size of the majority beyond 3 did not increase the levels of conformity.
* **Answer in private:** when participants were asked to answer in private conformity levels decreased. Answering in private removed the influence of group pressure and normative influence as there was no longer a fear of rejection from the group.
* **Unanimity:** the presence of just one confederate who goes against the majority can reduce conformity as much as 80 percent. E.g. in the original experiment 32 percent of participants conformed in the critical trials, whereas when one confederate gave the correct answer on all the critical trials conformity dropped to just 5 percent. The absence of group unanimity removes normative social influence, lowering overall conformity as participants feel less need for social approval of the group.
* **Culture**: Western cultures are very individualistic, meaning people value being independent and self-sufficient (the individual is more important that the group), and as a result are less likely to conform.
* **Status:** high and low status individuals conform less than those intermediate in status. This is because one deviation is unlikely to jeopardise the position of a person of high status, and that people of a lower status have little to lose if they do not conform. Peoples in between these two status are most likely to conform because if they deviate they may lose what status they do hold.

**Group polarisation:**

**Group polarisation:** refers to the tendency for a group to make decisions that are more extreme than the initial inclination of its members.

**Groupthink:** It is the mode of thinking that happens when the desire for harmony in a decision-making group overrides a realistic appraisal of alternatives.

**Risky shift:** the tendency for people to make more daring decisions when they are in groups, compared to when they are alone.

**Confirmation bias:** the tendency of people to search for and interpret evidence selectively, to reinforce their current beliefs or attitudes.

**Attitude polarisation:** disagreement becomes more extreme as the different parties consider evidence on the issue.

**Why group polarisation occurs:**

* **Persuasive arguments theory:** people change their mind as a result of the *rational* arguments presented by others. Group discussion shifts the weight of evidence as each group member expresses their arguments, shedding light onto a number of different positions and ideas.
* **Social Comparison theory:** people change their mind to conform with group norms, especially when those norms are socially desirable. In order to gain acceptance, people then take a position that is similar to everyone else's but slightly more extreme.
* **Self-Categorization theory:** individuals identify with a particular group and conform to a prototypical group position that is more extreme than the group mean.

**Empirical evidence – Myers and Bishop:**

* Put highly prejudicial students together to discuss racial issues. They became even more prejudicial. The reverse happened with prejudicial students.
* The study supported the claim that discussion among like-minded individuals tends to increase and intensify pre-existing attitudes, thereby demonstrating group polarization.

**Social Facilitation and Inhibition**

Having an audience affects how well or badly we perform a task because the audience increases our arousal level.

**Social Inhibition:** The tendency people have to perform worse on certain tasks when in the presence of others than when alone.

**Social Facilitation:** The tendency people have to perform better on tasks when in the presence of others than when alone.

**Dominant response**: The response that is the most likely response in a given situation.

**Reasons arousal occurs:**

* Evaluation apprehension = fear of judgement.
* Mere presence = have to pay attention to audience and task.
* Distraction theory = have evolved to respond to the presence of conspecifics as an automatic response

**How it has been investigated:**

* **Triplett** = First to systematically study facilitation. 40 children given task of winding fishing reel. Pairs worked faster than individuals, suggested co-action (competing increased motivation).
* **Zanjonc** = Studied social facilitation in cockroaches. Timed length to escape from bright light. W audience roaches escaped faster. When task became more complex audience made escape slower.
* **Michaels** = Investigated social facilitation and inhibition in pool players. Novice or expert, quality of play measured alone and with audience. experts improved, novices got worse.

**Strategies to combat Inhibition:**

* practice elective
* Use imagery, mental rehearsal to block out audience
* Ensure essential skills are over-
* introduce evaluative others into process
* Raise athlete’s awareness of zone of optimal functioning
* Incorporate stress management into training
* appropriate use of attribution

**Theories of social psychology**

**Attribution theory**

**Attribution theory:** Attribution theory is concerned with how and why ordinary people explain events as they do.

**Naive psychologist:** Heider (1958) believed that people are naive psychologists trying to make sense of the social world. People tend to see cause and effect relationships, even where there is none.

**Cognitive Miser:** We do not use our genitive abilities to their full extent, instead we rely on simple rules e.g. stereotypes.

**Assumptions**:

* We are always motivated to find causes of our own and others behavior
* Assignment of causes is not random
* Causes will influence subsequent emotional and non-emotional behaviors

**Fritz Heider (1958):**

* Proposed the idea of internal and external causes of behavior/attributions
* Internal 🡪 such as attributing behaviour to personality or emotional stability.
* External 🡪 such as attributing behaviour to the situation or environmental factors.
* Internal usually made when explaining other peoples’ behaviour and external used when explaining own behaviour.
* Perceivers ignore part or all situational factors when explaining behavior

**Errors and biases in Attribution:**

* Self-serving bias = taking credit for own success and avoiding responsibility for failure
* The false consensus effect = tendency for people to think their behavior is relatively common
* The actor-observer bias = difference in attribution based on who is making the assessment. Actor (situational) vs observer (dispositional). Occurs due to saliency bias and amount of information available.
* Fundamental attribution error = attributes to disposition and underestimates situational factors. Occurs due to saliency bias, behavior info is considered before situational
* Just world phenomena = people get what they deserve and deserve what they get.

**Kelley's Model (1967):**

* Suggests individuals take on three types of information when making decisions about whether a person’s behaviour is due to internal or external behaviors.

**Covariation:** perceiver has information from multiple observations, at different times and situations, and can perceive the covariation of an observed effect and it's causes.

**Consensus:** the extent to which other people behave in the same way in a similar situation.

**Distinctiveness:** the extent to which the person behaves in the same way in similar situations.

**Consistency:** the extent to which the person behaves like that every time the situation occurs.

**Internal vs external attribution:**

* Low consensus, high consistency, low distinctiveness = Internal
* High consensus, high consistency, high distinctiveness = External

**Cognitive Dissonance**

**Cognitive dissonance:** Cognitive dissonance refers to a situation involving conflicting attitudes, beliefs or behaviors. This produces a feeling of discomfort leading to an alteration in one of the attitudes, beliefs or behaviors to reduce the discomfort and restore balance etc.

**Three fundamental assumptions:**

1. Humans are sensitive to inconsistencies between actions and beliefs.
2. Recognition of this inconsistency will cause dissonance, and will motivate an individual to resolve this dissonance.
3. Dissonance will be resolved in one of three basic ways; change beliefs, change actions, change perceptions of actions.

**Festinger (1959):**

* 71 male students.
* Participants paid $1 or $20 to complete a boring task and tell another subject that it was exciting.
* Participants were asked to rate how much they liked the boring task
* Those paid $20 should like the task more because they associate it with the payment
* Being paid only $1 is not sufficient incentive for lying
* Those in the $1 group were more motivated to resolve dissonance by rationalizing their actions 🡪 formed the belief that the boring task was actually fun

**Weaknesses:**

* Conceptually weak 🡪 fails to explain under what conditions dissonance occurs
* Criticized as a ‘never fails’ theory 🡪 when it is clear dissonance has led to the attitude of behavioral change the case is supported but when research fails to find a change it is claimed not enough dissonance was experienced.
* makes no predictions about how dissonance will be reduced
* not take into account possible individual differences

**Strengths:**

* Has a strong research support.
* it can consider more than two cognitions at a time
* it acknowledges that some cognitions are more important than others, and that the importance of cognitions influences the amount of dissonance
* has contributed greatly to our understanding of cognitions and their relationship to behaviors

**CULTURE AND VALUES**

**Sense of Community as defined by McMillan and Chavis**

**Sense of community:** A feeling that members have a belonging, a feeling that members matter to one another and to the group, and a shared faith that member’s needs will be met through their commitment to be together. (Chavis and McMillan)

**McMillan and Chavis (1986)** present a framework they claim can help guide people, organisations, governments as they attempt to generate and maintain a sense/feeling of community/connectedness/boundedness amongst a group of individuals.

**They proposed four criteria that had to be met for an individual to feel a sense of community:**

1. **Membership:**

* Provides a feeling/belongingness/connection/safety, of being a part of something bigger than yourself.
* Establishes boundaries that divides those who belong and those who do not 🡪 In-group/Out-group dynamic
* **1. Boundaries** – How do people become members and what are the boundaries keeping others out
* **2. Emotional safety** – By building boundaries and including the right people, you create trust and a feeling of safety
* **3. A sense of belonging and identification** – Members must feel like they fit in and that this is “their community”
* **4. Personal investment** – If members contribute or make sacrifices to the community, it enhances their sense of community
* **5. A common symbol system –**Sharing a symbol like a sports team jersey or gang colors creates a sense of community

1. **Influence:**

* Mattering to people and making a difference
* Individuals can influence group and group influences individual (bidirectional)

1. **Integration/fulfilment of needs:**

* Group must fulfil and individual’s needs
* Membership must be rewarding.

1. **Shared emotional connection:**

* Shared history and similar experiences
* form a long lasting, emotion connection

**Reasons for loss of community:**

* Issue of technology 🡪 transport 🡪 bonds and connections lost due to geographical mobility.
* Values and attitudes within Western culture 🡪 all about ‘me’ and ‘my family’ and what we can do to make ‘our’ lives better. Idea of being community orientated becoming less important.
* Work

**Benefits of a community:**

* Support
* Identity
* Mental health

**Impact of Significant Events on Individuals and Communities**

**Event characteristics contributing to stress:**

* Predictability: degree/extent to which you can see it coming.
* Controllability: degree to which you can exert an influence on an event.
* Experience/perception of threat or loss: magnitude of impact.

**positive responses:**

* resilience
* post traumatic growth

**Resilience**

**Resilience:** the process of adapting well in the face of adversity, trauma, tragedy, threats, or even significant sources of stress – such as family relationship problems, serious health problem

**Empirical evidence – Kobassa (1979):**

* though personality differences could account for different responses to stress.
* 600 executives and managers asked to complete two questionnaires 🡪 1 = personality questionnaire 2 = measured stressful events and illness that respondents had experienced over the previous three years.
* Divided into two groups 🡪 one had scored above average for illness and one had scored below.
* Compared the two groups and **found:** high stress/low illness saw change as a challenge, felt more in control of their lives, had a sense of direction in both work and personal lives.
* Described this group as having a ‘hardy’ personality.
* **Criticisms:** possible that illness was a cause, not result, of personality characteristics.
* She later carried out a longitudinal study 🡪 followed a group of executives over a two year period and found that those identified at the start as having a hardy personality were less likely to become ill.

The qualities that Kobassa saw in her ‘hardy’ types are some of the characteristics that have been identified with the concept of **resilience.**

**Characteristics of resilience:**

* Capacity to make the most of a small window of opportunity
* Having a deep-rooted faith in a system of meaning
* Having a healthy social support network
* Having a wide comfort zone

**What makes someone resilient?**

* Situational factors: sense of community 🡪 researchers have found this is important for psychological wellbeing and affects how well people ‘bounce back’ after an emergency.
* Dispositional factors: high sense of self efficacy, internal locus of control, link to personality (low neuroticism and high consensus)

**Community resilience:**

* Competent communities are able to identify needs and issues, and work cooperatively to carry out plans and achieve goals.
* **Empirical evidence:** Julie Pooley (2006) studied impact of cyclones on communities in the northwest of Australia 🡪 **found** that the competence of a community and individuals’ sense of community led to increase self-efficacy and social networks. This, in turn, led to reduced stress and increased growth.

**Post-Traumatic Growth**

**Post-traumatic growth:**  the positive psychological change that results from the attempt to find new meaning and resolve after a traumatic event.

* The event itself does not cause the positive change, but rather what results from the shattering of a person’s fundamental beliefs, values and understanding of themselves, others and the world.
* The struggle to find new meaning in the aftermath of the trauma is crucial to positive psychological growth.

**Factors of PTG:**

* Relating to others
* New possibilities
* Personal strength
* Spiritual change
* Appreciation for life

**Difference from resilience:**

* Involves not just the ability to resist and avoid damage from highly stressful life events, but the ability to adapt to the stressful event in such a way that growth goes beyond the pre-trauma level.
* Individuals who score highly on coping skill dimensions may not report much growth following a stressful event.

**Relationship between PTSD and PTG:**

* PTG occurs more often 🡪 studies show that more than half of all trauma survivors report positive change.
* Often go hand-in-hand 🡪 a person can still be grieving but may also be growing.

**Empirical evidence William Sledge (1970s):**

* Interviewed veterans that had been prisoners of war.
* They said things like “I kind of miss it. It was an intense experience. I learned a lot.”
* Research indicates that 30-70% of survivors of various traumatic events report experiencing at least one aspect of post-traumatic growth.

**negative responses:**

* post-traumatic stress disorder

**Post-Traumatic Stress Disorder**

**Traumatic events:** events that are unexpected and negative incidents that threaten our lives or sense of wellbeing.

It is common for people for people to experience strong physical, cognitive and emotional reactions.

**Symptoms:**

* **Physical:** disturbed sleep, nightmares, exhaustion, restlessness, headaches.
* **Cognitive:** poor concentration, disturbances to attention and memory, flashbacks, intrusive thoughts, disorientation.
* **Emotional:** fear, avoidance, anxiety and panic, depression, guilt, withdrawal and fearfulness.

**Young children may regress in behaviour:**

* Bed wetting
* Thumb-sucking
* Being scared of the dark
* Lose trust in adults who haven’t been able to protect them from a traumatic event.

**Co-morbidities (linked disorders):**

* OCD
* Anxiety
* Depression
* Addiction

**Diagnosis requires:**

* Past experience of actual or perceived threats to life.
* Violence or serious injury.
* Presence of recurring memories, dreams or flashbacks.
* Persistent avoidance of any stimuli perceived to be associated with the original traumatic event and changes in reaction and response to stimuli.
* Problems with concentration.
* Sleep disturbance.

**Affect:**

* Chronic fear, panic and anxiety
* Guilt
* Emotional numbing
* Exhaustion

**Behavioural:**

* Aggressive
* Avoidant
* Unable to relax
* Muscle fatigue
* Insomnia
* Exhaustion
* Violence
* Panic attacks

**Cognition:**

* Disassociation from self
* Poor concentration
* Disorientation
* Irrational
* Illogical
* Intrusive thoughts/memories/flashbacks

**How to address symptoms:**

* **Medication:** anti-anxiety (SSRI) manipulates serotonin levels, anti-depressants manipulate dopamine levels.
* **Counselling:** focus on family unit and communication, assertive rather than aggressive, active listening, conflict resolution.
* **CBT:** Socratic questioning, homework, systematic desensitization, alteration of perspective on memories “it’s not my fault”.

**RESEARCH METHODS**

**Experimental research designs:**

* are based on a clear hypothesis
* purpose 🡪 to confirm or refute the validity of the hypothesis + find causation
* have an independent variable, a dependent variable, and a control group
* mostly conducted in a laboratory in a controlled environment
* experimenter can manipulate the variables and has a control group and a placebo.
* experimenter repeats the test in the same environment more than one time to get most valid results.

**Non-experimental research designs**:

* carried out in natural settings 🡪 does not involve manipulation of the situation, event, circumstances or people.
* examples 🡪 survey, case studies, correlational studies and archival research.
* longitudinal studies are also non-experimental research and the purpose of these studies is to study a situation, people or phenomenon over a period of time to observe the change.
* a correlation can be established but causation cannot be established.
* do not have a control group and the research design is highly flexible.
* due to the absence of the control group the researcher cannot ascertain that the final results are the direct effect of the variable that has been studied.
* The non-experimental research design studies the phenomenon, people or situation in a natural setting without manipulating it, therefore, the findings can be applied to a wide audience.

**Data Collection/research types \*Refer to table for expanded information**

**Case studies:** in depth or detailed study of one individual (longitudinal study)

**Observational Studies**: observation of an individual in their natural environment (cross-sectional). *Weakness:* observer bias.

**Self-reports**: Collection of subjective data 🡪 survey, questionnaire (open ended or closed, using rating scales(Likert)). Interview (structured or unstructured)

**Correlation**: involving two **behavioral variables** and trying to determine if there is a positive or negative relationship between them. *Strengths:* useful for making predictions about effects. *Weaknesses:* they only show that a relationship exists, don't determine cause-effect

**Archival research:** Archival research is a method of collecting data from sources that already exist. Common examples of archival research sources are census records or survey data that was collected in the past.

**Differences between Experiments and Correlations**

* [experiment](https://www.simplypsychology.org/experimental-method.html) isolates and manipulates the independent variable to observe its effect on the dependent variable, and controls the environment in order that extraneous variables may be eliminated. Experiments establish cause and effect.
* correlation identifies variables and looks for a relationship between them.
* An experiment tests the effect that an independent variable has upon a dependent variable but a correlation looks for a relationship between two variables.
* This means that the experiment can predict cause and effect (causation) but a correlation can only predict a relationship, as another extraneous variable may be involved that it not known about.

**Scientific vs non-scientific research:**

**Scientific research:** is a logically stepped process used for investigating and acquiring or expanding our understanding. The findings of scientific research can be **reproduced** and demonstrated to be consistent.

**Nonscientific research:** is acquiring knowledge and truths about the world using techniques that do not follow the scientific method. Examples: tradition, personal experience, intuition, logic.

**Seven steps in psychological research:**

Step 1 - Identify The Problem

Step 2 - Formulate a hypothesis

Step 3 - Design the Method

Step 4 -Collect the data

Step 5 - Analyse the data

Step 6 - Interpret the results

Step 7 - Report the findings

**Formulating A Hypothesis**

**Research Hypothesis:** is a general prediction bout the direction of interaction between the IV and the DV includes population.

**Operationalised Hypothesis:** is a ***testable*** prediction that explains exactly how the variables will be measured and manipulated as well as the population from which the sample is drawn. Therefore, it is workable, testable and repeatable hypothesis.

**Example of operationalised hypothesis:**

“It is hypothesised that adolescent males who sleep for less than six hours a night will be more likely to have lower memory abilities, as measured by scores on a comprehension test, than adolescent males who sleep for six or more hours a night.”

**Key:**

* Population
* How the variables are to be manipulated (IV)
* Prediction
* How the variables are to be measures (DV)

**Population and sample**

**Participants**: Individuals used in the experiment.

**Population**: larger group of research interest from which a sample is drawn.

**Sample**: A sample is a group of participants selected from and representative of a population of research interest. (subset of participants)

**Participant Allocation**: Random Allocation; the best way to ensure that all participants have an equal opportunity of being assigned to the experimental or control group.

**Experimental Group**: the group exposed to the independent variable

**Control Group**: group exposed to the controlled condition, independent variable is absent.

**Types of variables**

**Independent Variable:** is the condition that an experimenter systematically manipulates, changes or varies in order to gauge its effect on the dependent variable.

**Dependent Variable:** is that which is measured in an experiment. Dependent variables measure the effects that the manipulation of the IV has had on behaviour. Revealed by measures of performance (test scores + number go goals).

**Operationalised Variables:** refer to how you will define and measure a specific variable as it is used in your study. E.g. if we are concerned with the effect of media violence on aggression must state what we mean by the terms “media violence” and “aggression” as we will study them 🡪 “media violence” is operationally defined (in your experiment) as ‘exposure to a 15 minute film showing scenes of physical assault’; “aggression” is operationally defined as ‘levels of electrical shocks administered to a second ‘participant’ in another room’.

**Confounding variables:** EV’s that have so much an impact they have a confounding effect on the interpretation of the results.

**Behavioral variables:** Correlational research involves measuring two variables and assessing the relationship between them, with no manipulation of an independent variable.

**Extraneous Variables**: any other variable other than the IV that causes a change in the results and therefore has an unwanted effect on the experiment. Interfere with the casual link between IV’s and DV’s, researchers tend to prevent IV’s from occurring this is done in the planning stage as well as the data collection and collation stages. It is the experimenters job to ensure EV’s are minimised.

**Types of extraneous variables:**

* **Situational variables:** aspects of the environment that might affect the participant’s behavior, e.g. noise, temperature, lighting conditions, etc. Situational variables should be **controlled** so they are the same for all participants. **Standardized procedures** are used to ensure that conditions are the same for all participants. This includes the use of standardized instructions.
* **Participant differences:** This refers to the ways in which each participant varies from the other, and how this could affect the results e.g. mood, intelligence, anxiety, nerves, concentration etc. The experimental design chosen can have an effect on participant variables. Situational variables also include order effects that can be controlled using counterbalancing, such as giving half the participants condition 'A' first, while the other half get condition 'B' first. This prevents improvement due to practice, or poorer performance due to boredom. Participant variables can be controlled using random allocation to the conditions of the independent variable.
* **Experimenter effects:** The experimenter unconsciously conveys to participants how they should behave - this is called experimenter bias. The experiment might do this by giving unintentional clues to the participants about what the experiment is about and how they expect them to behave. The experimenter is often totally unaware of the influence which s/he is exerting and the cues may be very subtle but they may have an influence nevertheless. Also, the personal attributes (e.g. age, gender, accent, manner etc.) of the experiment can affect the behavior of the participants.
* **Demand characteristics:** are any features of an experiment, which help participants work out what is expected of them, and consequently lead them to behave in an artificial and unnatural way.

**Types of measurement scales:**

* Nominal 🡪 variables than can be put into categories. For example, the category “Toothpaste Brands” might contain the variables Colgate and Aquafresh.
* Ordinal 🡪 similar to a categorical variable, but there is a clear order. For example, income levels of low, middle, and high could be considered ordinal.

**Placebos and Procedures**

To counteract the effect of participant expectations both the control group and experimental groups will typically receive some sort of treatment; however one will receive a placebo.

**Placebo**: is a fake or false treatment, used so that no participants know whether their being exposed to the IV. Using a Placebo, minimises the impact of Placebo Effect

**Placebo effect**: is the change in behaviour due to their expectation about the treatment.

**Single- Blind Procedures:** when the participants do not know whether they have been assigned to the control or experimental group. (Placebos are used)

**Double- Blind procedures:** to reduce the impact of the experimenter effect on the results, researchers implement a double- blind procedure. Neither knows anything.

**Types of Sampling**

**Convenience Sampling**:

is a quick and easy way of selecting participants, it involves selecting participants based on the researcher’s accessibility to or participant’s availability (e.g. school)

A*dvantages* 🡪 convenient, no forward planning, quick to administer

*Disadvantages* 🡪 highly biased, not representative of the population (share particular quality, predisposed behaviour)

**Random Sampling**:

employs a carefully planned and systematic method of selecting participants for a study. ensures every member of the population has an equal chance of being selected for the sample. Examples: pulling names from a hat, allocation of random number generator.

*Advantages* 🡪 very quick, inexpensive, not biased (equal chance), more likely to be representative of the population over convenience

*Disadvantages* 🡪 The bigger the target population the more difficult it is to randomly sample in it. You are unsure who the target population is. If it were a town of 60 000 for example, looking in the phone book and choosing every 1000th person would be a problematic random sample. Not everyone is in the phone book, people are ex-directory, thousands of people only use mobiles whose numbers are not listed etc.

**Stratified Sampling**:

involves breaking down the population into ‘strata’ or groups based on characteristics they share, selecting participants randomly from each strata in the proportion they appear.

*Advantages* 🡪 representative of the population

*Disadvantage*s 🡪 time consuming, information on participants characteristics is difficult to obtain.

**Experimental Research Designs**

**Independent-groups:**

involves randomly allocating the members of the sample to either the control or experimental group. Once you have your sample you draw participant’s names randomly, first is assigned to control, second to experimental and so on.

*Advantages* 🡪 quick, large numbers easily

*Disadvantages* 🡪 may be some participant differences (one group= more intelligent than other)

**Matched-participants**: seeks to eradicate participant differences, Involves pairing each participant based on a certain characteristic they share (intelligence, experience) This helps to achieve an even spread of participant characteristics between groups and minimise extraneous variables. Once matched they are randomly allocated to either group. \*matched characteristic must be relevant to the study + has potential influence

*Disadvantages* 🡪 pre-test is needed to match participants (IQ test), if one partner of the pair drops out the other must as well, participants are still no identical in all characteristics, abilities and motivations

**Repeated-measures**:

is implemented by using only one group of participants and exposing them to both the control and experimental conditions. As the same participants are used in the control and experimental conditions, they are completely identical in characteristics and abilities.

Creates **Order Effects**: occur when there is a change in results due to the sequence in which the tasks are completed; due to (increase= knowledge and experiences, decrease= boredom or fatigue).

A way to minimise order effects is to use **Counterbalancing:** involves dividing the groups in half and arranging the order of the conditions so that each condition occurs equally as often in each position. (half exposed to control first and half exposed to experimental first) Does not eliminate order effects from occurring, but it removes the influence that order effects have on the results

*Disadvantages* 🡪 creates order effects

*Advantages* 🡪 eradicates participant differences

**Data interpretation**

**Descriptive statistics:** Describe patterns in raw data. Mean, mode, median, variance, range, standard deviation.

**Inferential statistics:** Allow us to make inferences about the results of an experiment; to form conclusions and generalise findings; that is, to apply findings about the behaviour of small groups(samples) to the larger groups they represent (populations). IV brought about change in DV vs chance.

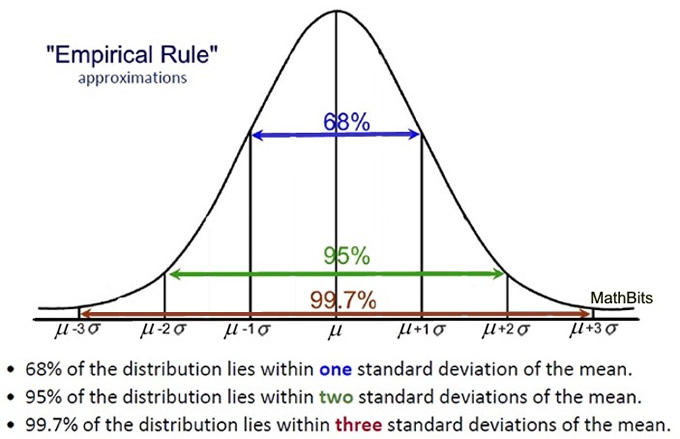
**Statistical significance:** Significance of the difference between the two mean scores. Whether we can attribute the results to the IV or chance alone.

**Statistically insignificant:** The probability of chance effecting the difference between mean scores is over 5%.

**Statistically significant:** The probability of chance effecting the difference between mean scores is under 5%.

**P-value:** is the level of probability that the results are due to chance alone, and determines statistical significance.

**Role of probability** 🡪 no research can ever PROVE a hypothesis is correct, only how probable.

**Measures of dispersion:**

* **Range:** the difference between highest and lowest values of a group of scores
* **Standard deviation:** how far each individual piece of data differs from the mean
* **Normal curve/distribution:** A frequency curve where most occurrences take place in the middle of the distribution and taper off on either side. A "true" normal curve is when all measures of central tendency occur at the highest point in the curve.

**Measures of central tendency:**

* **Mean**: all data is added and divided by total number of pieces of data, represents average score
* **Median**: Is the middle number in a data set, arranging smallest to largest
* **Mode**: reflects most common occurring number within a data set

**Types of data**

* **Subjective**: collected through observations of behaviour or information based on participant self-reports, often biased as it requires personal information, difficult to statistically analyse.
* **Objective**: collected under controlled conditions and are easily measured and compared with other data, often numerical and can be statistically analysed 🡪 eliminates bias
* **Qualitative**: describes changes in the quality of behaviour, and are often expressed in words, is difficult to categorise or to statistically analyse because responses could take a variety of forms Similar to subjective data as they are both opinion-based (unrestricted questions), however qualitative data is harder to summarise or compare to other data
* **Quantitative**: are numbers or categories and can be statistically analysed and readily measured and compared with other data Is similar to objective data in that researchers can easily draw conclusions from them. However Quantitative data restricts participants responses.

**Reliability and Validity \*Refer to hand-written sheet for expanded information**

**Reliability**: Whether a questionnaire or scale measures consistently what it is supposed to measure. Types: test-retest, inter-rater, split-half.

**Validity**: Whether a questionnaire or scale actually measures what it is supposed to measure. Types: construct, concurrent, face.

**Internal validity:** refers to whether the effects observed in a study are due to the manipulation of the independent variable and not some other factor. In-other-words there is a causal relationship between the independent and dependent variable. Internal validity can be improved by controlling extraneous variables, using standardized instructions, counter balancing, and eliminating demand characteristics and investigator effects. External validity refers to the extent to which the results of a study can be generalized to other settings (ecological validity), other people (population validity) and over time (historical validity)

**Ethics**

**Ethics:** moral principles and codes of behaviour that apply to all psychologists regardless of the field in which they work.

**Role of the Experimenter:** responsibility to protect participants physical and psychological welfare

**Participant Rights:**

* **Confidentiality**: is a participant right to privacy in terms of access, storage and disposal of information collected about them that is related to research. A participant’s involvement in, and results from, an experiment cannot be disclosed to anyone else unless written consent has been obtained
* **Withdrawal Rights**: refers to the right id the participant to cease their participation in the study at any time without negative consequences or pressure to continue.
* **Voluntary participation**: ensures that a participant willingly decides to take part in an experiment. Participants must not experience any pressure or coercion to participate, nor be threatened with any negative consequences if they decide not to participate
* **Informed Consen**t: needs to be obtain before an experiment commences. The researcher must obtain written, informed permission from each participant in the study. Consent from must inform the participants about their rights as well as any possible physical and psychological harm that may be encountered. If the participant is under 18, or is legally unable to give consent, participants parent or guardian should complete the form
* **Deception**: in research should not occur unless it is necessary. It is used in some cases where giving participants information about an experiment beforehand might influence their behaviour during the study and thus affect the accuracy of results. However, deception in research must be used with caution and when it is used, researchers must ensure that all participants are thoroughly debriefed.
* **Debriefing:** is where participants are informed of the study true purpose once the experiment has ended. During debriefing, a researcher must also correct any mistaken attitudes or beliefs held by the participants and explain all deception related to the conducting of the experiment.

**How to ensure informed consent:**

1. explaining the nature and purpose of the procedures they intend using;
2. clarifying the reasonably foreseeable risks, adverse effects, and possible disadvantages of the procedures they intend using
3. explaining how information will be collected and recorded;
4. explaining how, where, and for how long, information will be stored, and who will have access to the stored information;
5. advising *clients* that they may participate, may decline to participate, or may withdraw from methods or procedures proposed to them;
6. explaining to *clients* what the reasonably foreseeable consequences would be if they decline to participate or withdraw from the proposed procedures

**Longitudinal and cross-sectional designs**

**Cross-sectional design:** compares groups of people of different ages at one point in time to make claims about developmental changes.

*Advantages:*

* Not costly to perform
* does not require a lot of time

*Disadvantages:*

* Cannot show developmental differences 🡪 cohort effect 🡪 likely differences between different age groups are due to development it could be due to the fact that older people have been exposed to a different situational factor e.g. education program.

**Longitudinal design:** follows the development of one group of people over time to make claims about developmental changes.

*Advantages:*

* shows changes in attitudes/behaviors over time - results more valid
* Researcher get to know respondents well - strong rapport and valid data as people more likely to trust someone they know
* can give qualitative and qualitative data - producing rich information
* reduces cohort effect

*Disadvantages:*

* Time consuming
* Practise effects 🡪 getting better at task due to repetition
* people drop out over time
* Issues and concepts may change over time it takes to do research
* Expensive
* Cross-generational problem

|  |  |
| --- | --- |
| **Lab Experiment** | **Field Experiment** |
| * This type of experiment is conducted in a well-controlled environment – not necessarily a laboratory – and therefore accurate and objective measurements are possible. * The researcher decides where the experiment will take place, at what time, with which participants, in what circumstances and using a standardized procedure. | * These are conducted in the everyday (i.e. natural) environment of the participants but the situations are still artificially set up. * The experimenter still manipulates the IV, but in a real-life setting (so cannot really control extraneous variables). |
| **Case Study** | **Correlation** |
| * Case studies are in-depth investigations of a single person, group, event or community. * Case studies are widely used in psychology and amongst the best-known ones carried out were by Sigmund Freud. He conducted very detailed investigations into the private lives of his patients in an attempt to both understand and help them overcome their illnesses. * Case studies provide rich qualitative data and have high levels of ecological validity. | * Correlation means association - more precisely it is a measure of the extent to which two variables are related. * If an increase in one variable tends to be associated with an increase in the other then this is known as a positive correlation. * If an increase in one variable tends to be associated with a decrease in the other then this is known as a negative correlation. * A zero correlation occurs when there is no relationship between variables. |
| **Interviews** | **Questionnaire** |
| * **Unstructured (informal)** interviews are like a casual conversation. There are no set questions and the participant is given the opportunity to raise whatever topics he/she feels are relevant and ask them in their own way. In this kind of interview much qualitative data is likely to be collected. * **Structured (formal)** interviews are like a job interview. There is a fixed, predetermined set of questions that are put to every participant in the same order and in the same way. The interviewer stays within their role and maintains social distance from the interviewee. | * Questionnaires can be thought of as a kind of written interview. They can be carried out face to face, by telephone or post. * The questions asked can be open ended, allowing flexibility in the respondent's answers, or they can be more tightly structured requiring short answers or a choice of answers from given alternatives. * The choice of questions is important because of the need to avoid bias or ambiguity in the questions, ‘leading’ the respondent, or causing offence. |

**Pros and cons of study types**

**Experimental method:**

*Pros:*

* + - By holding variables constant, one can establish a cause-effect relationship between the independent and dependent variables
    - Force pace of research
    - Generates qualitative data that can be analysed using inferential statistics
    - High generalisability

*Cons:*

* + - Over-representation
    - Observer effects
    - Often inappropriate of unethical

**Laboratory experiments:**

*Pros:*

* + - High replicability
    - Better measurement and quality equipment
    - Better control over variables

*Cons:*

* + - Lacks ecological validity
    - Biased results
    - Ethical problems
    - Dehumanising

**Observational studies (non-experimental):**

*Pros:*

* + - High ecological validity
    - Rich in data
    - Less influence from demand characteristics
    - Used where difficult or unethical to manipulate variables
    - Generates hypotheses for further research

*Cons:*

* + - Lack of control over variables
    - Difficult to conclude cause-effect
    - Observer bias
    - Low replicability
    - Ethical problems

**Questionnaires (non-experimental):**

*Pros:*

* + - Simple
    - Cheap
    - Quick
    - High replicability
    - Less influence from interpersonal variables

*Cons:*

* + - Wording effect
    - Poor designs generate poor results
    - Low response rates
    - Researcher effects and bias

**Case studies (non-experimental):**

*Pros:*

* + - Suggest hypotheses for further study
    - Rich descriptive information/data

*Cons:*

* + - Difficult to establish cause-effect
    - Often reliant on subjective interpretations