

Knowledge organisers



DO NOT LOSE! THIS IS YOUR HOLY GRAIL!

Name:

Class:

CRIMINAL PSYCHOLOGY



KEY DEBATES

- NATURE (biological) vs. NURTURE (learned/society)
- DETERMINISM (trait theory says genetics determine behaviour) vs. FREE WILL (person chooses their behaviour)



EYSENCK'S CRIMINAL PERSONALITY THEORY

Criminal personality - traits associated with people who commit crimes. Something that is inherited through genetic inheritance & innate (born with it).

EXTRAVERSION

High E score = sociable, lively and sensation seeking.
 BRAIN: extroverts have a low level of arousal in their cerebral cortex (as stimuli is restricted by RAS) and therefore need more stimulation from their environment, leading to risky & anti-social behaviour.



NEUROTICISM

High N scores = anxious & react very strongly to aversive stimuli.
 BRAIN: the ANS becomes over-aroused and affects the limbic system, causing violent & unstable behaviour.



PSYCHOTICISM

High P score = aggressive & egocentric.
 BRAIN: due to an excess of dopaminergic neurons, which causes an overproduction of dopamine and leads to less inhibitions & more aggressive behaviour.



Eysenck believed that criminality develops mainly due to genetics but early socialisation and difficulties in conditioning can also play a part.

LIMITATIONS

- Ignores individual differences- Unlikely criminals who commit different crimes all share a similar personality.
- Too deterministic as it ignores free will.
- merely identifies certain characteristics that may link to criminality. It does not inform us why individuals commit criminal acts.

NATURE

HEAVEN (1996) STUDY INTO DELINQUENCY & EXTRAVERSION, PSYCHOTICISM & SELF-ESTEEM

AIM

To test the correlation between Eysenck's personality traits and delinquency.

SAMPLE

- 282 teenagers (aged 13-15) from two Catholic schools in Australia.



RESEARCH METHOD

Questionnaire and longitudinal study



PROCEDURE

- Participants completed questionnaires at Time 1 (around 14 years old) and 2 years later at Time 2 (around 16 years old).

Psychoticism is linked to delinquency.

- 1) measured psychoticism, extraversion & self-esteem (better measure than neuroticism).
- 2) used self-report to measure delinquency (looked at violence, vandalism & theft).



LIMITATIONS OF STUDY

- Sample culturally biased (unrepresentative & can't be generalised).
- Limited by social desirability as it was self-report.

SOCIAL LEARNING THEORY OF CRIMINALITY

Bandura suggested that all behaviour is learnt through observation & children are particularly influenced by what they see, this includes criminal behaviour.

ROLE MODELS & IDENTIFICATION

Children will identify with role models - people we look up to and respect who model behaviour for us. They will decide they want to be like these people.



OBSERVATION & IMITATION

A child may observe a criminal act - creates a mental representation in their mind because they have seen this particular behaviour they are more likely to copy it.

VICARIOUS REINFORCEMENT

A role model is observed being rewarded for their criminality; financially or through an increased status. More likely to lead to criminality being imitated if positive.

DIRECT REINFORCEMENT

Observer engages in criminal act and receives reward, is likely to continue.
 N.B. reinforcement can also be negative & can deter.



INTERNALISATION

The behaviour becomes part of us & no longer needs to be reinforced for it to continue - will repeat behaviour despite consequences (e.g. punishment, harm).

LIMITATIONS

- Ignores the role of nature - e.g. brain dysfunction & genetics
- Doesn't explain how criminal behaviour starts in the first place (first wave criminals)
- If it's correct, should be easier to reduce crime through conditioning.

KEY CONCEPTS

CRIMINAL BEHAVIOUR

Any act that goes against the law of the land.

TYPES OF CRIME

Violent (e.g. assault); drug-related; acquisitive (e.g. theft); sexual (e.g. rape); anti-social (e.g. vandalism).

SOCIAL CONSTRUCT

society determines what is considered criminal behaviour, so it can change over time and place.

DEVIATION FROM NORMS

Crime is when an act or behaviour goes against what is expected in society.



ROLE OF CULTURE

Collective set of norms that determines a way of life for a group of people. As cultures change, so do their norms.

MEASURING CRIME

Using self-report methods, which may not be reliable. Not all crimes are necessarily reported.

APPLICATIONS OF RESEARCH

USE OF PUNISHMENT TO REDUCE ANTI-SOCIAL BEHAVIOUR

- (a) Prisons: taking away freedom, rights & privileges.
- (b) Fines: money can be an incentive to committing crimes like theft so loss of money should have the opposite effect.
- (c) Community sentences: offenders also pay back to society by giving up their time.
- (d) Deterrent: Many people do not commit crimes in the first place and this is because they want to avoid the negative consequences that they have seen others suffer.



USE OF REHABILITATION TO PROMOTE PRO-SOCIAL BEHAVIOUR

- (a) Restorative justice: The victim of the crime will meet the criminal, the offender has to take responsibility or their crime and face the consequences of their actions when talking with their victim. Offenders are encouraged to apologise, return any property/money and complete community service bringing them back into the community.
- (b) Positive role models: offenders observe the actions of pro-social role models so they can learn how to behave.

NURTURE

COOPER & MACKIE (1986) STUDY INTO VIDEO GAMES & AGGRESSION IN CHILDREN

AIM

To see if aggressive video games would lead to increased aggression.

SAMPLE

- 84 children, aged 9-11 from schools in New Jersey, USA



RESEARCH METHOD/ DESIGN

- Lab experiment, independent measures design
- Boys preferred to play interpersonal aggression (buzzer quiz.)



PROCEDURE

- 1) Two groups - played or observed either missile command (high agg.), pacman (low agg.), or maze (control).
- 2) Playground - observed which toys each child played with (aggressive, active, quiet, skill).
- 3) Asked questions about reward/punishment using buzzer.



FINDINGS & CONCLUSION

- Children playing aggressive game spent longer playing with aggressive toy. Esp. with girls
- Boys preferred to play interpersonal aggression (buzzer quiz.)

LIMITATIONS OF STUDY

- Sample was culturally biased - cannot be generalised.
- Lacks ecological validity as it was a lab experiment (artificial conditions)

SOCIAL INFLUENCE



KEY DEBATES

- NATURE (biological) vs. NURTURE (learned/society)
- REDUCTIONISM (dispositional & situational factors)
- DETERMINISM (situational factors - external -> obedience)



EFFECTS OF DISPOSITIONAL FACTORS ON BEHAVIOUR

LOCUS OF CONTROL (LOC) IN CROWDS

High **internal locus control** = believe behaviour is caused by their own efforts and decisions.

High **external locus of control** = believe behaviour is due to luck & external factors outside of their control. **External LOC = more likely to obey & conform.**

MORALITY OF PRO-SOCIAL & ANTI-SOCIAL BEHAVIOUR

High levels of morality = higher levels of pro-social behaviour

Lower levels of morality = anti-social behaviour.

AUTHORITARIAN PERSONALITY ON OBEDIENCE

From Adorno, 1950. Refers to a person who has high levels of respect for authority, sees world in black & white and dislike of those inferior = **more likely to obey.**

THE INFLUENCE OF THE BRAIN ON CONFORMITY

Self-esteem & internal LOC = significantly correlated with hippocampal volume. **Small hippocampus/ low volume of grey matter = low self-esteem.**

Low self esteem = more likely to conform to a group.

PFC damage associated with a lack of empathy & anti-social behaviour and the inability to make suitable moral decisions.

LIMITATIONS

- There is more to obedience/conformity than individual traits - there can be other factors that may prevent the person from being influenced.
- These explanations can be considered reductionist - only focus on certain aspects
- Locus of control can vary from situation to situation and is not constant.



EFFECTS OF SITUATIONAL FACTORS ON BEHAVIOUR

GROUP NORM ON CONFORMITY

Majority influences - when a person is exposed to the beliefs/ behaviours of a larger group of people & they change their attitudes/ actions to go along the group.

Compliance = conform to the group behaviour to gain their approval, but will privately disagree.

Internalisation = majority opinion has led you to change your opinion.

DEINDIVIDUATION & COLLECTIVE BEHAVIOUR

Individuals become part of a **faceless group in crowds** and take on collective behaviour of the crowd & do not think about consequences.

CULTURE ON PRO-SOCIAL & ANTI-SOCIAL BEHAVIOUR

Individualist culture = focused more on personal goals -> more anti-social

Collectivist culture = focused on the needs of the community -> more pro-social.

AUTHORITY FIGURES

Milgram and The Electric Shock study - with the presence of an authority figure people will commit unreasonable acts.

AGENCY THEORY

Autonomous state = we feel responsible for our own actions.

Agentic state = do not feel responsible as acting under orders from authority figure.

LIMITATIONS

- Ignores individual differences within collectivist cultures. E.g. some tribes have a complete absence of pro-social behaviour for evolutionary reasons.
- Ignores free will research shows that individuals do have free will and there are many examples of independent behaviour regardless of the situational factors.



KEY CONCEPTS

CONFORMITY

Giving in to the pressure of the group.

OBEDIENCE

Following orders from someone we perceive as having more authority than us

MAJORITY INFLUENCE

when the majority of a group tries to influence others in the group to conform to their beliefs...

COLLECTIVE & CROWD BEHAVIOUR

the way in which people act when they are part of a group. The behaviour of crowds can often be spontaneous and unplanned, causing people to act in a way they normally wouldn't do.

ANTI-SOCIAL BEHAVIOUR

Actions that go against society and harms it in some way.

PRO-SOCIAL BEHAVIOUR

Actions that benefit society & its people



NATURE

NetCen [MORRELL ET AL.] (2011) STUDY INTO YOUNG PEOPLE'S RESPONSE TO THE TOTTENHAM (AUGUST) RIOTS

AIM

To answer the question: "why did young people get involved in the Tottenham riots?"

SAMPLE

36 participants (evenly split between those older or younger than 18).

RESEARCH METHOD

Interviews



PROCEDURE

- Participants were interviewed 5 weeks after the riots occurred.

- Researchers gained full informed consent & confidentiality & anonymity was ensured.

- Participants were interviewed individually or in groups - 2 or 4

FINDINGS & CONCLUSION

rioters, looters, non-involved.

Different factors made people more likely (nudge factors) or less likely (tug factors) to get involved.

These were divided into dispositional factors * situational factors (e.g. having poor job prospects = dispositional, nudge factor. Friends not being involved = situational, tug factor.

People influenced by what they thought was right or wrong & it benefits outweighed risks.

LIMITATIONS OF STUDY

Interviews so could have been dishonest because of social desirability (lacks validity).

Many participants were accessed in prison (not representative of all who took part).

BICKMAN (1974) STUDY INTO THE POWER OF UNIFORM ON OBEDIENCE LEVELS

AIM

To see whether a person's appearance affects obedience

SAMPLE

153 pedestrians on the streets of Brooklyn, New York.

RESEARCH METHOD/ DESIGN

Field experiment - opportunity sample

PROCEDURE

- 3 experimenters who dressed in 3 uniforms (a guard, a milkman and a civilian).

- In each uniform - gave one of three orders:

(1) pick up litter, (2) stand the other side of a bus stop or (3) give someone £ for a parking meter.

- Bickman wanted to know how many people obeyed each researchers in each uniform by following the orders or not.

N.B. There is experiments 2 & 3 to look at.

FINDINGS & CONCLUSION

Obedience Levels

Guard = 89%

Milkman = 57%

Civilian = 33%

The higher the (perceived) status of the uniform, the higher the obedience levels.

LIMITATIONS OF STUDY

Sample culturally biased (unrepresentative & can't be generalised).

Field experiment so extraneous variables (noise etc.) an issue.

APPLICATIONS OF RESEARCH CHANGING ATTITUDES TO MENTAL HEALTH STIGMA & DISCRIMINATION

1. MINORITY INFLUENCE is where a small group of people can change the opinion and belief of larger groups. Techniques to use:

- Behavioural style - consistent, clear messages with the audience of peers in mind
- Style of thinking - understand the majority audience (peers), or sub-groups that they want to influence
- Commitment - strongly supporting the minority view
- Flexibility - not being too radical in one's views
- Use of identification - peer 2 peer delivery of messages

2. MAJORITY INFLUENCE could help to change the view of the minority discriminatory view by trying to get them to conform to the group norm and internalise the beliefs.

- Language - stop using stigmatised vocabulary - if the majority stop using it then the minority often follow as we often want to be in the in-group
- Treat mental health as a physical problem - e.g. someone is off with a broken arm - groups make effort to ensure that they are included when they are back. The same should be done for mental illness.

MEMORY



KEY DEBATES

- NATURE (biological) vs. NURTURE (influenced by environment)
- REDUCTIONISM (MSM & theory of reconstructive memory)
- LAB EXPERIMENTS (Braun) vs. CASE STUDIES (Wilson)

W MEMORY LN

THE MULTI-STORE MODEL OF MEMORY

SEPARATE & DISTINCT STORES
Memory has three separate memory stores, the sensory store, short-term memory (STM) and long-term memory (LTM).

SENSORY STORE
Information from our environment is detected by our senses (i.e. smells, sounds, images, tastes and touch), these will briefly enter our sensory memory for a few seconds, this store also has **limited capacity**. If we don't pay attention to it, the information **decays (fades until forgotten)**.

SHORT TERM MEMORY STORE
Limited capacity (7+2) & duration (30 seconds). Info. goes from sensory store to STM if attention is paid to it. If more information enters and the store is full, info. becomes **displaced (pushed out)**. If not rehearsed it will **decay**.

LONG-TERM MEMORY STORE
Unlimited capacity & duration. When information in STM that goes through **maintenance rehearsal** (repeating information over & over), or **elaborative rehearsal** (giving meaning to information) it **transfers** into LTM. Encoding is mainly semantic (we think about the meaning of information) but can also be visual and auditory. **Retrieval failure & decay** can occur if information is not recalled regularly.

- LIMITATIONS**
- Over emphasises the importance of rehearsal. Attaching meaning just as effective
 - The model is reductionist in its explanation of memory.
 - Isn't supported by neuropsychological evidence - LTM more than one store

THEORY OF RECONSTRUCTIVE MEMORY

Memory is influenced by our prior experiences & schemas (mental representation of an object or situation). We fill in the gaps to make memories. people construct their memories based on prior experiences, but we don't tend to recall them in chronological order. Our beliefs can influence the memory.

SCHEMAS
Our memories are influenced by prior experiences so are never entirely accurate. E.g. camping trip at 4 years old influence memory of camping at 10.

EXPECTATIONS
Our knowledge & beliefs can influence schemas & distort memories. E.g. if we expect to see a zebra at a zoo we might mistakenly remember a horse as a zebra.

LEADING QUESTIONS
Can be particularly effective in manipulating people's memories through suggestion.

CONFABULATION
Making up details to fill in the blanks in a memory - 'honest lying'.

LIMITATIONS

- Too reductionist - there are many complex factors that may affect memory recall.
- It doesn't account for other factors that contribute to recall such as anxiety, age.
- It doesn't explain how memories are processed.

KEY CONCEPTS

INFORMATION PROCESSING
Brain works like a computer: input (through senses) -> encoding (changed into format easier to understand) -> storage (held in memory) -> retrieval (recall of memory) -> output (use recalled info.)

HIPPOCAMPUS (part of limbic system)
Involved in making new memories - must pass through here before entering long-term storage. Important for semantic memories of facts/ autobiographical memories.

CEREBELLUM
Responsible for learning movements and procedural memory (motor skills).

AMNESIA
Caused by brain injury, illness, some medications. **Anterograde amnesia**: unable to form new memories. Caused by damage to hippocampus. **Retrograde amnesia**: unable to recall existing memories. Caused by damage to frontal lobe.

NATURE

WILSON ET AL. (2008) - CLIVE WEARING STUDY

AIM
To report on the case of Clive Wearing who suffered from a severe case of amnesia.

SAMPLE
One male - Clive Wearing

RESEARCH METHOD
Longitudinal case study using interviews, MRI scans & IQ tests.

PROCEDURE
- In March 1985, Clive developed HSVE which destroyed large parts of his brain.

FINDINGS & CONCLUSION
• Brain scans showed significant abnormalities incl. significant damage to the hippocampus.
• Clive suffered from retrograde & anterograde amnesia.
• Clive could still talk, read, write, play the piano etc. So his procedural memory remained intact.
Brain damage can affect memory and result in both anterograde & retrograde amnesia.

LIMITATIONS OF STUDY
• Study can't be generalised as sample was one person (sample too small & gender biased).
• Study was unethical as Clive was repeatedly tested over 21 years (could cause distress).

NURTURE

BRAUN ET AL. (2002) STUDY INTO ADVERTS & MEMORY

AIM
To see whether an advert could affect childhood autobiographical memories.

SAMPLE
Experiment 1: 107 USA undergrads
Experiment 2: 167 USA undergrads

RESEARCH METHOD/ DESIGN
Lab experiment
PROCEDURE
Experiment 1: (1) Participants completed a Life Events Inventory (LEI) measuring confidence shaking hands with a character & their memory of Disney. (2) Then watched a Disney advert or a control advert. (3) Did LEI again.

FINDINGS & CONCLUSION
Exp 1: Significantly more in Disney condition increased their 'hand shaking' confidence scores from before & after the advert.
Exp 2: More significant in Bugs Bunny as (78%) & Ariel ad (76%) compared to control (62%).

Autobiographical advertising can affect how people remember the past.

LIMITATIONS OF STUDY
• Sample age & culturally biased (unrepresentative & can't be generalised).
• Lab experiment lacks ecological validity (not reflect real life).

APPLICATIONS OF RESEARCH

TECHNIQUES USED FOR RECALL IN ADVERTISING

- (a) Cues- create context or feeling linked to product so when consumer is in this context/ emotional state it will trigger a memory of the product.
- (b) Repetition - build familiarity with brand by repeating them frequently (prevents decay & encourages positive feelings).
- (c) Avoiding overload - if there is too much information, some is displaced out of STM; reducing information to essential point should avoid overload.
- (d) Use of autobiographical advertising - used to connect emotionally by reminding people of a time in their life (e.g. using Disney ads in Braun's study).

MEASURING MEMORY

Welchler memory scale evaluates the extent of brain damage in patients who may have had brain injury or suffer from illness like dementia. It produces results on 5 different aspects of memory: auditory, visual, visual working, immediate and delayed memory. Why? By determining the extent of the patients damage, they can offer them the best and most appropriate treatment.

PSYCHOLOGICAL PROBLEMS



KEY DEBATES

- NATURE (biological) vs. NURTURE (learned/society)
- REDUCTIONISM (nature theories) vs. HOLISM
- FREE WILL (ABC Model) vs. DETERMINISM (Social Rank)



SCHIZOPHRENIA

DEFINITION

- A psychotic disorder where people lose their sense of reality. Covers 1% of the population.
- SYMPTOMS**
 - Hallucinations (see/hear things that aren't there)
 - thought disturbances
 - Disorganised speech
 - Catatonic behaviour (doesn't respond)
 - Delusions (errors in reality)

BIOLOGICAL THEORY

Dopamine Hypothesis

- Dopamine system is overactive - high levels of dopamine binding to receptors

Brain dysfunction

- Less blood flow in frontal lobe (responsible for logic, reasoning, problem solving etc.)
- Reduced volume of hippocampus (poor cognitive functioning & accessing/processing memories)

LIMITATIONS

- ignores nature - importance of upbringing & life events
- Reductionist - focuses too much on brain abnormalities

SOCIAL DRIFT THEORY

- 'Label' of schizophrenia could lead to the condition worsening - due to the associated stigma around mental illness -> discrimination
- Person withdraws from society (due to symptoms & fear of discrimination) then... - Leads to rejection by society -> leads to further deterioration of mental health



LIMITATIONS

- ignores nature - biological factors (brain dysfunction & hormones)
- doesn't explain cause & effect - just effect of diagnosis

CLINICAL DEPRESSION

DEFINITION

- A mood disorder where people have persistent feelings of sadness over a long period of time.
- SYMPTOMS**
 - Low mood (sadness)
 - Feeling hopeless
 - Low self-esteem
 - No motivation/lack of interest in things
 - Suicidal thoughts

SOCIAL RANK THEORY (Evolution)

- We behave in a certain way for survival reasons
- When we lose a level of status we can lose confidence in our abilities (depressed state).
- If we try to regain our rank we may suffer further losses which would be detrimental to our survival (be rejected from the social group).
- Therefore depression allows us to accept a subordinate role & reduces further conflict.



LIMITATIONS

- ignores nature - e.g. other life factors (e.g. trauma)
- Reductionist - ignores complex nature of depression

A MODEL

- Depression is the result of an **Activating event**, which leads to **Irrational Beliefs**, which then cause **negative Consequences**.
- According to Ellis the 'B' is the most important part of the model.
- Depression = result of irrational beliefs, individuals who are prone to depression will perceive events in a more negative way than other people.

KEY CONCEPTS

- Good mental health = high self-esteem, autonomy, self-actualisation, accurate perception of reality
- Mental Health Act (1959) - aims to reduce stigma & discrimination
- Difficult to measure as not all problems diagnosed. Statistics: 1 in 4 in UK, affects both sex equally, but men develop sz. earlier than women. Asians more likely to develop depression.

MENTAL HEALTH CONTINUUM



NURTURE

- APPLICATIONS OF RESEARCH**
- NEUROPSYCHOLOGICAL TESTS & SCANS**
 - Wisconsin Card Sort test (WCST)- frontal lobe function
 - Beck Depression Inventory (BDI) - severity of depression
 - PET scan - shows blood flow in the brain
- USE OF DRUGS TO TREAT CONDITIONS**
- Depression: anti-depressant drugs** increase the number of neurotransmitters in the brain (serotonin or noradrenaline). Excess serotonin helps the neurons communicate better, which helps people feel less depressed.
- Schizophrenia: anti-psychotic drugs** act by blocking some of the dopamine receptors. By reducing the level of dopamine, it reduces the effects of the psychotic episode.
- PSYCHOTHERAPY - talking therapies (no drugs)**
- CBT - aims to change how the individual thinks & behaves - to confront the negative irrational thoughts and how they impact on the individual.
- Uses Ellis' A-B-C model and adds D= Disputing (questioning) the persons irrational beliefs and E= Effect of changing the interpretation of an event.

DANIELS ET AL. (1991) STUDY INTO THE EFFECTS OF AMPHETAMINES ON SCHIZOPHRENIA

AIM

- To see whether amphetamines affect PFC and WCST performance.

SAMPLE

- 10 chronic schizophrenics from same hospital

RESEARCH METHOD / DESIGN

- Lab experiment (double-blind) - repeated measures design

PROCEDURE

- Participant received dose of amphetamine or placebo
- Completed the Card sort test (PFC task) and BAR task (control task) on a computer whilst having SPECT scan
- Did same 2-4 days later but swapped (double-blind)

FINDINGS & CONCLUSION

- No difference in BAR task (control)
- Small difference between amphetamine & placebo in the WCST as some areas of the prefrontal cortex were active
- Amphetamines shown to increase the ability of the prefrontal cortex to focus in the WCST.

LIMITATIONS OF STUDY

- Sample too small (can't be generalised) & culturally biased (unrepresentative)
- Ethical issues: using brain scans for research not medical reasons.

TANDOC ET AL. (2015) STUDY INTO FACEBOOK & DEPRESSION

AIM

- To see whether Facebook use predicted depression.

SAMPLE

- 854 journalism students from US university (68% female)

RESEARCH METHOD / DESIGN

- Questionnaire (online survey)

PROCEDURE

- Completed questionnaire:
 - Facebook usage and surveillance
 - Envy Scale
 - Depression symptoms
- *Facebook surveillance involves looking at friends' status' but not commenting or posting own information.

FINDINGS & CONCLUSION

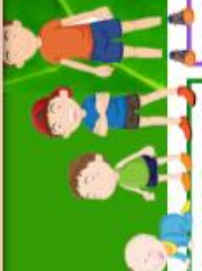
- Heavy Facebook users = stronger feelings of envy.
- Size of the network of FB friends not related to envy. FB envy was a predictor of depression.
- Use of FB - not directly lead to depression. But, FB envy can lead to depression.

LIMITATIONS OF STUDY

- Sample culturally biased (unrepresentative & can't be generalised)
- Self-report: participants could have lied due to social desirability.



DEVELOPMENT



KEY DEBATES

- NATURE (innate development) vs. NURTURE (learned/society)
- REDUCTIONISM (Piaget - all stages universal & invariant)
- FIELD EXPERIMENT (Blackwell) & NATURAL EXPERIMENT (Piaget)



PIAGET'S THEORY OF COGNITIVE DEVELOPMENT

The theory suggests that children progress through **universal** (same for all across the world) and **invariant** (occur in the same order) stages of cognitive development.

SENSORY-MOTOR STAGE (0-2 YEARS)

Explore the environment using senses, develop **motor movement**. Towards the end of this stage they develop **object permanence** (the ability to understand that objects exist even when not visually present).

PRE-OPERATIONAL STAGE (2-7 YEARS)

Develop language skills & mental representation of objects & events. Is egocentric (only see the world from their point of view). Also show animism (treating inanimate objects as if they too are alive) & lack of reversibility (unable to work backwards in their thinking).

CONCRETE-OPERATIONAL STAGE (7-11 YEARS)

Develop the ability to decenter (multiple aspects, e.g. looking at multiple letters to read a word) and conserve (the ability to understand that properties of objects remain the same even when changed in appearance), develop linguistic humour but cannot imagine the world abstractly.

FORMAL OPERATIONAL STAGE (11+ YEARS)

Children are capable of forming and testing hypothesis, understand rules of formal logic and can solve abstract problems.

LIMITATIONS

- Too reductionist - all children go through the same stages based on maturation (ignores role of environment - parents, teachers, peers etc.)
- Saying stages are universal & invariant is over simplistic (e.g. in some countries children learn to conserve much earlier due to survival).

DWECK & WILLINGHAM'S LEARNING THEORIES

Dweck's learning theory states that **mindset** relates to the way that we think in relation to where our talents come from and whether these are changeable.

GROWTH & FIXED MINDSET

Growth mindset - believe intelligence can be developed through experiences and if we work hard and learn skills then our abilities and therefore our intelligence will improve.

Fixed mindset - believe that intelligence is predefined and we are born with certain abilities. Fear failure as it reflects badly on their innate talents.

PRaise FOR EFFORT

Teachers & parents play an important part in the development of different mindsets through giving praise for the amount of effort made.

Willingham's learning theory states that there is no evidence to support the view that individuals have preferences about how to learn - learning styles don't exist.

LEARNING OCCURS THROUGH MEANING, NOT STYLES

Students are different in their abilities, interests and prior knowledge, but not in their learning styles. He argues for the importance of **meaning for learning**. When in class, most of the information that you are required to learn is not visual or auditory, it is meaning based - most learning takes place through understanding the meaning.

LIMITATIONS

- Dweck's theory can be criticised for focusing too much on the importance of nurture in that achievement is dependent on effort/praise (ignores biological learning difficulties & disabilities).
- Willingham ignores innate factors in development (e.g. hearing or sight loss).

NATURE

PIAGET'S (1952) STUDY INTO THE CONSERVATION OF NUMBER

AIM

To see the stage of development when children are able to conserve.

SAMPLE

Swiss children in the pre-operational & concrete operational stages.

RESEARCH METHOD

Natural experiment and cross-sectional study

PROCEDURE

- Each child was presented with two identical, parallel lines of counter.
- Was asked "Is there the same number of counters in each row?"
- Then watched as one of the lines was spread out (no more counters were added).
- Was then asked for 2nd time "Is there the same number of counters in each row?"

FINDINGS & CONCLUSION

- Children at the beginning of the pre-operational stage (3-4 years) = more in stretched row.
- Children at the end of the pre-operational stage (5-6 years) = both the same, couldn't say why.
- Children in the concrete operational stage (7+) = both rows the same & could explain why.

Children in the concrete operational stage were able to conserve.

LIMITATIONS OF STUDY

- Sample too small & culturally biased (Swiss, own children) - cannot be generalised.
- Design is invalid - asked same question twice so some answered based on thinking it was wrong the 1st time.

NURTURE

BLACKWELL ET AL.'S (2007) STUDY INTO FIXED & GROWTH MINDSET

AIM

To see impact of growth mindset on maths ability, achievement and motivation.

SAMPLE

373 NY students
99 NY students

RESEARCH METHOD/ DESIGN

Correlation study
Field experiment

PROCEDURE

- 7th grade students were given a maths test & motivation questionnaire
- 8-week growth mindset intervention or control.
- 3 weeks after intervention - given questionnaire again.
- (measuring fixed and growth mindset).

FINDINGS & CONCLUSION

Start of 7th grade = no correlation between mindset & maths. End of 7th grade = fixed/growth mindset a predictor of better maths grades.

Growth mindset (GM) is related to maths ability & teaching GM has a positive impact on maths achievement.

LIMITATIONS OF STUDY

- Sample culturally biased (can't be generalised).
- Study too reductionist - only focuses on student mindset not influence of others.

KEY CONCEPTS

DEVELOPMENT

How we change & mature across our lifetime.

STAGES OF BRAIN DEVELOPMENT

Pre-natal (from conception to birth) - develop neural tube, cerebral cortex, neurons and simple synapses.

Childhood (from birth to 12) - develop more neural connections, more dense synapses in the prefrontal cortex, understand cause & effect as connections strengthen.

Adolescence (from 13-19)

grey matter reaches maximum density, maturation of limbic system, pre-frontal cortex and frontal lobes.

Adulthood (20+) - fully matured pre-frontal cortex. Neurodegenerative diseases can be developed.

INTELLIGENCE QUOTIENT TESTS (IQ)

Measuring how we learn, think & problem-solve.

APPLICATIONS OF RESEARCH

READINESS FOR QUESTIONING

How? Ensuring that teachers ask students questions in a way that mirrors their development stages. **Why?** Piaget claimed that children need to have learning experiences based on their developmental stage (i.e. sensor motor, pre-operational, concrete operational, formal operational) in order to confidently tackle & learn from the question.

READINESS FOR KEY STAGES

How? Key stages are age related stages of development used to organise the education of children. **Why?** Piaget's stages are linked to the different key stages in education. For example, when children are developing through the concrete operational stage, children may learn to cook to help develop skills such as measurements and pouring ingredients into containers.

GROWTH MINDSET - PRAISE FOR EFFORT

Teachers set small but doable tasks to make progress & praise for effort rather than attainment/intelligence so they develop a love of learning & seek to improve & try new things.

MEANING NOT LEARNING STYLES

Teachers support students to think about meaning of information and linking to prior experiences etc.

SLEEP & DREAMING



KEY DEBATES

- NATURE (brain processes) vs. NURTURE (past experiences)
- REDUCTIONISM (focused on narrow view of brain activity)
- SUBJECTIVE (Freud) vs OBJECTIVE (based on brain scans)



ACTIVATION SYNTHESIS THEORY OF DREAMING

The theory suggests that dreams are a result of our mind trying to make sense of brain activation during sleep.

NEURONAL ACTIVITY INCREASES IN THE PONS

During REM sleep, body is paralysed, but activity increases in area of brainstem called the pons - random brain waves are generated.

BRAIN WAVES TRAVEL TO CEREBRAL CORTEX

Higher brain areas in the cerebral cortex that would normally interpret sensory information. The information is treated as if it was real sensory information.

SYNTHESIS OCCURS - MAKING SENSE OF RANDOM SIGNALS

Through interpreting the stimulation synthesis occurs; using stored memories to make sense of the information.



THE ROLE OF THE LIMBIC SYSTEM

Because the brain waves activate many different brain areas such as the limbic system (which controls emotions) the resulting dreams are bizarre & emotional. So the theory suggests that dreams have no real meaning.

LIMITATIONS

- Too reductionist - suggests that dreams are a random result of happens when the mind tries to make sense of brain activity that occurs during sleep.
- The theory is quite a simplistic view and ignores the view that dreams can be meaningful. It is further reductionist as it does not explain the purpose of dreams, just where they come from.
- Doesn't explain how people with damage to brainstem can still dream.

NATURE

WILLIAMS ET AL. (1992) STUDY INTO THE BIZARRENESS OF DREAMS & FANTASIES

To see if bizarreness of dreams is different to the bizarreness of daytime fantasies.

SAMPLE

12 biopsychology students from Harvard University, aged 23 to 45.

RESEARCH METHOD

Natural experiment and self-report journal entries

PROCEDURE

a) Participants kept a journal for a term recording any dreams they could recall & any daydreams they experienced.

b) Researchers selected 60 dreams & 60 daydreams.

c) 3 different judges scored for bizarreness (inter-rater reliability).



FINDINGS & CONCLUSION

Dreams were found to be a lot more bizarre than daytime fantasies (daydreams).

There were good levels of inter-rater reliability between the judges (88.7% similar scores).

Dreams scored higher than fantasies for: plot discontinuity (greatest difference), plot incongruity, uncertainty, and thought incongruity

The bizarreness of dreams is due to the brain activity during REM sleep.

LIMITATIONS OF STUDY

• Sample too small & gender biased (10 females) - cannot be generalised.

• Social desirability - self report so participants may have lied about/changed their dreams/fantasies.

FREUDIAN THEORY OF DREAMING

The theory suggests that the mind is like an iceberg: it consists of our conscious mind and unconscious mind (we are normally unable to access it).

UNCONSCIOUS MIND

Contains unacceptable thoughts, feelings and desires that our conscious mind cannot deal with & are considered unacceptable in society. Freud suggested this part of our personality is the ID & is repressed by another part of our personality called the ego.

Dreams allow us to access the unconscious mind.

WISH FULFILMENT
In sleep the ego is weakened & the unconscious mind tries to break through into our consciousness. In order to satisfy these unconscious desires we dream, this is known as wish fulfilment (e.g. being able to eat all the icecream you want).

CONTENT OF DREAMS

True content of our dreams are hidden through the use of symbols which do not disturb us. So dreams will have two types of content:

Manifest content - what we actually see in our dreams - disguises the latent content through symbolism (e.g. falling in a dream).

Latent content - which is the true meaning of our dreams (e.g. being afraid of falling at something).



KEY CONCEPTS

FUNCTIONS OF SLEEP

A) Physical repair to return the body to a normal, healthy state - healthy brain that functions normally

B) Emotional stability (feeling normal and psychologically necessary);

C) Instinctive and necessary for survival (evolved behaviour) - keeps us safe at night

SLEEP CYCLE

Stage 1 - 10% Stage 2 - 50% Stage 3 - 10% Stage 4 - 10% Rapid Eye Movement (REM) - 20%

NEUROPSYCHOLOGY OF SLEEP

Endogenous pacemakers - internal biological clocks - manage circadian rhythms (e.g. Suprachiasmatic nucleus)

Exogenous Zeitgebers - features of the environment that manage circadian rhythms (e.g. light)

Hypothalamus - controls key bodily functions

Melatonin - hormone that induces sleep. Released by the pineal gland.



APPLICATIONS OF RESEARCH

IMPACT OF NEUROLOGICAL DAMAGE ON SLEEP

Understanding Insomnia

a) damage to the hypothalamus can occur after surgery, trauma or disease. The SCN is part of the hypothalamus - damage to this can lead to insomnia.

b) damage to the pineal gland (regulates melatonin production), can also lead to insomnia.

WAYS TO IMPROVE ON SLEEP PROBLEMS

1) Relaxation techniques

- Clearing the mind/writing down concerns (to reduce anxiety & worry) AND deep breathing & relieving tension in body through visualisation.

Balances the nervous system by calming the sympathetic nervous system & supporting the parasympathetic nervous system to do its job.

2) Sleep Hygiene

- make changes to health (diet/exercise/ coffee etc.) and physical environment to promote sleep

- reduce light/ electronic equipment (light-block melatonin production)

- regulate temperature

- comfortable bedding

- bedroom decluttered & clocks faces turned away



NURTURE

FREUD'S (1918) DREAM ANALYSIS OF 'THE WOLFMAN'

AIM

To see if dream analysis could help treat psychological problems by releasing repressed memories.

SAMPLE

One Russian male in his 20s, suffering from depression

RESEARCH METHOD/ DESIGN

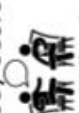
represented fear of his father who he was scared would castrate him.

PROCEDURE

- The man, known as "The Wolfman", was interviewed over 4 yrs.

- He was thought to suffer from depression after his father & sister had both committed suicide.

- He reported a dream where he woke up and saw 6 or 7 white wolves sitting in a walnut tree outside his bedroom window staring at him.



FINDINGS & CONCLUSION

1) The wolves represented fear because he had seen a 'primal scene' of his parents having sex. Freud also said the wolves represented fear of his father who he was scared would castrate him.

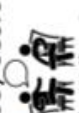
2) Also thought as the dream was around Christmas, the wolves could represent pleasure, like Christmas presents.

Dreams can represent repressed thoughts which hide in the unconscious.

LIMITATIONS OF STUDY

• Sample too small & culturally biased (unrepresentative & can't be generalised).

• Study too subjective - based only on Freud's interpretations.



Research methods
crib sheet handed out
separately