

OCR Psychology A-level

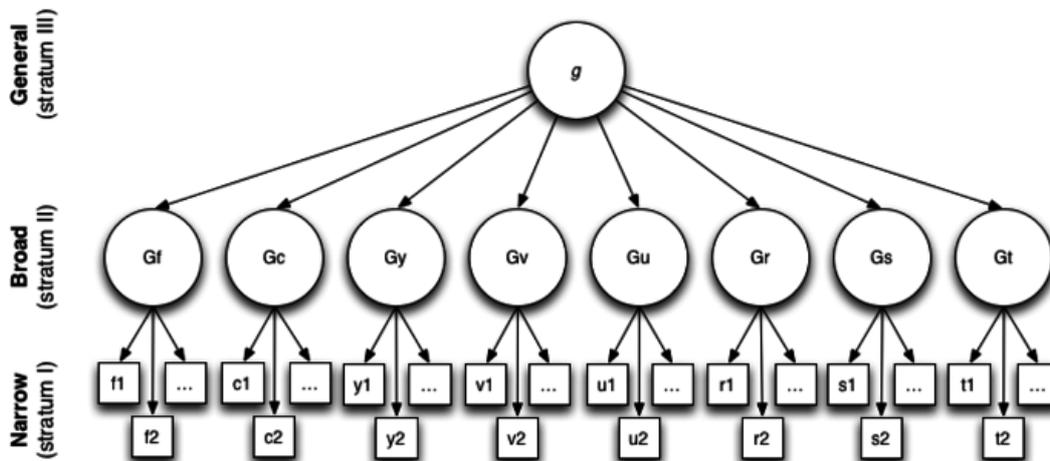
Child Psychology

Notes



Part A: Intelligence - A Biological Explanation

- Intelligence can be considered as the ability to acquire and use knowledge, where IQ is an objective and quantitative measure of intelligence. Individuals can therefore be compared against each other in terms of IQ to establish their intelligence in statistical terms, where IQ scores form a normally-distributed bell curve. The average IQ is 100, where an IQ above 140 is considered a genius and below 70 is considered mentally retarded.
- There are different types of intelligences. This is crucial in explaining why an individual may excel at Mathematics and quickly complete difficult problems, but fails to write even a basic poem.
- This idea is encompassed by Gardner's Multiple Intelligences Theory, which suggests that there are 8 broad 'intelligences', ranging from verbal-linguistic and visual-spatial to logical-mathematical and interpersonal.



- On the other hand, the Cattell-Horn-Carroll theory of intelligence takes a more broad and general approach. This theory sees all intelligence as being summarised by the G-factor, from which stem several other intelligences, producing three strata in total (General, Broad and Narrow). The CHC represents a combination of two previous theories - ¹the theory of fluid and crystallised intelligence.
- Sternberg's Triarchic Theory takes an even simpler approach and views intelligence as the product of 3 subsets - componential, experiential and contextual (also referred to as creative, analytical, and practical). The theory also includes metacomponents, performance components and knowledge-acquisition components to explain variations in intelligence between individuals, whilst the idea of ²'efficacious automatization' acknowledges the role of previous experiences in the development of intelligence and learning.
- The most popular method of IQ testing is the Stanford-Binet IQ Test, first published in 1916. This method is favoured due to the highly objective and reliable measurement of intelligence, with set norms for each age group (allowing comparisons to be made between individuals) and ³detailed instructions given to avoid researcher bias and investigator effects. Regular updates/revisions to the original test ensure that these concerns are (and have been) addressed, alongside reflecting changes in average IQs. However, the significant increase in average IQ of Americans between 1932 and 1978 has led some to speculate the reliability and temporal validity of the Stanford-Binet IQ test, as well as attempts to accommodate for children who score above 180 and below 50.

¹ Marris, H. Cattell-Horn-Carroll Theory of Intelligence, *Encyclopedia of Child Behaviour and Development* (2011), DOI: 10.1007/978-0-387-79061-9_472

² Sternberg, R.J, Toward a Triarchic Theory of Human Intelligence, *Journal of Behavioral and Brain Sciences* (1984), 7(2), pp. 269-287

³ Terman, L. M., & Merrill, M. A. (1937). *Measuring intelligence: A guide to the administration of the new revised Stanford-Binet tests of intelligence*. Oxford, England: Houghton Mifflin.



- The Weschler Scale is an alternative intelligence measurement instrument. Research has demonstrated high ⁴test-retest reliability of between 0.70 and 0.90 after a minimum of 2 weeks after the original testing. The Weschler scale can also be said to have high concurrent validity because the scores of those who'd completed this scale and the Stanford-Binet IQ test displayed a correlation coefficient of 0.88, indicating a strong positive correlation.
- However, as pointed out previously, there is not only one type of intelligence. For example, Mayer and Geher proposed the idea of emotional intelligence i.e. the ability of individuals to connect with others and display both empathy and sympathy, where the researchers concluded that ⁵“emotional problem solving requires emotional openness as well as general intelligence”. This means that emotional intelligence is not isolated from or more important than general intelligence!
- Guilford (1950) emphasised the importance of creativity and suggested that it has not been accounted for in general intelligence theories. Indeed, it may be useful in terms of interpreting the information given to the individual - and variations in such interpretations may portray differences in intelligence. Guilford ⁶suggested that the ‘factorial conception of personality’ is required for a new approach to thinking about creativity and creative intelligence.
- ⁷Research has suggested that intelligence may, in part, have a biological origin. This is mainly based from evidence provided by family and twin studies. For example, Soelen et al (2012) demonstrated that heritability for full scale intelligence increased by 31% between childhood and early adolescence, 28% for verbal IQ and 8% for performance IQ. The idea that these different types of IQ demonstrated different rates of progression but had a high heritability coefficient in childhood, suggests that an interactionist approach may be more useful when considering the genetic basis of intelligence.

Part B: Pre-Adult Brain Development - A Biological Explanation

- ⁸Galvan et al (2006) have suggested that premature development of the accumbens compared to the orbitofrontal cortex may form part of the neurological basis for risk-taking behaviours in adolescents. This is thought to be due to the role of the nucleus accumbens in the brain's reward circuitry, and specifically in the production of dopamine and serotonin (two neurotransmitters associated with regulating mood).
- Other researchers have suggested that since adults have an increased capacity for self-control (and perhaps self-regulation of emotions and behaviours) compared to adolescents, with this having a neural basis, then this may explain the decline in risk-taking behaviours with age, as suggested by ⁹Steinberg (2008). He placed particular emphasis on the importance of differing neuronal circuits within the prefrontal cortex and the consequences this has on connectivity to other parts of the brain.

⁴ Weschler, D. Weschler Adult Intelligence Scale - Fourth Edition, *Statistics Solutions* (2008), Accessed on 28.08.17, Accessed through <https://pdfs.semanticscholar.org/2858/f906a462c4424192f80361f689bdec24c16d.pdf>

⁵ Mayer, J.D. and Geher, G. Emotional intelligence and the identification of emotion, *Intelligence* (1996), 22(2), pp. 89-113.

⁶ Guilford, J.P. Creativity, *American Psychologist* (1950), 5(9): 444-454

⁷ van Soelen, I.L.C, Brouwer, R.M., van Leeuwen, M., Kahn, R.S., Hulshoff Pol, H.E. and Boomsma, D.I. Heritability of Verbal and Performance Intelligence in a Pediatric Longitudinal Sample, *The Journal of Twin Research and Human Genetics* (2011), 14(2), pp. 119-128

⁸ Galvan, A., Hare, T.A., Parra, C.E., Penn, J., Voss, H., Glover, G., and Casey, B.J. Earlier Development of the Accumbens Relative to Orbitofrontal Cortex Might Underlie Risk-Taking Behaviour in Adolescents, *Journal of Neuroscience* (2006), 26(25), pp. 6885-6892.

⁹ Steinberg, L. A social neuroscience perspective on adolescent risk-taking, *Developmental Review* (2008), 28(1), pp.78-106.



- This idea of maturational changes was also supported by ¹⁰Barkley-Levenson and Galvan (2013), who concluded that “adolescents place greater value on rewards than do adults through exaggerated activation of the ventral striatum and this valuation increases gambling behaviour”. —However, this study in particular lacked mundane realism due to the use of an artificial monetary gambling task, which does not reflect real-life scenarios in which adolescents would be tempted to take risky behaviours e.g. at a party with their friends. This consequently reduces the validity of the findings and the utility of the research.
- + The use of brain scanning techniques to measure neuronal activity is objective and reliable. The collection of quantitative data means that it can undergo statistical testing and comparisons with control groups to assess whether the observed differences in neural activity are significant (between adolescents and adults).
- However, it is important to note that differences in neural circuits and biological make-up may simply leave some individuals more susceptible to the influence of certain socio-emotional influences which increase the likelihood of impulsive and risky behaviour, as suggested by ¹¹Smith et al (2013). Thus, an interactionist approach/diathesis-stress model should be applied here, instead of a strictly (biological) deterministic view.

Part C: Perceptual Development - A Cognitive Explanation

Piaget's Stages of Intellectual Development

- Piaget suggested that there are 4 main cognitive abilities, which all children acquire as they progress through the stages of intellectual development. These are object permanence, class inclusion, egocentrism and conservation. Although the order of these stages are fixed, the age at which they occur are not i.e. some children may develop at a slower rate than others.
- During the sensorimotor stage (0-2 years), the child focuses on physical sensations and develops a basic use of language. They discover that they can move things using trial and error.
- Object permanence develops at around 8 months (thus, during the sensorimotor stage). This is the cognitive ability to appreciate that an object continues to exist even when the individual cannot see it anymore. Piaget assumed this because before 8 months old, a child would no longer search for an object which had passed out of their visual field (e.g. covered by a scarf) but, after 8 months, they continued searching.
- During the pre-operational stage (2-7 years), children begin to develop the cognitive abilities of class inclusion, egocentrism and conservation. Language becomes more sophisticated, but children still display classic faults in their reasoning.
- Egocentrism is the tendency of pre-operational children to view the world from their own perspective. This is true for both physical terms (as shown by Piaget and Inhelder's 3 Mountains Task) and in social situations (only appreciating their own side of the argument).
- Egocentrism was measured using the Three Mountains Task (Piaget and Inhelder, 1956). Pre-operational children were exposed to 3 mountains, topped with different objects - snow, a cross or a house. A doll was faced opposite to the child, who had to match images of the mountains to what they thought the doll could see. The majority of children recounted their own viewpoint, hence displaying egocentrism i.e. an inability to see the world from another's viewpoint.
- Class inclusion is the cognitive ability to appreciate that a group of objects can form a class, and this same group can be a subset of an even larger group. This was measured by Piaget and Inhelder (1964), who showed 7-8 year olds pictures of 5 dogs and 2 cats, and asked whether there were more dogs or animals, the vast majority of pre-operational children replied that there were more dogs. This reflects the idea that such children cannot understand that a single object or animal can belong to multiple classes.
- Conservation is the cognitive ability to appreciate that the quantity of an object remains the same, even when its appearance changes. For example, in the liquid conservation task, after showing pre-operational children two identical beakers with the same volume of liquid and then pouring liquid into a thinner, taller beaker, most of the children reported that there was more liquid in the taller beaker.

¹⁰ Barkley-Levenson, E. and Galván, A. Neural representation of expected value in the adolescent brain, *Proceedings of the National Academy of Sciences of the United States of America* (2014), 111(4).

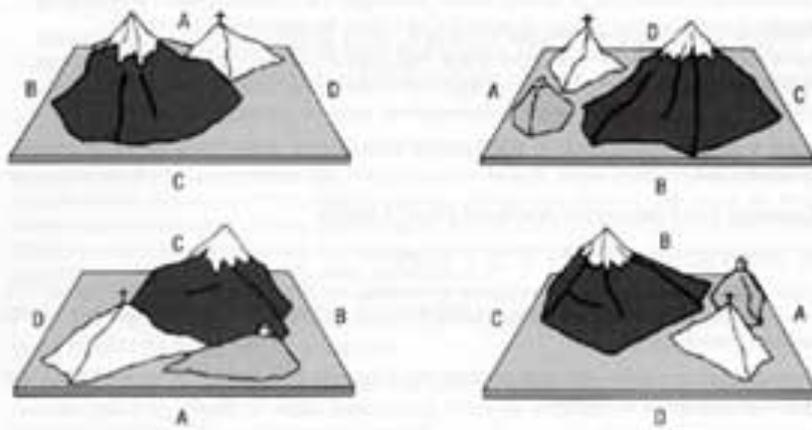
¹¹ Smith, A.R., Chein, J., and Steinberg, L. Impact of socio-emotional context, brain development, and pubertal maturation on adolescent risk-taking. *Hormones and Behaviour* (2013), 64(2), pp. 323-332.



- This also demonstrates how pre-operational children do not understand the concept of 'reversibility' i.e. the idea that an operant can be reversed, and the state of an object can be returned to normal.
- The impairments in egocentrism, class inclusion and conservation show that, according to Piaget, pre-operational children are unable to learn 'concrete' subjects such as science because these subjects require abstract reasoning.
- During the concrete operations stage (7-11 years), children develop their skills of egocentrism, class inclusion and conservation. However, they can only reason about objects physically present in their environment, hence 'concrete' reasoning.
- During the final stage of formal operations (11 + years), children become capable of scientific thinking because they reason about abstract ideas. This was tested by Smith et al. through the use of neologisms.

— Flawed Experimental Methods =

Some of Piaget's experimental methods were flawed. For example, some may have caused confusion: McGarrigle and Donaldson showed that 60% of 6 year olds could conserve, compared to only 16% found by Piaget. This was due to different instructions: Piaget's research involved spreading out the coins. This action made the child believe it was deliberate and so the quantity must have changed. Piaget also didn't conduct any statistical analysis, meaning that his data was unreliable because it's unclear whether the results were significant or not. He did not adhere to standardisation and control procedures during clinical interviews, so differences between children were more likely to be due to this, rather than age. He was therefore wrong to assume that task failure equates to a lack of ability.



— **Conflicting Empirical Evidence** = For example, Martin Hughes (1975) demonstrated that in a task of egocentrism, children aged 3 and a half years old could position a doll where a single police man could not see him 90% of the time, and 4 year olds could make the doll hide from two police men in 90% of cases. This suggests that pre-conventional children are able to conserve, but only when this has been tested in specific ways and when the child fully understands the task. This, therefore, also gives further evidence to the idea that Piaget and Inhelder's original experimental method may have been confusing to 2 or 3 year old children, which may have biased the findings.

— Piaget focused on a domain-general approach to understanding intellectual development =

Piaget viewed that intellectual and cognitive abilities all developed together at the same time and at the same rate, with no one ability being more important than the other. This was in contrast with Vygotsky, who adopted a domain-specific approach, where certain cognitive abilities such as language were upheld as being more important than others, especially considering that Vygotsky viewed learning as a social process, where advanced language skills would have been particularly important for maximising interactions with experts. Therefore, this contrast suggests that a more moderate interactionist approach would better be adopted i.e. a 'middle-ground'.

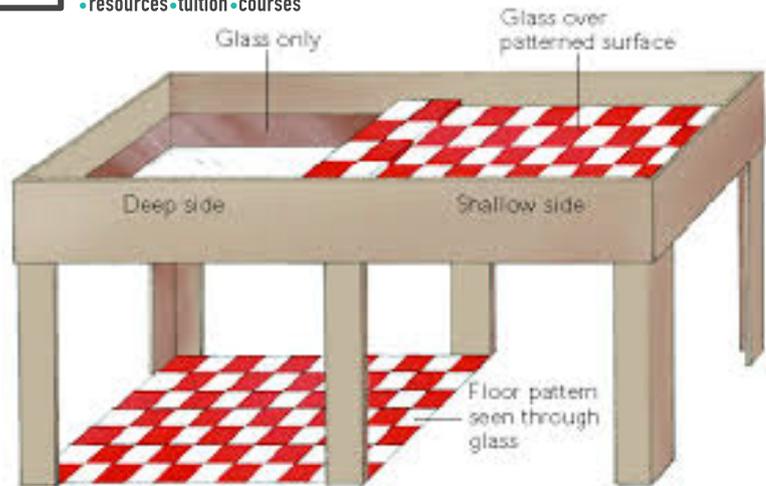
- Gibson and Walk (1960) demonstrated how perceptual development can be measured in young infants, using the apparatus displayed below, featuring a 'deep' and 'shallow' side.¹² The researchers found that visual attention was equally shared amongst the deep and shallow sides in 5 month-olds, but 9 month-olds focused more on the deep side. The majority of babies

¹² Schwartz, A.N., Campos, J.J., and Baisel Jr. E.J. The visual cliff: Cardiac and behavioural responses on the deep and shallow sides at five and nine months of age. *Journal of Experimental Child Psychology* (1973), 15(1), pp.86-99



showed some kind of perception of depth and caution around the edge. This suggests that depth perception may be innate and is then refined through experience, with a perceptual 'shift' occurring at least between the ages of 5 and 9 months.

— **However**, research featuring such young participants is problematic in that we have to make assumptions about what the infant understands. Such young children lack basic motor coordination skills and so any apparent depth perception may simply be meaningless movements. Bremner drew the distinction between behavioural response and behavioural understanding: just because an infant appears to appreciate depth does not mean that they understand the concept of depth!



— **A second weakness** is that the research is likely to lack mundane realism due to the artificial task and scenario. The infant did not fall if they crossed onto the deep side and past the 'perceptual edge', which would not be the case in real life. Therefore, the infant may have learned that passing onto the other edge is safe, regardless of age, and thus have an incomplete understanding of depth and reducing the validity of the findings.

— **There are also ethical issues** because the BPS guideline of protection from psychological harm may have been breached. Several children were distressed when they were not able to be with their mothers for prolonged periods of time. Not only is this an ethical issue but such distress may also act as a confounding variable - distressed children were unlikely to be focusing on depth and so any data collected in this time may be irrelevant.

- In line with Piaget's theory of cognitive development, perception can be improved through the use of conservation tasks within the classroom. For example, infants can learn about the physical properties of sand and water through playing in a sand pit with water, and seeing for themselves how the two interact. This approach was pivotal in transforming the classroom from an area focused on rote learning to that of discovery learning.
- Motor skills can also be developed through visual-motor integration training programs, as suggested by ¹³Poon et al (2010). These researchers found that such a technique resulted in significant improvements in visual perception skills and handwriting abilities in a group of Chinese children with handwriting difficulties. However, such an approach is limited because there were no improvements in legibility, meaning that ultimately, some children's handwriting would remain illegible.

Part D: Cognitive Development and Education - A Cognitive Explanation

Piaget's Theory of Cognitive Development

- Piaget suggested that there are two types of learning: accommodation and assimilation.
- Accommodation occurs when we are exposed to new information which radically changes our existing knowledge, and so to deal with this information, we accommodate it by forming a new schema.
- An example of accommodation would be when a child goes to a zoo and mistakes a tiger for a cat. This is because they have not yet been exposed to tigers and so use the most similar schema (i.e. a cat) in an effort to understand the new scenario. As the child observes the tiger, and notices the differences between a tiger and a cat, it will form a new sophisticated 'tiger' schema, with distinctions made between different types of cats.

¹³ Poon, K.W., Li-Tsang, C.W.P., Weiss, T.P.L., and Rosenblum, S. The effect of a computerised visual perception and visual-motor integration training program on improving Chinese handwriting of children with handwriting difficulties. (2010), 31(6), pp. 1552-1560



- Assimilation occurs when we are exposed to new information which does not radically change our existing knowledge, and so we assimilate (incorporate) it into an existing schema.
- An example of assimilation would be a child seeing a tabby cat, when it has only seen black, white and ginger cats previously. The new appearance of a cat does not radically change the child's existing knowledge of what a cat is, how it behaves etc. Therefore, the new understanding of the physical difference between a tabby cat and other types is assimilated into the child's existing 'cat' schema.
- Therefore, the main differences between accommodation and assimilation would be the creation of new schemas (as opposed to not) and the situations in which these two types of learning occur (as seen with the examples above).
- The motivation to learn originates from the unpleasant emotions associated with disequilibrium. Piaget suggested that when we encounter an unfamiliar situation and assimilation is not enough to understand it, we are in a state of disequilibrium. This means that we explore our environment to improve our understanding of the scene and develop our schemas, in a process called equilibration.
- Once we can fully understand the new scenario, we have achieved equilibrium. This is the desired mental state and occurs when our new (accommodation) or existing (assimilation) schemas are complete.
- Piaget proposed that the main cognitive structure which changes during cognitive development is the schema.
- A schema is a mental framework of knowledge and beliefs about a specific place, object, person or time. Schemas influence our cognitive processing, by providing 'short-cuts' (allowing us to process large volumes of data quickly and efficiently, hence avoiding sensory overload), but can also lead to perceptual errors through distorting sensory stimuli.
- Some schemas are innate e.g. all babies are born with the schema for sucking and gripping (innate reflexes).
- Schemas become more sophisticated with time, allowing us to understand more aspects of and increasingly complex situations.

— **Unrepresentative Sample** = Piaget's sample of children were from the nursery attached to the university, and so the children belonged to predominantly white, middle-class, well-educated families. This, together with the idea that not all children feel the same need to completely understand new situations and achieve equilibrium, suggests that his findings lack ecological validity. This is because children who come from poorer backgrounds and so may have had fewer educational opportunities, may display more or less intellectual curiosity than middle-class or upper-class children. Therefore, Piaget's theory cannot explain cognitive development in all children.

— **Comparison with Vygotsky's Theory of Cognitive Development** = Vygotsky proposed that learning was a social process, where children acquire new knowledge and more advanced reasoning abilities (to deal with this knowledge) from frequent interactions with experienced peers called 'experts'. On the other hand, Piaget placed far less importance on the social elements of learning, seeing peers and teachers only as facilitators of discovery learning. Vygotsky also emphasised the importance of language far more than Piaget, seeing it as an external expression of thought, as opposed to just another cognitive ability.

+ **Research supporting the importance and mechanism of discovery learning** = Howe et al (1992) tested 9-12 year old children (placed in groups of 4) who all watched the motion of the same object sliding down a slope. The children were then allowed to discuss what they had seen. Crucially, despite all seeing the same motion, each child reported different details and had a different understanding of the motion. This confirms Piaget's prediction that individual mental representations are formed through discovery learning, where individual differences in each child's existing schemas affects their understanding of the situation and the accommodation of new information through the creation of new schemas. Therefore, Piaget's theory of cognitive development has evidence supporting the role of schemas, accommodation and assimilation.

+ **Prompted changes in methods and attitudes in education/the classroom** = Through emphasising that learning is an active process where children explore their environment, the classroom was changed e.g. a sandpit is used to develop conservation skills in young children. Through Piaget's readiness approach (i.e. that according to the 4 stages of intellectual



development, children would be ready to learn certain skills at certain times), it meant that learning about 'concrete' subjects (e.g. science) would be best supported by project-based work between the ages of 7 and 11 years. This changed the role of the teacher from one supporting rote learning to that of a facilitator for discovery learning.

- Wood et al (2006) demonstrated that 7 year-old children who received peer tuition from a 10 year-old expert, in accompaniment with their usual teaching, progressed at a higher rate in terms of reading abilities compared to a control group who had no peer tuition but simply their standard teaching. The original study used the task of building a tower out of blocks instead (1976). Here, the researchers used 30 children (10 aged 3, 10 aged 4, and 10 aged 5) who had 20 minutes to form a pyramid-like construction from 21 blocks. The ¹⁴researchers also showed that 'trial and error' tactics were used less by the older children (5 years old), suggesting that expert help is needed to cross the Zone of Proximal Development, as described by Vygotsky.
- + **The researchers demonstrated 94% agreement** by independent observers who made their judgements on the basis of the recorded tape, thus displaying very high inter-rater reliability.
- + **The researchers video taped the trials of the children.** This allowed for sampling to be carried out objectively, with operationalised behavioural categories. A high level of detail would have been captured through the use of such a technique, which increases the objectivity and validity of the conclusions drawn.
- + **The idea that older children required less help,** whilst younger children required more help (i.e. the 4 year-olds were able to successfully complete the task, on average, 23% fewer times than the 5 year-olds) supports Vygotsky's theory of the zone of proximal development. Experts use fewer and less intrusive techniques through scaffolding, to help the learner cross the zone of proximal development. The use of such techniques (e.g. reduction of degrees of freedom, recruitment and maintenance) supports the validity of the theory on which peer tutoring is based!
- + **An increased understanding of the role of peer tutoring has had a practical application in improving education and revision strategies.** For example, ¹⁵Kamps et al (1994) concluded that both neurotypical and autistic children benefited from peer tutoring in the form of improved reading fluency and higher scores in a reading exam. Such benefits demonstrate the universality of Vygotsky's theories and the advantages of peer tutoring as a cognitive ability to improve exam performance and learning.

Part E: Development of Attachment - A Social Explanation

Bowlby's Monotropic Theory of Attachment

This is the evolutionary theory of attachment. It states that attachments are innate, i.e you are born with it. The acronym, ASCMI (like 'ask me'), summarises the theory.

A = Adaptive – attachments are an advantage, or beneficial to survival as it ensures a child is kept safe, warm and fed

S = Social releasers – e.g. a cute face on a baby. These unlock the innate tendency for adults to care for a child because they activate the mammalian attachment system.

C = Critical period – This is the time in which an attachment can form i.e. up to 2.5 to 3 years old. Bowlby suggested that if an attachment is not formed in this time, it never will. If an attachment

¹⁴ Wood, D., Bruner, J.S., and Ross, G., The Role of Tutoring in Problem Solving, *The Journal of Child Psychology* (1976), 17(1), pp.89-100.

¹⁵ Kamps, D.M., Barbetta, P.M., Leonard, B.R. and Delquadri, J. Classwide Peer Tutoring: An integration strategy to improve reading skills and promote peer interactions among students with autism and general education peers. *The Journal of Applied Behaviour Analysis* (1994), 27(1), pp. 49-61



does not form, you will be socially, emotionally, intellectually and physically stunted. Bowlby demonstrated this in his 44 juvenile thieves study, where maternal deprivation was associated with affectionless psychopathy and mental retardation.

M = Monotropy – means ‘one carer’. Bowlby suggested that you can only form one special intense attachment (this is typically but not always with the mother). This attachment is unique, stronger and different to others. Maternal deprivation, which is characterised by a lack of a mother figure during the critical period for attachment formation, results in emotional and intellectual developmental deficits i.e. affection less psychopathy and mental retardation.

I = Internal working model – This is an area in the brain, a mental schema for relationships where information that allows you to know how to behave around people is stored. Internal working models are our perception of the attachment we have with our primary attachment figure. Therefore, this explains similarities in attachment patterns across families. Those who have a dysfunctional internal working model will seek out dysfunctional relationships and behave dysfunctionally within them.

+ There is supporting evidence for the importance of internal working models, as presented by Bailey et al. Through the observation of 99 mothers and the recording of their children’s attachment type using the Strange Situation, the researchers found that poor, insecure attachments coincided with the mothers themselves reporting poor attachments with their own parents. Therefore, this suggests that internal working models are likely to be formed during this first, initial attachment and that this has a significant impact upon the ability of children to become parents themselves later on in life.

– Monotropy is an example of socially sensitive research. Despite Bowlby not specifying that the primary attachment figure must be the mother, it often is (in 65% of cases). Therefore, this puts pressure on working mothers to delay their return to work in an effort to ensure that their child develops a secure attachment. Any developmental abnormalities in terms of attachment are therefore blamed on the mother by default. This suggests that the idea of monotropy may stigmatise ‘poor mothers’ and pressure them to take responsibility.

– Monotropy may not be evident in all children. For example, Schaffer and Emerson found that a small minority of children were able to form multiple attachments from the outset. This idea is also supported by van Ijzendoorn and Kronenberg, who found that monotropy is scarce in collectivist cultures where the whole family is involved in raising and looking after the child. This means that monotropy is unlikely to be a universal feature of infant-caregiver attachments, as believed by Bowlby, and so is a strictly limited explanation of some cases of attachments.

Ainsworth’s ‘Strange Situation’

Mary Ainsworth designed a study called ‘the strange situation’ as a procedure to assess how securely attached a child was to its caregiver, and if it is insecurely attached, to assess which type of insecure attachment it has. This was a controlled observation conducted through a two-way mirror.

There were seven stages which each lasted 3 minutes.

1. The caregiver enters a room, places the child on the floor and sits on a chair. The caregiver does not interact with the child unless the infant seeks attention.
2. A stranger enters the room, talks to the caregiver and then approaches the child with a toy.
3. The caregiver exits the room. If the infant plays the stranger observes without interruption. If the child is passive, the stranger attempts to interest them in the toy. If they show distress the stranger attempts to comfort them.



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4. The caregiver returns while the stranger then leaves.
5. Once the infant begins to play again, the caregiver may leave the room, leaving the child alone briefly.
6. The stranger enters the room again and repeats behaviour mentioned in step 3 (observing, engaging, comforting as needed)
7. The stranger leaves and the caregiver returns.
The “strange situation” places the child in a mildly stressful situation in order to observe 4 different types of behaviour which are separation anxiety, stranger anxiety, willingness to explore and reunion behaviour with the caregiver.

Using this procedure, Ainsworth was able to identify 3 types of attachments:

- Secure = this was the most popular attachment type (with both types of insecure attachments being equally as common). This was found when the infant showed some separation anxiety when the parent/caregiver leaves the room but can be easily soothed when the parent/caregiver returns. A securely attached infant is also able to play independently but used their parent/caregiver as a safe base to explore a new environment. This usually accounts for 65% of children.
- Insecure resistant = this is when the infant becomes very distressed and tries to follow them when the parent/caregiver leaves, but when they return, the infant repeatedly switches from seeking and rejecting social interaction and intimacy with them. They are also less inclined to explore new environments. This usually accounts for 3% of children, and so is the least common attachment type.
- Insecure avoidant = this is when the infant shows no separation anxiety when their carer leaves the room and shows no stranger anxiety when a stranger enters the room. They may show anger and frustration towards their carer and actively avoid social interaction and intimacy with them. They are able to explore and play independently easily, no matter who is present. This accounts for around 20% of children.



Evaluation

P = It only measured the relationship type with one attachment figure

E = They only used mothers and their child in the study

E = This can mean that the wrong attachment type for a child can be identified, as although they may not be so strongly attached to the mother, they may be securely attached with their father or an extended family member. The study wrongly assumes that the child will be closer to the mother than any other adult figure. Therefore, the study lacks internal validity, as it does not always correctly measure a child's attachment type with their primary caregiver.



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P = There are ethical issues involved.

E = 20% of children cried desperately at one point.

E = This highlights how it is ethically inappropriate, as a large proportion of the participants could have experienced psychological harm. This is unethical as it could cause long term emotional damage to the child, for the sake of a simple study.

L = Despite ethical issues not detracting from the quality of the research (i.e. in terms of validity and reliability), it is important to conduct a cost-benefit analysis to assess whether the ethical costs are smaller than the benefits of an improved knowledge within this subject field.

P = The study lacks population validity.

E = It was primarily based on Western culture almost all of the studies were carried out in America.

E = It therefore suffers from cultural bias, so we are less able to generalise the findings and criteria to other cultures. This is particularly the case due to the individualist-collectivist divide between Western and Eastern countries, alongside cultural differences in upbringing and the experiences which the child is exposed to.

L = This suggests that the findings are culture bound and also lack ecological validity, because the results can only be generalised to the research settings within which they were found.

P = The study also lacks ecological validity.

E = It was conducted in a lab setting, so all the variables were highly controlled.

E = Despite the strict control over confounding and extraneous variables increasing the confidence that can be placed in drawing a 'cause and effect' relationship between the two outcomes. This is not representative of real life so it lacks mundane realism and cannot be generalised to reality.

E = However, the high control of variables means it is easily replicable so the findings are highly reliable. This increases confidence in the idea that the findings were not simply a 'one-off' but were statistically significant.

[Bowlby's Theory of Maternal Deprivation](#)

This is the theory that an attachment is essential for healthy psychological and emotional development. It states that there will be many negative consequences of maternal deprivation (being deprived/separated from a mother-like figure), such as:

- An inability to form attachments in the future (see the Internal Working Model)
- Affectionless psychopathy (being unable to feel remorse)
- Delinquency (behavioural problems in the child's teenage years)
- Problems with cognitive (brain) development

Attachments are commonly disrupted in situations when a child is put in day care, has prolonged stays in hospital care or were put in institutional care to be separated from abusive/neglectful or unintentionally absent parents. This can have temporary effects on the child, or permanent but fairly mild harm. Privation is when a child fails to form any attachments at all. This has been said to be more harmful to a child. One of the most common causes of privation has been institutional care.



In order to assess the effects of maternal deprivation, Bowlby conducted his 44 juvenile thieves study. He found that out of 44 thieves, 14 displayed signs of affectionless psychopathy and 12 of these had suffered from maternal deprivation during the critical period of attachment formation i.e. the first 30 months of life. This was compared to only 5 affectionless psychopaths in the remaining 30 thieves. Therefore, on this basis, Bowlby believed that early maternal deprivation caused affectionless psychopathy and consequently, criminality!

— Lewis et al disagreed with Bowlby's conclusion that affectionless psychopathy and maternal deprivation caused criminality. Through collecting qualitative data from interviews conducted with 500 juveniles, the researchers found no link between maternal deprivation and a difficulty in forming relationships in later life. This suggests that Bowlby may have made incorrect causal conclusions.

— Bowlby's 44 juvenile thieves study suffers from several methodological limitations. One of these includes researcher bias - Bowlby was aware of what he wanted to find and so may have phrased the interview questions in a way which influenced the respondents to reply in a certain way i.e. leading questions. Secondly, Bowlby also based his theory of maternal deprivation from interviews collected from war-orphans. This does not control for the confounding variable of poor quality care in orphanages or post-traumatic stress disorder, which may have had a larger influence on the children's development rather than simply maternal deprivation.

— The effects of the critical period may not be as concrete as Bowlby originally believed. For example, the case of two twins locked away in cupboards in Czechoslovakia for the first 7 years of their lives was reported by Koluchova. Despite the obvious trauma and maternal deprivation which occurred for an extended period of time, even exceeding the critical period, the researchers found that with appropriate fostering, the twins made a full psychological recovery. Therefore, the effects of maternal deprivation are not always so clear-cut.

PRACTICAL APPLICATION - An increased understanding of the importance of secure attachments in childhood and the consequent effects of maternal deprivation have led to new strategies being developed in an attempt to form attachment-friendly environments. For example, the 'Attachment Aware Schools' Programme run by Bath Spa University have endeavoured to educate schools and parents about the importance of attachments by collaborating with the UCET, NASBTT and Teach First.¹⁶ The programme focuses on emotion coaching which aims to increase children's self-awareness of their emotions and so reduce impulsive and disruptive behaviour in the classroom, where 87% of a sample of studied children reported increased awareness of their emotional/mental health and also improved attitudes towards mental health as a whole.

Part F: Impact of Advertising on Children - A Social Explanation

- According to Kahneman and Tversky (1979), there are two systems of thinking - system 1 (thinking fast, and is intuitive and requires no effort) and system 2 (thinking slow, and is deliberate and requires conscious effort/insight). Heuristics are closely linked with these two systems, and particularly the role of the anchoring heuristic i.e. the influence of irrelevant information. Similarly, the representativeness heuristic are linked with thinking slow systems (1), where individuals ignore the frequency of certain events which make them more or less likely to occur within a given scenario, often resulting in denial of the incorrect answer.
- Braun-LaTour et al (2004) conducted research into advertising and false memory. The researchers found that the majority of participants did not realise an incorrect character (Bugs Bunny) in a Disneyland advert, and simply assumed that this character must have been Mickey Mouse. Providing incorrect information about Bugs Bunny increased the likelihood of

¹⁶ Attachment Aware Schools, Published by Bath Spa University, Accessed on 29.08.17, Accessed through <http://www.bathspa.ac.uk/education/research/attachment-aware-schools/>



participants reporting this by 15%, showing that false adverts do affect memory. The form of false information was then tested as either words or pictures or both. The researchers found that false information given in verbal form had a smaller impact on memory than false information given in pictorial form, as shown by the findings that participants remembered more items when pictorial information was given i.e. 76% compared to 46% when only verbal cues were used.

- Fischer et al (1991) investigated the idea of brand recognition in children by testing their awareness of 22 brand logos, including 10 stereotypically 'children' brands e.g. Coca-Cola, Walt Disney and Nike. 229 children were individually tested by matching cards with the logos onto a board as part of a game. The researchers found that the recognition increased with age - younger children reported better recall of typically 'childlike brands (e.g. The Disney Channel - 91%), whilst 91% of 6-year olds recognised Old Joe the Camel i.e. 61% more than 3-year olds. The surprising finding that children as young as 6 were able to recognise cigarette brands emphasises the influence of TV advertising.
 - ¹⁷Johnson and Young (2010) investigated the scripting of TV ads towards children and any differences which may occur between these two genders. Through conducting a content analysis of the verb elements used within ads for both boy-orientated and girl-orientated toys, the researchers found that ads geared towards girls focused more on feelings and nurturing, whilst "power" words were only present in ads targeted towards boys.
- + **Such research** has important implications for gender stereotyping. The use of language and verbs specifically can influence boys to buy certain products, and girls to buy certain others. This means that gender inequality will be emphasised, where some children may feel embarrassed or even ashamed for favouring toys or products targeted towards the opposite gender.

— **The study may lack temporal validity** because the adverts studied only originated from a very narrow time period - 1996, 1997, and 1999. This suggests that the findings cannot be generalised to modern times, especially since marketing techniques are readily changing and adapting to changing social climates.

— **The findings may also lack ecological validity** because the researchers only studied one type of advert - those marketing toys. There are many other advert types, such as for food or clothes, which may use different strategies that were not identified by the researchers here. Therefore, this suggests that the findings cannot be generalised to "children's television advertising" as a whole.

+ **An increased understanding of such research may have practical applications** in terms of reducing the impact of advertising on children, as suggested by Büttner et al (2013). These researchers concluded that ¹⁸"consumer policies intending to prevent undesired advertising effects should support interventions that strengthen advertising and purchasing literacy and, in addition, implicit self-control mechanisms in children". This is based upon the dual-process and dual-step model of advertising.

¹⁷ Johnson, F., and Young, K. Gendered voices in children's television advertising. *The Journal of Critical Studies in Media Communication* (2002), 19(4), pp. 461-480

¹⁸ Büttner, O.B., Florack, A., and Serfas, B.G., A Dual-Step and Dual-Process Model of Advertising Effects: Implications for Reducing the Negative Impact of Advertising on Children's Consumption Behaviour. *Journal of Consumer Policy* (2014), 37(2), pp.161-182

