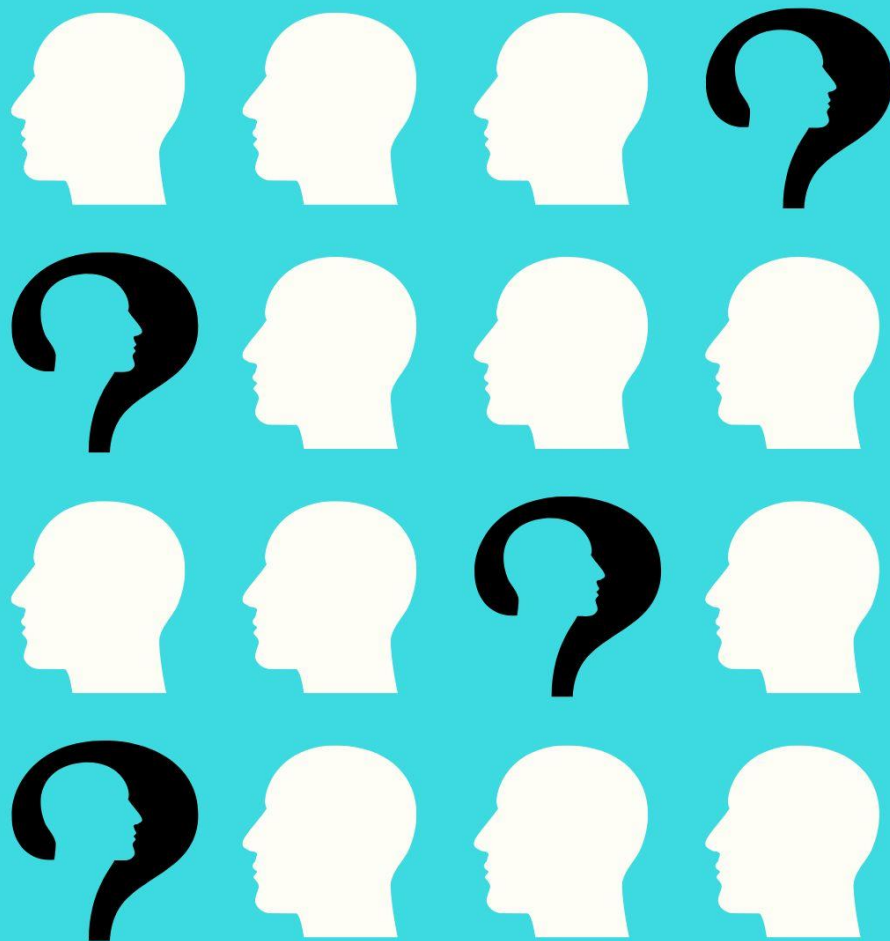


FACTBOOK

A01 and A03

ATTACHMENT





Attachment

Caregiver-infant interactions in humans

Reciprocity and Interactional synchrony

Attachment is a two-way emotional bond between a caregiver and an infant characterised by behaviour such as proximity-seeking.

Reciprocity is a form of interaction between an infant and caregiver where both are responding to each other's signals, and each elicits a response from the other.

The word reciprocal means two-way, or something that is mutual.

Reciprocity refers to the process in which a behaviour is matched during an interaction e.g. smiling back when someone smiles at us.

Feldman (2007) suggests that reciprocity can be seen in interactions from 3 months of age.

Meltzoff & Moore (1997) demonstrated that babies as young as 12-27 days attempt to imitate facial and physical gestures.

Interactional synchrony is when two people interact and tend to mirror what the other is doing in terms of their facial and body movements.

Interactional synchrony refers to how a parent's speech and infant's behaviour become finely synchronised so that they are in direct response to one another.

Feldman (2007) claimed interactional synchrony was symbolic exchanges between a parent and the child.

Brazelton et al (1975) identified trends in mother-baby interactional synchrony. They discovered 3 types of play which show signs of interactional synchrony.

Isabella & Belsky (1991) claim that caregiver-baby pairs who develop secure attachments, display more synchronous behaviour than babies with insecure attachments.

Heimann (1989) showed that infants who demonstrate a lot of imitation from birth onwards have been found to have a better quality of relationships at 3 months.

Feldman & Eidelmann (2007) found that mothers notice their babies alertness around two-thirds of the time.

Babies have 'alert phases' where they are ready for interaction - like making more direct eye contact with their caregiver.

Evaluation

Many experiments on caregiver-infant interactions use video recording in the lab which is more reliable.

Lab experiments have high internal validity, as variables can be manipulated and controlled with ease. This means that lab experiments increase the reliability of a study. Many lab experiments on caregiver-infant interaction have high inter-rater reliability, as they usually have more than one researcher.

If covert observation is used, there is less risk of demand characteristics. This means there will be higher levels of validity.

Interpreting babies behaviour can be very difficult and often subjective.

Feldman (2012) argues that we need to consider more than just interactions when making judgements about attachments.

Research into caregiver-infant interactions can be socially sensitive.

Practical applications like Parent-Child Interaction Therapy (PCIT) can improve interactional synchrony (**Crotwell, 2013**).

Stages of Attachment

Many developmental theories of attachment identify sequences or stages like those outlined by Schaffer.

There are four main stages of attachment;

Asocial (birth to 6 weeks) where babies give similar responses to objects & people. They show a preference for faces, especially eyes.

Indiscriminate (6 weeks – 6 months) when babies prefer human company. They also have the ability to distinguish between people but are comforted indiscriminately.

Specific (7 months +) when infants show a preference for one caregiver, displaying separation and stranger anxiety. The baby looks to particular people for security, comfort and protection.

Multiple (10/11 months +) attachment behaviours are displayed towards several different people e.g. siblings, grandparents etc.

Schaffer & Emerson (1964) studied 60 babies from Glasgow at monthly intervals for the first 18 months of life using a longitudinal method.

Schaffer & Emerson found attachments were most likely to form with carers who were sensitive to the baby's signals, rather than the person they spent the most time with. By 10 months old, most babies have several multiple attachments, including attachments to mothers, fathers, siblings and extended family.

Being sensitive and responsive, including playing and communicating with an infant, is more instrumental in attachment than physical care.

The primary attachment figure is usually who the baby has formed a strong specific attachment with.

Anxiety and distress is a key signal that a child has formed a significant attachment to their caregiver.

Separation anxiety is when infants show distress on separation from their caregiver.

Stranger anxiety is when infants show distress when in the presence of unfamiliar people.

Evaluation

Schaffer & Emerson (1964) has low population validity. The infants in the study all came from Glasgow and were mostly from working class families. **Schaffer & Emerson** also lacks temporal validity, as it was conducted in the 1960s when gender roles were different. However, this study does have high ecological validity as children were studied in their homes.

Field experiments and naturalistic observations like **Schaffer & Emerson** have high ecological validity.

In **Schaffer & Emerson** parents kept daily diaries, which makes the results more subjective. Diaries are very unreliable with a risk of demand characteristics and social desirability, as parents would have wanted to look like 'perfect' parents.

It is hard to test behaviour in the asocial stage of attachment as babies have poor co-ordination and are fairly immobile.

Schaffer & Emerson's study has reasonable generalisation as they used a sample size of 60 babies. However, the sample is culturally biased as it was only conducted in Glasgow, Scotland (ethnocentric).

There are many practical applications from knowing about the stages of attachment, it can help with daycare provisions or external childcare.

Multiple Attachment & the Role of the Father

By 10 months old, most babies have several multiple attachments, including attachments to mothers, fathers, siblings and extended family.

In **Schaffer & Emerson (1964)** by 18 months, 31% of infants had five or more attachments. They suggested the final stage of attachment was the multiple (10/11 months) attachment stage, as behaviours are displayed towards several different people e.g. siblings, grandparents etc.

The father's role and the impact he has on his child's emotional development. Such as culture, age, and the amount of time the father spends away from home.

Much of the research has focused on the role of the mother and neglected that of the father.

Distinctions are made between fathers as primary and secondary caregivers.

A father does not necessarily mean a child's biological parent, it could be their closest male caregiver.

Fathers have been shown to adopt a more play-mate role than mothers.

Most infants prefer contact with their father when in a positive emotional state and wanting to play.

Schaffer & Emerson (1964) found that 75% of infants formed a significant attachment with their father by 18 months old.

Grossman (2002) conducted a longitudinal study of 44 families comparing the role of fathers' & mothers' contribution to their children's attachment experiences at 6, 10 and 16 years. He found that the quality of the attachment between infants and their fathers was based on the time they spent together.

Spending quality time through play helps fathers build strong attachments with their children.

Field (1978) studied face-to-face interactions through video footage with infants at 4 months of age. **Field** found that fathers as primary caregivers acted in the same way as mothers as primary caregivers.

However, **Field (1978)** found that primary caregiver fathers engaged in significantly more smiling, than secondary caregiver fathers.

Evaluation

Brown et al (2012) investigated father involvement, paternal sensitivity, and father-child attachment security at 13 months and 3 years of age. They found positive involvement and engaged sensitivity influenced the father-child attachment security by age 3.

Manlove et al (2002) suggest fathers are less likely to be involved with their infant if the infant has a difficult temperament.

Schaffer & Emerson (1964) found that 31% of infants displayed 5 or more multiple attachments by 18 months, supporting the stages of attachment and the role of the father.

Frodi et al (1978) found that fathers physiological response to infants was the same as mothers.

Freeman et al (2010) found that male children are more likely to prefer their father as an attachment figure than female children.

Much of the research into the role of the father is biased towards stereotypical gender roles.

The role of the father can mean different things for different people; it is a very subjective concept.

Cultural background can have a significant effect on the role of the father.

Longitudinal research is high in external validity and can have wide reaching implications.

Many factors affect the practical applications of the research in this area. These applications can be developed to improve the quality of care of infants and to strengthen attachment bonds.

Animal Studies of Attachment

Konrad Lorenz

Lorenz (1952) supports the view that having a biological basis for an attachment is adaptive as it promotes survival.

Lorenz (1952) conducted an experiment in which goslings were hatched either with their mother or in an incubator.

Lorenz (1952) set up a classic experimental method to test his idea of imprinting using baby goslings. Lorenz divided a clutch of goose eggs; half were hatched naturally with their mother and half in an incubator with him. To ensure imprinting had occurred Lorenz put all the goslings together and allowed them to mix. He observed how each group separated to go to their respective 'mothers' - half to the goose, and half to Lorenz. Once goslings had hatched, they proceeded to follow the first moving object that they saw between 13 & 16 hours after hatching; in this case, Lorenz.

Lorenz demonstrates 'imprinting' using baby goslings. Geese that imprinted on Lorenz followed him throughout their early life and into adulthood.

Imprinting is the instinctive drive of an animal to form an attachment with the first moving thing it sees soon after birth.

It can be concluded that animals imprint a mental image of the first moving object they see after birth, and attachment is an instinctive process.

Lorenz suggests goslings imprint after a matter of minutes due to their increased mobility.

Lorenz's research suggests that organisms have a biological propensity to form attachments.

Imprinting has consequences, both for short-term survival, and in the longer term forming internal templates for later relationships

Hess (1958) showed that although the imprinting process could occur as early as one hour after hatching, the strongest responses occurred between 12 and 17 hours after hatching.

Evaluation

Research that supports the idea of imprinting in animals is in all the studies conducted by **Lorenz (1930s onwards)** on birds.

Lorenz's research with goslings influenced **John Bowlby** and **Mary Ainsworth** in their studies on human attachments.

Lorenz supports Bowlby's Monotropic Theory, as the attachment process of imprinting is an innate process which has a critical period.

Natural experiments like Lorenz (1952) have high ecological validity.

Criticisms of Lorenz's research include the limited opportunity for goslings to choose their imprinted parent and the potential reversibility of imprinting with further socialisation.

Guiton (1966) studied leghorn chicks and offers support for Lorenz's theory of imprinting.

Guiton showed that imprinting can be reversed through socialisation with their own species.

Regolin & Vallortigara (1995) support the idea of imprinting and suggest animals are born with an instinct to attach.

Hess (1958) further developed Lorenz's theory of imprinting by showing the timing and strength of the response in goslings.

There are limitations of using animal studies to understand human attachment include the differences in brain development, cognitive abilities, and social complexity between humans and non-human animals.

Animal studies of attachment may not be directly generalisable to humans due to differences in conscious decision-making and emotional bonding. Further research is needed.

As suggested, imprinting is the process by which some birds instinctively bond with the first moving object they see within hours of hatching. However, imprinting occurs within a critical period, and if an offspring is not exposed to a moving object during this time, they will fail to form an attachment.

Animal studies have been conducted to study attachment due to ethical issues in studying human attachment, but some people argue they raise ethical issues of their own.

Harry Harlow

Harlow (1958) observed the difference in behaviour between monkeys who had grown up with surrogate mothers and those with normal mothers. He found those with a normal mother were much more securely attached.

Harlow (1958) wanted to study the mechanisms by which newborn rhesus monkeys bond with their mothers. Harlow observed that newborn monkeys kept alone in a bare cage died but survived when given a cloth to cuddle.

Harlow (1958) conducted a lab experiment to test his ideas using infant rhesus monkeys.

Harlow took 16 monkeys, separated from their mothers immediately after birth and placed them in cages. He gave them access to two surrogate mothers; one made of wire, and one covered in soft cloth. In the lab 8 of the monkeys could get milk from the wire mother and 8 could get milk from the cloth mother. He found that when given a choice, infant monkeys would choose a soft, comforting surrogate mother over one which is just providing food.

Harlow's findings revealed that separated infant rhesus monkeys would show attachment behaviours towards a cloth-covered surrogate mother when frightened, rather than a food-dispensing surrogate mother.

Monkeys kept in isolation with the surrogate mothers all displayed dysfunctional adult behaviour. The monkeys in Harlow's study showed long-lasting effects of their early experiences, including abnormal social and mating behaviours.

Infant monkeys that were reared in a sociable, non-isolated environment went on to develop into healthy adult monkeys.

Evaluation

The use of animals in research can be questioned on ethical grounds. Harlow's experiment raises ethical issues of harm for the treatment of the rhesus monkeys. His method was very unethical, as newborn infant monkeys were taken immediately from their mother's for research.

Harlow's research caused severe, long-term distress to the rhesus monkeys, but many argue his study has important theoretical and practical applications. It has profound implications for childcare provisions.

Harlow's research has helped social workers to understand risk factors in child neglect and abuse such as a lack of comfort or affection.

Howe (1998) claims that Harlow's research has practical applications in how to prevent negative outcomes in childcare.

Harlow's research has implications for understanding the importance of contact comfort in attachment, both in animals and potentially in humans.

The fact that isolated monkeys displayed long-term dysfunctional behaviour illustrates that early attachment experiences predict long-term social development.

Despite being fed, isolated monkeys failed to develop functional social behaviour, which would suggest that animals have greater needs than just the provision of food.

It is questionable whether Harlow's findings and conclusions can be extrapolated and applied to complex human behaviours. Animal studies have problems with generalisation to humans.

However, Harlow's research took place in a lab setting with high control, so is believed to have high reliability.

Green (1994) states that, on a biological level, all mammals, including rhesus monkeys have the same brain structure as humans; suggesting that we can learn something from Harlow's research.

Animal studies of attachment may not be directly generalisable to humans due to differences in conscious decision-making and emotional bonding. Further research is needed.

Explanations of Attachment

Learning Theory

The learning theory emphasises the importance of the attachment figure as a provider of food.

The learning theory is sometimes called 'cupboard love' approach.

Dollard & Miller (1950) proposed that caregiver-infant attachment can be explained by the learning theory.

According to the learning theory, behaviour is learned through associations and patterns of reinforcement and punishment.

Classical conditioning, as suggested by **Pavlov** is learning through association and is based on stimulus response associations.

Classical conditioning suggests that attachment is formed through the association of food and the caregiver.

In classical conditioning a caregiver acts as a neutral stimulus but eventually becomes a conditioned stimulus. Classical conditioning suggests food acts as an unconditioned stimulus eventually creating a satisfaction of being fed (conditioned response).

In contrast, operant conditioning, as suggested by **Skinner**, involves learning from consequences, often through trial and error.

Operant conditioning is learning through positive and negative reinforcement. Reinforcement increases the likelihood of a behaviour occurring again.

Positive reinforcement is gaining something pleasant in order for a desirable behaviour to continue.

Negative reinforcement is removing something unpleasant in order for a desired behaviour to continue.

Attention that babies get from crying is acts as a form of reinforcement. If a baby cries they get more attention from their caregiver.

Operant conditioning suggests that attachment is formed through the reduction of drives and the reinforcement of the caregiver's behaviour.

If a behaviour is reinforced, it is strengthened and more likely to occur again.

Punishment decreased the likelihood of a behaviour occurring again.

The social learning theory (SLT), as suggested by **Bandura** is learning through observation, imitation and modelling. It also suggests vicarious reinforcement can increase learning.

Social learning theory emphasises the role of imitation and vicarious reinforcement in attachment formation.

Social learning theory suggests that attachments develop through modelling, direct instruction, and social facilitation.

The learning theory also draws on the drive reduction theory.

The drive reduction theory is based on the idea that the primary motivation behind all human behaviour is to reduce 'drives'.

Hunger is a primary drive (innate mechanism), so we eat to reduce the hunger drive.

Sears et al (1957) suggest that caregivers provide food, so the primary drive of hunger becomes generalised to them.

Sears et al (1957) argues that attachment is a secondary drive learned by association between the caregiver and the satisfaction of a primary drive, like hunger.

Evaluation

The learning theory is useful as it offers an alternative explanation for attachment, when compared to the biological/ evolutionary theories or any psychodynamic theories.

Feldman & Eidelman (2007) suggest babies take a very active role in the interactions to produce attachments. However, both classical and operant conditioning suggest babies take a passive role in forming attachments.

The learning theory is useful in helping parents understand how to read their babies' behaviour more easily.

Social learning theory may not fully explain the intensity of emotion in attachment.

Durkin (1995) does not believe the SLT can explain the intensity of emotion that the attachment produces.

Hay & Vespo (1988) support the SLT and suggest that parents teach children to love them by demonstrating (modelling) attachment behaviours. **Hay & Vespo** also suggest that as well as modelling parents use direct instruction and social facilitation to build attachments.

Evolutionary studies, which suggest attachment is innate, contradict the learning theory. Therefore, animal studies like **Lorenz** contradict the learning theory of attachment.

Learning theories ignore factors such as reciprocity, sensitive caregiving, and interactional synchrony in attachment formation.

Learning theories do not consider internal processes or the emotional nature of attachment.

Bowlby's Monotropic Theory

A special attachment with one primary caregiver is known as a monotropic bond.

Monotropy is a unique strong attachment that infants form to a single caregiver, which is usually the mother.

Bowlby's monotropic theory is an evolutionary explanation of attachment.

Evolutionary ideas like **Bowlby's** suggest babies have an innate attachment drive in order to survive.

Bowlby's monotropic theory of attachment suggests attachment is important for a child's survival.

Evaluation

The need for monotropic bonds is seen to be universal.

Ainsworth (1967) observed the Ganda people of Uganda, here infants form one primary attachment even when reared by multiple carers.

Fox (1977) conducted research into Israeli communal farms has revealed child-rearing practices that are quite distinct from conventional Western ones. **Fox** observed infants still forming monotropic bonds with their mothers despite not seeing them for extended periods of time. **Fox** found significant differences in how parents in rural areas raise their children.

The importance of monotropy is overemphasised. There is also too much emphasis put on the role of the mother as the primary caregiver.

In some families the mother is not the primary caregiver, and some children are raised by a network of family members.

Thomas (1998) questions the benefits of monotropy and suggests it may be more beneficial having a network of attachments to support infants and their social/ emotional needs.

Van IJzendoorn & Tavecchio (1987) argue that a stable network of adults can provide adequate or better care than a mother who has to meet all a child's needs.

Parke (1981) found that qualitatively different attachments provide different benefits.

There must be more factors, other than monotropy that are responsible for strong attachments.

Schaffer & Emerson (1964) suggest that although the first attachment is strong, they are not necessarily any stronger than subsequent attachments.

The idea of monotropy lacks validity as it is difficult to test the concept in many real-life settings.

Critical Period

John Bowlby suggests that there is a critical period for developing at attachment (about 0 - 2.5 years).

Bowlby claimed that if an attachment did not happen in the critical period, then it may well not happen at all.

Bowlby suggested that social releasers, which are innate cues that babies give to caregivers, activate interactions during the first few months.

Bowlby recognised that attachment was a reciprocal process.

Bowlby later extended the critical period to become a sensitive period up to age 5 or 6.

Bowlby argued that a break in the bond during the critical period would have long-term detrimental effects on the child. Bowlby suggested this could lead to irreversible psychological damage for the child.

Therefore, **Bowlby** claimed that a secure bond must develop in the first 2.5 years of a child's life. If not, it will result in long-lasting negative social consequences.

Evaluation

Much of the supporting evidence on the critical period is by **Bowlby** himself, which is subjective.

The research on the critical period was conducted in the 1950's and 60's when gender roles were different, so may lack temporal validity.

Bowlby's (1944) study of the 44 thieves supports his idea of a critical period. **Bowlby** found a greater proportion of boys in who were delinquent thieves, had suffered a break in the maternal bond during the critical period.

Bowlby linked the critical period to his later idea called the Maternal Deprivation Hypothesis.

Bowlby's theory also has negative implications for working mothers.

Internal Working Model

According to **Bowlby** an internal working model is a cognitive framework from which all relationships are based.

Bowlby proposed that a child forms a mental representation of their relationship with their primary caregiver, called the internal working model.

If a child builds a loving, supportive relationship with their caregivers, they will use this as blueprint for future relationships.

A child's relationship with its primary caregiver provides an internal working model, which influences later relationships, especially for the child to use later in life when they become a parent.

There are three main features of the internal working model.

One feature of the internal working model suggests that when a model of others is seen as being trustworthy, a strong framework can be built, so parents must lead by example. This is similar to the idea of modelling in the SLT.

Another feature of the internal working model is if a model of the self is seen as valuable, this suggests that to succeed in healthy relationships, everyone should value themselves and the qualities they bring.

Another feature of the internal working model is that the model of the self is seen as effective when interacting with others. This means we develop the skills through social interaction and communication to form successful, healthy relationships with others.

Evaluation

Bailey et al (2007) found that mothers who had poor attachment to their own primary caregivers, were likely to have poorly attached children.

Kornienko (2016) suggest that genetic differences in anxiety and sociability may impact on parenting ability. This may affect the relationship between parent and child more than the creation of an internal working model.

Many studies on the internal working model are at risk of the social desirability effect.

Many studies on the internal working model lack validity as they are based on subjective opinions about the success of relationships.

However, many studies like **Bailey et al (2007)** followed parent-child relationships in natural environments increasing the ecological validity.

Many studies have to be longitudinal in nature to see the true effects of the internal working model, which can be problematic.

Feminists like **Burman (1994)** point out that this rhetoric blames the mother if anything goes wrong later in life, putting too much emphasis on her primary role.

This idea was supported by the continuity hypothesis which suggests that the types of relationships that we have as adults can be predicted by the attachments we have as infants due to the development of the internal working model.

Ainsworth's 'Strange Situation'

Types of Attachment

Mary Ainsworth suggested that there are three types of attachment; secure and insecure avoidant and insecure resistant.

Ainsworth called these types of attachment A, B and C.

Type A is also known as insecure avoidant attachment.

Insecure avoidant attachment is where children display independent or avoidant behaviours when separated from their caregiver.

Type B is also known as secure attachment.

Secure attachment is where children display some distress and anxiety when separated from their caregiver. They can be calmed and consoled on reunion.

Type C is also known as insecure resistant attachment.

Insecure resistant attachment is where children display significant distress when separated from their caregiver. They find it difficult to be consoled on reunion.

Ainsworth devised the Strange Situation as a method for testing attachment types in children.

From several studies **Ainsworth** was able to describe the characteristics of a child's attachment to their primary caregiver, namely their mother.

Ainsworth's Strange Situation

Aim: **Ainsworth's** strange situation used structured observational research to assess and measure the quality of attachment.

Method: 100 middle class American infants and their mothers took part in the 8-stage strange situation method. They recorded levels of stranger and separation anxiety, as well as reunion behaviour and proximity/ safe base behaviour. Each stage was manipulated to measure specific interactions between the child; its mother and the stranger.

Results: The findings showed that 70% of the children were securely attached, 15% insecure avoidant and 15% insecure resistant.

Conclusion: This tells us that most American children appeared to be securely attached.

Ainsworth et al (1978) suggest that securely attached children display moderate separation anxiety and moderate stranger anxiety.

Ainsworth et al (1978) found that securely attached infants require and accept comfort from their caregivers on reunion.

Ainsworth et al (1978) suggest securely attached infants engage in proximity-seeking behaviour and safe base behaviour.

Ainsworth et al (1978) suggest that about 60-70% of British children are securely attached.

Ainsworth et al (1978) suggest that about 20-25% of British infants are classed as insecure avoidant.

Ainsworth et al (1978) suggest that insecure avoidant attachment types will make little effort in the reunion stage and may even avoid contact.

Ainsworth et al (1978) suggest that insecure avoidant attachment types do not seek proximity or show safe base behaviour.

Ainsworth et al (1978) suggest that around 3% of British infants have insecure resistant attachment types.

Ainsworth et al (1978) suggest that insecure resistant attachment types show significant distress on separation or to stranger presence.

Ainsworth et al (1978) suggest that insecure resistant attachment types seek greater proximity to their caregiver so are less likely to explore.

Ainsworth et al (1978) suggest that insecure resistant attachment types will resist comfort on reunion.

Ainsworth et al (1978) suggest that insecure resistant attachment types show greater levels of separation and stranger anxiety.

Main & Solomon (1986) identified a type D called disorganised attachment.

Evaluation

The strange situation method is useful in helping us understand the effects of attachment types on behaviour.

The research studies using the strange situation have high predictive validity, as the outcomes can be used to predict a number of aspects of the child's later development.

In Ainsworth et al (1978) the sample were all American children which makes the findings culturally biased (ethnocentric). Therefore it is not representative of the wider population, which subsequently limits generalisation. In addition, the sample was restricted to 100 middle class infants and their mothers, so lacks population validity.

The lab-based environment could have increased the likelihood of demand characteristics from the mothers. However as covert observation was used, it is less likely that demand characteristics would occur.

The strange situation method does raise a few ethical issues, as children are placed in situations which may cause them anxiety.

As the research in the structured observation was highly operationalised and controlled, the study has high reliability. Also, as more than one observer recorded the data, the study has high inter-observer reliability.

Bick et al (2012) tested for inter-rater reliability of the strange situation method and found agreement on attachment type in 94% of cases.

Ward et al (2006) suggests that securely attached children have better mental health in adulthood.

Kokkinos (2007) also found that securely attached children have better outcomes in life.

McCormick et al (2016) found that securely attached children have better outcomes later in life, like achievement in school.

The strange situation is culturally biased as a method and may not reflect cultural differences.

Takahashi (1990) suggests that cultural differences explain the variations in attachment types, as many Japanese children are rarely separated from their mothers. **Takahashi** studied in Japan and found many babies were classified as insecure resistant as they displayed high levels of separation anxiety.

The Strange Situation Method

In the strange situation method there are 8 pre-determined stages.

Ainsworth and Bell (1970) conducted a controlled observation using this method to record the reactions of a child and its mother.

Stage 1 – Mother and child enter the playroom.

Stage 2 – The child is encouraged to explore.

Stage 3 – Stranger enters and attempts to interact with the child.

Stage 4 – Mother leaves while the stranger is present with the child.

Stage 5 – Mother enters, and the stranger leaves the room.

Stage 6 – Mother leaves the child alone in the room.

Stage 7 – Stranger returns and tries to comfort the child.

Stage 8 – Mother returns and comforts the child.

Ainsworth & Bell (1970) used a sample of 100 middle class American infants and their mothers.

Ainsworth & Bell observed from the other side of a one-way mirror so that the children did not know that they were being observed.

The study was measuring separation anxiety, stranger anxiety, reunion behaviour and safe base/proximity-seeking behaviour.

Separation anxiety is protest or distress when separated from the primary caregiver.

Stranger anxiety is distress in the presence of a stranger.

Reunion behaviour is the greeting after separation between a child and its mother.

Secure base behaviour is a point of contact for a securely attached child; they feel freedom to explore but will always return to the safe base of the mother.

Proximity-seeking behaviour is when a securely attached child seeks the safety of its mother, so stays close to her.

Stage 2 is measuring safe base behaviour and proximity-seeking behaviour.

Stage 3 measures stranger anxiety.

Stage 4 is measuring separation anxiety and stranger anxiety.

Stage 5 is measuring reunion behaviour.

Stage 6 is measuring separation anxiety and safe base behaviour.

Stage 7 is measuring stranger anxiety.

Stage 8 is measuring reunion behaviour.

The strange situation highlights the role of the mother's behaviour in determining the quality of attachment.

Securely attached children will show distress on separation.

Insecure avoidant children will show no signs of distress on separation.

Insecure resistant children will show intense distress on separation.

This study led to the Caregiver Sensitivity Hypothesis, which suggests that a mother's behaviour towards their infant predicts their attachment type.

Evaluation

The strange situation method is useful as it helps our understanding of the effects of attachment types on behaviour. This can be used practically to advise new parents on the best way to develop secure attachments with their children.

The supporting study by **Ainsworth & Bell (1970)** has high predictive validity, as the outcomes can be used to predict a number of aspects of the child's later development. However, it only included American children which makes the findings culturally biased (ethnocentric). This means the sample is not representative of the wider population, which limits the generalisation of the findings.

The lab-based environment (structured observation) may have increased the likelihood of demand characteristics from the mothers, however as it used covert techniques, this should help minimise these effects. When conducting a strange situation method typically more than one observer is used to record the data, therefore is said to have high inter-observer reliability.

Cross-cultural Variations in Attachment

It is suggested that if attachment is innate, then attachment behaviour should be similar in all cultures.

Sagi, Van IJzendoorn & Koren-Karie (1991) studied attachment styles of infants in the USA, Israel, Japan and Germany. They reported that most children are securely attached but that cross-cultural variations could be seen in the findings.

Sagi, Van IJzendoorn & Koren-Karie (1991) found that German children had the highest insecure avoidant attachment (49%) and Israeli (33%) and Japanese (32%) children had the highest insecure resistant attachment.

Cross-cultural variations in attachment can be seen in the differences in child rearing styles or attachment types across different cultures.

Culture refers to the norms and values that exist within any group of people, and cultural variations are the differences between these.

Cross-cultural research in attachment is interested in the universal concept of attachment; does every child form the same attachment?

Cultural differences may be the result of how those cultures are shaped. Some cultures are individualistic and some are collectivist.

Individualist cultures value independence with each working to their own individual goals e.g. USA and Europe (Western cultures).

Collectivist cultures value cooperation with each working towards the family or group goals e.g. Japan and Israel (Eastern cultures).

The Strange Situation procedure has been used in a variety of cultural settings to identify whether patterns of attachments appear to be universal or if they are subject to cultural influences.

Van IJzendoorn & Kroonenberg (1988) conducted a study to investigate attachment types across a range of countries in order to assess cultural variation. They also looked at differences within the same countries to get an idea of variations within a culture.

Van IJzendoorn & Kroonenberg (1988) reviewed the data from 32 studies in their meta-analysis, where the Strange Situation method was used to investigate different attachment types.

Van IJzendoorn & Kroonenberg (1988) found that there was a wide variation between the proportions of attachment types in different studies, representing different countries. In all countries secure attachment was the most common classification.

Van IJzendoorn & Kroonenberg (1988) found that type A attachments (insecure avoidant) were most likely to be seen in the studies from Germany (35%).

Van IJzendoorn & Kroonenberg (1988) found that type B attachments (secure) were most likely to be seen in studies from Sweden and the UK with 75%, respectively.

Van IJzendoorn & Kroonenberg (1988) found that type C attachments (insecure resistant) were most likely to be seen in the studies from Israel (29%) and Japan (27%).

Van IJzendoorn & Kroonenberg (1988) found that Western countries that support independence such as Germany had high levels of insecure avoidant. Whereas Eastern countries that are more culturally close, such as Japan, had higher levels of insecure resistant. The exception to the pattern was China which an equal number of avoidant and resistant infants.

Takahashi (1990) replicated the Strange Situation with 60 middle class Japanese infants & mothers using the same standardised procedure and behavioural categories. **Takahashi** found that 90% of infant-alone steps had to be stopped due to excessive infant anxiety.

Takahashi (1990) found cross-cultural variations in a Japanese sample, where 68% were securely attached, 32% were insecure resistant and none were insecure avoidant. This highlights cross-cultural differences in Japan.

Simonelli (2014) conducted the Strange Situation with 76 middle class Italian infants and found that there was a much lower rate of secure attachment than in historical findings (50%) and a much higher rate (36%) of infants with an insecure-avoidant type.

Simonelli (2014) shows that patterns of attachment types are not static but vary in line with cultural change.

Mi Kyoung Jin et al (2012) conducted a study to compare the attachment types in Korea to other studies. The Strange Situation was used to assess 87 babies. Most babies were found to be securely attached, and of the insecurely attached more were insecure resistant, showing a similar trend to those found previously in Japan.

Mi Kyoung Jin et al (2012) concluded that since Japan and Korea have similar child rearing styles this similarity in attachment types could be explained by such practises.

McMahon-True et al (2001) studied mother and infant pairs in Mali, rural Africa and found that 67% of children were securely attached despite daytime care by a grandmother.

Malin (1997) studied Aboriginal children in rural areas of Australia and found significantly different child rearing practices.

Secure attachment seems to be the norm in a wide range of cultures, which supports the idea that attachment is an innate, biological process.

Evaluation

The use of the Strange Situation as a procedure means that a comparison can be made across cultures, and the reliability is therefore high.

As the dominant attachment style in **Van IJzendoorn & Kroonenberg (1988)** was secure, this acts as evidence for **Bowlby's** theory that there is a biologically instinctive drive to parent in a way that produces secure attachment.

Research from meta-analyses such as **Van IJzendoorn & Kroonenberg (1988)** usually include large sample sizes, which make generalisations possible.

Van IJzendoorn & Kroonenberg (1988) recognised that data from less Western-oriented cultures was required to establish a more global perspective on attachment classifications, pointing out that Africa, South America, and Eastern European socialist countries were not represented. This means the findings are ethnocentric.

The findings from **Van IJzendoorn & Kroonenberg (1988)** are misleading as a disproportionately high number of the studies reviewed were conducted in the USA (18/32), therefore the overall conclusions would be distorted.

In **Van IJzendoorn & Kroonenberg (1988)** when researchers interpret non-American infant behaviour, it is being judged against an American standard, which is ethnocentric.

Tronick (1991) studied child rearing and patterns of attachment in the Efe of Zaire, but as Americans they are likely to have biased views making their conclusions ethnocentric.

One limitations of cross-cultural research, including meta-analyses of patterns of attachment types, is the impact of confounding variables.

Studies conducted in different countries are not usually matched for methodology when they are compared in reviews or meta-analyses. Sample characteristics such as poverty and social class can confound results.

Looking at attachment behaviour indifferent non-matched studies conducted in different countries may not tell us anything about cross-cultural patterns of attachment.

Studies like **McMahon-True et al (2001)** show that the Strange Situation procedure might be applicable across cultures.

Malin (1997) shows that the Strange Situation procedure may not be valid when child rearing practices are very different.

Bowlby's Theory of Maternal Deprivation

Bowlby's (1953) Maternal Deprivation Hypothesis proposed that a "warm, intimate & continuous relationship with a mother (figure)" is necessary for healthy psychological/emotional development.

Deprivation is a break in the attachment bond during the critical period (0-2.5 years). Maternal deprivation is a break in the bond between the child and its primary caregiver.

Bowlby claimed that the presence of a mother or care from a substitute caregiver is essential in order to have normal psychological well-being.

Bowlby suggested there are negative consequences for the child following maternal deprivation.

Some of the consequences include an inability to form attachments in the future, affectionless psychopathy, delinquency and problems with cognitive development.

One consequence affects intellectual development. **Bowlby** suggested that maternal deprivation will result in lower IQ.

Goldfarb (1947) also found lower IQ in children who were in institutional care compared to those who were fostered.

Bowlby also argued that maternal deprivation can affect emotional development. Some children experience affectionless psychopathy (lack of feeling/ guilt/ remorse).

In 1944 **Bowlby** collected data via interviews and questionnaires from the 88 juveniles and found that 17/44 thieves had experienced early prolonged separation from their mothers before 5 years. **Bowlby (1944)** found that 32% of a group of young thieves showed characteristics of affectionless psychopathy.

Evaluation

Gao et al (2010) supports **Bowlby** by showing poor quality maternal care was associated with high rates of psychopathy in adults.

Bowlby suggested maternal deprivation caused irreversible negative effects, but other research studies contradict this.

Lewis (1954) found no association between early separation and later psychopathy.

Koluchova (1976) reported the case of the Czech twins who suffered abuse until the age of 7 but were able to reform secure attachments after adoption. This suggests the negative effects can be reversed.

Bowlby's ideas were from the 1940s and 50s where gender roles were different, suggesting they may lack temporal validity.

Bowlby's research focused on the mother as the primary caregiver which may not be the case in all circumstances.

Bowlby's supporting research relied on retrospective data which could be unreliable. As **Bowlby** was asking the adolescent participants to recall separations that they had experienced years earlier, their responses would have been subject to inaccuracies/ distortions.

Bowlby's research is correlational suggesting problems with cause and effect. **Bowlby** found a relationship between early separation and delinquency/ affectionless psychopathy, but we cannot definitively conclude that the separation was the cause.

Bowlby's research was conducted by himself which makes it more subjective. **Bowlby** designed and conducted the self-reports himself and as a result, his presence and interpretation might have influenced the outcome of the research.

Bowlby highlights the importance of positive attachment experiences and maintaining a monotropic bond in the first five years, which has useful practical applications.

Practical applications for parents and caregiver providers is useful in supporting children who have been in institutional care.

Some countries like Sweden offer 480 days parental leave, clearly highlighting its commitment to support children's early attachment experiences.

Rutter (1981) offers an alternative negative experience called privation (never having formed an attachment bond).

Effects of Institutionalisation

Institutionalisation is the behaviour patterns of children who have been raised outside of the family home in an institution such as an orphanage or a residential children's home.

Extended stays in institutions can result in children permanently behaving according to the rule of the institution and losing their personal identity (deindividuation).

The effects of institutionalisation are seen in privation.

Deprivation is a break in the emotional bond whereas privation is the total lack of any attachment bond.

Attachment styles of children in institutional care can vary, some show a detachment from people whereas others show an over-keen attachment to everyone they meet. This is known as a disinhibited attachment.

Disinhibited attachment can be seen in children who experience early life in institutional care.

Disinhibited attachment is where children show the same level of attention and affection to familiar people and strangers.

Rutter (2006) explained that disinhibited attachment may be an adaptation to living with multiple caregivers.

Rutter et al (2011) found that most children arriving from Romanian orphanages showed signs of intellectual disability.

Some cases of privation suggest the negative effects can be reversed.

Curtiss (1977) demonstrated this with the case of Genie, who has been privated from infancy. She managed to reform emotional attachments with her new carers.

Hodges & Tizard (1989) found the negative effects of institutionalisation are overcome to a large extent by adopted children, when compared to those restored back to their biological parents.

Evaluation

Many studies investigating institutional care give a good insight into how children form attachments in real life, so have high ecological validity.

There are several ethical issues when studying children who have experienced institutional care.

Many studies looking at the negative effects of institutional care are socially sensitive.

There may be negative implications for some children following the research into the effects of institutionalisation.

Kennedy et al (2016) suggest ADHD is more common if children have experienced the negative effects of institutional care early in life.

Individual differences cannot be ignored in cases following institutional care, some children may respond better than others when adopted.

Rutter et al (2011) followed a group of 165 Romanian orphans as part of the ERA study and found greater outcomes for children adopted before 6 months old.

Many studies investigating the negative effects are longitudinal, where participant attrition is greater.

Romanian Orphan Studies

Rutter (1998) studied Romanian orphans who had been placed in orphanages, aged 1-2 weeks old, with minimal adult contact, and identified negative effects on their development.

Chugani et al (2001) administered PET scans to a sample of 10 children adopted from Romanian orphanages and compared them with 17 normal adults and a group of 7 children. The Romanian orphans showed significantly decreased activity in the orbital frontal gyrus, parts of the prefrontal cortex/hippocampus, the amygdala and the brain stem. **Chugani** concluded that the dysfunction in these brain regions may have resulted from the stress of early deprivation and might be linked to the long-term cognitive and behavioural deficits.

Rutter et al (2011) aimed to understand the impact that privation had on Romanian orphans.

Rutter et al (2011) and the ERA study aimed to investigate the extent to which good, quality care could make up for poor early experiences in an institution. **Rutter** followed 165 Romanian orphans for many years as part of the English & Romanian adoptee (ERA) study. When the Romanian children arrived in the UK, many showed signs of intellectual development. A group of children from the UK adopted around the same time, made up the control group.

Physical, cognitive and emotional development was assessed throughout the ERA study, at ages 4, 6, 11, 15 and early 20s.

The results from **Rutter's** study found Romanian children adopted before they were 6 months old showed less signs of disinhibited attachment. Whereas Romanian children adopted after they were 6 months old showed signs of disinhibited attachment.

O'Connor (1999) also found that orphans frequently showed disinhibited attachments.

Zeanah et al (2005) conducted the Bucharest early intervention (BEI) project with 95 Romanian children. They used the strange situation to measure attachment types in Romanian orphans and the control group. **Zeanah et al** assessed attachment in 95 Romanian children aged 12-31 months old, who had been in institutional care, and compared them to a control group of 50 children by measuring their attachment types.

In **Zeanah et al (2005)** 44% of the Romanian orphans showed a disinhibited attachment compared to 20% of the control group. **Zeanah et al** also found that 74% of the control group were securely attached. However, only 19% of the Romanian orphans were securely attached.

Evaluation

There are several ethical issues when studying the effects of institutionalisation.

Romanian orphan studies are socially sensitive.

Confounding variables with the Romanian orphans were not taken into consideration. There could be several other factors which contributed to their attachment types.

There are no records of how the Romanian children were treated in the orphanages; some may have received better care than others.

Individual differences between the Romanian orphans were also not taken into account when comparing the effects of their experiences.

Many of the Romanian studies have small samples so lack population validity. This limits their generalisation.

Using self-reports to gather data from children can lack validity as they may not tell the truth.

Children may give socially desirable answers, lowering validity.

The ERA provides good data on child attachment but does not tell us much about adult development.

There are many practical applications following the findings of the Romanian orphan studies, much for the better.

Research on the negative effects of institutionalisation changed policies around adoption and care in orphanages and other institutional settings.

Langton (2006) suggests that studying Romanian orphans has improved our understanding of the effects of early institutional care.

Rutter's research is consistent with cases like Koluchova (1976) showing how the quality of care can improve the outcomes.

Longitudinal research gives us a true insight into changes in behaviour overtime, which is useful in studies like Rutter and the ERA. However, longitudinal studies have disadvantages such as participant attrition.

Effects of Early Attachment

According to Bowlby (1969) adult relationships are likely to be a continuation of early attachment styles because the behaviour of the infant's primary attachment figure promotes an internal working model.

Bowlby suggested that the internal working model creates a framework for future relationships.

The internal working model in childhood creates a blueprint for adult relationships.

The quality of early attachments shapes what we look for in future relationships.

Attachment type is associated with the quality of peer relationships in childhood.

According to Kerns (1994) securely attached children go on to form better childhood friendships.

Myron-Wilson & Smith (1998) assessed attachment type and bullying behaviour. They found that securely attached children are less likely to be involved in bullying.

Myron-Wilson & Smith (1998) also found that insecure avoidant children were the most likely to be victims of bullying behaviour. In addition, insecure resistant children are more likely to become bullies.

The internal working model affects both romantic relationships and those with our own children later in life.

Hazan & Shaver (1987) like Bowlby believed that an infant's attachment to their primary caregiver provides a schema of how adult relationships work.

Hazan & Shaver (1987) studied relationships to find out whether romantic love among adults shows the same attachment styles as those found between children and their parents. They analysed 620 replies to a 'love quiz' printed in an American newspaper.

Hazan & Shaver's (1987) love quiz results found 56% of respondents were securely attached and most likely to report longer-lasting romantic experiences. They also found 25% of respondents to be insecure avoidant and 19% of respondents to be insecure resistant. They suggested that avoidant respondents tended to reveal more jealousy and fear of commitment/ intimacy.

Evaluation

In Hazan & Shaver (1987) there is no way of knowing if the same individuals who report secure adult relationships were also securely attached as children. However, the results of Hazan & Shaver support the 'continuity hypothesis' of attachment styles.

Kirkpatrick & Davis (1994) studied dating couples and found a positive correlation between early attachment and satisfaction in their current relationship.

Fearon & Roisman (2017) also concluded that early attachment predicts later attachment.

Hazan & Shaver (1987) had 620 responses which is a good sample size to generalise from but more females than males responded to the love quiz (205 males, 415 females) making it gender biased. The sample was also self-selected so may be biased.

The love quiz may have had socially desirable answers.

The findings from the love quiz have been replicated (reliable) and researchers have linked adult attachment to existing theories of love.

Validity of longitudinal studies can be decreased if internal measures are not standardised.

The study by Hazan & Shaver (1987) provided a bridge between infant attachment theory and theories of romantic love, which is very useful.

However, retrospective data about childhood attachments is unreliable. Asking people to recall information from the past is unreliable and subjective.

Individual differences will always play a part in any study into attachment and future relationships.

Brennan & Shaver (1995) found children with insecure avoidant relationships were more likely to engage in casual relations.

Becker-Stoll et al (2008) followed 43 children from one year of age, and at 16 found no evidence of continuity.

McCarthy (1999) studied 40 women who had been assessed for attachment style while in infancy and found that those who were secure in infancy were more likely to be in secure adult relationships.

More research in this area is needed. **Steele (1998)** only found a small link between childhood and adult attachments.

