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Attachment theories

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1 Introduction

Have you ever thought about how your relationship with your parents can affect your whole future? How infancy is one of the most important chapters in your life building foundations of your own personality?

This work is exploring the two main attachment theories and their main theorists. In one hand the learning theories where the conditioning plays a central role in determining how new borns are attached to their care giver. In the other hand, Bowlby's attachment theory and other theorists like Ainsworth who explored further this theory.

2 What is attachment?

Attachment refers to a deep and enduring emotional bond that forms between two individuals, such as infant and caregiver. It plays a profound role in human experience, because it becomes an engine of subsequent social, emotional, and cognitive development.

Such bonds may be reciprocal between two adults, but between a child and a caregiver, these bonds are based on the child's need for safety, security and protection. The early social experience of the infant stimulates growth of the brain and can have an enduring influence on the ability to form stable relationships with others.

Attachment allows the infant to set up a mental representation of the caregiver in an infant's mind, one that can be looked back on as a comforting mental presence in difficult moments, which is the infants first coping mechanism. It also prepares an infant to separate from the caregiver without distress and to begin to explore the world around her.

Neuroscientists believe that attachment is such a primal need that there are networks of neurons in the brain dedicated to setting it in motion in the first place.

3 Attachment theories

Attachment theory is a psychological, evolutionary and ethological theory concerning relationships between humans. It mostly focuses on long-term relationships and bonds between people, including those between a parent and child and between romantic partners. The attachment theory suggests that the most important precept for an infant is to develop a relationship with at least one primary caregiver, it needs to build bonds. These bonds will also have an influence on the rest of the infant's adult life.

The attachment theory is divided in two main domains, the learning theory of attachment and the monotropic theory about attachment.

3.1 Learning theory

Looking at theories of attachment what we're really asking is how and why do babies attach to their primary caregiver. Most of the research explains it in terms of how it attaches to the mother but obviously in this day and age it doesn't necessarily mean the mother.

The learning theory of attachment is from the behaviourist approach and is based on two main assumptions.

The first assumption considers that the mind of a new born is like a *Tabula Rasa* in other words a blank slate. This means that new borns are not equipped to think or emotions have no impact on their behaviour.

The second assumption considers all behaviours are learned through either classical and/or operant conditioning. Classical conditioning means learning by association and operant conditioning means learning by reward.

Learning theory has been devised by many. However, the three researchers hereafter have significantly contributed on this domain of research.

3.1.1 Classical conditioning theory by Pavlov

Ivan Petrovich Pavlov (1849 –1936) was a Russian and Soviet experimental neurologist and physiologist known for his discovery of classical conditioning through his experiments with dogs.

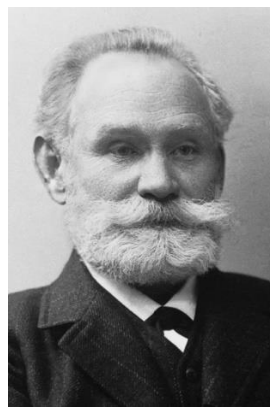


Photo: Ivan Petrovich Pavlov

3.1.1.1 Pavlov's experiment

Pavlov accidentally discovered classical conditioning. He didn't set out to study classical conditioning, he was actually just studying the enzymes in the saliva of dogs.

The dogs were kept in a harness, and Pavlov used bowls of food to make them drool so that he could collect the saliva. The operation to fill the bowls was executed by lab assistants who were wearing white coats. After a while, Pavlov noticed that the dogs drooled every time they saw the assistants, even if the bowls were kept empty.

Pavlov thought that they must have learned to associate the men in white coats with food and he called this phenomenon "*Learning by association*". This principle is particularly important in the context of classical conditioning as one learns to associate two things and expect a specific response even though this association would not necessarily cause a response.

To confirm his observation, Pavlov conducted what is now known as the very famous experiment involving dogs. He wanted to see if a dog could salivate by hearing the sound of a bell. Before conditioning, he checked that the dog would salivate when it saw food and of course it did, this is a physiological response. Then, he rang a bell with no food around and checked if the dog was salivating. Obviously, the bell didn't generate any physiological response in the dog to salivate.

The next step of the experiment consisted in the process of conditioning. During this process, Pavlov gave food to the dogs and at the same time the bell was ringing. Pavlov called this the pairing process.

The final step of his experiment was to see what was happening after the conditioning has taken place. To do so, he didn't bring food anymore but kept the bell ringing as it used to be when dogs were fed. Pavlov observed that the dogs were salivating just hearing the bell even if there were no food. Dogs had the physiological response to salivate when hearing the bell as they learned to associate this sound to the presence of food.

3.1.1.2 Pavlov's theory

Following this experiment, Pavlov has introduced key terms to describe the classical conditioning process. An unconditioned stimulus is anything that will cause an unconditioned response. For example, the fact of bringing food to a dog before conditioning represents an unconditioned stimulus. And the fact the dog salivates to the food is an unconditioned response.

Also, Pavlov introduces the concept of neutral stimulus which is anything in life that will not cause any physiological response. In Pavlov's experiment, the neutral stimulus was the bell.

The conditioning process consists in pairing unconditioned and neutral stimulus, the food and the bell. Neutral stimulus then becomes a conditioned stimulus and generates a conditioned response. In Pavlov experiment, unconditioned stimulus, the food, and neutral stimulus, the bell, are associated so that the dog has a conditioned response, salivation, following the conditioned stimulus, the bell only.

3.1.1.3 Classical conditioning theory applied to attachment

The theory of classical conditioning can be applied to the relationship between the mother and her baby. Before conditioning, the milk the mother gives is the unconditioned stimulus and it generates a feeling of happiness in the baby, the unconditioned response. The mother represents the neutral stimulus. According to the learning theory, the mother has absolutely no impact on the baby before conditioning.

During the conditioning process, the unconditioned stimulus of the milk is paired with the conditioned stimulus of the mother and the response is still an unconditioned response because the milk is still present. The baby has a happy response, feels comfortable and full.

After the conditioning is in place, the conditioned stimulus (the mother) causes a conditioned response of happiness or attachment in the baby, because the mother has been paired with the milk. Indeed, during the conditioning process, the baby has learned to associate the mother with the milk and has learned that the mother causes the happiness.

Following Pavlov, this connection has nothing to do with a special bond, with the evolution or with survival. It is purely because the baby has associated the mother with the milk, the conditioned stimulus with the unconditioned stimulus and the attachment is the conditioned response.

3.1.2 Operant conditioning theory by Skinner

The behaviourists believe that all behaviour including attachment is learned either through classical and/or operant conditioning. Classical conditioning means learning by association and operant conditioning means learning by reward. **Skinner** is the main theorist for the operant conditioning.

Burrhus Frederic Skinner (1904 – 1990) was an American psychologist, behaviourist, inventor, and social philosopher. Considered as the father of Behaviourism, he was the Edgar Pierce Professor of Psychology at Harvard University from 1958 until his retirement in 1974.



Photo: Burrhus Frederic Skinner

Skinner performed a lot of experiments using animals like rats and pigeons. For this particular experiment he has put a rat inside an empty box equipped with a lever. This latter had the particularity that every time the rat was hitting it, food was provided.

Skinner noticed that rats learned very quickly to press the lever and get the food. His conclusion was that rats were learning by reward and the food was called positive reinforcement.

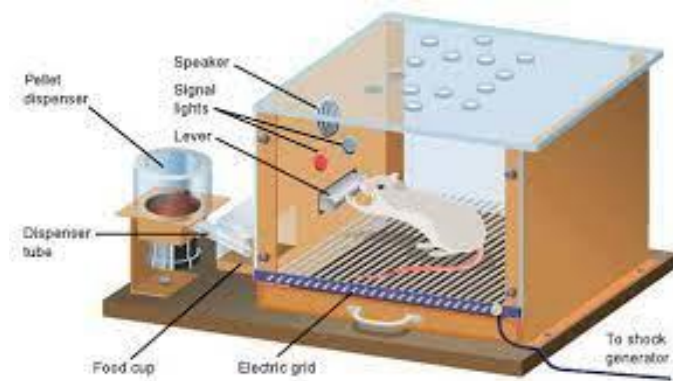


Figure 1: Operant conditioning chamber

Positive reinforcement is very common in everyday life. Think about children having star charts so that every time they brush their teeth they get a star. They will repeat that behaviour as the star represents a positive reinforcement to them. They are learning by reward.

The same theory can be applied when babies are hungry. They are driven to reduce their discomfort of feeling hungry and are crying for milk. The food is rewarding, and we call this positive reinforcement. Food becomes a **primary reinforcer** because it supplies the reward.

Through classical conditioning the person who supplies the food is associated with avoiding discomfort and becomes a **secondary reinforcer** and a source of reward in his own or her own right.

Operant conditioning explains attachment by saying that the child sees the person who can supply the reward of milk and it's really important to consider that the milk is the primary positive reinforcer, and the mother is the secondary reinforcer. As the mother is a positive reinforcement, attachment can occur.

3.1.3 Critics on the learning theories of attachment

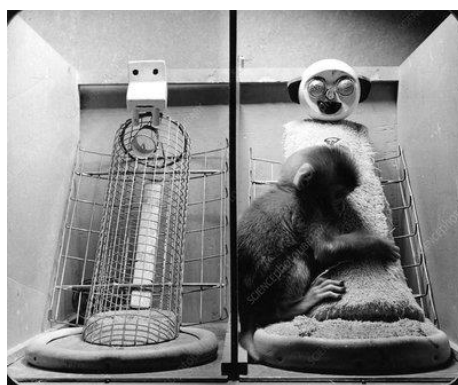
Is attachment really learned because of food or is there something else going on? Is there no special bond or comfort of anything between the mother or the baby or whoever looks after the baby?

- Human are more complex than animals
Learning theory is largely based on animal studies like Pavlov's dogs and Skinner's rats and this is a critic of the learning theory of attachment because animals are not as sophisticated as human. They are not sentient beings in the same way that humans are according to some critics and so therefore, it's hard to extrapolate the results from animal studies to humans. It is probably a stretch too far and that perhaps humans have developed other mechanisms, which would determine attachment rather than simply classical conditioning.
- Shaffer & Emerson findings
Shaffer and Emerson (1964) found that attachments seem to be formed in responsive individuals rather than those who provide the care.
Schaffer and Emerson discovered that fewer than half of infants primarily bonded with the individual who typically fed them. This evidence challenges the theory's assertion that feeding is the main driver of attachment formation.
- Harlow's monkey experiment
Another critique of the learning theory is its overemphasis on the role of food in attachment. Conflicting evidence, such as Harlow's study, argues that comfort might play a more significant role than food in attachment formation.

Harlow's experiments included creating inanimate wire and wood surrogate "mothers" for the rhesus infants. Each infant became attached to its particular mother, recognizing its unique face. Harlow then investigated whether the infants had a preference for bare-wire mothers or cloth-covered mothers in different situations: with the wire mother holding a bottle with food, and the cloth mother holding nothing, or with the wire mother holding nothing, while the cloth mother held a bottle with food. The monkeys overwhelmingly chose the cloth mother, with or without food, only visiting the wire mother that had food when needing sustenance.

According to the learning theory of attachment the monkey should have spent all its time with the wire mother holding the food. However, when the monkeys were left in the cages with the two different mothers Harlow found that the monkey spent up to 22hours per day with the soft cloth mother without food, because it provided comfort. This demonstrated that comfort was a much more important fact when it comes to attachment rather than food. The little rhesus monkeys only went to the wired mother when they needed food, and they didn't like going to her or it.

That is a criticism of the learning theory of attachment. We don't attach simply for food because of classical and operant conditioning. According to Harlow we attach for comfort and love.



*Figure 2 Infant rhesus monkey with cloth and wire mother surrogates (Harlow, 1959: 76)
(Courtesy of Harlow Primate Laboratory, University of Wisconsin-Madison)*

The learning theory, is no longer widely accepted, as it is overly simplistic. It fails to address behaviours driven by secondary reinforcers and cannot explain actions that cause discomfort rather than reduce it. Despite these criticisms, learning theory offers valuable insights into attachment's nature. It emphasizes the role of association and reinforcement in learning, implying that consistent responsiveness and sensitivity to a child's needs from a caregiver can facilitate attachment.

3.2 Bowlby and the monotropic theory about attachment

3.2.1 Edward John Mostyn Bowlby

Edward John Mostyn Bowlby (1907–1990) was a British developmental psychologist and psychiatrist best known as the father of attachment theory. He had a very big interest in child development and his work in attachment theory is notable. Bowlby explored the behavioural and psychological consequences of both strong and weak emotional bonds between mothers and their young children.

He was ranked as the 49th most cited psychologist of the 20th century by a Review of General Psychology, published in 2002.

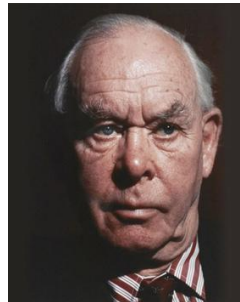


Figure 3: Edward John Mostyn Bowlby

Bowlby grew up in a family of six children, and his primary caregiver was a nanny. His dad was a surgeon and was often absent. He had very little interaction with his mother, as was the custom at that time among his class.

In 1918, he and his brother were sent to Lindisfarne, a boarding school. He followed his father's suggestions to study medicine at Trinity College, Cambridge. As he wasn't fully interested in this subject, he changed his focus to psychology two years after.

After spending one year volunteering at schools for children with behavioural difficulties in 1928, Bowlby entered university college hospital, London. While in attendance there, he enrolled in the British Psychoanalytic Institute where he was initially influenced by the work of Melanie Klein, a psychologist who created the play therapy technique. In 1946 he joined the Tavistock Institute in London where he examined the effects on young children of separation from their primary caregivers. It was at Tavistock that he developed attachment theory.

In 1950, he became a mental health consultant to the World Health Organisation (WHO). A year after he was asked by the WHO to write a report about the mental health of homeless children in Europe. That work spread his ideas throughout the world and even was translated in 14 languages. It highlighted the importance of having a warm, intimate and continuous relationship with a mother figure and their child for their young child's development. Bowlby then released his fully developed theory, which was a three-volume work Attachment and Loss (1969-80).

Bowlby created the “attachment behavioural system” that guides us in our patterns and habits of forming and maintaining relationships.

3.2.2 Bowlby’s theory of attachment

John Bowlby's theory of attachment is the complete opposite of the learning theory. The learning theory is based on the idea that children attach to their primary caregiver for something that they get in return, such as the food. There is no special bond between the children and the caregivers. In the contrary, Bowlby’s theory is based on the warmth and the loving relationship that the mother or the permanent mother substitute should have with their child. That relationship should also be reciprocal so they both should feel satisfaction and enjoyment, and so they have that special bond that Bowlby is talking about.

Bowlby's theory has been founded from other areas of psychology, the evolutionary psychology and psychodynamic psychology.

- **Evolutionary psychology**

Evolutionary psychology is based on an evolutionary standpoint and identifies human psychological adaptation with regards to the constraints they faced and their adaptation to solve important problems of survival or reproduction from the ancient times until today.

Bowlby borrowed from this evolutionary idea in terms of the survival aspect and thought that attachment occurs between the mother and the baby because it aided the survival of the child. It is the opposite of the learning theory of attachment as he considers that we have evolved to attach. The attachment is adaptive and we are born to attach, it’s innate within us.

- **Psychodynamic psychology**

The main theorist of psychodynamic psychology is **Freud**. He was obsessed with the idea that whatever happened to you in your childhood and whatever your relationship was like with your mother, would influence you throughout your entire life.

With the influence of evolutionary psychology and psychodynamic psychology, **Bowlby** has setup his theory over several concepts: The critical period, Social releasers, Monotropy, the internal working model, continuity hypothesis.

- **The critical period**

The critical period stems from evolutionary psychology and has been found by **Konrad Lorenz**, an Austrian zoologist who identified that there was a critical period in which animals should attach to their caregiver. Bowlby used **Lorenz’s** idea of a critical period for attachment to occur. He considered that humans have a critical period in which they need to attach. If they don’t attach during the critical period, then they will never attach to the caregiver.

Bowlby identified the critical period to attach for babies between 3-6 months old. Before three months old, it didn’t really matter because their brains are still developing.

- **Social releasers**

The second part of Bowlby’s theory is called **social releasers**, biologically programmed characteristics and behaviours of babies that elicit caregiving in adults. When we have a baby and we look at it, we are mesmerized by how gorgeous it is. We will pick it up and cuddle. It elicits caregiving, which increases the bond between the mother and the baby. The crying is a behaviour that has evolved because it aids our survival, when a baby is hungry or uncomfortable it will cry its head off and we are programmed to go look after those children.

It is borrowed from the evolutionary idea that we have adapted to have these characteristics and

behaviours to elicit caregiving ritual, increase the attachment between mother and baby or caregiver and baby.

- **Monotropy**

Bowlby states we have one true attachment figure in our lives and believes that it is almost always the mother. According to him this attachment is the strongest and the only true attachment that we would ever have. The more constant and predictable a child's care the better the quality of his attachment. So, it is important that the Monotropic relationship between the mother and the child is constant warm and loving, because that means that a child would know that its needs are going to be met. The quality of attachment would be of good quality though

- **Internal working model**

If your mother or primary caregiver always treats you very well, loves you, gives you confidence, makes you feel like you are a worthy person, your future relationships will very likely be reliable, secure and happy. On the flip side if the primary caregiver or mother ignores you or calls you stupid or doesn't have expectations of you being a good person then, your future relationships will probably be similar.

The messages we receive from our mother and the way she treats us has a profound and lasting effect on how we see ourselves. The child forms a mental representation of his relationship with his primary caregiver. The mental representation of relationships that one formed from his relationship with his mother, Bowlby calls it the **internal working model**. This latter serves as a model or a blueprint of what relationships are like. According to Bowlby, when the internal working model is really broken, your blueprint relationship is broken and so you enter into all future relationships (whether friendships or romantic one's) expecting them to fail, not to work out so they wouldn't.

The Internal working model is determined upon the relationship that you with your main caregiver at a very young age and has a very powerful effect on us as we will use that blueprint for all future relationships.

Bowlby also believed the internal working model affects the child's later ability to be parent himself. He thought people tend to base their parenting behaviour on their own experiences of being parented and that could explain why children from functional families tend to have similar functional families themselves when they become a parent.

- **Continuity hypothesis**

The last part of Bowlby's theory is called the **continuity hypothesis** and it's the idea that whatever happens to you in your childhood continues on into adulthood. So, the continuity hypothesis proposes that individuals who are strongly attached in infancy continue to be socially and emotionally competent. In the opposite, infants who are not strongly attached have more social and emotional difficulties in childhood and adulthood. There is continuity from infancy through to adulthood.

3.2.3 Bowlby's four stages of attachment

3.2.3.1 First stage - Pre-attachment - Newborn to 6 Weeks

The first stage is the pre-attachment phase and takes place from birth to 6 weeks of age. There is usually no type of attachment with any specific individual at this time. Infants may recognize their caregivers, but they do not show a preference for them over strangers, and they won't fuss if they get picked up by any stranger. In this phase the infant tries to get the caregivers attention, by crying or smiling which usually will illicit immediate action from the primary caregiver. Despite the fact that there is still no attachment between the two individuals, the bond is beginning to form. The reactions

that the caregiver gives to the infant feed the positive response that the infant craves and start to create a strong emotional attachment between the two.

3.2.3.2 Second stage - Attachment in making - 6 Weeks to 6-8 Months

During this stage, the infant begins to develop a sense of trust in the people who respond to their needs. They begin to show preferences for caregivers over strangers but they will still accept care from strangers. The primary caregiver starts to have a powerful effect on the infant's behaviour, and can comfort the infant more easily than a stranger as the baby is developing social referencing skills. If the mother or primary caregiver takes good care of the baby's biological needs it will establish a sense of trust. However even if the bond is stronger, at that stage the infant won't protest when separated from a parent, they will not yet exhibit separation anxiety.

3.2.3.3 Third stage - Clear-cut attachment - 6-8 months to 18-24 months

As the name suggests, there is a specific attachment between the infant and the caregiver. The bond can be quite strong and infants regularly seek contact with their caregivers. They will show strong protest when separated from the caregiver, usually crying, screaming, clinging or random burst of sudden physical movements. That's the stage where the infant understands on who he is depending on when in need. He shows a strong preference for that person over a stranger which includes the development of "stranger anxiety" and "separation anxiety". The infant has a fear response to any strangers and sometimes expresses some strong protests. He will be in distress and will very likely refuse to be held by anyone else than the caregiver.

3.2.3.4 Fourth stage - Formation of reciprocal relationships - 24 months+

As the child's cognitive development progresses, he develops mental representations of others. That leads to being able of having multiple attachments, including secondary caregivers such as the father, relatives, or babysitters. The infants start to develop a more complete understanding of circumstances that influence the caregiver's behaviour. It leads them to tolerate separation with less distress and to use mental representations of their caregivers for comfort. The world is for them way more predictable and less stressful. As the verbal skills develop, other communication skills also develop and lead to toddlers expressing themselves in other ways than crying. It also helps the infants to understand their parents' actions and motivations and can negotiate with them.

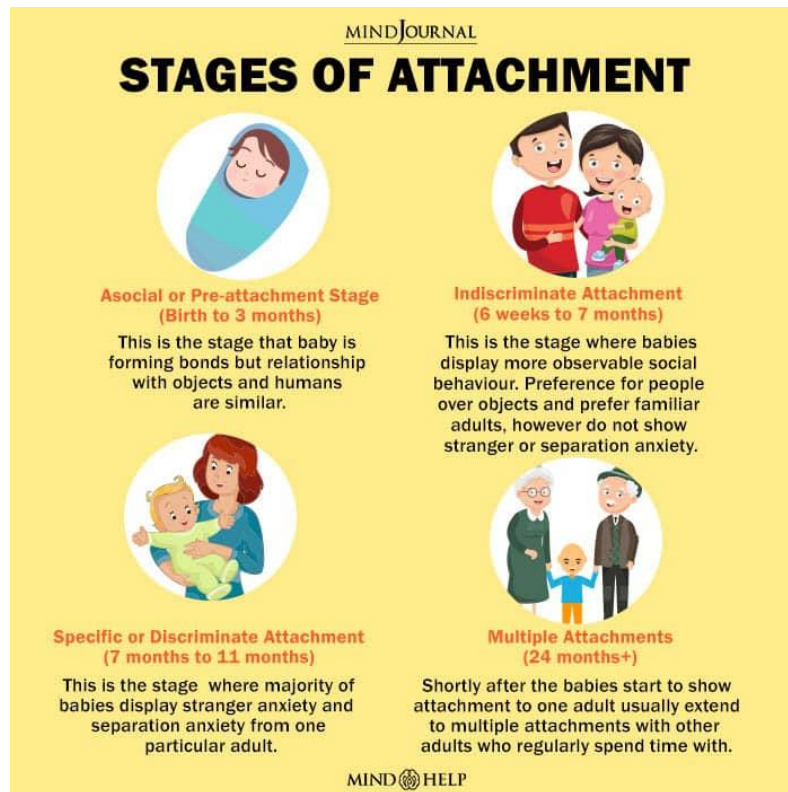


Figure 4 : Stages of attachment by John Bowlby

3.2.4 Critics on Bowlby's theories

3.2.4.1 Critics to Bowlby's monotropic theory

Bowlby always talks about the attachment that forms between the mother and the child is unique and the strongest. However, some researches demonstrated that both parents counted

Schaffer & Emerson (1964) made a study about the development of attachment in childhood which was based on the evolutionary perspective of John Bowlby. They later on found out that children can have multiple attachments on the same time.

Rutter (1972) also pointed out that children show distress when an attachment figure leaves, which can be the father, the siblings and even inanimate objects. So that contradicts the monotropic theory

3.2.4.2 Is attachment theory sexist?

From a feminist point of view, Bowlby's theories overly emphasise mothers as ideal caregivers. It also prescribes conservative role for women which promotes beliefs and increases the objectification of women. In all his parenting articles in 1950s, he proclaimed the mother as the most important one and the one who should always be there. His concept of monotropy is also mainly focused on only one caregiver, which is most likely the mother.

However, in Bowlby's academic writings he never explicitly stated that only mothers can be the attachment figure. Monotropy implies a singular caregiver, but he doesn't strictly say that children only form that strong attachment to the mother. So academically, Bowlby did not limit caregivers to mothers, though his public emphasis on maternal deprivation and parenting did reinforce gender biases.

3.2.4.3 Criticism of the Bowlby's critical period

Bowlby said if a child didn't attach during that critical period of 3 to 6 months, he never would.

However other researchers like Rutter argue the point that actually some children who fail to form an attachment during that critical period have gone on to be able to have attachments with important people in their lives. So it's now preferred to say a sensitive period rather than critical period for attachment and a really good case study for this is the Koluchova twins.

Koluchova twins case study

The Koluchova twins real mother died, and their father couldn't cope. He married someone else, and she locked them in the cellar for the first 7 years of their lives. When they were found they didn't have a normal language rather their language between themselves. They hadn't had any attachment to a primary caregiver.

A woman adopted the Kolachuva twins, lavished them with love, care and attention. As a consequence, both of them were completely recovered. They went on to have normal lives, they got married, they had careers, they studied, and they had an attachment with the woman who had adopted them.

There is a bit of controversy regarding the fact that perhaps they had attached to each other. If they would have been completely alone that might not have happened. This case study is a really good case to criticize the concept of the critical period. However, as Bowlby would imagine, this is not just black and white.

3.3 *Mary Ainsworth and the Strange Situation*

3.3.1 Mary Dinsmore Ainsworth

Mary Dinsmore Ainsworth (birthname Salter) (1913–1999) was an American Canadian developmental psychologist known for her work in the development of the attachment theory. She is the person who created the revolutionary *Strange situation* which is a procedure to observe the early attachment that a child has with his primary caregiver. She was ranked as the 97th most cited psychologist of the 20th century in 2002 by a Review of General Psychology survey. Her studies helped a lot for the modern-day attachment theory.



Figure 5: Mary Dinsmore Ainsworth

Mary was a very mature child who already at the age of three began reading. She had a remarkably close relationship with her father, but not a very warm one with her mother. Salter announced later that the cause of that troubled relationship was the jealousy that the mother felt because of that bond that Salter had with her father. Mary was an excellent student and after reading William McDougall's book *Character and the Conduct of Life* (1926) at the age of 15 she decided to become a psychologist.

After graduating high school, she pursued a degree in psychology and enrolled in the University of Toronto in 1929. She then earned her bachelor's, master's, and her PhD and began her teaching career at the university in 1938. In 1942 she joined Canadian Women's Army Corps in 1942. She was quickly promoted as an adviser to the director of personnel selection of the Canadian Women's Army Corps and later on in 1945 she reached the rank of major.

After the war, she returned to her normal life, which consisted of teaching personality psychology and conducting research. She married Leonard Ainsworth who also studied in the Psychology department of university of Toronto in 1950 and moved to London together, where she joined the research team of John Bowlby at the Tavistock Clinic. They investigated the effects of maternal separation on child development, compared some disrupted mother-child bonds to normal mother-child bonds. She established that if a child has a lack of a mother figure, it can lead to "*adverse development effects*" which are developmental delays and other problems such as health problems, including alcoholism, depression, heart disease, diabetes and other chronic diseases.

Leonard and Mary sadly divorced in 1960. These 10 years were crucial for Mary's career because that gave her the opportunity to meet and work with many influential psychologists including John Bowlby, with who she even worked with as equal partners, exchanging paper drafts for comments and finding the time to meet on rare occasions. It was also entirely because of Leonard that she went to Uganda to start her observations on 26 mothers and their infants living in six villages near Kampala. After going through that difficult divorce, she continued with her research and had the opportunity to present the findings from her Uganda study at a Tavistock Mother-Infant Interaction Study Group in London.

She had many academic positions, before settling at the University of Virginia in 1975, where she remained for the rest of her academic career until 1984. She then became a professor emeritus before completely stopping in 1992. That whole time Mary never got treated properly or paid considering her skills and expertise. She even had to wait 2 years to get an associate professor position even though her qualifications surpassed the job description. At that time sexism was still very prevalent so women had to even eat in separate dining rooms than men just because women were not allowed to meet male head department members.

Ainsworth received a lot of honours, such as developmental psychology or the Award for Distinguished Contributions to Child Development or the Distinguished Scientific Contribution Award from the American Psychological Association. In 1992 she was elected a Fellow of the American Academy of Arts and Sciences, but unfortunately died just a few years later on March 21, 1999, at the age of eighty-five due to a stroke.

3.3.2 The strange situation

The strange situation is a psychological observation technique devised by Mary Ainsworth in the 1970s to observe attachment in children with their caregiver, which seemed a completely novel and unique instrument.

It applies to children between the age of 9 and 30 months and were originally categorized under three attachment styles: *secure*, *insecure - ambivalent* and *avoidance* and *insecure - anxious-resistant*. Later, a fourth category *Insecure - disorganized* was added by Ainsworth's colleague Mary Main and her husband Erik Hesse. This technique played an important role in the development of attachment theory.

The observation technique is a controlled procedure where setup and procedures are the same each time the child has been investigated.

The Strange Situation Procedure is divided into eight episodes, lasting for three minutes each:

- Episode 1 - the infant and his or her caregiver enter into a pleasant laboratory setting, with some toys.
- Episode 2- the infant is encouraged to explore
- Episode 3 - a person unknown to the infant enters the room and slowly tries to make acquaintance.
- Episode 4 - The caregiver leaves the child with the stranger
- Episode 5 - the caregiver returns and the stranger leaves
- Episode 6 - the caregiver leaves for a second time, leaving the child alone
- Episode 7 - the stranger returns
- Episode 8 - caregiver returns and interacts with the child

As the episodes increase the stress of the infant by increments, the observer can watch the infant's movement between behavioural systems: the interplay of exploration and attachment behaviour, in the presence and in the absence of the parent.

The observations were made around four behavioural categories

- **The willingness to explore**, identifying whether the child can use their mother as a secure base to explore the new environment
- **The separation anxiety** which observed how the child responds when the mom leaves the room.
- **The stranger anxiety** which was looking at how a child responds when a stranger enters the room and tries to engage with them
- **The reunion behaviour** which was looking at how the child responds when the mother return to the room.

On the basis of their behaviours, the **26 children** in Ainsworth's original Baltimore study were placed into one of the three classifications Ainsworth identified as patterns of attachment behaviour a child could have with his caregiver. Each of these groups reflected a different kind of attachment relationship with the caregiver, and implied different forms of communication, emotion regulation, and ways of responding to perceived threats.

Ainsworth defined the three categories as follow:

- **Secure - 'I'm ok, you're there for me'**

Most of the children (66%) were securely attached. In the strange situation, that meant that they were willing to explore their environment because they could use their mothers secure base. They had mild stranger anxiety, when their mom left the room. They would cry a little bit, but they wouldn't be too desperate. During the reunion behaviour, when the mom came back in the room, they might have cried a little bit. They were pleased to see her and easily comforted and they soon went back to playing. They were easily soothed by the attachment figure when upset.

Ainsworth said that for a child to be securely attached then the mother would have to respond quickly, sensitively and consistently to the child's needs. Importantly that secure feeling would stay with the child throughout their life.

As adults they are secure people, they are ready for new loving relationships and friendships. Having a secure attachment doesn't mean that the adult relationships will be perfect or that those people won't experience relationship problems. But the people who have a secure attachment do tend to feel secure enough to take responsibility for their own mistakes and failings and are

willing to seek help and support when they need it. They are usually able to see their self-worth and to be themselves in an intimate relationship. They are not scared to show and express their feelings, hopes and needs. They can trust people, are easily happy in relationship and can also be happy by themselves. Because of the confidence they got from their parents, they also exhibit more interest and attention to learning, which improves their academic achievement.

- **Insecure avoidant - *'It's not ok to be emotional'***

22% of the infants were classified as insecure avoidant in the strange situation. In the observation they were willing to explore because they preferred playing with objects rather than interacting with their mother. They had little response when the mother left the room, so no separation anxiety, they had low stranger anxiety because they responded to the stranger in the same way that they responded to their mother. With the reunion behaviour, when the mother came into the room there was little reaction if the mother picked the child up they would look down and avoid eye contact.

Ainsworth believed that for a child to become insecure avoidant, the mother would have mostly been disengaged when the child was very young, showing little or no response to her child, a lot of neglect had been going on.

As adults', people with an insecure avoidant attachment would remain insecure avoidant. They avoid loving relationships, new friendships and they avoid anything that resembled that closeness to being with somebody, which they didn't experience as a child. They avoid any loving relationship because they are so uncomfortable with closeness and are incapable of expressing their feelings. They prone to minimize or disregard their partner's feelings, keep secrets from them, engage in affairs, and even end relationships in order to regain their sense of freedom, because they value it a lot.

- **Insecure resistant - *'I want comfort but it doesn't help me'***

12% of children were classified as insecure resistant. In the strange situation infants were not willing to explore because they were anxious even with their mother present. They would seek the mother and reject the mother's attention and they couldn't use her as a secure base. They had very high separation anxiety, when their mother left, they were absolutely distraught. They had very high stranger anxiety and weren't easily comforted by anybody.

The reunion behaviour was the most interesting, because when the mother came back one would think that the child would be absolutely delighted to see her return as the child was very distressed when she left. The reunion behaviour was really poor. The child would be incredibly distressed when the mother returned. They could not be easily soothed or comforted by the mother, they wanted the mother and rejected her at the same time. Insecure attachment type is sometimes called insecure ambivalent or insecure anxious because the infant wants the mother but they resist the mother.

Ainsworth believed for someone to become insecure resistant, the mother would have been inconsistent in her care for her baby. Sometimes she would have been really sensitive and lavished the child with attention and sometimes she would have been neglectful. It's that inconsistent behaviour by the mom that has left the child completely insecure. They know what love is, they want it and crave for it, but they don't trust it.

As adults, people who are insecure resistant crave love and attention because they know what it is. They are constantly looking for love they fall head over heels in love quickly hence the love bombing, but when they get it, it makes them feel incredibly uncomfortable. As soon as someone starts responding and reciprocating to their loving then they feel uncomfortable, unconsciously they don't realise they feel like they need to sabotage or push that person away because they

don't trust it.

People who are insecure resistant feel embarrassed about being too clingy or their constant need for love and attention, and constantly feel worn down by fear and anxiety about whether their partner loves them. They crave being in a relationship and feeling loved, but don't know if they can trust or fully rely on their partner. The relationship that they are in take up the whole space up from their life, because of all the jealousy and anxiety that they feel when they aren't with their partner. The constant jealousy that they feel also causes a difficulty in finding their partners boundaries, which can lead to crossing them and to the partner not loving them anymore. They need some constant reassurance and lots of attention from their partner. They mostly end up having affairs, they are most likely to get divorced because they are falling in love quickly, but they are sabotaging. Once they have ghosted someone or put them off, they wait until the dust sets, and after a few weeks they feel calm again then they might feel lonely looking for love again because they are really wanting for love.



Figure 6 The observation controlled procedure -The Strange Situation - Mary Ainsworth

3.3.3 Criticisms on Ainsworth's Strange Situation experiment

Despite the many findings from Ainsworth's *Strange Situation* experiment, there was also criticism. It was said to have too much emphasis on the mother and did not measure a general attachment style. It was said that Ainsworth's work was biased because the study was conducted with only middle-class American families. Critics also believed the experiment was artificial and lacked ecological validity.

Introduction of the fourth category *insecure disorganized* - 'I'm frightened'

In the original strange situation theory, there were three attachments typed. However, Main and Solomon reanalysed over 200 videos of the strange situation and proposed a fourth-attachment type called *insecure disorganized*. Main and Solomon were criticising the original research saying that it had missed another attachment type. In that category, the children showed a lack of clear attachment behaviour and their actions and responses to caregivers were often a mix of behaviours including avoidance or resistance.

They are described as displaying a behaviour in the strange situation that is sometimes confused or apprehensive in the caregiver. They lacked a coherent strategy for dealing with stress of separation and showed very strong separation attachment behaviour, which was suddenly followed by avoidance or looked fearfully towards the caregiver or displaying odd movements like stumbling but only when that caregiver was present.

The reason for the insecure disorganized attachment type according to Main and Hesse the children

have experienced some form of abuse from their parent from that primary caregiver the mother whoever looks after him. If a child is feeling both comforted and frightened by the parent at the same time, then of course confusion resolves. In the strange situation they don't have that coherence strategy for dealing with separation they don't feel secure. They need the mother, want her but they are also frightened by her. Main and Hesse argued that it's these parents who act as both figures of fear and reassurance to a child that contribute to a disorganized attachment style.

In the adult relationships, the people with disorganized attachment style likely never learned to self-soothe their emotions. So they feel both relationships and the world around them frightening and unsafe. Because of the abusive household they were in, they probably will recreate those patterns of behaviour as adults. They often swing between emotional extremes of love and hate for a partner, which makes relationships confusing and unsettling. They may be insensitive towards their partner, selfish, controlling, and untrusting. This can lead to explosive or even abusive behaviour. They are as hard as they are on themselves on others too. They crave security and safety of a meaningful, intimate relationship but on the other hand they feel unworthy of love and terrified of getting hurt, so they deprive themselves of it and exhibit antisocial or negative behaviour patterns abuse alcohol or drugs, or prone to aggression or violence.

Cross-cultural applicability of the Strange Situation

In evaluating the legacy of Ainsworth and the assessment measures she introduced, and important domain to consider is their application to cross-cultural research. The current cross-cultural database is almost absurdly small compared to the domain that should be covered. A central reason for this seems to have been that the early attachment researchers failed to secure an alliance with anthropology. With cross-cultural differences neglected, many relevant issues in his theory remained unresolved.

3.3.4 Ainsworth's Strange Situation strengths

Despite the critics, Ainsworth's strange situation has some real strengths and is broadly used nowadays in the psychology of the attachment.

Well controlled observational technique with high reliability

A strength that the strange situation in determining attachment types is that the observations had high reliability. When the children were observed in the strange situation, they would have been two observers watching and measuring the behaviour in the behavioural categories. Observations were then compared and their results had a naught point and 0.94 correlation coefficient between them. This really showed that the children were displaying the behaviour that these observers said. The strange situation was really well controlled observational technique that demonstrated high reliability.

The circle of security project

Another strength of the strange situation is that the findings of it have been used to teach parents how to be the best caregiver they could be.

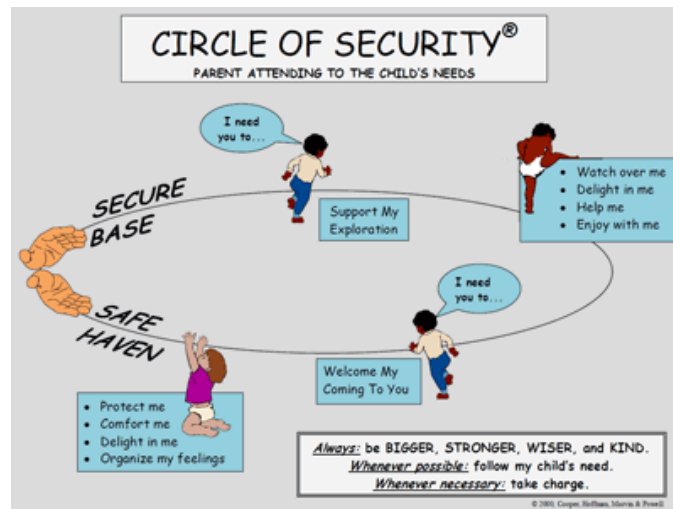


Figure 7: The Circle of Security: A Visual "Map" of Caregiver-Child Attachment

The *Circle of security* is a project that aims to teach parents how to provide a secure attachment to their own child. They used that research by Ainsworth in order to create a training program to show parents how to be a secure base for their child when exploring the world. Parents would learn how to be a safe haven to their child, someone their child could consistently rely on. With help of the circle of security the Disorganized Attachment reduced from 60% to 25% and Insecure Attachment from 80% to 46%.

4 Summary

The field of attachment is exciting, because it impacts everyone no matter what, and plays an essential role in our lives. Despite the many studies carried out over the 20th century, this subject is particularly complex, and modelled according to a limited number of criteria, it will always remain an approximation, so in my opinion there's still a lot to explore.

This work was interesting for me to do because I am a person who is interested in other people's behaviours, relationships and in their self-confidence. There is a genetic basis that defines some of our characteristics, but our relationships and the journey we take determines a large part of our behaviour. I find that really interesting to discover how important our childhood is and what crucial role it plays in everyone's life.

Thanks to this work i discovered the diverse theories of attachment, their theorists and their experiences. I also realized that a theory is never completely mature and there will always be some contradictions. New theories will always emerge, just like Bowlby's.

This work is also fitting well with the profession that i want to pursue, which is psychiatry.

5 Annexes

<https://www.verywellmind.com/what-is-attachment-theory-2795337>

<https://www.verywellmind.com/attachment-styles-2795344> Attachment theory
[what-is-attachment-theory-2795337](https://www.verywellmind.com/what-is-attachment-theory-2795337)

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