Attachment Theory: The Blueprint for Your Child’s Future

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June 16, 2026

Mother and Child

Newborn humans infants cannot survive without a caregiver to provide food and protection, and will not thrive without other types of support as well. While infants have relatively few inborn behaviors--such as crying, rooting, and sucking--they also come with many behavioral systems ready to be activated through interaction with another person. In their first year babies brains double in volume and their experiences will be hardwired in as a foundation on which to build their lives. The deep bond which babies form with their primary caregiver is called Attachment, the foundation on which all other close, long-term relationships will be built.

Attachment theory studies and describes this first relationship; it's an interdisciplinary study that includes developmental psychology and ethology (behavioral biology). Attachment is found in all mammals to some degree, especially nonhuman primates. See discussion page.

Attachment in children is a theory of attachment between children and their caregivers specifically addressing the behaviors and emotions that children direct toward familiar adults. It is primarily an evolutionary and ethological theory postulating that infants seek proximity to a specified attachment figure in situations of distress or alarm for the purpose of survival.

Attachment theory has led to a new understanding of child development. Children develop different styles of attachment based on experiences and interactions with their caregivers. Four different attachment styles or patterns have been identified in children: secure attachment, anxious-ambivalent attachment, anxious-avoidant attachment, and disorganized attachment. Attachment theory has become the dominant theory used today in the study of infant and toddler behavior and in the fields of infant mental health, treatment of children, and related fields.

Attachment Theory and Children

Attachment theory (Bowlby 1969, 1973, 1980) is rooted in the ethological notion that a newborn child is biologically programmed to seek proximity with caregivers, and this proximity-seeking behavior is naturally selected. Through repeated attempts to seek physical and emotional closeness with a caregiver and the responses the child gets, the child develops an internal working model (IWM) of the self and others that reflects the response of the caregiver to the child. According to Bowlby, attachment provides a secure base from which the child can explore the environment, a haven of safety to which the child can return when he or she is afraid or fearful.

An infant may have different patterns of attachment with different care-givers. By around age five years, this "crystalizes" into one pattern of attachment that is generally exhibited within most relationships.

Attachment Classification in Children: The Strange Situation Protocol

The most common and empirically supported method for assessing attachment in infants (12months-20months) is the Strange Situation Protocol, developed by Mary Ainsworth as a result of her careful in-depth observations of infants with their mothers in Uganda(see below). The Strange Situation Protocol is a research, not a diagnostic, tool and the resulting attachment classifications are not 'clinical diagnoses.' While the procedure may be used to supplement clinical impressions, the resulting classifications should not be confused with the clinically diagnosed 'Reactive Attachment Disorder (RAD).' The clinical concept of RAD differs in a number of fundamental ways from the theory and research driven attachment classifications based on the Strange Situation Procedure. The idea that insecure attachments are synonymous with RAD is, in fact, not accurate and leads to ambiguity when formally discussing attachment theory as it has evolved in the research literature. This is not to suggest that the concept of RAD is without merit, but rather that the clinical and research conceptualizations of insecure attachment and attachment disorder are not synonymous.

The 'Strange Situation' is a laboratory procedure used to assess infant patterns of attachment to their caregiver. In the procedure, the mother and infant are placed in an unfamiliar playroom equipped with toys while a researcher observes/records the procedure through a one-way mirror. The procedure consists of eight sequential episodes in which the child experiences both separation from and reunion with the mother as well as the presence of an unfamiliar stranger. The protocol is conducted in the following format unless modifications are otherwise noted by a particular researcher:

Episode 1: Mother (or other familiar caregiver), Baby, Experimenter (30 seconds)
Episode 2: Mother, Baby (3 mins)
Episode 3: Mother, Baby, Stranger (3 mins or less)
Episode 4: Stranger, Baby (3 mins)
Episode 5: Mother, Baby (3 mins)
Episode 6: Baby Alone (3 mins or less)
Episode 7: Stranger, Baby (3 mins or less)
Episode 8: Mother, Baby (3 mins)

On the basis of predominately their reunion behaviours (although other behaviors are taken into account) in the Strange Situation Paradigm (Ainsworth et al., 1978; see below), infants can be categorized into three 'organized' attachment categories: Secure (Group B); Avoidant (Group A); and Anxious/Resistant (Group C). There are subclassifications for each group (see below). A fourth category, termed Disorganized (D), can also be assigned to an infant assessed in the Strange Situation although a primary 'organized' classification is always given for an infant judged to be disorganized. Each of these groups reflects a different kind of attachment relationship with

the mother. A child may have a different type of attachment to each parent as well as to unrelated caregivers. Attachment style is thus not so much a part of the child's thinking, but is characteristic of a specific relationship. However, after about age four the child exhibits one primary consistent pattern of attachment in relationships.

Attachment Patterns

Secure Attachment

A toddler who is securely attached to its parent (or other familiar caregiver) will explore freely while the caregiver is present, typically engages with strangers, is often visibly upset when the caregiver departs, and is generally happy to see the caregiver return. The extent of exploration and of distress are affected by the child's temperamental make-up and by situational factors as well as by attachment status, however.

In the traditional Ainsworth et al. (1978) coding of the Strange Situation, secure infants are denoted as "Group B" infants and they are further subclassified as B1, B2, B3, and B4. Although these subgroupings refer to different stylistic responses to the comings and goings of the caregiver, they were not given specific labels by Ainsworth and colleagues, although their descriptive behaviors led others (including students of Ainsworth) to devise a relatively 'loose' terminology for these subgroups. B1's have been referred to as 'secure-reserved', B2's as 'secure-inhibited', B3's as 'secure-balanced,' and B4's as 'secure-reactive.' In academic publications however, the classification of infants (if subgroups are denoted) is typically simply "B1" or "B2" although more theoretical and review-oriented papers surrounding attachment theory may use the above terminology.

Securely attached children are best able to explore when they have the knowledge of a secure base to return to in times of need. When assistance is given, this bolsters the sense of security and also, assuming the parent's assistance is helpful, educates the child in how to cope with the same problem in the future. Therefore, secure attachment can be seen as the most adaptive attachment style. According to some psychological researchers, a child becomes securely attached when the parent is available and able to meet the needs of the child in a responsive and appropriate manner. Others have pointed out that there are also other determinants of the child's attachment, and that behavior of the parent may in turn be influenced by the child's behavior.

Anxious-Resistant Insecure Attachment

In general, a child with an anxious-resistant attachment style will typically explore little (in the Strange Situation) and is often wary of strangers, even when the parent is present. When the

mother departs, the child is often highly distressed. The child is generally ambivalent when she returns. In the traditional Ainsworth et al. (1978) coding of the Strange Situation, anxious-resistant infants are denoted as "Group C" infants and they are further subclassified into C1 and C2 infants. C1 infants are so judged when:

"...resistant behavior is particularly conspicuous. The mixture of seeking and yet resisting contact and interaction has an unmistakeablely angry quality and indeed an angry tone may characterize behavior in the preseparation episodes..."

C2 infants are often seen as demonstrating 'passive' resistance. As Ainsworth et al. (1978) originally noted:

"Perhaps the most conspicuous characteristic of C2 infants is their passivity. Their exploratory behavior is limited throughout the SS and their interactive behaviors are relatively lacking in active initiation. Nevertheless, in the reunion episodes they obviously want proximity to and contact with their mothers, even though they tend to use signalling rather than active approach, and protest against being put down rather than actively resisting release...In general the C2 baby is not as conspicuously angry as the C1 baby."

Anxious-Avoidant Insecure Attachment

In general, a child with an anxious-avoidant attachment style will avoid or ignore the parent when he or she returns (in the Strange Situation) - showing little overt indications of an emotional response. Often, the stranger will not be treated much differently from the parent. In the traditional Ainsworth et al. (1978) coding of the Strange Situation, anxious-avoidant infants are denoted as "Group A" infants and they are further subclassified into A1 and A2 infants. A1 infants are so judged when there is:

"...conspicuous avoidance of the mother in the reunion episodes which is likely to consist of ignoring her altogether, although there may be some pointed looking away, turning away, or moving away...If there is a greeting when the mother enters, it tends to be a mere look or a smile...Either the baby does not approach his mother upon reunion, or they approach in 'abortive' fashions with the baby going past the mother, or it tends to only occur after much coaxing...If picked up, the baby shows little or no contact-maintaining behavior; he tends not to cuddle in; he looks away and he may squirm to get down."

A2 infants are often seen as demonstrating a mixture of both some avoidance and resistance. Often, though not always, A2 infants are judged Disorganized (D). As Ainsworth et al. (1978) originally noted:

"... shows a mixed response to mother on reunion, with some tendency to greet and approach,

intermingled with a marked tendency to move or turn away from her, move past her, avert the gaze from her, or ignore her...there may be moderate proximity-seeking, combined with strong proximity-avoiding...If picked up, the baby may cling momentarily; if put down, he may protest or resist momentarily; but there is also a tendency to squirm to be put down, to turn the face away when being held and other signs of mixed feelings ."

Disorganized Attachment

A fourth category termed disorganized attachment (Main & Solomon, 1990) was subsequently identified and empiricized when a sizeable number of infants defied classification in terms of Ainsworth's original tripartite classification scheme. It can be conceptualized as the lack of a coherent 'organized' behavioral strategy for dealing with the stresses (i.e., the strange room, the stranger, and the comings and goings of the caregiver) of the Strange Situation Procedure. Evidence from Main et al. has suggested that children with disorganized attachment may experience their caregivers as either frightening or frightened. A frightened caregiver is alarming to the child, who uses social referencing techniques such as checking the adult's facial expression to ascertain whether a situation is safe. A frightening caregiver is usually so via aggressive behaviors towards the child (either mild or direct physical/sexual behaviors) and puts the child in a dilemma which Main and colleagues have called 'fear without solution.' In other words, the caregiver is both the source of the child's alarm as well as the child's haven of safety. Through parental behaviors that are frightening, the caregiver puts the child in an irresolvable paradox of approach-avoidance. This paradox, in fact, may be one explanation for some of the 'stilling' and 'freezing' behaviors observed in children judged to be disorganized. Human interactions are experienced as erratic, thus children cannot form a coherent, organized interactive template. If the child uses the caregiver as a mirror to understand the self, the disorganized child is looking into a mirror broken into a thousand pieces. It is more severe than learned helplessness as it is the model of the self rather than of a situation. It is important to note that when a child is judged disorganized, he or she is given a secondary best-fitting 'organized' (i.e., secure, ambivalent, avoidant) classification as well. This reflects the fact that attachment disorganization is thought to be a breakdown of an inchoate organized attachment strategy. The degree to which the organized strategy is fragmented however is often different in degree across infants judged to receive a primary 'disorganized' classification.

There is a growing body of research on the links between abnormal parenting, disorganized attachment and risks for later psychopathologies. Abuse is associated with disorganized attachment. The disorganized style is a risk factor for a range of psychological disorders although it is not in itself considered an attachment disorder under the current classification.

Significance of Patterns

Research based on data from longitudinal studies, such as the National Institute of Child Health and Human Development Study of Early Child Care and the Minnesota Study of Risk and Adaption from Birth to Adulthood, and from cross-sectional studies, consistently shows associations between early attachment classifications and peer relationships as to both quantity and quality. Predictions are stronger for close relationships than for less intimate ones. Secure children have more positive and fewer negative peer reactions and establish more and better friendships. Insecure children tend to be followers rather than leaders. Insecure-ambivalent children have a tendency to anxiously but unsuccessfully seek positive peer interaction whereas insecure-avoidant children appear aggressive and hostile and may actively repudiate positive peer interaction. There is no established direct association between early experience and a comprehensive measure of social functioning in early adulthood but early experience significantly predicts early childhood representations of relationships, which in turn predicts later self and relationship representations and social behaviour. Behavioural problems and social competence in insecure children increase or decline with deterioration or improvement in quality of parenting and the degree of risk in the family environment. Avoidant children are especially vulnerable to family risk. However an early secure attachment appears to have a lasting protective function.

Criticism

Michael Rutter describes the procedure in the following terms:

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"It is by no means free of limitations (see Lamb, Thompson, Gardener, Charnov & Estes, 1984). To begin with, it is very dependent on brief separations and reunions having the same meaning for all children. This maybe a major constraint when applying the procedure in cultures, such as that in Japan (see Miyake et al., 1985), where infants are rarely separated from their mothers in ordinary circumstances. Also, because older children have a cognitive capacity to maintain relationships when the older person is not present, separation may not provide the same stress for them. Modified procedures based on the Strange Situation have been developed for older preschool children (see Belsky et al., 1994; Greenberg et al., 1990) but it is much more dubious whether the same approach can be used in middle childhood. Also, despite its manifest strengths, the procedure is based on just 20 minutes of behaviour. It can be scarcely expected to tap all the relevant qualities of a child's attachment relationships. Q-sort procedures based on much longer naturalistic observations in the home, and interviews with the mothers have developed in order to extend the data base (see Vaughn & Waters, 1990). A further constraint is that the coding procedure results in discrete categories rather than continuously distributed dimensions. Not only is this likely to provide boundary problems, but also it is not at all obvious that discrete categories best represent the concepts that are inherent in attachment security. It seems much more likely

that infants vary in their degree of security and there is need for a measurement systems that can quantify individual variation".

Ecological Validity and Universality of Strange Situation attachment classification distributions

With respect to the ecological validity of the Strange Situation, a meta-analysis of 2,000 infant-parent dyads, including several from studies with non-Western language and/or cultural bases found the global distribution of attachment categorizations to be A (21%), B (65%), and C (14%). This global distribution was generally consistent with Ainsworth et al.'s (1978) original attachment classification distributions.

However, controversy has been raised over a few cultural differences in these rates of 'global' attachment classification distributions. In particular, two studies diverged from the global distributions of attachment classifications noted above. One study was conducted in North Germany in which more avoidant (A) infants were found than global norms would suggest, and the other in Sapporo, Japan, where more resistant (C) infants were found. Of these two studies, the Japanese findings have sparked the most controversy as to the meaning of individual differences in attachment behavior as originally identified by Ainsworth et al. (1978).

In a recent study conducted in Sapporo, Behrens et al. (2007) found attachment distributions consistent with global norms using the six-year Main & Cassidy scoring system for attachment classification. In addition to these findings supporting the global distributions of attachment classifications in Sapporo, Behrens et al. also discuss the Japanese concept of amae and its relevance to questions concerning whether the insecure-resistant (C) style of interaction may be engendered in Japanese infants as a result of the cultural practice of amae.

Van Ijzendoorn and Kroonenberg conducted a meta-analysis of various countries, including Japan, Israel, Germany, China, the UK and the USA using the Strange Situation. The research showed that though there were cultural differences, the three basic patterns, secure, avoidant and ambivalent, can be found in every culture in which studies have been undertaken, even where communal sleeping arrangements are the norm. Selection of the secure pattern is found in the majority of children across cultures studied. This follows logically from the fact that attachment theory provides for infants to adapt to changes in the environment, selecting optimal behavioural strategies. How attachment is expressed shows cultural variations which need to be ascertained before studies can be undertaken.

Attachment Measurement: Discrete or Continuous?

Regarding the issue of whether the breadth of infant attachment functioning can be captured by a

categorical classification scheme, it should be noted that continuous measures of attachment security have been developed which have demonstrated adequate psychometric properties. These have been used either individually or in conjunction with discrete attachment classifications in many published reports (see Richters et al., 1998; Van IJzendoorn et al., 1990). The original Richter's et al. (1998) scale is strongly related to secure versus insecure classifications, correctly predicting about 90% of cases. Readers further interested in the categorical versus continuous nature of attachment classifications (and the debate surrounding this issue) should consult a paper by Fraley and Spieker and the rejoinders in the same issue by many prominent attachment researchers including J. Cassidy, A. Sroufe, E. Waters & T. Beauchaine, and M. Cummings.