

### *Attachment in Infancy*

Three types of attachment are important to infants. One is their attachment to their parents (Ainsworth, 1979). Parents' attachments to their infant are equally crucial. In addition, the attachment between the parents, i.e., the 'spousal' attachment, is important because it has implications for infants' safety, security, and comfort (for discussion of these three types of attachment, see Cassidy, 2008; Crittenden, 2008; George & Solomon, 2008; Johnson & Whiffen, 2003). All attachments are dyadic; none is a personal characteristic. That is, patterns of attachment are organized around how another person responds to the self.

*Infancy as a critical period for attachment.* Infancy is a crucial period in which basic aspects of infants' functioning are organized. The organization shapes brain development which, in turn, regulates how the infant perceives and responds to the world around them. A crucial aspect of this is the infant's expectation of safety and comfort. Attachment figures, usually the infant's parents, through their daily interaction with its provision of safety and comfort (or failure to provide these), are crucial to how infants form expectations (Crittenden, 1995) and how their brains organize (Schoore, 2000).

Attachment first forms at 9-12 months of infant age. Before that age, infants' brains are organizing on the basis of information from interaction with the caregiver; after 9-12 months of age, disruption of attachment is always painful. New attachments are possible, but they take time to develop, with older children forming new attachments progressively more slowly. Changes of primary caregiver made before 6 months of age will have minimal impact (Schaffer, 1971), but changes made after 6 months of age can have long-term effects.

*Influences on quality of attachment.* There are a number of influences on children's organization of their attachment behavior. The strongest influences are their parents' behavior and infants' exposure to danger. When parents are a source of danger or when they are unable to protect their children from danger, children's attachment will be anxious. There are many forms of anxious attachment, each of which protects the child from a particular sort of developmental context (Ainsworth, 1979, Crittenden, 1985ab). This is adaptive in the short-term, but in the long-term, such attachment experiences increase the probability that the child will maintain or seek similarly dangerous relationships and contexts in adulthood. This reflects the influence of attachment experiences on emerging brain development.

*Effects of attachment on brain development.* Attachment effects brain development in two ways. Crittenden refers to these as cognition and affect (Crittenden, 1995).

1. Cognition: The first involves *predictable contingencies*. In interaction with caregivers, infants learn what is predictable and how it will affect them. Infants whose behaviour is responded to in ways that please them learn what to do and are comfortable doing it; this promotes synaptic development maximally. Infants who are physically or emotionally punished for specific behaviour learn to inhibit that behaviour. If the caregivers' response is predictable, infants become both confident and inhibited.

If infants cannot predict what behaviour will be punished or whether they will be punished, they become anxious. If the unpredictable punishment is especially strong or intense, they become anxious and frightened. Predictability is crucial to brain development and the role of caregivers is to ensure that infants and young children both experience contingencies (that promote synaptic development) and also that the contingencies are comprehensible at the infant's developmental stage. If the

contingencies are too complex, synaptic growth will be limited. Consequently, in the first year of life, infants should not be punished; instead they should be protected from danger.

In the second year of life, a few dangerous conditions should be prohibited but, if there are too many, young children will not be able to learn from their experience (Schoore, 2003).

2. *Affect*: Arousal is also important. Infants and young children are especially sensitive to close bodily contact because it helps them to regulate their arousal. Children are most comfortable and able to learn in states of moderate arousal, i.e., neither drowsy (too low arousal) nor anxious (too high arousal). When adults are able to empathize with infants' feelings and to respond in comforting ways, holding helps them to achieve a state of moderate arousal. Once in that state, they should be able to explore their environment - away from their caregivers.

On the other hand, if adults either fail to provide comfort or touch them in uncomfortable ways (too hard, too intense, or without a rhythm attuned to the infant's arousal), children become more distressed and aroused. In extreme cases, infants learn to avoid close bodily contact and instead try to comfort themselves by sucking, rocking, withdrawing, etc. In extreme cases, infants and young children both reach peaks of frenzied arousal (screaming, hitting, kicking, biting, and even self-injury such as head banging) and also withdraw into self-stimulating behaviour (rhythmic sucking, rocking, 'masturbating'). It is crucial that caregivers be able to soothe infants in ways that are comforting to the infants. Failure to achieve this limits both infants' ability to learn and also their willingness to seek comfort from other humans (Bradley, 2000; Cozolino, 2006).

The balance of use of cognition or affect defines the child's quality of attachment (Ainsworth, 1979; Ainsworth, et al., 1978; Crittenden, 1995). Mostly cognitive is called Type A (avoidant), mostly negative affect is called Type C (ambivalent), evenly balanced is called Type B (secure).

### References

- Ainsworth, M. D. S. (1979). Infant-mother attachment. *American Psychologist*, 34, 932-937.
- Ainsworth, M. D. S., Blehar, M., Waters, E., & Wall, S. (1978), Patterns of attachment: A psychological study of the Strange Situation. Hillsdale, NJ: Erlbaum Assoc.
- Bradley, S.J. (2000). Affect regulation and the development of psychopathology. New York: The Guilford Press.
- Cassidy, J. (2008.) The nature of the child's ties. In J. Cassidy, & P. R. Shaver (Eds.), *Handbook of attachment: Theory, research and clinical applications* (2<sup>nd</sup> ed., pp. 833-856). New York: The Guilford Press.
- Cozolino, L. (2006). The neuroscience of human relationships: Attachment and the developing social brain. New York: W.W. Norton and Co.
- Crittenden, P.M. (2008). *Raising parents. Attachment, parenting and child safety*. London: Routledge.
- Crittenden, P.M. (1995). Attachment and psychopathology. In S. Goldberg, R. Muir, J. Kerr, (Eds.), *John Bowlby's attachment theory: Historical, clinical, and social significance* (pp. 367-406). New York: The Analytic Press.
- Crittenden, P. M. (1985a). Maltreated infants: Vulnerability and resilience. *Journal of Child Psychology and Psychiatry*, 26, 85-96.

- Crittenden, P.M. (1985b). Social networks, quality of child-rearing, and child development. *Child Development*, 56, 1299-1313.
- George, C., & Solomon, J. (2008). The caregiving system: A behavioral systems approach to parenting, In J. Cassidy, & P. R. Shaver (Eds.), *Handbook of attachment: Theory, research and clinical applications* (2<sup>nd</sup> ed., pp. 3-22). New York, London: Guilford Press.
- Johnson, S.M., & Whiffen, V.E. (Eds.). (2003). (Eds) *Attachment processes in couple and family therapy*. New York: The Guilford Press.
- Schaffer, H. R. (1971). *The Growth of Sociability*. Penguin Books: Harmondsworth, Middx.
- Schore, A.N. (2000). Attachment and the regulation of the right brain. *Attachment and Human Development*, 2(1), 23-47.
- Schore, A.N. (2003). *Affect dysregulation and disorders of the self*. New York: W.W. Norton & Co.