CHAPTER 7

Infancy—Social and Emotional Development

CHAPTER OUTLINE

I. **What are emotions?** Emotions have three components: a physiological component, involving bodily changes; an expressive component, including facial expressions; and an experiential component, the subjective feeling of emotion.

   A. **Measuring emotions** Physiological measures include heart rate or EEG patterns. Newer technologies such as PET and fMRI provide insight about brain activity during the expression of emotions. Measurements of facial expressions and vocalizations include detection of changes in the muscles of the face and the loudness, duration, and sound patterns of the child’s voice. Self-report measures may be used to assess the child’s interpretations of his or her own and others’ emotions. These methods are not without problems; different emotions may lead to similar physiological responses.

   B. **Theoretical perspectives on emotional development**
      1. **Biological** Psychologists such as Paul Ekman and Carroll Izard are contemporary supporters of the biological view of the origin of emotions. In cross-cultural research, Ekman has found that people from many cultures express emotions and interpret emotional expressions in the same way. Izard found that young infants make the same facial expressions as adults do in response to external stimuli. More important, making the facial expression produces a corresponding emotional feeling in the infant.
      2. **Cognitive social** A cognitive-socialization explanation of emotions emphasizes that even the emotions the young child experiences are a product of the child’s experiential history, including information from parents and others regarding the appropriate emotional reactions for each situation. Cognitive processes thus act as mediators that bridge the gap between environmental stimuli and the emotions they elicit.
      3. **Social context** For others, emotions are fundamentally linked to the social context. Rather than viewing emotions as entities, they are viewed as processes embedded in social interactions. Thus, socialization and culture are important determinants of the intensity of emotional expression and whether its tone is negative or positive.

II. **Early emotional development**

   A. **Emotional expression in infancy** Studies have shown that newborn infants are capable of making facial expressions that correspond to the emotions of interest, distress, disgust, joy, sadness, and surprise. These emotions are called basic emotions because they appear to be innate and require little, if any, learning. The basic emotions do appear to undergo modification with experience over the first few months of life. Smiling in the newborn occurs most likely in response to a change in physiological state. Later in the first year, smiling and laughing occur in response to complex stimuli that the child’s increasing cognitive maturity allows him or her to understand. Crying, like smiling, is initially a reflexive response to an aversive physical state such as hunger or pain. After two months of age, the infant’s cry becomes more variable and can be voluntarily produced as a request for a desired object or a change in stimulation or as a way of communicating distress to the caregiver.

   B. **Recognizing others’ emotions** Infants are able to discriminate several facial expressions of adult models. By the end of the first year, infants begin to show evidence that they
understand the meanings of the facial expressions they discriminate. The phenomenon of social referencing indicates that infants use others’ facial expressions to gain information about the appropriate response to an ambiguous situation, such as whether to cross to the deep side of the visual cliff.

C. **Emotions as regulators of social interaction** Emotions are deeply tied with the social environment. Patterns of reciprocal vocalizations and facial expressions between caregiver and infant, called interactive synchrony, are evident from about two to three months of age. During this period, the infant learns how to take the initiative in social interactions and how to alter the caregiver’s behavior by responding with an appropriate emotional expression. Asynchronous interactions, or uncoordinated infant-caregiver interactions, may help the infant to learn how to repair social interactions. The nature of the emotional exchanges between caregiver and infant influences the emotional bond of attachment between them.

D. **Regulating one’s own emotions** A further developmental accomplishment is the increasing ability to regulate one’s emotions. Even infants display some capacity to control their own affective state such as by rocking or looking away when emotionally aroused.

III. **Temperament** Temperament is a child’s overall style of behavioral functioning that includes intensity of mood, distractibility, and persistence. Individual differences often remain relatively stable over time and across different situations.

A. **Patterns of Temperament** Infants and children vary in temperament. For example, the “easy” child has positive moods and a positive approach to new situations, whereas the “difficult” child is often in a negative mood and withdraws from new stimuli. Other distinctions in temperament are associated with being inhibited or uninhibited, excitability, and ability to regulate the self. There may be substantial cross-cultural differences in emotional styles.

B. **Biological bases of temperament** Biological factors very likely underlie individual differences in temperament. For example, a variety of physiological differences exist between children who are described as inhibited or uninhibited. Irritability in infants is also associated with distinctive patterns of brainwave activity. Cardiac vagal tone, the degree to which the heart is influenced by the vagus nerve, may be linked to emotional reactivity and the ability to soothe oneself in emotionally arousing situations. The emotional style a particular child displays early in life can affect cognitive and social functioning later in development.

C. **Temperament and later development** Early temperament styles may be correlated with children’s characteristics later in life. Infants who express anger and frustration tend to score higher on aggression measures at 6–7 years old. The emotional style an infant shows may have far reaching impacts on both cognitive and social functioning later on in life.

IV. **Attachment:** Attachment refers to the strong emotional bond that develops between infant and caregiver.

A. **The origins of attachment: theoretical perspectives** Learning theory explains that primary reinforcers such as food satisfy basic biological drives. Secondary reinforcers acquire their reinforcing properties by being associated with primary reinforcers. The mother therefore becomes rewarding for the infant outside of the feeding context. Harry Harlow’s classic experiment indicated that “contact comfort” is a more critical factor than the acquisition of secondary drive characteristics in the development of the attachment relationship.

Ethological theories view attachment as the result of innate tendencies in the infant to actively signal the caregiver’s attention and the caregiver’s innate tendencies to respond to those signals. John Bowlby believed that attachment progresses in a fixed sequence, beginning with the infant’s signaling behaviors, such as crying and smiling. He observed evidence of the strong attachment bond later in the first year of life in a phenomenon called separation anxiety, the visible upset infants experience upon departure of the mother. A
related phenomenon, *stranger anxiety*, is the infant’s wariness at the approach of an unfamiliar person. Finally, at about three years of age, the attachment relationship becomes more of a partnership, with the child beginning to appreciate the mother’s feelings, motives, and goals.

B. **The developmental course of attachment** Attachment behaviors seem to emerge in a reliable sequence, with infants showing preferences for familiar persons, followed by separation protest and stranger anxiety and the formation of multiple attachments in addition to the primary attachment to the mother. Mary Ainsworth and her associates developed a standardized laboratory task, called the *Strange Situation*, to assess the quality of the child’s emotional ties to the mother. In this task, Ainsworth found that *securely attached* infants use their mothers as a secure base for exploration. *Avoidant attachment* was evident in children who avoided the mother and remained in isolated play when they were reunited with her following a brief separation. *Ambivalent* (or *resistant*) attachment was evident in children who demonstrated tension, excessive clinging, and anger toward the mother following her return. *Disorganized/disoriented* attachment is characterized by the infant’s fear of the caregiver.

1. **Antecedents of secure attachment** An analysis of the attachment relationship revealed that mothers who accepted the caregiver role, displayed cooperation with their infants, and were accessible to them developed secure attachments with their infants. In contrast, mothers of insecurely attached infants were rigid, unresponsive, and demanding of them. Mothers of securely attached infants also were more affectionate, more positive, and less intrusive, and they engaged in interactive synchrony more often. In considering secure attachment, it is important to consider maternal behavior as it relates to the child’s behavior.

2. **Attachment to Fathers** Research on the father-child relationship has revealed that even though fathers spend less time interacting with their children than mothers do, children do form close attachments to their fathers. Such attachments may help to buffer impaired interactions with depressed mothers where such are found in the caregiving environment. Children who have secure attachments to both parents exhibit higher self-esteem and greater social competence than children who do not. Fathers tend to engage in physical play with their infants, while mothers spend more time in caregiving activities.

3. **Temperament and attachment** Researchers have reported a link between temperament and subsequent attachment patterns, but it is unclear whether temperament influences attachment or parental behavior influences temperament and attachment. Moreover, early irritability does not necessarily predispose children to insecure attachment.

4. **Cross cultural variations** Studies of the quality of attachment between infants and caregivers from cultures other than the United States reveal that patterns of attachment may differ depending on the maternal behaviors encouraged within a given culture. For example, cultures that encourage independence in very young children, such as Germany, foster a greater number of avoidantly attached infants. Israeli infants raised in a kibbutz, are less likely than other Israeli infants to show secure attachments.

5. **Child care and attachment** Although the majority of studies show no differences in the quality of attachments for day care versus home-reared infants, a number of studies conducted in the 1980s have found day-care children to exhibit more avoidant behaviors than home-reared children during the reunion in the *Strange Situation*. More recent research indicates that insecure attachments are more likely to occur when maternal insensitivity co-occurs with poor quality child care.
Research Applied to Parenting: Promoting Secure Attachment in Irritable Infants

Research carried out in the Netherlands indicates that parents of irritable infants react less positively to them during their first six months of development than do parents of infants displaying other temperaments. However, parents may be trained to be more responsive to their irritable infants. By slowing down the tempo of mother-infant interactions, mothers can perceive and interpret their infants’ signals more accurately. Some techniques other than cuddling may also be more effective in soothing irritable infants. Caregivers need to pay attention to the infants’ positive signals. Irritable infants who receive these kinds of interventions show many desirable outcomes even years later.

C. Disruptions in attachment Premature birth, adoption, and child abuse are three contexts within which patterns of parent-child attachments may be disrupted. Mothers of premature infants, for example, appear to provide excessive stimulation for their infants in an effort to alter the infants’ unresponsive behavior. When the quality of attachment at one year of age is assessed, however, no differences are observed between premature and full-term infants and their caregivers unless infants are of very low birth weight.

1. Prematurity The first few months of life may represent a sensitive period for emotional development. Mothers of premature infants touch, hold, and smile at their babies less often than do mothers of full-term infants. However, as babies get older, parents may over stimulate the premature infant.

2. Adoption and foster care Infants adopted prior to six months of age show secure patterns of attachment. In contrast, infants separated from their biological parents after six to seven months of age show socioemotional problems later on.

3. Abuse Abused infants and children reveal the most profoundly insecure attachments. Perhaps as many as 80 percent of abused infants fall into a classification of insecure attachment called disorganized/disoriented attachment, in which they exhibit fear of the caregiver, confused facial expressions, and avoidant and ambivalent behavior.

V. Atypical development

A. Failure to thrive Some infants don’t seem to grow at the same pace as other children. Failure to thrive is the term applied to children whose growth or weight falls below the fifth percentile for children of the same age. Parental factors, such as abuse or neglect, may contribute to this syndrome. However, other factors including poverty, violence, and other sources of family stress often accompany poor parenting.

B. Early emotional experiences and the brain Recent physiological evidence suggests that changes in the functioning of the nervous system may accompany early social-emotional interactions. Evidence is beginning to accumulate to suggest that socioemotional experiences during the first three years of life are critical to the establishment of normal brain functioning. Infants who are stressed exhibit a greater amount of the hormone cortisol than infants who are unstressed. Insecurely attached infants display substantial increases in cortisol in fear-provoking situations compared to other children. Excessive exposure to cortisol in animals has been linked to the death of neurons and the atrophy of dendrites. Other research shows that depressed levels of norepinephrine are found in emotionally disturbed children. Further research should soon help to indicate more precisely how early socioemotional relationships affect brain development.

VI. Self and other Self-concept, or the awareness of one’s own unique traits and characteristics, begins to emerge in infancy.

A. Concept of self As part of a self-concept, a child first develops self-recognition, an ability that begins to emerge at about eighteen months of age. By two years of age, children easily identify pictures of themselves or understand their reflection in a mirror. This self-awareness may lead to self-conscious emotions such as embarrassment and pride.
B. **Sense of agency**  A component of the subjective self is the sense of agency, the belief that one can influence and control one’s surroundings. Babies are presumed to be born with *effectance motivation*, the desire to control the environment.

C. **Understanding others**  An important element in social relationships is the ability to understand the psychological states of others. The first signs of infants’ readiness to enter the social world appear at approximately 2 months of age. By 9 months, infants show signs of being able to tell the difference in adults’ intentions.

D. **Early reactions to peers**  Infants show distinct reactions to peers even in the first few months of life. By 6 months, infants will give specific signals, such as smiling and leaning in their direction, when in the company of other infants. However, interactions are often brief and do not usually involve mutual exchanges of behavior.