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General patterns of development

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Early Social and Emotional Experience Matters: The First Year of Life

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What do infants feel? When, why and with what consequences? This chapter is informed by a functionalist theory of emotion that assumes that emotions evolved as adaptive, survival-promoting processes with intrapersonal and interpersonal regulatory functions [1-3]. For example, Bowlby [4] proposed that fear of the dark, and fear of being alone, are adaptive because there is an obvious link between these events and potential danger. Emotions, in this view, are organizers of personal and interpersonal life, enhancing or restricting development and mental health. The range of emotions a young child feels, and gives expression to, stem from the meaning social interactions impart, and in turn influence the expectations and appraisals one has vis-à-vis the self and others. In other words, the experience of an emotion may be the result of – or the cause of – social interactions. For example, stranger anxiety (which typically appears at 8–9 months of age) may lead an infant to cling to the mother and only feel settled when she holds the baby close saying 'I am here for you'. Through repetition, this kind of interaction will lead the infant to have a sense of trust in the mother, and a hopeful attitude in the face of distress. On the other hand, a different lesson may be learned when infant stranger anxiety is met with an insistence by the caregiver that she must leave, and the baby must manage on his or her own with the stranger. This interaction, if repeated, may accentuate the child's anxiety and contribute to a sense of mistrust in the mother (and others). Other forces that influence infant social and emotional

development include the child's biological makeup, in part determined by prenatal experiences as much current research highlights [5], the marital relationship, the wider family network, social economic factors, neighbourhood and broader cultural forces [6,7]. Yet the architect of this multilayered view of contextual influences in child development, Uri Bronfenbrenner, maintained that the family, and in particular the main caregiver (typically the mother) is the filter through which all other influences have their immediate effect.

Early social interactions between caregivers and infants matter greatly because patterns of interaction become established and consolidated over the first year of life into relationship or attachment patterns [8,9] that (i) tend to persist and (ii) have a potentially long-lasting influence on personality and mental health [10] (see also Chapter 15). Six core infant emotional responses are highlighted in this chapter, each calling for sensitive responses from caregivers. Two appear in the neonatal period or soon after – (i) crying and (ii) smiling – and four others appear in consolidated and consistent ways only in the second half of the first year - (iii) sadness, (iv) surprise, (v) anger and (vi) fear. Normal age-related shifts in these emotions are highlighted, notwithstanding individual differences linked to deficits in neurobiological make-up, or social experience. A core take-home message is how all children, whatever their make-up, will thrive to the best of their ability if their social and emotional needs are noticed and responded to in a way that does not overwhelm, or lead to a

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Early social and emotional experience matters: the first year of life

feeling of neglect. Familiarity with the normative sequence of emotional development in the first year of life, outlined in this chapter, may aid the professional and parent alike in knowing how and when to respond to infants' emotional signalling.

CRYING

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Newborn babies cry for typically about 30-60 minutes in a 24-hour period. This is about 10-20% of their waking time because newborns (fortunately) sleep for approximately 16 hours, or two-thirds of the day. As with all behaviours, there is a wide range of normal variation, but the 10% of infants who cry for more than 3 hours per day are distressed as much as half of their waking time. This not only causes great concern to caregivers but is also linked to postnatal depression, marital stress and shaken baby syndrome. Fussiness appears to peak at 6 weeks universally [11], but fortunately very cranky newborns typically become much more settled by 3 months of age. And babies whose cries are responded to promptly and efficiently in the first three months, in the context of high marital satisfaction, cry significantly less at 9 months [12].

Infant cries have been reliably identified by scientists, mothers and others as fitting one of three types, indicating (i) hunger; (ii) fatigue or (iii) pain, the latter being a short, sharp, elongated piercing sound followed by apnoea. The hunger cry is one that builds steadily, while the fatigue cry is more of a whimper. Clearly, being in close proximity to an infant helps a caregiver to identify correctly the source of the distress, and responding promptly with sensitivity is the appropriate action.

SMILING OR JOY

The natural course of the smiling response is an instructional illustration of how emotional capacities steadily and gradually appear only partly in response to the quality of care received. In other words, there are well-documented timetables by which certain positive and negative emotions show themselves on infants' faces and in their behaviour. At the same time, the infant's capacity for showing and sharing a wide range of emotions is related to the face the baby sees on the mother or father or other who assumes the responsibility of providing care. Attentive care, including simple verbal

descriptions of emotion, in response to infants' emotional expression, is likely to promote children's accuracy in labelling and understanding emotional expressions, and sequences [13,14].

Newborns do not smile, or only appear to smile as when the corners of their mouths upturn slightly in a Mona Lisa way. Such positive expressions are fleeting and appear to indicate sensory comfort, for example following a feed, or the passing of wind, or otherwise becoming used to the good feelings of having some control over being a body in this world. This fleeting positive expression becomes more consistent and definite over the first 6–8 weeks. By 8–10 weeks, there is progression to what is a somewhat more elaborate closed or open mouth smile linked to familiarity with what the infant is looking at, either animate (e.g. mother's face) or inanimate (e.g. a mobile over the baby's crib). For caregivers this is a noticeable advance, and infants of 2 months are frequently said to be smiling. This unfolds into a full social chuckle in the 12–16-week period, completing the initial emergence and organization of the smiling response such that frequent social smiling and laughter are commonly seen only at 4 months. Positive joyful expressions take on an increasingly differentiated range, dependent on the interaction partner. The developmental course of the smiling response appears to be the result of 'hard-wired' neurobiological programming insofar as smiles develop in babies who are born blind. Yet, the smile of the person who has never had sight lacks much of the nuance and complexity seen in sighted people, who have had the benefit (and risk) of the full range of visually perceived social interaction [15].

SURPRISE, ANGER AND SADNESS

Surprise, anger and sadness represent a chain of emotions that result from a functioning memory and set of expectations regarding a hoped for experience or interaction. Surprise, indicated by a vertical oval open mouth and raised evebrows, is the natural result when things don't appear as they should, or things don't go our way. And when restoration of the hoped for event or interaction does not follow, surprise can quickly turn to protest or anger, with a characteristic furrowed brow and gritting of teeth [16]. And, finally, should this not lead to a successful restoration of the hoped for outcome, resignation and sadness, even 102

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General patterns of development

depression, may follow [4]. The point here is that a rather sophisticated cognitive appraisal process underpins these emotional expressions, and it is only in the latter half of the first year that we see definite expressions of these facial expressions of emotion. The caregiver who reads well these emotions on the face of his/her baby will know how valuable it is to speak aloud about the good reasons for feeling these emotions, and the diverse ways of addressing them. Here the point is that research underlines how vital it is to speak to infants, especially from 4 months onwards, in a simple clear way, describing what the infant is doing, appears to want, and what one (or others) did or are doing in response. This is the ideal parental response to shared or joint attention [1,13]. In this way, infants will learn the rewards of feeling a range of positive and negative emotions, blended emotions, sequential and mixed emotions, coming to see the natural function and value of emotional experience.

FEAR

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Interestingly, the appearance of an organized expression of fear is directly linked to the onset of locomotion around 8-10 months, and the cognitive-motoric achievement of object permanence [17]. With organized knowledge that a valued object can be out of sight, but remains in mind, and can be recovered, infants show stranger anxiety [4], or 8-month anxiety [18]. Fearful protest may bring the caregiver back. Clinically, it is a source of concern when a 1-year-old infant separates too easily from a caregiver without protest. Once able to move on their own, infants can easily find themselves in danger, looking over a precipice. Fear is an adaptive response, and one that typically leads to social referencing (looking at the trusted caregiver for cues as to how to behave). The powerful social influence of the trusted caregiver has been demonstrated in classic experiments involving a visual cliff where a crawling infant is placed atop a flat surface that looks (to the infant) as if proceeding would entail falling. It is actually a transparent surface that can support the infant. On their own, infants are typically fearful of the apparently imminent fall, and will not proceed. Yet, when their mother signals to them in a positive way, assuring them it is safe, infants advance, conquering their fear [19]. This effect of trust in the caregiver has

been noted repeatedly, particularly when a secure infant—caregiver attachment typifies the pattern of relating. Where fear appears on an infant's face or is indicated by his or her behaviour (e.g. freezing) in the presence of the caregiver, evidence suggests that there is a troubling disorganizing element to the child's relationship with the caregiver, one with long-term adverse mental health correlates (see Chapter 15).

The identifiable facial expressions of these emotions – joy, sadness, surprise, anger and fear – were noted by Darwin [2] and then shown to be recognizable around the globe by Ekman and his colleagues [16]. At the same time, the clarity and organization with which infants show these emotions, and later demonstrate verbal labels for them, has been linked to sensitive and responsive care over the first year of life [12,13]. Deficits in labelling emotion faces have been noted during middle childhood for those whose early experience was deficient [20].

CONCLUSION

There is a paradox about early social and emotional development regarding two matters of perhaps equal importance to note: (i) Infants are far more perceptive and competent than was appreciated 50 years ago, calling for respect and sensitivity on the part of caregivers from earliest infancy, if not the moment of conception, forwards, and (ii) yet there is little evidence to support the notion, very popular in 1970, that 'bonding' occurs shortly after birth. The latter notion led to much (over) concern that no mother (or father) should miss out on the 'vital' opportunity to bond with one's infant in the seconds, minutes and hours after birth - an anxiety-provoking and unhelpful message. Social experience, and attunement between caregivers and infants is vital, but mistakes on the part of caregivers, hopefully not major ones, are inevitable. It is both consistency of care, and reparation following a ruptured, incomplete or confusing interaction [3], that typifies normal social development and optimal mental health outcomes. Professionals and parents alike can benefit from this knowledge that occasional conflict is to be viewed as inevitable and repair/resolution – to be initiated by the caregiver – is seen as essential. A caregiver who invests in reliably repairing ruptures in early infancy, following caregiver

Early social and emotional experience matters: the first year of life

misunderstanding, interference or neglect, is likely to realize the rewards of having a socially competent child in the future, someone capable of establishing and maintaining meaningful and healthy social relationships.

REFERENCES

- Bretherton I, Fritz J, Zahn-Waxler C, Ridgeway D. Learning to talk about emotions: A functionalist perspective. *Child Development* 1986;57:529–48.
- [2] Darwin C. The Expression of Emotion in Man and Animals. London: Harper Collins, 1872.
- [3] Tronick E. Emotion and emotional communication in infants. *American Psychologist* 1989;44:112–19.
- [4] Bowlby J. Attachment and Loss: Vol. 2, Separation, Anxiety and Anger. London: The Hogarth Press, 1973.
- [5] O'Connor TG, Heron J, Glover V. Antenatal anxiety predicts child behavioral/emotional problems independently of postnatal depression. *Journal of the American Academy of Child & Adolescent Psychiatry* 2002;42:1470–7.
- [6] Bronfenbrenner U. *The Ecology of Human Development: Experiments by Nature and Design*. Boston: Harvard University Press, 1978.
- [7] Mayes LC, Gilliam WS, Sosinsky LS. The infant and toddler. In: Andres M and Volkmar FR (eds), Lewis's Child and Adolescent Psychiatry: A Comprehensive Textbook, 4th edn. Philadelphia: Walters Kluwer, 2006; pp 252–60.
- [8] Ainsworth MS, Blehar MC, Waters E, Wall S. Patterns of Attachment: A Psychological Study of the Strange Situation. Oxford: Lawrence Erlbaum, 1978.
- [9] Bowlby J. Grief and mourning in early childhood. *Psychoanalytic Study of the Child* 1960;15:9–2.

- [10] Sroufe LA. Attachment and development: A prospective, longitudinal study from birth to adulthood. *Attachment and Human Development* 2005;7:349–67.
- [11] Barr RG, Konner M, Bakeman R, Adamson L. Crying in !Kung san infants: A test of the cultural specificity hypothesis. *Developmental Medicine and Child Neurology* 2008;33:601–10.
- [12] Belsky J, Fish M, Isabella R. Continuity and discontinuity in infant negative and positive emotionality: Family antecedents and attachment consequences. *Developmental Psychology* 1991;27:421–31.
- [13] Steele H, Steele M, Croft C, Fonagy P. Infant-mother attachment at one-year predicts children's understanding of mixed emotions at six years. *Social Development* 1999;8:161–78.
- [14] Steele H and Steele M. Early attachment predicts emotion recognition at 6 and 11 years. *Attachment and Human Development* 2008;10:379–93.
- [15] Fraiberg S. Parallel and divergent patterns in blind and sighted infants. The Psychoanalytic Study of the Child 1968;23:264–300.
- [16] Ekman P. Emotions Revealed. New York: Henry Holt & Co, 2003.
- [17] Piaget J. The Construction of Reality in the Child. London: Routledge and Kegan Paul, 1954.
- [18] Spitz R. Anxiety in infancy: A study of its manifestations in the first year of life. *The International Journal of Psychoanalysis* 1950;31:138–43.
- [19] Sorce JF, Emde RN, Campos J, Klinnert MD. Maternal emotional signaling: Its effect on the visual cliff behavior of 1-year olds. *Developmental Psychology* 1985;21:195–200.
- [20] Pollak SD, Cicchetti D, Hornung K, Reed A. Recognizing emotion in faces: Developmental effects of child abuse and neglect. *Developmental Psychology* 2000;36:679–88.