Social Referencing

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Synonyms

Joint attention

Definition

Social referencing refers to the process wherein infants use the affective displays of an adult to regulate their behaviors toward environmental objects, persons, and situations. Social referencing represents one of the major mechanisms by which infants come to understand the world around them.

Description

In the last quarter of the first year, infants become capable of integrating interpersonal communication with objects and situations in the environment. Infants in this period are capable of viewing their parents as teachers and sources of knowledge about the environment; thus, there is true two-person communication about third events, including people and objects in the environment, which yields meaning about the world to the infant [2]. With newly acquired knowledge about environmental events, infants are capable of regulating their behaviors toward people and objects in accordance with the appraisals given them by caregivers.

Social referencing is perhaps the emotional cornerstone of this developmental period because it both broadens and deepens the infant's emotional life [3, 11]. Social referencing refers to the process wherein infants use the affective displays of an adult to regulate their behaviors toward environmental objects, persons, and situations [1]. In one of the most common paradigms used to study social referencing, an ambiguous and novel object is introduced to infants between the ages of 9 and 18 months. Upon the introduction of the object, an adult emotes, via facial and vocal modalities, either a positive or a negative signal to the infant. Of interest is (a) how the child's emotional displays are regulated and (b) how the child's instrumental behaviors, such as reaching, are regulated as a function of the adult's emotional displays. If, for example, a mother displays disgust in relation to a novel object, an infant tends to avoid the object and express negative emotions, but in the context of a happy display from the mother, the infant tends to readily approach the object [2]. Social referencing represents one of the major mechanisms by which infants come to understand the world around them [2].

The most powerful regulatory effects of social referencing were demonstrated using a visual cliff paradigm [8]. In this experiment, the investigators placed the infant on the shallow side of a visual cliff, and the mother stood at the deep side (30 cm) in front of the infant. The mother coaxed the child to the edge of the cliff and when the infant looked up at her, she posed 1 of 5 facial displays (happy, interest, fear, anger, and sad). When 12-month-old infants approached the edge of the cliff and saw their mothers pose a "fear face," none of the 17 infants crossed, and when they saw an "angry face" only 2 infants crossed. In contrast, 14 of the 19 infants in the happy face condition and 11 of the 15 infants in the interest condition crossed the cliff after referencing their mothers. Finally, infants showed mixed responses to their mothers' sad facial displays (6 of the 18 infants in the sad face condition crossed the cliff, the other 12 infants did not).

The findings concerning the regulatory effects of a variety of emotions on infant behavior in social referencing paradigms have been extraordinarily consistent [2, 7]. Four general conclusions emerge from the literature. First, the emotional expressions of others appropriately elicit approach and withdrawal behavior in a variety of settings. Second, vocal expressions alone, and together with the face, regulate infants' behaviors more powerfully than facial expressions alone [6, 7, 10]. Third, negative emotional displays elicit withdrawal from objects more readily than displays of joy elicit approach [3, 6, 9]. Finally, infants regulate their behavior in accordance with emotional displays from either the mother or another adult [4, 5].

In sum, social referencing represents one of the most significant milestones of emotional development in infancy. Many questions remain unanswered, however. For example, how does social referencing develop

over time? What individual differences exist in social referencing? What cognitive and perceptual skills enter into the development of social referencing? Future research holds the key to these questions.

References

1. Campos, J. J., & Stenberg, C. (1981). Perception, appraisal, and emotion: The onset of social referencing. In M. E. Lamb & L. R. Sherrod (Eds.), *Infant social cognition: Empirical and theoretical considerations*. Hillsdale, NJ: Erlbaum.

2. Feinman, S., Roberts, D., Hsieh, K.-F., Sawyer, D., & Swanson, D. (1992). A critical review of social referencing in infancy. In S. Feinman (Ed.), *Social referencing and the social construction of reality in infancy* (pp. 15–54). New York: Plenum Press.

3. Hertenstein, M. J., & Campos, J. J. (2001). Emotion regulation via maternal touch. *Infancy, 2*, 549–566.

4. Hertenstein, M. J., & Campos, J. J. (2004). The retention effects of an adult's emotional displays on infant behavior. *Child Development, 75*, 595–613.

5. Klinnert, M., Emde, R. N., Butterfield, P., & Campos, J. J. (1986). Social referencing: The infant's use of emotional signals from a friendly adult with mother present. *Developmental Psychology, 22*, 427–432.

6. Mumme, D. L., & Fernald, A. (1996). Infants' responses to facial and vocal emotional signals in a social referencing paradigm. *Child Development, 67*, 3219–3237.

7. Saarni, C., Mumme, D. L., & Campos, J. J. (1998). Emotional development: Action, communication, and understanding. In W. Damon (Ed.) & N. Eisenberg (Vol. Ed.), *Handbook of child psychology: Vol. 3. Social, emotional, and personality development* (5th ed., pp. 237–309). New York: Wiley.

8. Sorce, J. F., Emde, R. N., Campos, J. J., & Klinnert, M. D. (1985). Maternal emotional signaling: Its effect on the visual cliff behavior of 1-year-olds. *Developmental Psychology, 21*, 195–200.

9. Svejda, M., & Campos, J. (1982). The mother's voice as a regulator of infant's behavior. In *Paper presented at the international conference on infant studies*, Austin, TX.

10. Vaish, A., & Striano, T. (2004). Is visual reference necessary? Contributions of facial versus vocal cues in 12-month-olds' social referencing behavior. *Developmental Science, 7*, 261–269.

11. Witherington, D. C., Campos, J. J., & Hertenstein, M. J. (2001). Principles of emotion and its development in infancy. In G. Bremner & A. Fogel (Eds.), *Blackwell handbook of infant development* (pp. 427–464). Malden, MA: Blackwell Publishing.