ENCYCLOPEDIA
on Early Childhood
Development

Social Cognition in Infancy

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Introduction

Social cognition refers to the understanding of how people, including both others and the self, behave. In general, humans make sense of their own and other people's behaviour by making reference to internal psychological states, states such as emotions, thoughts and desires. Older children and adults can clearly show this understanding by the use of language referring to the psychological states and activities of themselves and others. However, even before the onset of language, infants may reveal this understanding through their behaviour towards others. Infants find other people fascinating from very early in life and, even before they can talk, are able to interact and communicate with them. Such interest and interaction depends on early forms of social cognition.

Subject

Infants are born into a complex social world. Infants need to learn quickly how to engage with the social world: how to respond to the actions of others, how to direct others towards fulfilling their needs, and how to build relationships. Furthermore, because most of what children will learn is culturally conveyed, infants rapidly need to use other people to learn about the external world.

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Problem

In the first 18 to 24 months, infants are not yet able to use language to interact with others or to express their understanding. Therefore, the significant problem in gaining knowledge about the development of infant social cognition is how to explore what infants understand about themselves and others without relying on language.

Research Context

Research has focused on how infants respond to various forms of social stimulation at different stages of development. By carefully controlling and monitoring the form of social stimulation that is presented to infants at different ages, and then observing their responses, much can be learned about how infants understand the social world.

Key Research Questions

Perhaps the core question of interest to researchers of infant cognition is: How do infants gain an understanding of persons as embodied psychological agents with both “first-person” experience and “third-person” characteristics?[1] There are two sides to this understanding. First, it involves knowing that other people are similar in nature to the self in that they have subjective experiences and second, it involves coming to an awareness that the self has an objective body like others. Subsidiary to this overarching question are questions about the nature of development. For example, are there fundamental, core social concepts such as intentionality, that govern the way infants understand other people from very early in infancy,[2] or are concepts about the nature of persons acquired in a more gradual piecemeal fashion based on “second-person” information gained though interactions with other people through the period of infancy.[3,4]

Recent Research Results

It is well known that infants begin life with an interest in, and preference for, social stimulation.[5] Human faces and voices are the most effective ways to capture a young infant’s attention. By two to three months, infants are able to participate in simple social interaction with others whereby they can coordinate their gestures, vocalizations and facial expressions with others.[6] At this time infants begin to interact with objects in their environment selectively, this experience facilitates their prediction of other’s action.[7] During the second half of the first year, infants start to engage

in joint or shared activities with objects such as toys.[6] They can participate in simple turn-taking games; they can follow the attention of others as well as direct the attention of others; they can acquire emotional orientations to objects based on the emotions that others express; they form social evaluations based on the actions of others;[8] they can learn new ways of engaging with objects though imitation of other. These kinds of behaviours indicate that infants are becoming sensitive to the psychological states of others, although at first this understanding is manifest only in situations in which infants can share such psychological states with others.[9] During the second year, infants become able to recognize that others may experience psychological states that are different from their own and form expectations of how others will behave on this basis, for example, they can understand that someone else may not see something that they can see or that someone else may feel something that they do not feel. At the same time, infants show clear evidence of self-awareness, such as recognizing themselves in a mirror.[10] These developments result in profound changes in infants' social behaviour. Most notably they begin to show empathic and prosocial behaviour towards others,[11] and they become able to cooperate with,[12] and learn more effectively from others.[13] These behaviours are increasingly guided by social understanding that extends beyond action cues, as infants select appropriate prosocial responses based on a partner's goal and imitate the intended actions of others.[14,15] At the same time, infants become increasingly autonomous, able and willing to express and exert their independence.[1] These various findings reveal progressive development in social cognition in the infancy period even before language has become established.

Research Gaps

Although much is now known about the milestones of infants' understanding of others and their awareness of self, we still know relatively little about how development proceeds from one milestone to the next. Why do infants begin to be capable of structured social interaction at about two to three months? Why are they able to engage in object-centered joint activity at about nine months? And what paces the onset of the awareness of self and the awareness that others may have different psychological states at about 18 to 24 months? There is good reason to believe that reliably patterned social stimulation plays a significant role in these developments. However, other more maturationally governed changes such as changes in brain organization and cognitive complexity seem also to be important.

Implications for Parents, Services and Policy

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Almost from birth, infants are very sensitive to the behaviour of other people and from very early in life they crave social attention. As they develop, the type and complexity of the social attention they seek changes so that initially face-to-face attention may suffice but by the end of the first year infants want to play with objects with other people and engage in various joint activities with others. At this point they are able to learn new behaviours through imitation of others and the sophistication of this learning rapidly expands during the second year of life. Infants are thereby launched upon what will become a lifelong career of cooperative activity and social learning. The development of social cognition during the infancy period is dependent upon regular and reliable social interaction that is keyed to the infant's developmental stage. Faced with expanding attention demands on parents in the form of digital media, it remains essential that social development through the first two years is supported by consistent joint activities (i.e., playing games) with responsive caregivers.

References

1. Moore C. *The development of commonsense psychology*. Mahwah, NJ: Lawrence Erlbaum Associates: 2006.
2. Carey S. *The origin of concepts*. New York, NY: Oxford University Press: 2009.
3. Moore C. Representing intentional relations and acting intentionally in infancy: Current insights and open questions. In: Knoblich G, Thornton I, Grosjean M, Shiffrar M, eds. *Human body perception from the inside out*. New York, NY: Oxford University Press. 2006: 427-442.
4. Moore C, Barresi J. The role of second-person information in the development of social understanding. *Frontiers in Psychology* 2017;8:1667. doi:10.3389/fpsyg.2017.01667
5. Rochat P. *The infant's world*. Cambridge, MA: Harvard University Press: 2001.
6. Reddy V. *How infants know minds*. Cambridge, MA: Harvard University Press: 2008.
7. Sommerville JA, Woodward AL, Needham A. Action experience alters 3-month-old infants' perception of others' actions. *Cognition* 2005;96(1):B1-B11.
8. Hamlin JK, Wynn K, Bloom P. Social evaluation by preverbal infants. *Nature* 2007;450(7169):557-559.
9. Moll H, Tomasello M. How 14- and 18-month-olds know what others have experienced. *Developmental Psychology* 2007;43:309-317.
10. Brownell CA, Zerwas S, Ramani GB. "So big": The development of body self-awareness in toddlers. *Child Development* 2007;78(5):1426-1440.
11. Warneken F, Tomasello M. Varieties of altruism in children and chimpanzees. *Trends in Cognitive Science* 2009;13:397-402.
12. Warneken F, Tomasello M. Helping and cooperation at 14 months of age. *Infancy* 2007;11(3):271–294.
13. Herold K, Akhtar N. Imitative learning from a third-party interaction: Relations with self-recognition and perspective-taking. *Journal of Experimental Child Psychology* 2008;101:114-123.
14. Buttelmann D, Carpenter M, Tomasello M. Eighteen-month-old infants show false belief understanding in an active helping paradigm. *Cognition* 2009;112(2):337–342. doi:10.1016/j.cognition.2009.05.006

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15. Meltzoff AN. Understanding the intentions of others: Re-enactment of intended acts by 18-month-old children. *Developmental Psychology* 1995;31(5):838–850. doi:10.1037/0012-1649.31.5.838

Note:

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