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## SCIENCE – IN THE NEWS

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### Social Evaluation by Preverbal Infants

Adult humans' successful existence in the social world rests on the ability to evaluate others. We must be able to determine the trustworthy from the untrustworthy individuals, and identify who is likely to be helpful, who is not—who might be worth approaching and who it is better to avoid. These judgments are informed in part by others' behaviors—we tend to judge positively those whose actions toward others are prosocial and helpful, and to judge negatively those whose actions are harmful or antisocial in nature. By assuming that others' social actions are motivated by underlying and enduring personality traits that will continue to influence their behavior over time, we can make judgments about who will be a good or bad social partner.

When and how does the ability to evaluate others develop? Is it something that we learn during childhood by observing and experiencing the explicit judgments, approbations, and condemnations of our parents and others, or are the seeds of an evaluative capacity present before the onset of language and explicit teaching? Recent research with infants in the first year of life suggests the latter (1). In these studies, 6- and 10-month-old infants were presented with a puppet show in which a character tried, but repeatedly failed on its own, to reach the top of a steep hill. On alternating attempts, the climber was helped up the hill by a second puppet, and hindered—pushed down the hill—by a third puppet. Infants were shown these events repeatedly until they lost interest in the displays (indicated by decreased looking to the events). Each infant was then offered a choice between the helping and hindering characters. The large majority of both 6- and 10-month-old infants chose the helper—presumably because it had

helped the climber achieve its goal. This interpretation was supported by an additional study in which infants chose between two characters, which pushed an inanimate object, either to the top or the bottom of the hill. In this study, babies showed no preference between the two characters, suggesting that infants' choices in the first study were not based on physical aspects of the displays (such as a general preference for those that push up). Together, these results suggest that even infants evaluate individuals based on their behavior toward others: infants prefer those who help others to those who hinder them.

Do infants' choices for the helping over the hindering character reflect a preference for the helper, an aversion for the hinderer, or both? In a third study, infants of both ages reliably preferred a helping character to a neutral one (who did not interact with the climber), and a neutral character to a hindering one, indicating that infants both positively evaluate individuals who aid others and negatively evaluate individuals who impede others.

This research indicates that even very young infants evaluate others based on their behavior, long before they have been explicitly taught to do so. Further research will investigate the extents and limits of infants' evaluative system, and how this basic system, with time and experience, develops into the mature and nuanced system of moral evaluation present in adults. — *J. Kiley Hamlin, Karen Wynn, Paul Bloom*

#### REFERENCE

1. Hamlin JK, Wynn K, Bloom P 2007 Social evaluation by preverbal infants. *Nature* 450:557–560