

INFANTS' HANDEDNESS FOR GRASPING OR POINTING TO OBJECTS, AND LANGUAGE DEVELOPMENT

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According to the gestural origin of language theory, articulate language developed out of gestural communication before ceasing to depend directly on the hand. Evaluating the relationship between the development of object-related handedness and of handedness for communicative gestures in human infants is one way to contribute to the debate. If handedness in communicative gestures is not directly related to, and more strongly biased to the right than object-related handedness, it would be in favour of the gestural origin of language, at least during ontogeny. Twenty-two 14-month-olds were tested for handedness during object grasping and observed on a pointing task to targets placed out of reach at different spatial positions from left to right. We also tested infants' word understanding and word production to evaluate the relationship between gestural communication and language development. 77% of infants pointed to the left, middle and right targets. The majority of infants were right-handed for pointing and for grasping objects. Frequency of right-handers tended to be greater for pointing than for grasping. There was no significant correlation between the two measures of handedness, but a significant relationship between frequency of pointing and the number of words understood. In addition, right-handed pointers understood significantly more words than non-right-handed pointers. These results suggest that hand choice for pointing is not simply a consequence of hand choice for object-related action, but rather that the two systems develop more or less independently. They are compatible with the notion that pointing gestures are a primitive form of language.

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