

Title: 6-month old infant point-following is related to infant emotions and maternal sensitivity

Authors: Acuña, JA, Deák, GO, Chiba, AA & de Barbaro, KL

Abstract:

We investigated the relationships between maternal sensitivity, infant affect as measured by facial expressions and vocalizations, and infant shared attention, during a naturalistic dyadic interaction. Previous studies have looked at similar relationships, but have coded responsivity and infant attention-sharing during separate sessions (e.g., in home and in lab, or on different days). This is potentially problematic because there are task context effects on the quality of dyadic interactions (e.g. Hane & Fox, 2006; Tu, et al., 2007; Thompson & Trevathan, 2008). In addition, previous studies have not examined the relation between responsivity and infant attention-sharing in naturalistic contexts. This is important because there are strong context effects on attention-sharing (Deák et al, 2008). We observed thirteen 6-month old infants in the home in a free-play and point-and-look task with their mothers. There was a weak relation between maternal sensitivity during free-play and the point-and-look tasks ( $r = 0.23$ ), indicating that responsivity differences are context-specific: a parent's sensitivity to infant's behavior in any given context might predict some social outcomes but not others. Higher maternal sensitivity during the point-and-look task, but not during free-play, was significantly positively correlated with the percentage of mothers' pointing gestures that infants successfully followed ( $r = 0.71$ ,  $p = 0.003$ ). Infant vocalizations were related to point-following ( $r=0.72$ ,  $p=0.003$ ), but in a curvilinear relation: the happiest babies following pointing cues the most and the fussiest babies followed at an intermediate rate; impassive babies followed fewest points. Maternal sensitivity and infant vocalization scores were weakly correlated ( $r = 0.51$ ,  $p = 0.07$ ), but results indicate potentially competing trends. Facial affect was not correlated with either point following or maternal sensitivity, but was highly correlated with vocal affect ( $r = 0.67$ ,  $p = 0.008$ ).

Results extend earlier findings that maternal sensitivity and infant emotional state are important factors in the emergence of attention-sharing interactions in the home environment. The results also highlight across-task differences that have implications for future studies of parent-infant interaction, infant emotional development, and attention-sharing. While individual differences are certainly important, to understand infant-parent social interactions it is necessary to examine dyadic differences as well. A closer analysis of these dyadic states and how mother's temporally coordinate their behaviors with infant's emotions and other cues may shed light on important aspects of early learning.