FOUR-MONTH-OLD INFANTS’ INTER-PERSONAL SYNCHRONY OF EMOTIONAL COMMUNICATION: AN INVESTIGATION WITH MOTHERS, FATHERS, AND STRANGERS

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Infants actively communicate and interpret emotional responses during social interactions via the inter-personal synchrony of the three modalities of emotional communication (EC): gaze direction, facial expressions, and vocalizations (Beebe et al., 2016). Inter-personal synchrony of EC within the adult-infant dyad is the temporal coordination of one’s EC in response to their interaction partner’s prior behavior (Beebe et al., 2010). Healthy parent-infant synchronies are related to self-regulation and socio-emotional development (Feldman, 2007). Although research has investigated these dynamics in mother-infant interactions, comparatively little is known about inter-personal synchronies of father-infant and stranger-infant dyads. This study examines differences in the inter-personal synchronies of four-month-old infants’ emotional communication with mothers, fathers, and strangers across dyadic and triadic contexts.

Participants include 60 Dutch families (47% female infants). Observations were micro-coded (frame-by-frame) using the software program, Observer XT 13.0 (Noldus, Trienes, Hendriksen, Jansen, & Jansen, 2000). Gaze and facial expression synchronies were exported as temporal co-occurrence, and vocalizations as temporal sequential analysis. Based on previous literature, we expected: a) increased gaze synchrony in mother-infant dyads, b) similar levels of positive facial expressions with mothers and fathers and lower levels with strangers, c) increased levels of vocalization lag synchrony with strangers.

Preliminary multilevel regression analyses \( (N = 34) \) showed trends supporting increased gaze with mothers and increased facial expressions with familiar partners. Vocalization synchrony was significantly higher with strangers during dyadic but not triadic interactions. Final results on the entire sample will be presented at the conference.

The current study provides a clearer understanding of infant EC use and their synchronies, as well as insight into the differentiating development of inter-personal synchrony already observable at four months within and between familiar and unfamiliar interaction partners. This further contributes to our understanding of infants’ socio-emotional development and their relation to the development of later psychopathologies in children.