The Development of Infant Responding to Discrete Emotions: Differential responses in 16- and 24-month-old infants

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Research to date has investigated infant discrimination of discrete displays of emotion (e.g., Flom & Bahrick, 2007), approach and avoidant behaviors to positive and negative emotions (e.g., Walden & Ogan, 1988), and the presence of distinct emotion categories in early childhood (Widen & Russell, 2008). However, a distinct gap in the literature exists in identifying at what age infants demonstrate differential behavioral responding to discrete emotions (Walle & Campos, 2013). The present study explored the development of infants’ responding to discrete emotions.

Sixteen- and 24-month-old infants (observations = 120 and 156, respectively) observed an experimenter express one of five emotions (joy, anger, sadness, fear, and disgust) through the face, voice and posture toward a stimulus. Infants were allowed to freely respond to the emotional context. Researchers coded specific infant behavioral responses to identify patterns of behavioral variables constituting a coordinated response (all kappas >.70). Latent-class analysis (LCA) identified four distinct classes of coordinated functional behaviors (3-class BIC=3492.30; 4-class BIC=3484.80; 5-class BIC=3502.96), characterized as: Security Seeking, Prosocial, Exploring, and Relaxed. A fifth group was also identified to describe infants who displayed no instrumental behaviors and only engaged in social referencing.

Subsequent analyses compared the frequency of infant response patterns in each emotion condition. A number of interesting differences emerged from the data, some of which are highlighted here. Age-related differences indicate that older infants were more likely to seek security (Χ²=5.14, p=.02) than younger infants, particularly in response to Anger. Older infants also trended toward responding prosocially more than younger infants (Χ²=2.19, p=.14), particularly in the Sadness condition. Younger infants, on the other hand, were more often relaxed than older infants (Χ²=16.10, p>.00), particularly in response to Joy. Specific to 24-month-old infants, Security Seeking was more likely to occur in Anger than in Joy (Χ²=17.68, p<.00) or Sadness (Χ²=5.43, p=.02). Also, Prosocial responding trended toward being more likely in Sadness than in Joy (Χ²=2.49, p=.11), Fear (Χ²=2.49, p=.11), or Anger (Χ²=3.47, p=.06). Additional differences across emotion conditions, both within and between age groups, will be elaborated upon in the presentation.

To our knowledge, this is the first study to identify functional behavioral response patterns to discrete emotions in infancy and examine their development. Furthermore, the inclusion of multiple discrete negative emotions makes clear that infants do not merely approach or avoid stimuli based on the valence of emotional communication, but rather demonstrate more nuanced patterns of responding specific to discrete emotions.