Chapter 5
The Relational Aboutness of Emotions in Interpersonal Contexts

Jennifer M. Knothe and Eric A. Walle

Emotions are relational. As such, their communication functions to signal relational significance to social partners. Appreciating emotion entails more than perceiving their signals; it requires understanding the relational significance of relevant aspects of the emotional context (see Barrett and Campos 1987; Walle, Reschke, Camras, & Campos, 2017; Walle, Reschke, & Knothe, 2017). Yet, to the detriment of the field, considerable theory and research has examined emotions detached from such relational elements. This chapter highlights the importance for individuals (researchers included) to appreciate relational elements of significance that correspond with emotion communication. As a point of entry, we highlight how 5 widely studied discrete emotions (anger, sadness, fear, disgust, and joy) differ in their communication about such relational elements. In doing so, we specifically focus on how these discrete emotions vary in their corresponding relational elements and regulatory functioning in interpersonal transactions, and how this perspective can expand our understanding of emotion communication and responding.

What Is Communicated by Emotional Communication?

Emotions are not merely internal phenomenological states contained within an individual; emotions are *about* and *in relation to* something (Deonna and Teroni 2012; Gordon 1974). Thus, to fully appreciate emotional communication, it is not enough to simply identify that an individual is angry. Rather, one must understand the intentional object of the emotion, specifically *at what* is the individual is angry (Deonna and Teroni 2012), as well as *why* and *how* the individual is angry. This aboutness

J. M. Knothe (✉) · E. A. Walle
University of California, Merced, CA, USA
e-mail: jknothe@ucmerced.edu

U. Hess, S. Hareli (eds.), *The Social Nature of Emotion Expression*,
https://doi.org/10.1007/978-3-030-32968-6_5

(see Gordon 1974; Hobson 1998) between a person and their environment is the crux of the emotion.

This notion of a relational aboutness of emotion is not new. Darwin (1872) and Dewey (1885) each viewed emotion as inherently about something of importance with regards to the goals of the organism. Thus, the relation of the individual and their perceived environment are constitutive elements that shape the quality of emotional experience (see Campos et al. 1989). When observing a child who is sad about their broken toy, it is not the child's tearful expression that constitutes the sadness context. Rather, what constitutes the context as one of sadness is the relation between the crying child and the broken toy; the relational significance *is* the emotion.

Importantly, emotions do more than help an individual to coordinate an adaptive response to the environment (Cosmides and Tooby 2000); they communicate to available conspecifics the need for adaptive responding to environment. Furthermore, the particular emotion communicates specific information to an observer. This includes both indirect information (e.g., underlying evaluations/appraisals) and direct information (e.g., facial and postural expression of emotion) about an individual embedded within a particular context.

Thus, appreciating others' emotions necessitates identifying the "emotionally meaningful objects, events, or states" (Frijda 2009, p. 266) in relation to the *emoter*. For example, observing an individual displaying fear is about more than realizing that the person is afraid. The observer must appreciate that the individual is relating with their environment in such a way that there is uncertainty and/or a threat in relation to the emoter (Barrett and Campos 1987). Furthermore, such a person-environment relation does not only communicate that the fearful individual is afraid of, for example, the edge of a cliff; it also communicates to an observer (e.g., an infant watching the scene unfold), be it ostensively or indirectly, that the drop-off is dangerous and must be avoided, and thereby functions to regulate the observer's behavior (Klinnert et al. 1983). Thus, affective displays are a powerful indicator of an individual's appraisal (e.g., their evaluations of the context: motive inconsistent, uncertain cause, low coping potential) and likely behavior (e.g., avoiding the dangerous cliff), and can serve to regulate the observers' subsequent behavior (e.g., observer should also avoid the cliff) (e.g., Fischer and Manstead 2008; Hareli and Hess 2012; Walle, Reschke, Camras, & Campos, 2017; Walle, Reschke, & Knothe, 2017).

Importantly, emotions communicate qualitatively different information as a function of the particular discrete emotional context (e.g., sadness, fear, joy). As such, we argue that the communication of discrete emotions differentially highlight particular elements of the significant individual-environment relation and the pattern with which these aspects are accentuated varies across emotions.

Aspects of Aboutness

The communicative value of a particular emotion differs as a function of the emotion and the context in which it is appearing (Parkinson et al. 2005; Walle and Campos 2012). As such, discrete emotions highlight for the observer specific aspects of significance in the emotional context. However, the features most meaningful in an emotional context vary by the specific emotion being displayed (see Brosch et al. 2010). Two essential elements that constitute an emotions' aboutness are the *emoter* (e.g., the person displaying the emotion) and the *referent* (e.g., the object or situation at which the emotion is directed).

Barrett and Campos (1987) theorized that some emotions are more relevant for social communication with a relational partner (i.e., anger, sadness), whereas other emotions focus on survival in relation to a threat (i.e., fear, disgust). This is not to say that specific emotions are about only the referent *or* the emoter, but rather that specific emotional communication emphasizes aspects of the relational significance between these elements. In other words, the communicative value of the emotion may place more emphasis on the emoter or referent as a function of the relational context.

Consider witnessing an individual displaying *fear* in response to a dog. Although understanding the emotion of fear by an observer entails appreciating the emoter's significant relation with the dog, the immediate value of the communication for the observer is that the dog (i.e., the referent) is a threat deserving of attention and avoidance. Conversely, consider observing an individual expressing *anger* toward that same dog. As before, the observer needs to understand the significant relation between the person and their environment (anger). However, this emotional context is more likely to communicate relevant information regarding the angry individual (i.e., the emoter is someone who abuses animals) than the anger-eliciting referent (i.e., the dog) to the observer. In both of the above examples the observer perceives the emotional context. However, the signal value, and thus aboutness, of the emotional communication differentially concerns the referent in the former and the emoter in the latter.

This differential relevance of the emotional element is not dependent upon the concreteness of the referent but the emotion itself. One may be angered by computer crashing or saddened by a broken vase (tangible referents) just as one can be disgusted by injustice or fearful of an impending test result (less tangible referents). In each case, the task for an observer it to identify the significant relational elements (emoter and referent) as a function of the emotion and to use this information to appropriately respond to the context. Below, we incorporate theoretical and empirical evidence to illustrate how emotions highlight specific aspects of relational significance, and how this communication is perceived and utilized by social partners.

The Aboutness and Regulatory Functions of Discrete Emotions

We would argue that the above theoretical perspective is applicable to all emotions, albeit the degree of differential emphasis of the communication likely varies depending on the particular emotion of interest. Below we highlight research that provides evidence for differentiated attention and responding to 5 discrete emotions commonly studied in the literature: anger, sadness, fear, disgust, and joy. For each emotion, we first detail the relational significance communicated by the emotion, and then describe potential relational responses by an observer. By no means does this mean that our perspective is limited to only these emotions; rather, space constraints prohibit the inclusion of additional emotions in such detail. The importance of considering other emotions (e.g., pride, shame, awe) is described in a subsequent section of this chapter.

Anger

Communicated Relational Significance of Anger

According to Lazarus (1991) the core-relational theme of anger is blaming a transgressor for an offense to oneself or a vulnerable individual. Indeed, anger is theorized to prepare an individual to strike or attack another individual (Darwin 1872), and typically involves elevated heart rate and blood pressure (Levenson 1992). This aligns nicely with Fessler's (2010) view that the evolutionary function of anger is to lessen or prevent a transgression against oneself or a significant social other (e.g., family, friends). Thus, the function and physiology associated with anger indicates that angry individuals are in a heightened state of readiness to overcome an obstacle. Such anger displays provide important information to the observer that guides how they attend and respond to the situation.

Research has examined how individuals attend to and detect angry faces. Such work commonly examines the efficiency and accuracy of detecting an emotional face within the context of many other distractors. The accuracy and efficiency for detecting angry faces is heightened compared with other emotions and has been termed the Anger Superiority Effect (e.g., Ceccarini and Caudek 2013; Juth et al. 2005; Savage et al. 2016). Additionally, angry faces moving toward, rather than away, from a participant are more likely to be recognized as anger (Nelson et al. 2013). The increased accuracy of detecting an angry face when it moves toward an individual fits well with the notion that anger functions to ready the emoter for attack. Thus, increased attention toward the angry person could help an observer avoid harm. Observers rate anger expressions as more dominant and less affiliative than other emotion displays (Knutson 1996). Indeed, personal experience with angry individuals facilitates attention to and detection of anger expressions. For example, children from abusive homes can more quickly identify expressions of

anger than their non-abused peers, indicating that their prior experience heightens detection of angry individuals (Pollak et al. 2009). Thus, the increased attention to and detection of anger is important for an observer in this emotional context.

Relational Responding to Anger

The above aspects of emotion perception and processing of anger expressions impacts on how an observer responds in such contexts. Specifically, when observing expressions of anger toward a referent, it is likely adaptive to increase attention to the emoter (angry person), who may be a potential threat to the observer, rather than to the referent. Empirical research supports this supposition. When anger is communicated towards a referent, observers are less likely to directly engage with the angry person rather than the object (e.g., Strayer 1980; Walle, Reschke, Camras, & Campos, 2017; Walle, Reschke, & Knothe, 2017). Consequently, infant responses to observing angry individuals are associated with heightened attention to and avoidance of the emoter, but not necessarily avoidance of the object (e.g., Camras 1977; Walle, Reschke, Camras, & Campos, 2017; Walle, Reschke, & Knothe, 2017). For example, Repacholi and colleagues (Repacholi et al. 2008) found that 18-month-old are sensitive to the distinction between an anger-tagged object and an anger-eliciting action. In this study, infants witnessed one adult react angrily to another adult performing an action on a toy. The infant was then given the toy and allowed to respond for 20 sec. In conditions in which the previously angry adult was not paying attention to the child (reading a magazine or having their eyes closed) or with the second adult present, the infant was more likely to repeat the action previously displayed. However, when the previous emoter was attending to the infant, they were less likely to repeat the action but did not necessarily spend less time touching or playing with the object. Thus, social avoidance is a common response to angry individuals though alternative responses directed toward the angry emoter include joining or asserting dominance over the angry individual (Walle and Campos 2012). Regardless of whether the observer avoids, confronts, or joins an angry individual, the emoter is clearly the focus in such emotional contexts.

Sadness

Communicated Relational Significance of Sadness

In contrast to anger, sadness signals to others that the emoting individual needs help or comfort in dealing with an irrevocable loss (see Lazarus 1991). Indeed, the facial and bodily expressions of sadness commonly have an inward focus toward the emoter. Recognizable expressions of sadness typically feature downcast eyes, downward turning of the corners of the mouth, lowering of the head, slumping of the shoulders, and a diminutive, inward posture (e.g., Darwin 1872; Ekman 1971; Lopez et al. 2017). Correspondingly, expressions of sadness motivate the sad indi-

vidual to seek help for themselves and facilitate prosocial responding from other individuals (Frijda 1986). As such, crying is considered an essential signal to solicit help from conspecifics and thereby facilitate survival (Bowlby 1983). Empirical work finds that this social function of sadness can be exploited in particular contexts. For instance, adults are more willing to express and experience sadness when they expect that sad displays will elicit helpful responses from others (Hackenbracht and Tamir 2010). The potential for sadness to elicit prosocial responding from others is an important function of the sad expression, making sadness a highly socially-relevant emotion (Barrett and Campos 1987).

Relational Responding to Sadness

Observing a sad individual is likely to increase attention to the emoter so as to coordinate an adaptive social response (e.g., helping or comforting the emoter), whereas focusing on the lost referent (e.g., a totaled car, death of a loved one, or broken toy) is of less concern. Although one might argue that the relational significance of loss would make a tangible referent less likely in sadness contexts, we would argue that the physical presence or concreteness of the relational object need not be correlated with its elicitation of attention. For instance, one can be saddened by a broken vase (tangible) or the death of a loved one (intangible), yet the direction of attention is still increased in focus toward the emoter than the referent.

Displays of sadness motivate the observer to respond prosocially toward the emoter in an attempt to relieve the sad individual's distress (e.g., Stocks et al. 2009). When adults display concern for an observed sad experience (e.g., a sad video clip), they were more likely to behave prosocially toward the sad actor (Eisenberg et al. 1989). This response is observed in young infants who will respond to a sad individual with increased prosocial responding, comforting behaviors, and verbal concern toward the emoter starting around 18-months (e.g., Spinrad and Stifter 2006; Svetlova et al. 2010; Zahn-Waxler et al. 1992). Alternatively, an observer may divert attention away from the sad individual so as to not draw attention to their distress, and thereby "provide space" for the emoter to recover and rejoin the group (see Walle and Campos 2012). However, even in such instances, the emoter is likely to be the primary focus of attention. Thus, displays of sadness place the emoter central within the emotional context.

Fear

Communicated Relational Significance of Fear

Fear serves the adaptive function of allowing the individual to identify, respond to, and communicate the presence of a threat to social partners. The canonical fear expression consists of widened eyes to increase visual perception, a slight opening

of the mouth, and postural and physiological responses in preparation for self-preservative action (Darwin 1872; Ekman 1971; Ekman et al. 1972). These actions help prepare the individual to take in more visual information and flee perceived threats. Such increased attention to the threatening referent is vital for adaptive responding to contexts of fear.

Research indicates that there is a strong attentional bias toward threatening objects. Children and adults more readily direct attention to and identify threatening stimuli, such as snakes or spiders, than non-threatening stimuli, such as flowers (LoBue and DeLoache 2008), and have difficulty shifting attention away from fear-conditioned stimuli (Schmidt et al. 2015). Individuals also more quickly detect, orient their gaze toward, and react more strongly to threatening stimuli than nonthreatening-negative, positive, or neutral stimuli (March et al. 2017). For the observer, the communicated relational significance of a fear display is that a threat exists in the environment that necessitates attention. Impressively, adults can identify and use the referent to disambiguate the social partner's fear display even when the referent is presented with minimal exposure (Mumenthaler and Sander 2012).

Relational Responding to Fear

The value of observing a fearful expression in a social partner is to identify the source of the threat and prepare oneself to engage in self-preservative behavior. Infant social referencing research shows that infants can appreciate the emotional display of fear and use another person's display of fear to regulate their own behavior in a situation (e.g., Sorce et al.1985). For example, 14-month-old infants explore a toy significantly less following an adult's fear display toward the object (Walden and Ogan 1988). In addition, work on the visual cliff demonstrates that 12-month-old infants who view their caregiver pose a fear face toward the drop-off modify their behavior in relation to the situation and do not cross the cliff (e.g., Sorce et al. 1985). Moreover, comparative research with non-human primates indicates that the presence of a stimulus is necessary for a fear display to condition fear responding in an observer (Mineka and Cook 1993). Together, this research suggests that observing expressions of fear increases attention toward fear-inducing stimuli in order to adaptively respond to the threatening referent.

Disgust

Communicated Relational Significance of Disgust

Expressions of disgust signal to social partners a need to attend to and avoid sensory contact with the disgusting object. Similar to fear, disgust motivates the protection of oneself from threatening stimuli (e.g., Darwin 1872). Expressions of disgust typically include an avoidant posture but with less emphasis on physically protecting

the self from bodily harm (see Lopez et al. 2017), and a face in which the nose is scrunched and the eyes are inadvertently slightly squinted as to shut off sensory input from noxious stimuli – though slight variations exist (e.g., Reschke et al. 2019; Rozin et al. 1994). As such, disgust-relevant stimuli tend to be biologically hazardous, such as contaminated food, disease-causing stimuli, or bodily fluids or discharges (Darwin 1872; Oaten et al. 2009; Rozin and Fallon 1987; Rozin et al. 1986; Sawchuk et al. 2000). Such stimuli make it necessary to shut off one's sensory input and/or expel such stimuli from one's system. Perhaps unsurprisingly then, viewing of disgusting stimuli has been found to elicit a strong attentional bias toward the referent (e.g., Rubenking and Lang 2014).

Relational Responding to Disgust

The primary behavioral response associated with observing disgust expressions is avoidance of the targeted referent. Such avoidant behavior in response to disgust stimuli has been observed in 2.5-year-olds (Stevenson et al. 2010). However, disgust can also elicit increased visual interest or stimulus exploration of the referent, which is not necessarily avoidant but aimed at getting more information about the disgust referent itself (see Stevenson et al. 2010; Vaish and Woodward 2010; Walle, Reschke, Camras, & Campos, 2017; Walle, Reschke, & Knothe, 2017). Although these responses are distinct, both indicate increased focus on the referent of the disgust expression to gain information while also avoiding excessive contact with one's senses.

Joy

Communicated Relational Significance of Joy

Generally speaking, expressions of joy signal the positive value of a referent to an observer. However, empirical precedent for whether the focus when observing joy is increased toward the emoter or an external object is less clear. Displays of happiness can communicate that the emoter is friendly and trustworthy and thereby help facilitate social interactions (e.g., Cunningham 1988a; Fredrickson 1998; Harker and Keltner 2001). Indeed, even newborn infants display a preference for happy faces over negative facial expressions (Farroni et al. 2007). Conversely, joy expressions also signal the positive value of a referential object or experience and increase the focus of attention to the referent (see Gable and Harmon-Jones 2008). For instance, young infants demonstrate an attentional bias toward positive, personally-relevant stimuli, such as food, over other positive stimuli, such as happy faces (see Pool et al. 2016). Thus, while prior research is less clear on whether the emoter or the referent is of greater significance in joyful contexts, the commonality is that joy

communicates positively valenced relational significance that motivates engagement with the environment (see Cunningham 1988b; Frijda and Mesquita 1994).

Relational Responding to Joy

Approach behaviors in response to joy expressions seem to be the common response regardless of whether one focuses more on the emoter or the referent. Infants demonstrate increased proximity to objects, toys, or food that is labeled with positive or joyful affect (Carver and Vaccaro 2007; Hertenstein and Campos 2004; Hornik et al. 1987). Likewise, adults tend to affiliate more or are more likely to view happy people as less threatening (e.g., Keating et al. 1981) and someone they would like to be friends with (see Knutson 1996; Lyubomirsky et al. 2005). Taken together, prior research is less clear as to the aboutness of joy placing the emoter or the referent central for the coordination of a relational response. However, such differential focus when observing communicated joy may depend more on specific elements of the relational contexts (e.g., who is the emoter, previous experience, personal relevance of the referent) than is the case for emotions that differentially highlight the emoter (i.e., anger, sadness) or the referent (i.e., fear, disgust).

Summary

In this section, we highlighted theoretical and empirical work examining how discrete emotions communicate different information about the emoter-environment relationship to an observer. We included the most commonly researched discrete emotions (anger, sadness, fear, disgust, and joy) as a starting point for this conceptualization of the communicative functions of emotions. The differences in communicative function is suggested to direct an observer's attention to and responses toward particular elements (referent, emoter) of the emotional context depending on which discrete emotion is being displayed. This differential attention to particular elements of emotional contexts was instantiated through theoretical and empirical works. Below we describe the first attempt to investigate the differential highlighting of elements of emotional contexts across these five emotions.

Examining Proposed Differences in Emotional Aboutness

The above review suggests clear differences in how discrete emotions communicate distinct patterns of aboutness concerning the relational significance of emotional contexts. However, systematic empirical investigations testing this differential aboutness of emotions is largely absent in the literature. As a first step in testing the hypothesized differences in relational aboutness between discrete emotions, we

examined how aspects of the perceived relational significance varied across emotion contexts.

Specifically, we conducted a study that compared adult descriptions of 5 discrete emotion contexts (anger, sadness, fear, disgust, and joy). Seventy-six participants (39 male, M_{age} = 19 years, SD = 1.67) described emotion contexts depicted in images including a single individual expressing an emotion toward a clear referent. This type of paradigm has been used previously to assess adults' selective attention towards objects or individuals in different contexts (see McIntyre and Graziano 2016). Each emotional context image featured a single emoter displaying a target emotion both facially and posturally (anger, sadness, fear, disgust, and joy; 2 images for each emotion) toward a single referent (object). All images were previously validated as depicting the emotion of interest (96% overall agreement). Participants' verbal responses were recorded and transcribed verbatim. For each description, we coded the frequency of mentioning the emoter and the referent.

As shown in Table 5.1, participants differentially mentioned specific relational components of the emotional context as a function of the discrete emotion. Specifically, participants highlighted the emoter more when describing images depicting sadness than those of fear and disgust. Conversely, the referent was more frequently mentioned when describing fear and disgust images than those of anger and sadness. Interestingly, joy contexts elicited significantly more mentioning of the emoter than all emotions except sadness, and more mentioning of the referent than anger and sadness.

These findings support our predictions that individuals differentially highlight specific elements of the relational aboutness of the emotional context as a function of the discrete emotion. Moreover, the present results mirror previous findings indi-

Table 5.1 Adult descriptions of discrete emotion contexts

	Anger	Sadness	Fear	Disgust	Joy
Variable	M *(SD)*	M *(SD)*	M *(SD)*	M *(SD)*	M *(SD)*
Total words	47.30 $_{D*\ J**}$ (19.30)	46.55 $_{J*}$ (17.01)	48.93 $_{D**\ J**}$ (19.77)	44.60 $_{A*\ F**}$ (18.84)	43.23 $_{A**\ S*\ F**}$ (19.45)
Emoter	5.63 $_{S**\ J**}$ (2.77)	6.49 $_{A**\ D**\ F**}$ (2.95)	5.40 $_{S**\ J**}$ (2.63)	5.00 $_{S**\ J**}$ (2.54)	6.56 $_{A**\ D**\ F**}$ (3.27)
Referent	2.55 $_{S**\ D**\ F**\ J**}$ (1.47)	2.09 $_{A**\ D**\ F**\ J**}$ (1.15)	3.30 $_{A**\ S**\ D**}$ (1.97)	3.92 $_{A**\ S**\ F**\ J**}$ (2.14)	2.91 $_{A**\ S**\ D**}$ (1.58)

Note: Participant descriptions were analyzed separately for each variable (total words, emoter, referent) using mixed linear models with a compound symmetry covariance structure and a Poisson distribution. Analyses of Total Words included the main effect of Emotion, as well as Participant Gender and Trial Number to control for fatigue. Analyses for particular types of words (i.e., Emoter, Referent) included the main effects of Emotion, as well as Participant Gender, Total Words, and Trial Number to control for gender, verbosity, and fatigue, respectively, as well as the size of the respective element in the image to control for perceptual differences of the images. Pairwise comparisons of discrete emotions with Bonferonni adjusted p-values are reported. Letters next to each mean (A = anger, S = sadness, F = fear, D = disgust, J = joy) designate which pairwise comparisons were significantly different ($* = p < .05$, $** = p < .01$). For example, participants labeled the emotion significantly more in Anger contexts than in Sadness contexts

cating that parents mention the emoter and the referent with varying frequency across discrete emotion contexts when describing images of emotional context to their infants (see Knothe and Walle 2018). Taken together, this research supports a theoretical perspective that emotions are more than expressions found in the face, voice or body; they function to communicate the value of specific elements of the significant relational context to the observer.

Avenues for Studying the Aboutness of Emotions

Above, we have provided theoretical and empirical evidence in support of our argument that discrete emotions differentially direct one's attention toward specific emotion-related elements as a function of the emotion. However, considerable work remains to examine the relational aboutness of emotions. Below, we highlight six distinct programs of research that we believe are readily amenable for empirical inquiry on this topic.

The Relational Aboutness of Other Emotions

While this chapter has primarily focused on the relational aboutness of five commonly studied discrete emotions, other emotions warrant theoretical and empirical consideration. The emotions of surprise and awe may be more likely to communicate to an observer that a referent of significance, be it an object or experience, warrants attention (see Hareli et al. 2019; Keltner and Haidt 2003). Conversely, examining how individuals allocate attention when confronted with a social partner expressing shame, guilt, embarrassment, or pride may be more complex. Such emotions inherently involve the perception, be it real or imagined, of social evaluation (Tangey et al. 1996) and the need for the emoter to be viewed (see Keltner and Haidt 1999; Keltner et al. 1997). As such, the referent of self-conscious emotion contexts may include the self, the action preceding the social evaluation of the self, or the social evaluation by a third-party. Envy and jealousy are similarly interesting for further consideration. These emotions function to maintain affective bonds with valued social partners (Gonzaga et al. 2006) but are complex in how they may be expressed and directed. Whereas envy may result in an observer seeking to identify a referent that is coveted, the referent in contexts involving jealousy may be more difficult to pinpoint because it is the relationship between individuals that is of significance (Buss and Haselton 2005; Campos et al. 2010). Gratitude also represents an interesting emotion for consideration, as the deed for which one is grateful is important but so too is the emoter's communication of gratitude being perceived by the social partner. These are just some of the emotions that warrant additional consideration with regards to their aboutness.

Development of Emotional Aboutness

Appropriately allocating attention within emotional contexts is critical for emotional development (e.g., Baldwin and Moses 1996) and likely beneficial for adaptive responding. Differential attention to aspects of discrete emotional contexts may develop through various pathways. One influence may be personal experience within specific emotion contexts. For example, a fear-eliciting object is likely to increase one's attention toward and detection of that object (e.g., LoBue and DeLoache 2008). Thus, an infant who identifies fear in a social partner may reflect on their own prior experience of fear, recall focusing on its source, and thus seek out the referent that elicited fear in the social partner. This attention may facilitate the observed differences in infant responding to adult's emotional communication, an ability that develops markedly during the second year of life (Walle, Reschke, Camras, & Campos, 2017; Walle, Reschke, & Knothe, 2017). The development of such responses may in part be related to infants' ability to appropriately attend to those relational elements most meaningful in a given emotional context. Socialization is one mechanism through which children may develop differential attention for specific aspects of emotional contexts. Our own work has found that parents differentially highlight the emoter and referent when talking about discrete emotion contexts with their infants (Knothe and Walle 2018) and young children's own descriptions of emotional contexts mirror these differences (Knothe and Walle under review). Future research examining infant attention when encountering various emotional contexts, how their attention corresponds with behavioral responding, and the role of parent scaffolding for such attentional and behavioral responding is needed.

Cultural Differences in Emotional Aboutness

Understanding cultural differences in emotional expressivity, perception, and behavioral responding is crucial for identifying cross-cultural differences and similarities in emotion processing. Cross-cultural research has found differences in how emotions are processed, discussed, and expressed between analytic and holistic cultures (e.g., Markus and Kitayama 1991; Matsumoto et al. 2012; Parkinson et al. 2005). These cultural characteristics likely influence how individuals attend to aspects of emotional contexts (Masuda et al. 2008). Future research could investigate whether diverse cultures differentially attend to particular aspects of emotional contexts. Moreover, cross-cultural differences would likely influence socialization practices underlying the development of emotion understanding. Studies that examine how explicit and implicit socialization experiences, such as parent-child talk (Hornik and Gunnar 1988; Knothe and Walle 2018), media (Tsai et al. 2007), or observation of adult behavior (Repacholi et al. 2008), account for cross-cultural dif-

ferences in children's emotion understanding represent a fascinating extension for studying how individuals attend and respond to discrete emotion contexts.

Visual Processing of Emotional Contexts

Although emotion research has carefully tested how individuals attend to isolated emotional expressions *or* emotion eliciting stimuli, less emphasis has been placed on attention and processing of emotional elements (emoter, referent) integrated in relationally significant contexts. Measuring visual attention and scanning patterns using eye tracking devices would provide more nuanced information about individuals' attention to specific relational elements (e.g., emoter and referent) of discrete emotion contexts. Importantly, this methodology could be employed with a variety of age ranges, such as young, preverbal infants for whom socialization factors may be less likely to have shaped attentional processing for discrete emotions. Such studies could provide support for evolutionary or socialization accounts of emotional aboutness, as well as how differential attentional patterns may be affected by specific trauma or changes across the lifespan (e.g., Leitzke and Pollak 2016; Noh and Isaacowitz 2013; Pollak et al. 2009). Eye tracking paradigms would also be valuable for examining how facial, postural, and contextual emotional elements interfere or interact with the identification of discrete emotions (e.g., Aviezer et al. 2008; Reschke et al. 2018). For example, the strength of observed confusability effects may be affected by how the constructed emotional contexts differentially emphasize the emoter or the referent, and the relational integration of such elements by the observer.

Generalizability and Memory of Emotional Aboutness

Individuals' differential attention to discrete emotional contexts may have lasting impact on how specific elements generalize across encounters and are remembered. Generalizability refers to information that can be applied to situations outside the context in which the information was gathered (e.g., Csibra and Gergely 2006). Differential emphasis on the emoter or referent across discrete emotion contexts may signify that some emotions are about "relative" aspects of the environment specific to the emoter (e.g., a preference; a goal) while others concern universal, and thus more generalizable, aspects of the environment (e.g., a toxic food; a predator). For example, research with young children has found that positive emotions (i.e., joy) displayed toward a referent did not generalize to a different individual and were thus *person-centered*, whereas negative emotions (i.e., a blend of fear and disgust) were generalizable to others and thus were *object-centered* (Vaish et al. 2015). In addition, even young infants demonstrate some generalizability for specific emotions with emoters and referents (see Repacholi et al. 2016). Such findings are

encouraging but we would argue for a more nuanced view of how emotions may generalize, with fear and disgust being more "referent-focused" and thus generalizable to other individuals (e.g., object-centered) and sadness and anger being "emoter-focused" less generalizable to others (e.g., person-centered). Moreover, differential attention to specific relational elements of discrete emotional contexts may lead to differences in how the emoter or referent is remembered (e.g., Kensinger et al. 2007; Hertenstein and Campos 2004). For example, eyewitness testimony demonstrates that victims typically recall the weapon of the crime (i.e., the referent), but have poorer memory of the perpetrator's face (Kramer et al. 1990). Conversely, it may be more adaptive to recall whether a particular person is prone to anger rather than the object that elicited the person's anger. Future work could examine how individuals generalize and remember elements of emotional contexts.

Clinical Applications for Emotional Aboutness

Finally, it is important to note how mis-attending or over-attending to elements of emotional contexts is often linked to various forms of psychopathology, such as anxiety, phobia, post-traumatic stress disorder, or severe rumination. Future research is recommend to examine the attentional biases of specific clinical populations (e.g., individuals with depression, social anxiety, general anxiety, specific phobia) within emotional contexts. Previous linguistic analyses have found differences in how specific clinical populations, such as individuals with schizophrenia and paranoia, describe events (e.g., Tucker and Rosenberg 1975; Oxman et al. 1982), but whether such differences are apparent in descriptions of emotional contexts remains to be examined. Such differences may also be made manifest in talk about and visual attention in emotional contexts. Early detection of individuals who are predisposed to excessively attend to specific emotional elements linked to particular psychopathologies may represent an important step in early screening and treatment of such disorders.

General Conclusion

In this chapter we have presented the theoretical and empirical value for considering the relational aboutness of discrete emotions. This notion of aboutness represents a useful foil for emphasizing the relational nature and significance of emotion. Two relational elements of particular interest are referent and the emoter, though other elements may also be of importance. Prior research provides evidence supporting our premise that discrete emotions differentially emphasize the emoter and the referent, and in doing so may impact observers' attention and responding to such aspects of the emotional context. Additional work remains to further examine and

test the aboutness of distinct emotional contexts and opportunities for such research are numerous and readily accessible for empirical inquiry.

References

Aviezer, H., Hassin, R. R., Ryan, J., Grady, C., Susskind, J., Anderson, A., et al. (2008). Angry, disgusted, or afraid? Studies on the malleability of emotion perception. *Psychological Science, 19*, 724–732. https://doi.org/10.1111/j.1467-9280.2008.02148.x.

Baldwin, D. A., & Moses, L. J. (1996). The ontogeny of social information gathering. *Child Development, 67*, 1915–1939. https://doi.org/10.2307/1131601.

Barrett, K. C., & Campos, J. J. (1987). Perspectives on emotional development II: A functionalist approach to emotions. In J. Osofsky (Ed.), *Handbook of infant development* (2nd ed., pp. 55–578). New York: Wiley.

Bowlby, J. (1983). *Attachment and loss: Volume 1: Attachment*. New York: Basic Books.

Brosch, T., Pourtois, G., & Sander, D. (2010). The perception and categorization of emotional stimuli: A review. *Cognition and Emotion, 24*, 377–400. https://doi.org/10.1080/02699930902975754.

Buss, D. M., & Haselton, M. (2005). The evolution of jealousy. *Trends in Cognitive Sciences, 9*, 506–507. https://doi.org/10.1016/j.tics.2005.09.006.

Campos, J. J., Campos, R. G., & Barrett, K. C. (1989). Emergent themes in the study of emotional development and emotion regulation. *Developmental Psychology, 25*, 394–402. https://doi.org/10.1037/0012-1649.25.3.394.

Campos, J. J., Walle, E. A., & Dahl, A. (2010). What is missing in the study of the development of jealousy? In S. L. Hart & M. Legerstee (Eds.), *Handbook of jealousy: Theories, principles, and multidisciplinary approaches*. Malden: Wiley-Blackwell.

Camras, L. (1977). Facial expressions used by children in a conflict situation. *Child Development, 48*, 1431–1435. https://doi.org/10.2307/1128503.

Carver, L. J., & Vaccaro, B. G. (2007). 12-month-old infants allocate increased neural resources to stimuli associated with negative adult emotion. *Developmental Psychology, 43*, 54–69. https://doi.org/10.1037/0012-1649.43.1.54.

Ceccarini, F., & Caudek, C. (2013). Anger superiority effect: The importance of dynamic emotional facial expressions. *Visual Cognition, 21*, 498–540. https://doi.org/10.1080/13506285.2013.807901.

Cosmides, L., & Tooby, J. (2000). Evolutionary psychology and the emotions. In M. Lewis & J. M. Haviland-Jones (Eds.), *Handbook of emotions* (2nd ed., pp. 91–115). New York: Guilford Press.

Csibra, G., & Gergely, G. (2006). Social learning and social cognition: The case for pedagogy. In Y. Munakata & M. H. Johnson (Eds.), *Processes of change in brain and cognitive development. Attention and performance* (Vol. XXI, pp. 249–274). Oxford: Oxford University Press.

Cunningham, M. R. (1988a). Does happiness mean friendliness? Induced mood and heterosexual self-disclosure. *Personality and Social Psychology Bulletin, 14*, 283–297. https://doi.org/10.1177/0146167288142007.

Cunningham, M. R. (1988b). What do you do when you're happy or blue? Mood, expectancies, and behavioral interests. *Motivation and Emotion, 12*, 309–331. https://doi.org/10.1007/BF00992357.

Darwin, C. (1872). *The Expression of the emotions in man and animals* (1st ed.). London: John Murray. https://doi.org/10.1037/10001-000.

Deonna, & Teroni. (2012). Homing in on the emotions. In Deonna & Teroni (Eds.),. 2012 *The emotions: A philosophical introduction* (pp. 1–13). New York: Routledge.

Dewey, J. (1885). The theory of emotion. *Psychological Review, 2*, 13–32.

Eisenberg, N., Fabes, R. A., Miller, P. A., Fultz, J., Shell, R., Mathy, R. M., & Reno, R. R. (1989). Relation of sympathy and personal distress to prosocial behavior: A multimethod study. *Journal of Personality and Social Psychology, 57*, 55–66.

Ekman, P. (1971). Universals and cultural differences in facial expressions of emotion. In J. Cole (Ed.), *Nebraska symposium on motivation* (pp. 207–282). Lincoln: University of Nebraska Press.

Ekman, P., Friesen, W. V., & Ellsworth, P. (1972). *Emotion in the human face: Guidelines for research and an integration of findings*. New York: Pergamon Press.

Farroni, T., Menon, E., Rigato, S., & Johnson, M. H. (2007). The perception of facial expressions in newborns. *European Journal of Developmental Psychology, 4*, 2–13. https://doi.org/10.1080/17405620601046832.

Fessler, D. M. T. (2010). Madmen: An evolutionary perspective on anger and men's violent responses to transgression. In M. Potegal, G. Stemmler, & C. Spielberger (Eds.), *International handbook of anger: Constituent and concomitant biological, psychological, and social processes* (1st ed., pp. 361–381). New York: Springer. https://doi.org/10.1007/978-0-387-89676-2.

Fischer, A. H., & Manstead, A. S. R. (2008). Social functions of emotion. In M. Lewis, J. M. Haviland-Jones, & L. F. Barrett (Eds.), *Handbook of emotions* (pp. 456–468). New York: Guilford Press.

Fredrickson, B. L. (1998). What good are positive emotions? *Review of General Psychology, 2*, 300–319. https://doi.org/10.1037/1089-2680.2.3.300.

Frijda, N. H. (1986). *The emotions*. Cambridge: Cambridge University Press.

Frijda, N. H. (2009). Emotion experience and its varieties. *Emotion Review, 1*, 264–271. https://doi.org/10.1177/1754073909103595.

Frijda, N. H., & Mesquita, B. (1994). The social roles and functions of emotions. In S. Kitayama & H. R. Markus (Eds.), *Emotion and culture: Empirical studies of mutual influence* (pp. 51–87). Washington: American Psychological Association.

Gable, P. A., & Harmon-Jones, E. (2008). Approach-motivated positive affect reduces breadth of attention. *Psychological Science, 19*, 476–482. https://doi.org/10.1111/j.1467-9280.2008.02112.x.

Gonzaga, G. C., Turner, R. A., Keltner, D., Campos, B., & Altemus, M. (2006). Romantic love and sexual desire in close relationships. *Emotion, 6*, 163–179.

Gordon, R. M. (1974). The aboutness of emotions. *American Philosophical Quarterly, 11*, 27–36.

Hackenbracht, J., & Tamir, M. (2010). Preferences for sadness when eliciting help: Instrumental motives in sadness regulation. *Motivation and Emotion, 34*, 306–315.

Hareli, S., & Hess, U. (2012). The social signal value of emotions. *Cognition and Emotion, 26*, 385–389. https://doi.org/10.1080/02699931.2012.665029.

Hareli, S., Elkabetz, S., & Hess, U. (2019). Drawing inferences from emotion expressions: The role of situative informativeness and context. *Emotion, 19*, 200–208. https://doi.org/10.1037/emo0000368.

Harker, L., & Keltner, D. (2001). Expressions of positive emotion in women's college yearbook pictures and their relationship to personality and life outcomes across adulthood. *Journal of Personality and Social Psychology, 80*, 112–124. https://doi.org/10.1037//0022-3514.80.1.112.

Hertenstein, M. J., & Campos, J. J. (2004). The retention effects of an adult's emotional displays on infant behavior. *Child Development, 75*, 595–613. https://doi.org/10.1111/j.1467-8624.2004.00695.x.

Hobson, P. (1998). The emotional origins of social understanding. *Philosophical Psychology, 6*, 227–249. https://doi.org/10.1080/09515089308573090.

Hornik, R., & Gunnar, M. R. (1988). A descriptive analysis of infant social referencing. *Child Development, 59*, 626–634. https://doi.org/10.2307/1130562.

Hornik, R., Risenhoover, N., & Gunnar, M. (1987). The effects of maternal positive, neutral, and negative affective communication on infant responses to new toys. *Child Development, 58*, 937–944. https://doi.org/10.2307/1130534.

Juth, J., Lundqvist, D., Karlsson, A., & Ohman, A. (2005). Looking for foes and friends: Perceptual and emotional factors when finding a face in the crowd. *Emotion, 5*, 379–395. https://doi.org/10.1037/1528-3542.5.4.379.

Keating, C. F., Mazur, A., & Segall, M. H. (1981). A cross-cultural exploration of physiognomic traits of dominance and happiness. *Ethology and Sociobiology, 2*, 41–48. https://doi.org/10.1016/0162-3095(81)90021-2.

Keltner, D., & Haidt, J. (1999). Social functions of emotions at four levels of analysis. *Cognition and Emotion, 13*, 505–521. https://doi.org/10.1080/026999399379168.

Keltner, D., & Haidt, J. (2003). Approaching awe, a moral, spiritual, and aesthetic emotion. *Cognition and Emotion, 17*, 297–314. https://doi.org/10.1080/02699930302297.

Keltner, D., Young, R. C., & Buswell, B. N. (1997). Appeasement in human emotion, social practice, and personality. *Aggressive Behavior, 23*, 359–374.

Kensinger, E. A., Garoff-Eaton, R. J., & Schacter, D. L. (2007). Effects of emotion on memory specificity in young and older adults. *Journal of Gerontology Series B: Psychological Sciences and Social Sciences, 62*, 208–215. https://doi.org/10.1093/geronb/62.4.P208.

Klinnert, M. D., Campos, J. J., Sorce, J. F., Emde, R. N., & Svejda, M. (1983). Emotions as behavior regulators: Social referencing in infancy. In R. Plutchik & H. Kellerman (Eds.), *Emotions: Theory, research, and experience* (Vol. 2, pp. 57–86). New York: Academic.

Knothe, J. M., & Walle, E. A. (2018). Parental communication about emotional contexts: Differences across discrete categories of emotion. *Social Development, 27*, 247–261.

Knothe, J. M. & Walle, E. A. (under review). *What do you see? Labeling and descriptions of discrete emotions in early childhood.* Manuscript submitted for publication.

Knutson. (1996). Facial expressions of emotion influence interpersonal trait inferences. *Journal of Nonverbal Behavior, 20*, 165–182.

Kramer, T. H., Buckhout, R., & Eugenio, P. (1990). Weapon focus, arousal, and eyewitness memory: Attention must be paid. *Law and Human Behavior, 14*, 167–184. https://doi.org/10.1007/BF01062971.

Lazarus, R. (1991). *Emotion and adaptation*. New York: Oxford University Press.

Leitzke, B. T., & Pollak, S. D. (2016). Developmental changes in the primacy of facial cues for emotion recognition. *Developmental Psychology, 52*, 572–581. https://doi.org/10.1037/a0040067.

Levenson, R. W. (1992). Autonomic nervous system differences among emotions. *Psychological Science, 3*, 23–27. https://doi.org/10.1111/j.1467-9280.1992.tb00251.x.

LoBue, V., & DeLoache, J. S. (2008). Detecting the snake in the grass: Attention to fear-relevant stimuli by adults and young children. *Psychological Science, 19*, 284–289. https://doi.org/10.1111/j.1467-9280.2008.02081.x.

Lopez, L. D., Reschke, P. J., Knothe, J. M., & Walle, E. A. (2017). Postural communication of emotion: Perception of distinct poses for five discrete emotions. *Frontiers in Psychology, 8*, 710. https://doi.org/10.3389/fpsyg.2017.00710.

Lyubomirsky, S., King, L., & Diener, E. (2005). The benefits of frequent positive affect: Does happiness lead to success? *Psychological Bulletin, 131*, 803–855. https://doi.org/10.1037/0033-2909.131.6.803.

March, D. S., Gaertner, L., & Olson, M. A. (2017). In Harm's way: On preferential response to threatening stimuli. *Personality and Social Psychology Bulletin, 43*, 1519–1529. https://doi.org/10.1177/0146167217722558.

Markus, H. R., & Kitayama, S. (1991). Culture and the self: Implications for cognition, emotion, and motivation. *Psychological Review, 98*, 224–253. https://doi.org/10.1037/0033-295X.98.2.224.

Masuda, T., Ellsworth, P. C., Mesquita, B., Leu, J., Tanida, S., & Van de Veerdonk, E. (2008). Placing the face in context: Cultural differences in the perception of facial emotion. *Journal of Personality and Social Psychology, 94*, 365. https://doi.org/10.1037/0022-3514.94.3.365.

Matsumoto, D., Hwang, H. S., & Yamada, H. (2012). Cultural differences in the relative contributions of face and context to judgments of emotions. *Journal of Cross-Cultural Psychology, 43*, 198–218. https://doi.org/10.1177/0022022110387426.

McIntyre, M. M., & Graziano, W. G. (2016). Seeing people, seeing things: Individual differences in selective attention. *Personality and Social Psychology Bulletin, 42*, 1258–1271.

Mineka, S., & Cook, M. (1993). Mechanisms involved in the observational conditioning of fear. *Journal of Experimental Psychology: General, 122*, 23–38. https://doi.org/10.1037/0096-3445.122.1.23.

Mumenthaler, C., & Sander, D. (2012). Social appraisal influences recognition of emotions. *Journal of Personality and Social Psychology, 102*, 1118–1135. https://doi.org/10.1037/a0026885.

Nelson, A. J., Adams, R. B., Jr., Stevenson, M. T., Weisbuch, M., & Norton, M. I. (2013). Approach-avoidance movement influences the decoding of anger and fear expressions. *Social Cognition, 31*, 745–757. https://doi.org/10.1521/soco.2013.31.6.745.

Noh, S. R., & Isaacowitz, D. M. (2013). Emotional faces in context: Age differences in recognition accuracy and scanning patterns. *Emotion, 13*, 238–249. https://doi.org/10.1037/a0030234.

Oaten, M., Stevenson, R. J., & Case, T. I. (2009). Disgust as a disease-avoidance mechanism. *Psychological Bulletin, 135*, 303–321. https://doi.org/10.1037/a0014823.

Oxman, T. E., Rosenberg, S. D., & Tucker, G. J. (1982). The language of paranoia. *The American Journal of Psychiatry, 139*, 275–282. https://doi.org/10.1176/ajp.139.3.275.

Parkinson, B., Fischer, A., & Manstead, A. S. R. (2005). *Emotion in social relations: Cultural, group, and interpersonal processes*. New York: Psychology Press.

Pollak, S. D., Messner, M., Kistler, D. J., & Cohn, J. F. (2009). Development of perceptual expertise in emotion recognition. *Cognition, 110*, 242–247. https://doi.org/10.1016/j.cognition.2008.10.010.

Pool, E., Brosch, T., Delplanque, S., & Sander, D. (2016). Attentional bias for positive emotional stimuli: A meta-analytic investigation. *Psychological Bulletin, 142*, 79–106. https://doi.org/10.1037/bul0000026.

Repacholi, B. M., Meltzoff, A. N., & Olsen, B. (2008). Infants' understanding of the link between visual perception and emotion: "If she can't see me doing it, she won't get angry.". *Developmental Psychology, 44*, 561–574. https://doi.org/10.1037/0012-1649.44.2.561.

Repacholi, B. M., Meltzoff, A. N., Toub, T. S., & Ruba, A. L. (2016). Infants' generalization about other people's emotions: Foundations for trait-like attributions. *Developmental Psychology, 52*, 364–378. https://doi.org/10.1037/dev0000097.

Reschke, P. J., Knothe, J. M., Lopez, L. D., & Walle, E. A. (2018). Putting 'context' in context: Examining the effects of body posture and emotion scene on adult categorization of affective facial expressions. *Emotion, 18*, 153–158. https://doi.org/10.1037/emo0000350.

Reschke, P. J., Walle, E. A., Knothe, J. M., & Lopez, L. D. (2019). The influence of context on distinct facial expressions of disgust. *Emotion, 19*, 365–370. https://doi.org/10.1037/emo0000445.

Rozin, P., & Fallon, A. E. (1987). A perspective on disgust. *Psychological Review, 94*, 23–41. https://doi.org/10.1037/0033-295X.94.1.23.

Rozin, P., Millman, L., & Nemeroff, C. (1986). Operation of the laws of sympathetic magic in disgust and other domains. *Journal of Personality and Social Psychology, 50*, 703–712. https://doi.org/10.1037/0022-3514.50.4.703.

Rozin, P., Lowery, L., & Ebert, R. (1994). Varieties of disgust faces and the structure of disgust. *Journal of Personality and Social Psychology, 66*, 870–881.

Rubenking, B., & Lang, A. (2014). Captivated and grossed out: An examination of processing core and sociomoral disgusts in entertainment media. *Journal of Communication, 64*, 543–565. https://doi.org/10.1111/jcom.12094.

Savage, R. A., Becker, S. I., & Lipp, O. V. (2016). Visual search for emotional expressions: Effect of stimulus set on anger and happiness superiority. *Cognition and Emotion, 30*, 713–730. https://doi.org/10.1080/02699931.2015.1027663.

Sawchuk, C. N., Lohr, J. M., Tolin, D. F., Lee, T. C., & Kleinknecht, R. A. (2000). Disgust sensitivity and contamination fears in spider and blood–injection–injury phobias. *Behaviour Research and Therapy, 38*, 753–762. https://doi.org/10.1016/S0005-7967(99)00093-5.

Schmidt, L. J., Belopolsky, A. V., & Theeuwes, J. (2015). Attentional capture by signals of threat. *Cognition and Emotion, 29*, 687–694. https://doi.org/10.1080/02699931.2014.924484.

Sorce, J. F., Emde, R. N., Campos, J., & Klinnert, M. D. (1985). Maternal emotional signaling: Its effect on the visual cliff behavior of 1-year-olds. *Developmental Psychology, 21*, 195–200.

Spinrad, T. L., & Stifter, C. A. (2006). Toddlers' empathy-related responding to distress: Predictions from negative emotionality and maternal behavior in infancy. *Infancy, 10*, 97–121.

Stevenson, R. J., Oaten, M. J., Case, T. I., Repacholi, B. M., & Wagland, P. (2010). Children's response to adult disgust elicitors: Development and acquisition. *Developmental Psychology, 46*, 165–177. https://doi.org/10.1037/a0016692.

Stocks, E. L., Lishner, D. A., & Decker, S. K. (2009). Altruism or psychological escape: Why does empathy promote prosocial behavior? *European Journal of Social Psychology, 39*, 649–665.

Strayer, J. (1980). A naturalistic study of empathic behaviors and their relation to affective states and perspective-taking skills in preschool children. *Child Development, 51*, 815–822. https://doi.org/10.2307/1129469.

Svetlova, M., Nichols, S. R., & Brownell, C. A. (2010). Toddlers' prosocial behavior: From instrumental to empathic to altruistic helping. *Child Development, 81*, 1814–1827. https://doi.org/10.1111/j.1467-8624.2010.01512.x.

Tangey, J. P., Miller, R. S., Flicker, L., & Barlow, D. H. (1996). Are shame, guilt, and embarrassment distinct emotions? *Journal of Personality and Social Psychology, 70*, 1256–1269. https://doi.org/10.1037/0022-3514.70.6.1256.

Tsai, J. L., Louie, J. Y., Chen, E. E., & Uchida, Y. (2007). Learning what feelings to desire: Socialization of ideal affect through children's storybooks. *Personality and Social Psychology Bulletin, 33*, 17–30. https://doi.org/10.1177/0146167206292749.

Tucker, G. J., & Rosenberg, S. D. (1975). Computer content analysis of schizophrenic speech: A preliminary report. *The American Journal of Psychiatry, 132*, 611–616. https://doi.org/10.1176/ajp.132.6.611.

Vaish, A., & Woodward, A. (2010). Infants use attention but not emotion to predict others' actions. *Infant Behavior and Development, 33*, 79–87. https://doi.org/10.1016/j.infbeh.2009.11.003.

Vaish, A., Grossman, T., & Woodward, A. (2015). Person-centered positive emotions, object-centered negative emotions: 2-year-olds generalize negative but not positive emotions across individuals. *British Journal of Developmental Psychology, 33*, 391–397. https://doi.org/10.1111/bjdp.12093.

Walden, T. A., & Ogan, T. A. (1988). The development of social referencing. *Child Development, 59*, 1230–1240.

Walle, E. A., & Campos, J. J. (2012). Interpersonal responding to discrete emotions: A functionalist approach to the development of affect specificity. *Emotion Review, 4*, 413–422. https://doi.org/10.1177/1754073912445812.

Walle, E. A., Reschke, P. J., Camras, L. A., & Campos, J. J. (2017). Infant differential behavioral responding to discrete emotions. *Emotion, 17*, 1078–1091. https://doi.org/10.1037/emo0000307.

Walle, E. A., Reschke, P. J., & Knothe, J. M. (2017). Social referencing: Defining and delineating a basic process of emotion. *Emotion Review, 9*, 245–252. https://doi.org/10.1177/1754073916669594.

Zahn-Waxler, C., Radke-Yarrow, M., Wagner, E., & Chapman, M. (1992). Development of concern for others. *Developmental Psychology, 28*, 126–136. https://doi.org/10.1037/0012-1649.28.1.126.