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Factors Facilitating Early Emotion Understanding Development: Contributions to Individual Differences

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Abstract
Children's emotion understanding is crucial for healthy social and academic development. The behaviors influenced by emotion understanding in childhood have received much attention, but less focus has been placed on factors that may predict individual differences in emotion understanding, the principal issue addressed in the current review. A more thorough understanding of the developmental underpinnings of this skill may allow for better prediction of emotion understanding, and for interventions to improve emotion understanding early in development. Here, we present theoretical arguments for the substantial roles of three aspects of children's environments in the development of emotion understanding: family expressiveness, discussions about emotions, and language development, and we discuss how these are interrelated. Ultimately, this may aid in predicting the effects of environmental influences on the development of emotion understanding more broadly and the mechanisms by which they do so.
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A crucial component of healthy development is learning to identify and interpret emotional expressions and reactions, often referred to as "emotion understanding." Emotions are categories of information that provide inferences about an individual's internal state based on a combination of perceptual cues, including facial expression, vocal tone, body posture, and the scenario in which the emotional event has occurred. For example, if a child accidentally breaks a favorite toy, sits down, and begins to cry, you will likely ascribe the child the emotion category of "sadness" and infer that they might seek comfort or assistance. Broadly, emotion *understanding* refers to individuals' conceptual knowledge about or capacity of the mind to reflect on these emotion categories (Pons & Harris, 2019), including the ability to label, identify, predict, and explain emotions in themselves and others (Denham, 1986). As this definition suggests, emotion understanding is complex, involving many skills including emotion recognition (perceptual detection of emotional displays) and emotion knowledge (comprehension of potential and expected emotional reactions) (Castro et al., 2016), understanding of emotion categories and concepts, and appropriate interpretation of others' emotions based on culture and social context (Denham et al., 2016). Although specific definitions of emotion understanding in the literature vary, approaches to investigating emo-

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tion understanding in the literature typically focus on one or more of the aforementioned factors as a means of inferring what children do and do not understand regarding emotion categories. Accordingly, most of the literature reviewed here focuses on children's ability to label, categorize, or answer explicit questions about emotions.

Overall, emotion understanding is beneficial for successful social interaction, enabling us to infer how someone else is feeling and to predict likely behaviors for others (e.g., Olson et al., 1988). Ultimately, this allows individuals to react appropriately in social situations and to maintain interpersonal relationships. Given the fundamental importance of social encounters, therefore, it follows that emotion understanding begins to develop early in life (Denham, 1986), and early emotion understanding has long-term implications for individuals' abilities to become socially proficient members of society (e.g., Izard et al., 2001), including improved academic outcomes (Voltmer & von Salisch, 2017).

The underlying skills for the development of emotion understanding begin in infancy. Typically developing infants in the first year after birth are capable of discriminating between two different facial expressions (LaBarbera et al., 1976) and matching emotional information across facial expressions and vocal tones (Walker, 1982). Around 12 months, infants begin to match emotions to events (Ruba & Repacholi, 2019), and by approximately 15 months, infants begin to adjust their behavior based on another individual's emotional reactions (Walle & Campos, 2012). Around 18 months, infants typically begin to produce emotion labels (e.g., "happy"; Ridgeway et al., 1985) and, at 20 months, expect an agent who discovers that they had held a false belief to express surprise (Scott, 2017). Further, by the age of 2 children begin to map emotion labels to a variety of stereotypical facial expressions and then to ascribe these expressions to the way that a puppet would likely feel in various scenarios (Denham, 1986). Although this general developmental trajectory is typical, there is substantial variability in infant and child performance on emotion understanding tasks (Pons & Harris, 2019).

Importantly, an understanding of emotions continues to develop across childhood, as children learn to interpret more implicit or ambivalent emotional events. However, the foundational skill of understanding categorical emotions early in life is of particular importance, as it provides the base on which more nuanced emotion understanding builds. Considering the significance of early development of this skill, it is crucial for researchers to understand early development of emotion understanding and the factors that contribute to the substantial individual differences in its functioning. In this paper, we expand beyond the existing literature, which has investigated predictors of childhood emotion socialization (Eisenberg et al., 1998) and affective social competence (Halberstadt et al., 2001) by focusing on a specific component of these broad emotional constructs: children's ability to *understand* emotions (i.e., their conceptual knowledge about emotion categories, distinct from an ability to regulate their own emotions). Here, we highlight the importance of three specific environmental factors that may make significant contributions to individual differences in emotion understanding development, two of which build from the framework of Eisenberg and colleagues (family expressiveness and discussions about emotions), and one which stems from more recent theoretical developments (language development).

Emotion Understanding and Healthy Development

Identification of emotional expressions provides important information about others (Horstmann, 2003). When an individual has an emotional response to a stimulus, this involves changes to their facial expression, vocal tone, body posture, and cognition (Lewis, 2008). These expressions of emotion are informative in determining how individuals interpret various aspects of the world around them, and for using this information to identify likely outcomes for situations (Van Kleef et al., 2010).

Accordingly, the development of emotion understanding relates strongly to both social and academic development. Emotion understanding early in life creates the foundation for later successful social interactions (Izard et al., 2001), which may be because understanding emotions grants a child insight into others' goals and behaviors (Reschke et al., 2017). Early emotion understanding is predictive of later academic success (Denham et al., 2012), and a recent meta-analysis identified a medium effect in the relation between emotion knowledge and academic success (Voltmer & von Salisch, 2017). This is likely because the academic environment is social in nature and requires substantial interaction with teachers and peers. Emotion understanding may help children to interpret others' behaviors and therefore to more easily navigate and learn in the academic environment. Further, early emotion understanding is also predictive of later social competence (Denham et al., 2003), sympathy (Eggum et al., 2011), and peer acceptance (Cassidy et al., 1992). Emotion understanding also relates to a child's ability to

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adjust to preschool (Shields et al., 2001), and preschoolers' emotion understanding also predicts later moral reasoning (e.g., Lane et al., 2010). Altogether, this research indicates that the early development of emotion understanding is related to multiple aspects of healthy development.

Individual Differences in Emotion Understanding

Much of prior emotion understanding research has assessed group data, which has been important for identifying when the average child develops certain skills and yielding insights into the developmental trajectory of emotion understanding. Performance on emotion understanding tasks tends to improve from preschool through the early school years (Camras & Allison, 1985), but individual differences are marked (Denham, 1986; Pons & Harris, 2019). Additionally, several studies, as described above, have looked at individual differences in emotion understanding as a predictor of other outcomes. However, individual differences that predict emotion understanding itself are important to explore because they provide clues as to *how* emotion understanding develops. Additionally, identifying predictors of these individual differences may allow for interventions to improve emotion understanding before children fall significantly behind their peers. This is especially important considering that individual differences in emotion understanding remain stable from the age of 3 to 6 (Brown & Dunn, 1996) and from the age of 7 to 12 (Pons & Harris, 2005). Identifying factors that contribute to emotion understanding in young children may offer insight into how to improve this skill before it stabilizes.

Factors Facilitating Early Emotion Understanding Development

Existing theoretical work suggests important predictors of emotion socialization (Eisenberg et al., 1998). Here, we extend this theoretical framework to focus specifically on emotion understanding and discuss evidence suggesting the importance of family expressiveness and discussions about emotions for emotion understanding development. Additionally, a recent theory emphasizes the construction of emotion concepts (i.e., creating meaningful categories of emotion information) through contexts and experiences (Barrett, 2017), and suggests that emotion concepts develop in a similar manner to other kinds of category development (Rakison & Oakes, 2003). In line with this framework, recent theory indicates that children's language abilities should impact their developing emotion concepts. For this reason, we also explore evidence supporting language development as a facilitator of child emotion understanding. We focus specifically on how these factors may influence emotion understanding within the first few years of life, but also occasionally present information from school-age children or adults when it is helpful for understanding the influence of these factors. We contribute to developmental theory also by presenting arguments for these particular factors which may be crucial for the development of emotion concepts. Emotion understanding development is fundamentally intertwined with social cognitive development (Reschke et al., 2017), and thus focusing on aspects of the complex social environments in which emotions are embedded is crucial for better understanding the development of this skill. To convey this point, we highlight the importance of three particular social-environmental factors that likely contribute to early emotion understanding development: emotional expressiveness of the family environment, exposure to discussions about emotions, and language development. Each is addressed in turn.

Family Expressiveness

Children's emotion understanding is associated with the emotional expressivity of the family environment, most likely because family members' expressiveness provides children with examples for what emotional expressions convey and how they are typically displayed. Children's emotional expressiveness is related to their parents' emotional expressiveness (Cassidy et al., 1992), and infants' emotional expressiveness is impacted by their mothers' expressive behavior (Malatesta et al., 1989). Moreover, the family environment also relates to a child's ability to *understand* others' emotions. Postinstitutionalized children had more difficulty than their peers with identifying emotional expressions and matching emotional expressions to scenarios (although they performed comparably for anger expressions) (Fries & Pollak, 2004), likely due to deprivation in the early socioemotional environments, including infrequent interaction with expressive caregivers. Additionally, there is a relation between family functioning and 3- to 6-year-olds' interpretation of negative emotions (Nixon & Watson, 2001), and between parent empathy and infant arousal in response to emotional displays (Upshaw et al., 2015). Together,

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this demonstrates that the family environment not only impacts children's tendency to express emotions, but also their ability to recognize the emotions of others, even though parents do not always convey how they are feeling during family interactions (Halberstadt et al., 1995).

Additionally, emotional expressiveness in the environment impacts emotion processing as early as infancy. Early exposure to social and emotional cues is critical for later emotion processing among nonhuman primates (Miller et al., 1967). When rhesus monkeys were raised for the first year in complete social isolation, there were substantial deficits in their ability to process facial expressions of another monkey 3–4 years later. Similarly, human infants of depressed mothers, who tend to display less emotion than nondepressed mothers, showed deficits in emotion discrimination of facial expressions at 5 months (Bornstein et al., 2011), suggesting that limited exposure to emotional displays in the environment during infancy can hinder emotion perception development. Additionally, parent-reported family expressiveness was positively related to 9-month-old infants' matching of happy and neutral faces and tones of voice (Ogren et al., 2018), and mothers' positive emotional disposition is related to their 7-month-old infants' looking time to fearful and happy faces (de Haan et al., 2004), demonstrating that even variability in expressivity among typical family environments can influence infant emotion perception.

Importantly, the impact of the family environment on emotion understanding and perception may not be limited to childhood. When college students were asked to retrospectively assess the family expressiveness of their childhood homes, family expressiveness was negatively related to accuracy in judging emotional expressions of faces, but positively related to perception of emotional intensity (Halberstadt et al., 2011). Moreover, there is a positive relation between the emotional expressiveness of an individual and that of his or her childhood family (Halberstadt et al., 2011), indicating that exposure to emotional expressiveness in the family may have important downstream effects on emotional expression and perception in adulthood, although such retrospective accounts should be interpreted with some caution given the years between the individual's childhood and their recollection of it.

In summary, there is strong evidence from multiple lines of research that family expressiveness early in life influences concurrent as well as later emotion understanding. Therefore, emotion understanding relies at least in part on specific experiences of infants and children. That is, the experience of observing emotional expressiveness in the family environment appears to aid in the construction of emotion understanding across early development, particularly considering that infants as young as 15 months may adjust their behavior based on these emotional expressions (Walle & Campos, 2012). However, it is important to note the possibility that children's temperament or emotional reactivity may impact the likelihood that emotions will be expressed by those around them (i.e., children may be active contributors to the emotional expressiveness around them). Further research examining this potential pattern is warranted.

Discussions about Emotions

Exposure to explicit discussions about emotions is also an important factor in the development of emotion understanding. Language input predicts a child's later language abilities (Huttenlocher, 1998). Similarly, *emotion* language input relates to a child's later emotion understanding abilities. It has been theorized that this is because emotion words may provide a crucial context for emotion perception (Barrett et al., 2007).

Several studies have investigated how families' discussions about emotions relate to a child's emotion understanding. Mothers' use of explanatory emotion language relates to emotion understanding scores of 3.5- to 4-year-old children (Denham et al., 1994), and maternal use of mental state language with 15-month-olds predicted children's knowledge of a person's emotional reaction to a scenario at 24 months (Taumoepeau & Ruffman, 2006). Among 3-year-olds, the number of times that the mother repeated, confirmed, or negated a child's emotional utterance was directly related to the child's concurrent emotion understanding (Ontai & Thompson, 2002), and the quality of parent conversation about emotions with toddlers predicted child prosocial behavior (Brownell et al., 2013), which has previously been shown to relate to child emotion understanding (Denham, 1986). In addition, 3-year-olds' emotion understanding was predicted by family discussions about feelings and their causes 7 months previously (Dunn et al., 1991a, b). These studies indicate that both exposure to emotional language and feedback about emotional language use are helpful for children's developing understanding of emotions. However, this effect appears to be specific to children's emotion understanding development: parents' use of emotion words does not predict child false-belief understanding (Roby & Scott, 2018).

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Additionally, the frequency with which mothers and siblings talked about feelings with 3-year-olds related to the children's ability to identify others' emotions by listening to a conversation at 6.5 years of age (Dunn et al., 1991). Notably, this finding was not mediated by the total amount of conversation in the child's family, demonstrating the importance of conversations specifically about emotions. Furthermore, it has been demonstrated that parent discussions about past negative emotions with their young child include larger emotion vocabulary and more conversation about other people and the causes of emotions relative to discussions about past positive emotions (Lagattuta & Wellman, 2002). Similarly, when communicating about anger, sadness, disgust, fear, and joy images, parents used the fewest total words and fewest emotion labels with their child when discussing joy images (Knothe & Walle, 2018), indicating the potential importance of negative emotion discussions in particular. Importantly, the extent to which these results may or may not hold across cultures is unclear. A study by Doan and Wang (2010) found a positive relation between maternal mental state language and child knowledge of the situations likely to elicit particular emotions for both European-American and Chinese immigrant 3-year-olds, but additional research is necessary to identify how discussions about emotion may relate to child emotion understanding more broadly and across culturally diverse samples.

In the USA, specifically, approximately 43% of children under the age of 3 attend preschool or daycare, and this increases to about 67% of children between the ages of 3 and 5 (Organization for Economic Co-operation and Development, 2014). For these children, attending preschool or daycare offers an opportunity to learn social and emotional skills from individuals other than their family members. Two-month interventions to increase the active use of emotional terms in preschool classrooms resulted in increased emotion understanding in 3- to 5-year-olds (Gavazzi & Ornaghi, 2011; Grazzani et al., 2016). This suggests that increasing discussions about emotions in preschools, even over a relatively short time span, can lead to improved emotion understanding. However, observations of preschool teachers indicated that structured discussions about emotions with students were relatively rare (Ahn, 2005).

Taken together, the research suggests that discussions about emotions help children to identify various emotions in themselves and others. Such discussions explicitly point out various emotions and circumstances that tend to cause the emotions, providing children with clear examples that they can gradually learn to generalize. If these discussions occur consistently within the family or in preschools, this would be particularly beneficial for giving children regular practice with developing their emotional repertoire. Thus, exposure to varying types and amounts of discussions about emotions with people in the child's environment may help the child to recognize emotions and develop emotion categories; disparities in such exposure may thereby account for some of the individual differences observed in early emotion understanding. Future research investigating circumstances under which discussions about emotions may be particularly influential, or whether it matters what a young child's relationship is to the person with whom they are discussing emotions (e.g., parent vs. teacher vs. peer) would be highly beneficial for fine-tuning the potential mechanism at play underlying children's early emotion understanding development.

Language Development

How does language development help construct a child's emotion understanding? At 4 years of age, child language abilities were correlated with emotion understanding, measured using an emotional perspective taking puppet task (Cutting & Dunn, 1999). In a model predicting the children's emotion understanding from their age, family background, language ability, and false-belief understanding, language ability contributed the most unique variance. Similarly, emotion understanding and language ability of 4- and 11-year-old children were highly correlated, and the correlation remained significant even when controlling for age and gender (Pons et al., 2003). Together, this indicates the importance of language for predicting child emotion understanding.

Covarying for child language abilities in emotion understanding studies has become common (e.g., Denham et al., 1994; Shields et al., 2001; Steele et al., 1999). The goal is to account for the effect of language abilities on emotion understanding while investigating the impact of one or more other variables. However, the influence of child language itself on emotion understanding warrants additional consideration. One possible explanation for why child language relates to emotion understanding considers the linguistic demands of typical emotion understanding tasks. Children with greater language abilities may outperform their peers on emotion understanding tasks simply because they are better at verbalizing what they know. However, measures such as Denham's Affective Knowledge Test (Denham, 1986) only require

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verbal responses from the child for a subset of questions. This task requires children to label the emotions of faces, to point to the correct face when they hear it labeled, listen to brief vignettes with puppets, and select the face that matches the emotion of the character in the story. The Test of Emotion Comprehension (Pons et al., 2003) attempts to limit verbal requirements on the part of the child by utilizing cartoon drawings and faces to assess children's emotion comprehension in tasks such as recognition of emotions, understanding of mixed emotions, and understanding of causes of emotions. Using faces and asking children to point to them circumvents the need for a verbal response, yet there are still minor linguistic demands imposed by the activity such as following along with verbal task instructions and stories.

An alternative possibility is that children's language impacts the input that they receive from those around them. That input, in turn, may influence the child's understanding of emotions. Parents adjust language to be more complex as their children begin speaking more (van Dijk et al., 2013). Therefore, as children develop more complex vocabularies, they are likely to encourage additional verbal output from those around them. Because children's use of emotion language is related to that of their parent (Denham et al., 1994), it is possible that the more a child begins to speak and use emotion terms, the more the parent reciprocates with additional descriptions of emotions and their causes. This may then result in high-vocabulary children hearing more emotion words from their parents than their lower-vocabulary peers. In this indirect sense, child vocabulary may influence their emotion understanding through the mediator of exposure to emotional discussions. It is also possible that emotion understanding itself relies heavily on language, and that the two skills are fundamentally intertwined. This could be because emotions are abstract, and perhaps greater language allows for better cognitive representation of emotion concepts (Barrett, 2017).

Another important factor to consider in the relation between language and emotion understanding is how children with language delays may be affected. Specific language impairment (SLI) is defined as delayed language development for a child without evidence of atypical development in other areas (e.g., cognitive or physical development; Leonard, 1998). Four- and 5-year-old children with SLI scored lower than their peers when asked to nonverbally identify how a character would feel in a stereotypical emotional situation (McCabe & Meller, 2004), although interestingly there were no differences between groups when asked to label or identify stereotypical facial expressions. Additionally, 7- to 10-year-olds with SLI were less likely than their peers to recognize when a character in a hypothetical scenario should hide their emotional experience from those around them when tasked with verbally responding to the experimenter (Brinton et al., 2007). These results demonstrate that children with SLI often have difficulties understanding emotion in the context of verbal tasks. However, some studies have simplified the language involved in emotion understanding tasks and still find differences among children with SLI.

For example, 5- to 12-year-old children with SLI had poorer performance than their peers when asked to identify how a character would feel in a scenario (either verbally or by pointing to the appropriate line drawing), even when the tasks were adjusted to be within their language abilities (Spackman et al., 2006). Similarly, kindergarten-aged children with SLI had more difficulty than their peers inferring the feelings of a character from a scenario nonverbally by pointing to a facial expression, though there were no significant differences between groups when they were asked to label happy, sad, and mad facial expressions or point to them when labeled (Ford & Milosky, 2003). Eight- to 10-year-old children with SLI performed more poorly than their peers at identifying emotions conveyed through speech, even when the verbal content was simple and consistent and the child response was nonverbal and involved selecting a response card (Fujiki et al., 2008). Thus, children with SLI seem to struggle with emotion understanding for reasons beyond difficulty with the language involved in the task. Children whose language abilities fall behind their peers may receive less linguistic input in general from others, resulting in fewer discussions about emotions and fewer opportunities to learn about them. Additionally, less linguistic output from children with SLI would leave these children with fewer opportunities to practice talking about emotions, again reducing experience identifying emotions, or lower language abilities may inherently cause increased difficulty in learning emotion concepts.

In summary, there is an important relation between a child's language abilities and emotion understanding, but the precise mechanism behind this existing relation remains unclear. This may be due to the linguistic demands of typical emotion understanding tasks, parents' language output, or children's abstract concept development. Future research seeking to identify which of these potential specific mechanisms best accounts for changes in young children's early emotion understanding development is crucial.

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Discussion

The research presented in this review provides support for the theory that three interrelated factors are key for emotion understanding development: the expressiveness of the child's family, exposure to discussions about emotions, and language development of the child. This body of research provides evidence for the importance of early life experiences for the development of emotion concepts.

We have emphasized the importance of language for the development of emotion understanding. This aligns with adult research, which indicates that the ability to mentally access (or not access) an emotion word influences how an emotional face is perceived (Gendron et al., 2012). Adults are quicker to respond and are more accurate at determining whether two stimuli presented in succession represent the same emotion category when a face is followed by an emotion word rather than followed by another face (Nook et al., 2015). Relatedly, adults with semantic dementia, which impairs the ability to understand word meanings, struggled to identify discrete emotion categories when asked to freely sort pictures of emotional faces (Lindquist et al., 2014). These findings support the idea that perception and understanding of emotions are strongly related to words and language, and further research on this relation in childhood and infancy can shed light onto this important possibility.

Ultimately, better characterizing early emotion understanding allows for earlier interventions for children who struggle to understand emotions. A recent meta-analysis has indicated that emotion understanding interventions (e.g., Roots of Empathy Program, Mixed Emotion Training) in childhood appear effective and promising (Sprung et al., 2015). Improved understanding of risk factors for early emotion understanding (such as family expressiveness, discussions about emotion, and child language) may allow for the implementation of emotion understanding interventions before children fall significantly behind their peers. Additionally, it is important to note that existing interventions are highly variable in their approach to improving children's emotion understanding, with many focusing on explicit differentiation of various emotions (e.g., in facial expression) or situations that commonly elicit particular emotional reactions using books, games, discussions, and other tools. Given the information presented in this review, we posit that additional focus on emotional expressiveness among family members, regular and explicit discussions about emotions, and children's language abilities may further benefit existing interventions. Future research addressing the practicality of implementing these components, their efficacy in interventions, and the relative value of these components will be necessary.

Future Directions

It is important to note that the vast majority of the research on early emotion understanding development (and thereby the research discussed in this review) has been conducted among WEIRD (western, educated, industrialized, rich, and democratic; Henrich et al., 2010) populations. Ultimately, this places constraints on the extent to which the findings may be generalized (Simons et al., 2017) and how globally representative the results may be (Rad et al., 2018). Prior research has indicated that interpretations of emotional facial expressions vary across cultures (Gendron et al., 2018), that the same emotion categories can be associated with different facial configurations (Elfenbein et al., 2007), and that emotion socialization can be dissimilar in terms of how parents encourage or discourage various emotional expressions in their children (Friedlmeier et al., 2011). However, other research has indicated that the emotion understanding trajectory (Tang et al., 2018) and sequence of learning various aspects of emotion understanding (Tenenbaum et al., 2004) are similar cross-culturally. Because experiences seem crucial for the development of emotion understanding, further investigation into the development of emotion understanding and possible mechanisms behind this development among more diverse samples is necessary. Future research should also aim to specifically address whether the three factors discussed in this review (family expressiveness, discussion about emotions, and language development) are also important determinants of emotion understanding development in non-WEIRD samples.

Moving forward, there also might be important contributions to our knowledge of emotion understanding from more research exploring individual differences among children under the age of 3 (Nelson, 1987). The majority of the studies discussed in this review analyzed the emotion understanding of children who were preschool-age or slightly older. Some research has been conducted on emotion perception within the first 3 years after birth (e.g., Steele et al., 1999), but additional research investigating individual differences in emotion understanding development in this age range would be crucial for understanding the general trajectory for emotion perception and understanding development. Such research

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is particularly important given the differences in tasks used with infants and young children. Tasks in early childhood typically require verbal responses or categorization on the part of the participants (e.g., Denham, 1986), while infant tasks must rely on nonverbal or behavioral response tasks. For example, infant tasks can assess discrimination between emotional facial expressions (e.g., LaBarbera et al., 1976), discrimination between emotional vocal expressions (e.g., Walker-Andrews & Grolnick, 1983), discrimination of audiovisual emotional stimuli (Flom & Bahrick, 2007), matching emotions across face and voice (e.g., Walker, 1982), or infant behavioral responses to another's emotional display (e.g., Walle et al., 2017). However, how individual differences in performance on these tasks relate to one another, or how these tasks may relate to emotion understanding in early childhood, is only beginning to be explored (e.g., Ogren & Johnson, 2020).

Importantly, mechanisms behind performance on these tasks in infancy should be further investigated. We know that factors such as emotion labels can impact emotion perception in childhood (e.g., Russell & Widen, 2002), but such basic research has not been sufficiently extended to further our understanding of individual differences in the early development of such processes. We posit that the three factors discussed in this review (family expressiveness, discussions about emotion, and child language abilities) all begin influencing emotion perception in infancy and continue throughout childhood. Because young infants spend the majority of their time with family members, family expressiveness and emotion discussions most likely have a significant impact on infant emotion perception. Further, infants begin to know the meanings of common words as early as 6 months of age (Bergelson & Swingley, 2012). Thus, it has been proposed that even though infants are nonverbal, *receptive* language can influence infant learning of emotion categories even before infants can produce words (Shablack et al., 2020), perhaps by helping infants to identify similarities across perceptually distinct examples of the same emotion category. Thus, we suggest that the factors discussed here may influence emotional development in infancy, but additional research is necessary to identify whether and how these factors may facilitate infant emotion perception. Further research regarding relations between various infant emotion perception tasks and later emotion understanding will be beneficial for better understanding the trajectory for emotion understanding development and mechanisms behind this development. Additionally, this may allow for early interventions to impact early emotion understanding before the developmental trajectory for emotion understanding begins to stabilize at the age of 3 (Brown & Dunn, 1996).

Conclusion

To summarize, family emotional expressiveness, exposure to discussions about emotions, and child language abilities are all significant influences on early emotion understanding. The impact of these factors early in life provides insight into mechanisms behind the development of emotion understanding and provides support for the idea that experiences are crucial for the rate of acquisition of emotion categories during early development. Continuing to investigate the experiences that impact emotion understanding development will be highly informative for our growing theoretical understanding of early social and emotional development and may lead to improvements in multiple aspects of infant and child development.

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Statement of Ethics

The present paper did not involve any data collection, and thus adheres to all internationally accepted standards for research practice and reporting.

Conflict of Interest Statement

The authors declare that there are no conflicts of interest.

Author Contributions

M.O. led writing of the manuscript and literature review. M.O. and S.P.J. read, edited, and approved the final paper.

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