Perspectives

Learning through language: The importance of emotion and mental state language for children's social and emotional learning

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ABSTRACT

Social and emotional learning is crucial for healthy development. Prior work has demonstrated that linguistic input (including emotion and mental state language) is beneficial for early social and emotional learning. In this Perspectives article, we build on existing research and consider the diverse ways in which emotion and mental state language can influence social and emotional learning. Namely, we discuss the importance of considering the *content* of language, the *context* in which language occurs, and the broader *sociocultural factors* of children's early environments. By taking a more nuanced approach to understanding the influence of emotion and mental state language in social and emotional learning, this article aims to more comprehensively characterize how we can support social and emotional learning through everyday conversations with children. Ultimately, this will allow for advancements in research, practice, and policy to better help parents and educators guide social and emotional development through the linguistic input that they provide to children.

Impact statement

Helping children to learn social and emotional skills is important for long-term development. One way to help children learn these skills is through our everyday conversations. This article highlights important factors to consider beyond just the *amount* of language children may hear. Specifically, we discuss how different types of emotion and mental state language may influence social and emotional learning, as well as the importance of considering the context in which the language occurs and the child's broader environment. Through this framing, we hope to help promote children's social and emotional learning through everyday language.

From their first years, children engage in social and emotional learning, allowing them to develop critical skills associated with healthy long-term development. Social and emotional learning (SEL) broadly refers to the growing ability to understand and manage emotions, as well as the ability to form and maintain positive social relationships. SEL includes social and emotional processes such as self-awareness, self-management, social awareness, relationship skills, and responsible decision making (Collaborative for Academic, Social, and Emotional Learning, 2013; Weissberg & Cascarino, 2013). Although social and

emotional skills develop continuously across the lifespan, these skills undergo the most rapid developmental change across infancy and the preschool years (Denham & Burton, 2003). In the first months of life, infants learn to discriminate between different categories of facial configurations (e.g., Farroni et al., 2007; Young-Browne et al., 1977). By their first birthday, they begin to use the emotional reactions of others to guide their own actions (Mumme & Fernald, 2003; Sorce et al., 1985), and by 3 to 5 years, they learn to use appropriate labels to identify various facial configurations (Widen, 2013; Widen & Russell, 2008).

As children learn about the meaning of emotions, they also learn to regulate their own emotional responses (Klein et al., 2018), and they develop a greater capacity to understand the emotions and mental states of others, allowing them to better engage in healthy social interactions (Cavioni et al., 2020). Social and emotional skills then continue to develop beyond the preschool years, with emotion understanding among early school-age children predicting more positive peer relationships (Cassidy et al., 1992), academic success (Denham et al., 2010; Oberle et al., 2014), moral reasoning (Lane et al., 2010), and sympathy (Eggum et al., 2011). Altogether, early developing emotional skills lay the foundation for children's social and emotional functioning. In fact, recent reports indicate a broader recognition of the importance

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of early social and emotional learning, as the majority of school districts in the United States now include some sort of SEL program or curriculum to hone these skills (Schwartz et al., 2022). Because research has already demonstrated the importance of social and emotional learning, particularly early in development, the next step is to better understand the factors that may influence and promote social and emotional skills across the lifespan.

Researchers are increasingly recognizing the importance of children's everyday interactions, and in particular the *input* that children receive, for understanding developmental processes and learning, including SEL. Indeed, the input children receive can change over the course of development (Oakes, 2017), and changes to the input itself can create new contexts for learning (Smith et al., 2018). One specific type of input that may be particularly important for shaping children's social and emotional learning is language (LoBue & Ogren, 2022). Children's language abilities develop from infancy into early childhood alongside social and emotional skills (Frank et al., 2017), and developmental change in both the language input received from caregivers and the language produced by children likely facilitate children's learning about social and emotional concepts (Ogren & Johnson, 2020). Supporting this notion, research has found links between children's developing language skills and socioemotional outcomes (Cole et al., 2010; De Rosnay & Hughes, 2006). More specifically, language about *emotions and mental states* (i.e., talk about emotions, thoughts, desires, intentions) appears to play a particularly important role in early social and emotional learning (Streubel et al., 2020).

Because emotions and other social concepts are abstract, learning about them involves identifying which abstract features are important for each category, and which are not. This is further complicated by the fact that instances of a single emotional or social category are highly variable. According to recent theoretical work, emotion language input might help highlight similarities across highly variable emotional events, thereby aiding learning (Brown, 1958; Hoemann et al., 2019). For example, although people express sadness in different ways, if a child hears the word "sad" used to describe various instances of sadness, this may help to draw their attention to the important similarities. In this way, language is thought to influence emotional learning by helping children make sense of variability across contexts (Barrett, 2017).

In support of this idea, prior research has shown that the overall quantity of emotion and mental state language that children hear and produce predicts social and emotional learning outcomes. For example, 3-year-old children who hear emotion words are better at categorizing emotional facial configurations (Price et al., 2022) and at pairing faces to emotional scenarios (Ogren & Sandhofer, 2022). Additionally, from infancy to age 3, children who hear more emotion words from their caregivers tend to produce more emotion words themselves (Ogren & Sandhofer, 2021). Indeed, prior research has shown that the best predictor of children's mental state language at 33 months was maternal mental state language at 15- and 24-months (Taumoepeau & Ruffman, 2006, 2008). Further work has demonstrated that the number of words that children know or can produce is strongly related to their understanding of emotions (Cutting & Dunn, 1999; Pons et al., 2003), and it has become commonplace for studies of emotional development to co-vary for the number of words that children know or say when examining emotional development (e.g., Denham et al., 1994; Steele et al., 1999). Taken together, this work suggests that hearing and producing a greater *quantity* of emotion and mental state language is beneficial for early social and emotional learning. However, we know that emotion language input is complex and context dependent, suggesting that the *amount* of emotion language is not the only important feature supporting social and emotional learning.

In this review, we build upon previous work that has demonstrated the role of emotion and mental state language input on social and emotional learning across early development. Importantly, we first move beyond considering just the *quantity* of emotion and mental state language, and we present a perspective wherein we consider the ways

that the specific *content* of the language that children hear, including the valence, framing, and contingency of language, can influence children's social and emotional outcomes. We next emphasize the importance of considering how the *context* in which language occurs, such as with a parent or sibling at home versus a teacher at school, can differentially shape SEL outcomes. Finally, we discuss how the broader *sociocultural factors* of children's early environments shape when and how emotion and mental state language is embedded in children's social and emotional world. For example, familial values, parental education, and cultural identity are just a few sociocultural factors that shape day-to-day social interactions across the many communities to which one belongs, from the family unit, to the neighborhood in which one lives, and even the country of residence.

To address these ideas, the current review focuses primarily on existing research with young children, particularly in the preschool age range, as a large body of work has examined SEL and language with these ages. However, research with infants and older children is used to supplement these findings when relevant. Further, the review aims to examine how language input shapes a wide range of social and emotional learning outcomes, and deliberately employs a broad perspective to demonstrate how emotion and mental state language shapes children's learning across a variety of SEL outcomes. Further, direct measures of emotion and mental state language are included when possible, and implicit measures of this input (e.g., parent report, descriptions of curricula, cultural norms) are used to support links between SEL and language in the absence of more direct measures. By considering the complex role of emotion and mental state language in children's social and emotional learning, we can better characterize how language supports social and emotional learning. Ultimately, this will allow for advancements in research, practice, and policy to better help parents and educators guide children's social and emotional development through their everyday social interactions.

Content: language dynamics

First, we will discuss how the impact of emotion language on children's social and emotional learning varies based on the *content* of the linguistic input that children receive. We will consider the valence of such linguistic input, the framing and elaboration of emotion talk, including parents offering explanations to causes of emotions, discussing the consequences of emotions, and asking open-ended or causal questions about emotions, and the contingency between the content of parental emotion language and children's emotional displays. Further, we will discuss how such emotion language dynamics, including the valence, framing, and contingency of the language that children hear, relates to various socioemotional outcomes such as how children learn from and respond to different kinds of emotional input.

Valence of emotion talk

One of the most important features of emotion language that shapes children's social and emotional learning is the valence of the emotional content. Specifically, a large body of literature has examined how the use of positive and negative language can have different implications for how children engage with and learn about their social and emotional world. For example, positive parental expressiveness, as indexed by both observations of parental vocal and facial expressions of happiness and parents' self-report of positive emotion displays (e.g., the frequency of telling family members how happy they are), has been associated with 3- to 4-year-old children's emotion knowledge (Denham & Kochanoff, 2002).

Positive emotion language has also been shown to have a positive impact on children's emotion regulation. A study by Garner et al. (2008) reported that 3- to 5-year-old children with mothers who used more positive emotional themes (e.g., happiness, interest, excitement) during storybook reading were less likely to incorrectly attribute anger to

non-angry vignettes, potentially because this helps invite children to make positive rather than negative social evaluations. These children also tended to be less physically aggressive when interacting with their peers in a play task (Garner et al., 2008). Similarly, parents' positive emotional expressiveness—including the use of positive emotion words and the display of positive nonverbal expressions—is associated with children's greater use of self-regulation strategies in a frustration task (Shin et al., 2023). In addition to benefiting children's emotion regulation, positive emotion language has also been linked to children's developing self-concept. For example, when parents more frequently refer to and affirm their children's past positive emotions (e.g., asking "What made you happy on your birthday?"), 5- to 6-year-old children show higher levels of self-esteem (Reese et al., 2007).

Although much of the research in this domain is focused on how positive emotion talk is linked to the promotion of SEL skills, negative emotion talk can also impact early social and emotional learning. Although less often discussed within the context of SEL, hearing negative emotional language input has been linked to negative social and emotional outcomes for children, including fear and anxiety (e.g., Muris et al., 2010; Aktar et al., 2022). For example, children's fear of a novel animal increases after hearing negative emotion language and decreases after hearing positive emotion language (Muris et al., 2003; Muris et al., 2010). Naturalistic studies of parent-child conversations have also reported that 4- to 6-year-old children receive more negative language input about commonly feared animals during their everyday experiences, and that reducing negative input from parents has the potential to reduce children's fear of these animals (Conrad et al., 2021; Reider et al., 2022). Research has also documented the role of negative emotion language in children's fear of other stimuli, including fear of strangers. For example, when presented with two strangers paired with either negative language (e.g., "a grouchy person") or positive language (e.g., "a nice person"), children reported more fear for the stranger paired with negative language (Aktar et al., 2022).

Altogether, these results suggest that parental talk about positive emotions may play an important role in the promotion of young children's emotion understanding, their developing emotion regulation abilities, and self-esteem skills that are critical for healthy interactions in children's social world. Likewise, negative emotion language may shape children's SEL skills in ways that impact emotion regulation and social skills.

Framing of emotion language

In addition to the valence of emotion language provided to children, another critical aspect of emotion language to consider is the broader conversational structure in which emotion words are situated (i.e., emotion language framing), and how this linguistic structure supports children's emotion talk, emotion understanding, and social interactions. One recent study reported that caregivers embedded emotion labels in a network of utterances that contained sentences and words of similar emotional valence by, for example, using words like "mess" or "crying" in the same sentence as negative emotion labels like "mad" or "sad". Importantly, embedding emotion words in a valenced linguistic context facilitated 16- to 30-month-old toddlers' learning and later production of emotion labels and emotion-related words (Nencheva et al., 2023). This suggests that single emotion words often exist within a broader emotional context, and that considering this linguistic context (as opposed to just the use of emotion words themselves) is valuable for understanding children's SEL.

Furthermore, parents often engage in even more elaborative forms of emotion talk with their children, which involves offering causal explanations for emotions, or discussing the consequences of emotional expressiveness and emotion regulation (Denham & Liverette, 2019; Eisenberg et al., 1998; Reschke et al., 2023). Such parental elaborations can in turn affect children's SEL. For example, mothers who provide more affective explanations for others' distress (e.g., "You made Doug

cry"; "It's not nice to bite") have toddlers who demonstrate more reparative behaviors when they cause distress in others, and more altruistic behaviors when they are the bystanders in a distress-inducing scenario (Zahn-Waxler et al., 1979). Likewise, mothers' emotion explanations (e.g., "She is angry because he is pulling her shirt") and elaboration about emotion are related to preschool-aged children's emotion understanding (Denham et al., 1994), their representations of social relationships (Laible and Song, 2006), and trends toward more prosocial behavior towards peers (Garner et al., 2008). Finally, discussing a diverse variety of emotion themes and engaging in causal discussions of emotional states during natural interactions at age 3 both predict children's ability to recognize emotions at age 6 (Dunn et al., 1991). Asking open-ended or causal questions about emotions produces similar positive effects. For example, parental use of causal questions about emotions (e.g., "Why is she scared?") is positively related to infants' productive emotional vocabulary (Ruba et al., 2022) and to children's emotion talk (Reschke et al., 2023).

Altogether, this work suggests that providing children with additional linguistic context for emotion words and engaging in more elaborate conversations about causes and consequences of emotional expressions can contribute to children's SEL. Further research suggests that this more in-depth framing of emotion language might be particularly important for negative emotions. For example, in a longitudinal study by Lagattuta and Wellman (2002), parents consistently demonstrated more elaborations and engaged in higher quality conversations when discussing negative emotions compared to positive ones with their 2- to 5-year-old children. More specifically, parents included more open-ended questions about the causes and nature of emotions, referred to emotions of other people, discussed the link between emotions and other mental states more frequently, and used more emotion words when discussing negative as opposed to positive emotions. Similarly, another study with preschoolers found that parent-child reminiscing about past negative experiences involved more parental validations of emotions and discussions about the causes of emotions when compared to reminiscing about past positive experiences (Laible, 2011). Such patterns of parental emotion language can have implications for how children understand, discuss, and learn to regulate negative emotions themselves.

Elaborations for positive emotions, albeit less frequent, have been associated with positive SEL outcomes as well. Reese and colleagues (2007) found a positive relationship between parental explanations for children's past positive emotions and the development of children's self-esteem, as making sense of past positive experiences may help children construct a more positive evaluation of self. Hernandez et al. (2018) also reported that parents' verbal coaching and explaining about children's positive and negative emotions during a reminiscing task helped mitigate the development of internalizing problems in children.

Contingency of emotion language

From the research reviewed thus far, it is clear that the valence and framing of emotion language contribute to children's SEL, but further research suggests that the contingency of parental emotion language (i.e., when/how language occurs relative to children's emotional display) can also help build emotion understanding. For example, research with preschoolers reported that parental emotional responsiveness during natural parent-child interactions, specifically parents' positive reinforcement of children's emotional expressiveness (e.g., acknowledging children's emotions or offering praise) predicted children's overall social competence as rated by teachers (Denham et al., 1997). Thus, it is important to consider not only precisely what language children are hearing, but also whether the content of that language relates to what the child is experiencing at that moment.

Parental dismissal of children's emotional expressiveness, defined as verbal statements that discourage, criticize or invalidate children's emotions (Lunkenheimer et al., 2007), can have adverse effects on the

development of children's emotion understanding, as well as internalizing and externalizing problems such as emotion regulation and behavioral issues. For instance, parents' negative reinforcement of preschoolers' emotions (e.g., verbally discouraging emotional displays) is negatively associated with children's emotion knowledge (Denham et al., 1997). Likewise, parents who adopt a punitive response towards children's display of negative emotions (e.g., telling the child that if they start crying, then they will have to go to their room immediately) or a minimizing response (e.g., telling the child that they are overreacting) have preschoolers who are rated by parents as having higher levels of negative affect, and who are more likely to engage in escape behaviors when upset (Eisenberg & Fabes, 1994).

In older (8- to 11-year-old) children, parental dismissal of negative emotions during parent-child conversations (e.g., "It wasn't anything to get upset over") is a risk factor for difficulty with emotion regulation and can lead to higher externalizing problems (Lunkenheimer et al., 2007). Similarly, parental dismissal of positive emotions (e.g., verbal reprimanding) is related to higher levels of internalizing and externalizing problems in late childhood (Yi et al., 2016), and to the use of maladaptive emotion regulation strategies and higher levels of depressive symptoms in early adolescence (Yap et al., 2008). Importantly, Lunkenheimer and colleagues (2007) found that parental verbal emotion coaching of negative emotions can buffer against the adverse effects of emotion dismissal. Thus, it is important to situate the content of parental language in specific situations of parent-child interactions, as positive and negative parental reactions can have distinct effects on children's emotional development.

Thus far, the research presented indicates that the specific content of emotion language that children hear holds important implications for their social and emotional development. However, it is important to also note that most of these studies are correlational in nature and primarily investigated the effect of maternal emotion language input. Further, the participants (exc. Lunkenheimer et al., 2007; Reschke et al., 2023) were predominantly white and middle- to upper-class families. Nevertheless, these studies do provide initial evidence to suggest that the use of positive versus negative emotion language as well as the framing and contingency of emotion language likely influence how children receive, learn from, and respond to emotional input. However, social and emotional learning does not occur in a vacuum, nor do conversations surrounding emotions and mental states. Rather, the language in children's everyday environments is provided by specific individuals and is embedded within particular contexts.

Language across everyday contexts

This section considers how emotion and mental state language vary across everyday contexts where conversations between adults and children occur, and how that variation affects SEL. Specifically, we highlight two everyday contexts that young children are likely to encounter— at home with parents and at school with teachers—and discuss how emotion and mental state language across these contexts relate to social and emotional learning.

At Home

Across the first years of life, most children spend the majority of their time with caregivers, making the home environment an important place for children to learn social and emotional skills. Parent-child conversations at home contribute to an interactive environment where children have unique opportunities to engage in SEL across different everyday activities, including reading out loud and playing together (Li et al., 2023). In the United States, over 80 % of children are read to by a family member two or more times per week, suggesting that reading is a common activity where conversations with children take place (U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 2021; Young et al., 1998). Reading

together allows parents to engage in guided SEL that might not otherwise occur. Parent-child reading aloud allows children to gain valuable experience with emotion language, which can ultimately influence their socioemotional development (Baker, 2013).

In fact, researchers have found that parents often label emotions and mental states when reading with their children, and these studies report that using emotion labels while reading with their children may support children's prosocial behavior (Drummond et al., 2014). For example, studies have shown that mothers' use of emotion and mental state language while reading a book with their preschool-aged child is positively related to children's empathy (Aram & Shapira, 2012), as well as children's talk about self-conscious emotions (Cooper et al., 2023). Moreover, when parents ask children to label and explain the emotions depicted in a book, toddlers demonstrate more prosocial behaviors such as helping and sharing (Brownell et al., 2013). However, it is worth noting that the lack of access to books and underutilized public libraries in low-SES neighborhoods may put lower-income children at a disadvantage in terms of SEL in the context of reading aloud with caregivers (Neuman & Moland, 2019).

Luckily, book reading is not the only context in which parents can promote SEL through emotion language at home. An additional context through which children learn is play. During play with caregivers, children often learn via modeling of appropriate behaviors as well as direct communication. For example, a parent might say "Is the boy sad?" or "Aw, that hurts Dolly!" (Beeghly et al., 1986). Like book reading, parents' use of emotion language when playing together is associated with greater helping behavior in young children (Drummond et al., 2014). Further, interventions to increase parent-child play from 0- to 3-years of age among low-income families, including when reading out loud together and during free play interactions, resulted in enhanced socioemotional skills (e.g., social skills and reduced externalizing behaviors) that persisted into early childhood (Mendelsohn et al., 2018). Additionally, a play-based training program in Hong Kong found that providing parents with training for how to play with their children effectively through emotion coaching and expressive responsiveness (e. g., labeling the child's emotion) positively influenced children's socioemotional skills (Chan et al., 2021).

Another everyday play experience that allows parents and children to engage in emotion language at home is through playful interactions with their pets. Pet ownership is associated with various social and emotional benefits (e.g., social bonding and support), for humans across their lifespans (Melson, 2020; Purewal et al., 2017). Notably, a recent study by Reider et al. (2023) found that parents used more emotion and mental state language with their 18-month to 5-year-old children when playing with their pet dog than with a lifelike toy. Thus, time spent playing with pets might be another common household context that promotes conversations about emotions and mental states, supporting adaptive social and emotional learning outcomes. Collectively, these findings not only highlight the prevalence and impact of emotion language on children's social behaviors, but they also demonstrate how the context of conversations shapes emotion language input and subsequent SEL outcomes.

At School

Thus far, we have shown that children receive and learn from emotional language across everyday activities at home. However, as children age, they begin to spend less time at home and more time at school. The school environment is not only novel compared to the home, but it is also a place where emotion and mental state language input from teachers differs from language received from parents. Researchers consistently find that teachers use more mental state and emotion language than parents across various activities—including reading—which is likely due to their formal training (Andrews et al., 2020; Ziv et al., 2014), and teachers' use of mental state language with students in middle childhood is related to children's theory of mind (Lecce et al.,

2021). Further, negative language input from early elementary school teachers relates to children's emotional problems later in life (Brendgen et al., 2007). Thus, school-based language and learning can have long-lasting impacts on children's SEL. As a result of findings like these, schools have begun to implement SEL curriculums to enhance teachers' ability to communicate emotion language through books and lessons (e. g., puppet shows); these programs are designed to directly teach children skills such as emotion understanding and prosocial behavior (Bierman et al., 2008; Denham et al., 2020; Jones et al., 2010). In studies comparing several of these programs, approaches that encourage teachers to use more emotion language with preschoolers (e.g., "That must have really hurt. It's okay to cry sometimes") report preschool-aged children with more positive emotions and fewer negative emotions (Garner et al., 2019; Jacobs & Struyf, 2013). Most importantly, these approaches predicted higher emotional competence in kindergarten (Garner et al., 2019), increased emotion understanding and prosocial behavior (Bierman et al., 2008), and more positive attitudes towards classmates, teachers, and school in general (Yang et al., 2018).

It is important to note, however, that preschool teachers tend to use a low frequency of emotion language in the classroom (Yelinek & Grady, 2019), and rather use more mental state talk; however, when emotion language is used, teachers typically refer to their own emotions and not the children's (King & La Paro, 2015). In fact, some teachers discourage emotion language, which is related to lower social emotional competence in children (King & La Paro, 2018). As a result, several programs have been tailored to train teachers to increase emotion language use in classrooms. These programs appear to be effective, as several interventions intended to increase the active use of emotion words in PreK classrooms led to increased emotion understanding among children between the ages of 2 and 5 (Grazzani & Ornaghi, 2011; Grazzani et al., 2016). The "RULER Feeling Words Curriculum", which includes practices such as introducing new emotion words, linking emotion words to real-life experiences, and engaging children in more discussions about emotions with parents and others at school, has been found to increase 5th and 6th graders' socioemotional competence (as rated by their teachers) (Brackett et al., 2012). Thus, although natural emotion language at school may be limited (Yelinek & Grady, 2019), structured lessons that provide opportunities for emotion discussion, including emotion labeling, might help increase emotion language used by both teachers and children, thereby increasing children's SEL across early to middle childhood.

In this section we have demonstrated how emotion language relates to social and emotional learning across common childhood contexts. This research is not an exhaustive review and although some articles examine WEIRD populations, several articles discussed cover other regions (e.g., Li et al., 2023) and diverse groups (e.g., Baker, 2013). Most of the literature discussed is correlational and conducted at a single time point with a few exceptions (e.g., Jones et al., 2010, Denham et al., 2020). Future research detailing how other factors (e.g., presence or absence of a sibling) interact with language to influence SEL would be beneficial. Still, in each context discussed here, emotion language appears to promote social and emotional learning. Although most children will experience emotion language both at home and school, it is crucial to also understand differences in environments that some children experience and others do not (e.g., low versus high socioeconomic status) and how these environments may impact emotion language and socioemotional learning.

Sociocultural factors

Thus far, we have highlighted the ways in which emotion language, including the quality of the input as well as the context in which the input is provided, shapes children's social and emotional development. However, we know that the way caregivers communicate with children and contribute to their child's SEL is impacted by sociocultural factors,

such as cultural values and socioeconomic status, which shape when and how emotion input is provided (Cole et al., 2006). These sociocultural factors play a critical role in shaping the environmental contexts and emotional input from which children learn (Mesquita & Frijda, 1992). One framework to help conceptualize the influence of sociocultural factors on SEL is Bronfenbrenner's Bioecological Systems Theory (1979), which describes a child's development as influenced by the environment at multiple levels ranging from very close to the child (e.g., family or microsystem) to broader societal and cultural influences. Although the original theory placed culture firmly in the macrosystem, we present a perspective in which culture impacts development at all system levels, micro-, meso-, and macro- (Vélez-Agosto et al., 2017), and discuss the influences between and within each system as considerably more dynamic than static. In this section, we specifically focus on the impact of factors such as the child's microsystem, mesosystem, and macrosystem (Bronfenbrenner, 1979) on parent-child conversations, with an emphasis on how emotion language may differ in ways that impact children's SEL.

Microsystem

The home environment, or one's microsystem, provides the most immediate influence on children's social and emotional development. A crucial aspect of the home environment is one's religious beliefs, values, and communication styles in the family (Shiraev & Levy, 2020). Research has shown that emotion socialization practices differ across families of different cultural backgrounds and are associated with unique developmental outcomes in children (Zhang et al., 2020). For example, Zhang et al. (2020) found that distinct parenting profiles in African American and Latine mothers in the US begin affecting infants' SEL as early as three months of age. Mother-infant interactions were coded on several dimensions, including mother behaviors that promoted infant language development (e.g., frequency of mother-child speech, labeling of objects and experiences for their infant, and encouragement throughout tasks). Importantly, although findings demonstrated different parenting styles in African American and Latine mothers (e.g., Engaged/Tough, and Warm/Unstimulating, respectively), both parenting styles were concurrently associated with parent-child interactions at 3 months, and prospectively associated with more positive infant socioemotional outcomes at 13 months. These outcomes included greater mastery motivation, less internalization, and fewer problem behaviors, suggesting that positive parenting styles may look different across different groups of families, but nonetheless have a positive impact on children's SEL outcomes.

Differences in language input that may influence social and emotional learning have also been demonstrated based on the structure of language used by different families. In one study, mothers and fathers from Mexico, Germany, and Costa Rica were asked to discuss two shared past events with their 3-year-old children to explore differences in the elaborative structure and social orientation of the parent-child conversations across families of different cultural backgrounds (Schröder et al., 2013). They found that conversations were significantly longer for parent-child dyads from Mexico than for families from Germany or Costa Rica, and parents from Mexico and Costa Rica used more open questions and more socially oriented conversation when compared to German parents. Taken together, these findings demonstrate the importance of the family's cultural identity on emotion and mental state language development. Even at the micro-level, culture shapes emotional and mental state language input through culture-specific emotion and socialization goals and practices. As we expand upon our discussion to include the meso- and macro- systems, the role of cultural identity remains equally important.

Mesosystem

Social and emotional learning is also embedded within a slightly

larger system—the mesosystem—which includes the interaction between multiple microsystem influences, such as by considering the neighborhood and other groups close to the family (Bronfenbrenner, 1979; Bronfenbrenner & Morris, 2006). Socioeconomic status, or SES, can be considered an important factor here, as it includes a family's economic access to resources (Roby & Scott, 2022), which tends to be similar for families within similar neighborhoods (Iceland, 2004).

For years, Hart and Risley's (1995) claim that poor children hear 30 million fewer words than middle-class children has held the predominant view in the field when attempting to identify factors that impact language development. However, recent work has started to emphasize how the variability in both quality and quantity of language exposure during parent-child interactions in infancy and early childhood differs across levels of SES. In terms of qualitative differences, one study found that parents from low SES backgrounds are less likely to use contingent talk with their 11-month-old infants compared to parents from high SES backgrounds (McGillion et al., 2017). This pattern of findings is worth noting as contingent talk from parents is associated with children's developing communication skills (McGillion et al., 2017), and thereby children's later self-regulation and academic success (Ramsook et al., 2019). Further, Roby and Scott (2022) found that SES, measured by parental education, was also related to the use of parent mental-state language when interacting with their preschool children. Parents with a bachelor's degree or higher produced more cognition talk (mental state language related to cognitive processes such as *focus*, *remember*, or *pretend*) than those with a high school diploma or associate degree. Indeed, these results suggest that SES is related to the kind of language that children hear, which likely has downstream effects on children's social and emotional learning.

However, Sperry et al. (2019) argued that researchers have not considered variations in home environments across SES. For example, although the findings discussed above might suggest that children from low SES backgrounds have fewer opportunities for SEL than children from higher SES backgrounds, a closer look at differences between family structures suggests otherwise. That is, children from low SES backgrounds are more likely to have extended family members living in their households than children from high SES backgrounds (Fouts et al., 2012). Importantly, when researchers considered language exposure from family members outside the parents, the differences between low SES and high SES children in language exposure disappeared (Sperry et al., 2019). In fact, this study found that there was some evidence that children from low SES backgrounds may have an *advantage* compared to children from high SES backgrounds in terms of language exposure.

Further research also suggests that effects of SES interact with other cultural factors to influence opportunities for SEL (Roby & Scott, 2022). For example, one study found that children from higher income families tend to hear more cognition talk than their peers from lower income households, but only for non-Hispanic families. For Hispanic families, SES was not related to children's exposure to cognition language. These findings align with Bronfenbrenner's (1979) view that the interconnectedness between systems also influences child development, in this case by influencing the specific language input that children receive. This has been further elaborated on by Ashiabi and O'Neal (2015), who emphasize that more proximal factors (e.g., the microsystem) likely mediate broader contextual influences (e.g., the mesosystem or macrosystem). However, they also note the importance of considering individual characteristics of the child in this process, which warrants further investigation.

Taken together, this body of work illustrates the dynamic relations between and within Bronfenbrenner's systems, and should be taken into account when measuring developmental outcomes like children's SEL. Specifically, Vélez-Agosto et al. (2017) argue that the "systems flow from one another and interact with one another, not bounded and distinctly, but fluidly" (p. 906). One way to integrate Bronfenbrenner's model in research using a cultural framework is by including measures of daily routines that are especially influenced by sociocultural factors, such as regular engagement with one's community (Tsethlikai & Rogoff, 2013) or asking participants to rank-order values. Perhaps most important for researchers to keep in mind is that the influence of culture occurs within each system, between systems, and to varying degrees in different contexts, so ongoing measurement is paramount.

Macrosystem

Finally, at the outermost macrosystem, including the country where one resides, there are additional influences on linguistic input and social and emotional learning. Specifically, immigration status (an umbrella term that ranges from U.S. citizen to undocumented, and all generations of immigration) has been used to study macrosystem differences in SEL and is concurrently and prospectively linked to children's socioemotional competence (Curtis et al., 2020). As prevalence rates of children in the U.S. with immigrant parents (at least one foreign-born parent) have continued to rise over the past 30 years, from 13 % in 1990, to 19 % in 2000, and 26 % in 2021 (Hoffstetter & McHugh, 2021), the influence of immigration status has rightfully gained more attention from researchers (Cervantes, 2002; Tao et al., 2012). Immigrant children experience a unique home environment, resulting in a qualitatively different set of norms and expectations for children (Suárez-Orozco et al., 2018), including those related to emotion language and social and emotional socialization. For example, the first generation may be learning a new language at the time of immigration, presenting an additional challenge during an already stressful time of transition (Rumbaut, 2004); conversely, the second generation is less likely to be fluent in their parents' native language, rendering a different kind of challenge in maintaining communication and strong relationships in the home (Suárez-Orozco et al., 2015).

Recent work has begun to examine how components of the macrosystem, including immigration status, parent cultural orientation, and engagement with one's host culture, influence children's SEL. Immigrant families may live close geographically but subscribe to very different cultural values based on norms of the heritage country, and as a result, may engage in different kinds of emotion talk with their children. For example, individuals from Western industrialized countries, (e.g., United States and Australia), subscribe to an individualistic cultural perspective, placing a great deal of value on independence, autonomy, and self-sufficiency. In contrast, individuals from Eastern cultures, like China and Japan are more likely to subscribe to collectivist ideologies, valuing the group over the individual. Parents from individualistic cultures might put a greater emphasis on emotion and mental state language, encouraging children to talk more about their emotions, whereas individuals in collectivist countries might be more likely to discourage emotion talk because of their emphasis on the well-being of the group. Indeed, one study reported that when narrating a story based on a picture book, European American mothers spoke about emotions and thoughts more frequently than did Chinese American mothers, whereas Chinese American mothers more frequently discussed behaviors (Doan & Wang, 2010). Further, Chinese American immigrant mothers with a stronger orientation toward Chinese culture have been shown to ask fewer emotion-related questions and provide fewer emotion explanations in conversations with their children (Tao et al., 2012).

Other studies demonstrate similar cross-cultural differences in emotion talk. Chan et al. (2022) studied emotion talk across Chinese American and Mexican American immigrant families living in the same region. Although both groups used emotion words and emotion reasoning, Mexican American families produced significantly more negative emotion words, emotion reasoning, and more elaborate emotion talk than did Chinese American families, even after controlling for other sociocultural predictors. In another study, Chinese mothers used a greater number of negative emotion words and discussed anger more frequently when discussing negative emotions with their children than European American mothers, who more frequently spoke about sadness (Fivush & Wang, 2005).

Altogether, these findings suggest that one's culture, and specifically the extent to which one embodies their culture, may shape how they communicate about emotions with their child. Thus, it is important for social and emotional learning research to consider the importance of the broader macrosystem (e.g., immigration status and culture), and how social and emotional information might fit within those macrosystems, as they likely play a central role in determining the language and communication that children hear (Vélez-Agosto et al., 2017).

General discussion

Collectively, this review brings together a large body of research to support a more nuanced perspective on the importance of emotion and mental state language for children's social and emotional learning. Specifically, we emphasize the need for social and emotional learning research to consider factors beyond simply *how much* language children hear. Factors such as the specific content of the language can have unique implications for social and emotional learning, with different language (e.g., positive vs negative emotion language) yielding different social and emotional outcomes (e.g., self-esteem vs fear). Additionally, other features of children's experience warrant further consideration, such as the context in which emotion and mental state language is heard (e.g., the home vs school setting) and the broader sociocultural factors that influence both language and social and emotional learning.

One important point to note is that although prior work has placed significant emphasis on learning emotion words for early social and emotional development (e.g., Hoemann et al., 2019; Russell & Widen, 2002), more general language exposure also has implications for the early emergence of emotion understanding (e.g., Cutting & Dunn, 1999; Nook et al., 2017; Pons et al., 2003). Thus, although much of the work presented here supports the importance of early emotion language for social and emotional learning, future work should differentiate the unique contributions of emotion language, mental state language, and general language (e.g., Tompkins et al., 2018). Examining the unique contributions of various aspects of language on SEL may be particularly important in the first two to three years of life when the emergence of language likely has the most influence on other developing skills (Eisenberg et al., 2005).

Further, although we believe it is valuable to consider how content, context, and sociocultural factors all influence social and emotional learning, it is also important to consider how these factors interact with one another. For example, one could consider how the contingency of the emotion language that children hear overlaps with the context in which it is heard, or how the home context may be considered within the microsystem level of sociocultural factors. Thus, it is important to consider the impact of these factors on the relation between language and socioemotional learning, but it may also be important to consider how these factors interact and overlap as well. It would be highly valuable for future research to create a definitive model for precisely how these factors interact, and how they may interact over developmental time. In building on this model, future work may also wish to consider how the affective qualities of parent-child interactions may impact relations between language and SEL, as prior work in both parenting (e.g., Newton et al., 2016) and teaching domains (e.g., Alamos & Williford, 2020) have shown that adult sensitivity may moderate associations between emotion/mental state talk and children's outcomes. Here, we present a first step toward this end by jointly considering the importance of all of these factors.

It is also worth noting that the majority of the research presented here and in the area of SEL more generally is focused on young, preschool-aged children. However, children begin to learn about emotions in the first year of life (e.g., Montague & Walker-Andrews, 2001), and some research has shown that the ability to differentiate between emotions in infancy relates to later social and emotional skills (e.g., Ogren & Johnson, 2021). Additionally, relations between emotion and mental state language and SEL do not end in the preschool years, but persist into middle childhood and beyond (e.g., Brackett et al., 2012; Curtis et al., 2020; Lunkenheimer et al., 2007). Thus, continuing to examine the influence of emotion and mental state language on the development of SEL across broader ages (e.g., infancy through adolescence) will be important for a full understanding of how SEL develops and how best to aid children's development in this area. Further, it should be noted that the present perspectives article includes some implicit measures of emotion and mental state language, as studies including direct assessments of this language were not always available. Thus, it may be beneficial as a field to consider more direct assessments of emotion and mental state language moving forward.

Finally, it is crucial to emphasize that the majority of the research presented here, as well as the research on social and emotional learning more broadly, has predominantly focused on White children from middle class families who live in Western, industrialized countries (Henrich et al., 2010). Perhaps most importantly, the work we have summarized here demonstrates how contexts and sociocultural environments in which children are embedded can influence children's exposure to emotion language (e.g., Friedlmeier et al., 2011). Thus, the fact that research on these topics is constrained to such narrow samples places serious limitations on our knowledge of SEL and on our ability to generalize that knowledge broadly (Rad et al., 2018; Simons et al., 2017). Accounting for context and sociocultural factors when examining social and emotional learning is an important consideration for future research.

Taken together, the findings discussed here demonstrate that language, and emotion and mental state language in particular, is incredibly important for social and emotional learning. Prior work has shown that interventions to help improve early emotion understanding are quite effective (Sprung et al., 2015). Thus, future interventions that specifically target the use of emotion and mental state language may be particularly valuable (e.g., Grazzani & Ornaghi, 2011; Grazzani et al., 2016). Further, increasing children's exposure to emotion and mental state language across a variety of contexts (e.g., at home, at school) is one easy and practical way to promote SEL in everyday social interactions. Consideration should be given to how emotion language might best fit with the sociocultural norms of the environment, as it varies by micro-, meso-, and macro systems (e.g., family, neighborhood, and broader cultural systems, respectively). That is, although increasing children's exposure to language in general may be helpful, it would be particularly helpful for parents and educators to focus carefully on certain types of emotion and mental state language (e.g., positive emotion language) and how this language is delivered, to be thoughtful and deliberate about the use of this language across contexts, and for policy makers to understand the implications of various linguistic input for early social and emotional development. This may be valuable to consider in terms of potential interventions, as it may be possible to leverage everyday conversations to support SEL in a manner that would be both cost effective and practical to implement.

In conclusion, emotion and mental state language impacts SEL, but the manner in which it does so is influenced by the content of the language, the context in which the language occurs, and the broader sociocultural factors at play. The ways in which SEL is influenced by these factors may provide valuable insight into precisely how SEL develops and how we can intervene through research, practice, and policy to aid early social and emotional learning. That is, if we can change the language that children hear in helpful ways and across contexts, we may be able to aid social and emotional learning throughout development. For example, if interventions can be designed and broadly implemented in a culturally sensitive manner to help families and teachers understand the benefits and drawbacks to using specific emotion language, perhaps we could see the greatest benefit for early SEL development. Thus, investigating the impact of content, context, and sociocultural factors on the relation between language and SEL has the potential to open up many new possibilities for SEL.

CRediT authorship contribution statement

Marissa Ogren: Writing – review & editing, Writing – original draft, Funding acquisition, Conceptualization. **Tianyu Hu:** Writing – review & editing, Writing – original draft, Conceptualization. **Laura Bierstedt:** Writing – review & editing, Writing – original draft, Conceptualization. **Cassandra Bell:** Writing – review & editing, Writing – original draft, Funding acquisition, Conceptualization. **Vanessa LoBue:** Writing – review & editing, Funding acquisition, Conceptualization. **Lori Beth Reider:** Writing – review & editing, Writing – original draft, Conceptualization.

Conflict of Interest

The authors have no conflicts of interest to disclose.

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References

Aktar, E., Nimphy, C. A., Van Bockstaele, B., & Pérez-Edgar, K. (2022). The social learning of threat and safety in the family: Parent-to-child transmission of social fears via verbal information. *Developmental Psychobiology, 64*(3), 1–20. https://doi.org/10.1002/dev.22257

Alamos, P., & Williford, A. P. (2020). Teacher-child emotion talk in preschool children displaying elevated externalizing behaviors. *Journal of Applied Developmental Psychology, 67*, Article 101107. https://doi.org/10.1016/j.appdev.2019.101107

Andrews, R., Van Bergen, P., & Wyver, S. (2020). Use of mental state language during educator-child and mother-child conversations about the past and future. *Early Education and Development, 31*(6), 838–853. https://doi.org/10.1080/10409289.2019.1689772

Aram, D., & Shapira, R. (2012). Parent-child shared book reading and socio-emotional development. *Italian Journal of Family Education, 2*, 55–66. https://doi.org/10.13128/RIEF-13299

Ashiabi, G. S., & O'Neal, K. K. (2015). Child social development in context: An examination of some propositions in Bronfenbrenner's Bioecological Theory. *SAGE Open, 5*, 1–14. https://doi.org/10.1177/2158244015590840

Baker, C. E. (2013). Fathers' and mothers' home literacy involvement and children's cognitive and social emotional development: implications for family literacy programs. *Applied Developmental Science, 17*(4), 184–197. https://doi.org/10.1080/10888691.2013.836034

Barrett, L. F. (2017). *How Emotions Are Made: The Secret Life of the Brain*. New York, NY: Houghton-Mifflin-Harcourt.

Bierman, K. L., Domitrovich, C. E., Nix, R. L., Gest, S. D., & Janet, J. (2008). Promoting academic and social-emotional school readiness: The Head Start REDI program. *Child Development, 79*(6), 1802–1817. https://doi.org/10.1111/j.1467-8624.2008.01227.x

Beeghly, M., Bretherton, I., & Mervis, C. (1986). Mothers' internal state language to toddlers: The socialization of psychological understanding. *British Journal of Developmental Psychology, 4*, 247–260. https://doi.org/10.1111/j.2044-835X.1986.tb01016.x

Brackett, M. A., Rivers, S. E., Reyes, M. R., & Salovey, P. (2012). Enhancing academic performance and social and emotional competence with the RULER feeling words curriculum. *Learning and Individual Differences, 22*(2), 218–224. https://doi.org/10.1016/j.lindif.2010.10.002

Brendgen, M., Wanner, B., Vitaro, F., Bukowski, W. M., & Tremblay, R. E. (2007). Verbal abuse by the teacher during childhood and academic, behavioral, and emotional adjustment in young adulthood. *Journal of Educational Psychology, 99*(1), 26–38. https://doi.org/10.1037/0022-0663.99.1.26

Bronfenbrenner, U. (1979). The ecology of human development: Experiments by nature and design. *In The Ecology of Human Development*. Harvard University Press. https://doi.org/10.2307/j.ctv26071r6

Bronfenbrenner, U., & Morris, P. A. (2006). The bioecological model of human development. In R. M. Lerner, & W. Damon (Eds.), *Handbook of child psychology: Theoretical models of human development* (pp. 793–828). Wiley.

Brown, R. (1958). *Words and things: An introduction to language*. Glencoe, IL: Free Press.

Brownell, C. A., Svetlova, M., Anderson, R., Nichols, S., & Drummond, J. (2013). Socialization of early prosocial behavior: parents' talk about emotions is associated with sharing and helping in toddlers. *Infancy, 18*, 91–119. https://doi.org/10.1111/j.1532-7078.2012.00125.x

Cassidy, J., Parke, R. D., Butkovsky, L., & Braungart, J. M. (1992). Family-peer connections: The roles of emotional expressiveness within the family and children's understanding of emotions. *Child development, 63*(3), 603–618. https://doi.org/10.2307/1131349

Cavioni, V., Grazzani, I., Ornaghi, V., Pepe, A., & Pons, F. (2020). Assessing the factor structure and measurement invariance of the Test of Emotion Comprehension (TEC): A large cross-sectional study with children aged 3-10 years. *Journal of Cognition and Development, 21*, 406–424. https://doi.org/10.1080/15248372.2020.1741365

Cervantes, C. A. (2002). Explanatory emotion talk in Mexican immigrant and Mexican American families. *Hispanic Journal of Behavioral Sciences, 24*(2), 138–163. https://doi.org/10.1177/0739986302024002003

Chan, M., Teng, D., Teng, Y. P. T., & Zhou, Q. (2022). Parent emotion talk with preschoolers from low-income Mexican American and Chinese American families: Links to sociocultural factors. *Social Development, 32*, 481–500. https://doi.org/10.1111/sode.12656

Chan, R. F., Qiu, C., & Shum, K. K. (2021). Tuning in to kids: A randomized controlled trial of an emotion coaching parenting program for Chinese parents in Hong Kong. *Developmental Psychology, 57*(11), 1796–1809. https://doi.org/10.1037/dev0001258

Collaborative for Academic, Social, and Emotional Learning. (2013). *CASEL schoolkit: A guide for implementing schoolwide academic, social, and emotional learning*. Chicago, IL: Author,.

Cole, P. M., Tamang, B. L., & Shrestha, S. (2006). Cultural variations in the socialization of young children's anger and shame. *Child Development, 77*(5), 1237–1251. https://doi.org/10.1111/j.1467-8624.2006.00931.x

Cole, P. M., Armstrong, L. M., & Pemberton, C. K. (2010). The role of language in the development of emotion regulation. In S. D. Calkins, & M. A. Bell (Eds.), *Child development at the intersection of emotion and cognition (pp* (pp. 59–77). American Psychological Association. https://doi.org/10.1037/12059-004.

Conrad, M., Reider, L. B., & LoBue, V. (2021). Exploring parent–child conversations about live snakes and spiders: Implications for the development of animal fears. *Visitor Studies, 24*(1), 58–78. https://doi.org/10.1080/10645578.2020.1865089

Cooper, A. M., Reschke, P. J., Porter, C. L., Coyne, S. M., Stockdale, L. A., Graver, H., Siufanua, M., Rogers, A., & Walle, E. A. (2023). Oh No! What Happened?" An Investigation of Parent–Child Conversations About Self-Conscious Emotions. *Developmental Psychology, 59*(11), 2133–2147. https://doi.org/10.1037/dev0001583

Curtis, K., Zhou, Q., & Tao, A. (2020). Emotion talk in Chinese American immigrant families and longitudinal links to children's socio-emotional competence. *Developmental Psychology, 56*(3), 475–488. https://doi.org/10.1037/dev0000806

Cutting, A. L., & Dunn, J. (1999). Theory of mind, emotion understanding, language, and family background: Individual differences and interrelations. *Child Development, 70*, 853–865. https://doi.org/10.1111/1467-8624.00061

De Rosnay, M., & Hughes, C. (2006). Conversation and theory of mind: Do children talk their way to socio-cognitive understanding? *British Journal of Developmental Psychology, 24*(1), 7–37. https://doi.org/10.1348/026151005X82901

Denham, S. A., Brown, C., & Domitrovich, C. E. (2010). Plays nice with others": Social–emotional learning and academic success. *Early Education and Development, 21*(5), 652–680. https://doi.org/10.1080/10409289.2010.497450

Denham, S. A., & Burton, R. (2003). *Social and emotional prevention and intervention programming for preschoolers*. New York: Kluwer-Plenum.

Denham, S. A., Ferrier, D. E., & Bassett, H. H. (2020). Preschool teachers' socialization of emotion knowledge: Considering socioeconomic risk. *Journal of Applied Developmental Psychology, 69*, 1–30. https://doi.org/10.1016/j.appdev.2020.101160

Denham, S. A., & Kochanoff, A. T. (2002). Parental contributions to preschoolers' understanding of emotion. *Marriage & Family Review, 34*(3-4), 311–343. https://doi.org/10.1300/J002v34n03_06

Denham, S. A., & Liverette, K. H. (2019). The emotional basis of learning and development in early childhood education. *Handbook of research on the education of young children* (pp. 43–64). Routledge,.

Denham, S. A., Mitchell-Copeland, J., Strandberg, K., Auerbach, S., & Blair, K. (1997). Parental contributions to preschoolers' emotional competence: Direct and indirect effects. *Motivation and emotion, 21*, 65–86. https://doi.org/10.1023/A:1024426431247

Denham, S. A., Zoller, D., & Couchoud, E. A. (1994). Socialization of preschoolers' emotion understanding. *Developmental Psychology, 30*, 928–936. https://doi.org/10.1037/0012-1649.30.6.928

Drummond, J., Paul, E. F., Waugh, W. E., Hammond, S. I., & Brownell, C. A. (2014). Here, there and everywhere: Emotion and mental state talk in different social contexts predicts empathic helping in toddlers. *Frontiers in Psychology, 5*, 1–11. https://doi.org/10.3389/fpsyg.2014.00361

Doan, S. N., & Wang, Q. (2010). Maternal discussion of mental states and behaviors: Relations to emotion situation knowledge in American and immigrant Chinese children. *Child Development, 81*, 1490–1503. https://doi.org/10.1111/j.1467-8624.2010.01487.x

Dunn, J., Brown, J., & Beardsall, L. (1991). Family talk about feeling states and children's later understanding of others' emotions. *Developmental Psychology, 27*(3), 448–455. https://doi.org/10.1037/0012-1649.27.3.448

Eggum, N. D., Eisenberg, N., Kao, K., Spinrad, T. L., Bolnick, R., Hofer, C., Kupfer, A. S., & Fabricius, W. V. (2011). Emotion understanding, theory of mind, and prosocial orientation: Relations over time in early childhood. *The Journal of Positive Psychology, 6*, 4–16. https://doi.org/10.1080/17439760.2010.536776

Eisenberg, N., Cumberland, A., & Spinrad, T. L. (1998). Parental socialization of emotion. *Psychological Inquiry, 9*(4), 241–273. https://doi.org/10.1207/s15327965pli0904_1

Eisenberg, N., & Fabes, R. A. (1994). Mothers' reactions to children's negative emotions: Relations to children's temperament and anger behavior. *Merrill-Palmer Quarterly, 40*, 138–156.

Eisenberg, N., Sadovsky, A., & Spinrad, T. L. (2005). Associations of emotion-related regulation with language skills, emotion knowledge, and academic outcomes. *New*

Directions for Child and Adolescent Development, 109, 109–118. https://doi.org/10.1002/cd.143

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

Fivush, R., & Wang, Q. (2005). Emotion talk in mother-child conversations of the shared past: The effects of culture, gender, and event valence. *Journal of Cognition and Development, 6*, 489–506. https://doi.org/10.1207/s15327647jcd0604_3

Fouts, H. N., Roopnarine, J. L., Lamb, M. E., & Evans, M. (2012). Infant social interactions with multiple caregivers: The importance of ethnicity and socioeconomic status. *Journal of. Cross-Cultural Psychology, 43*, 328–348. https://doi.org/10.1177/0022022110388564

Frank, M. C., Braginsky, M., Yurovsky, D., & Marchman, V. A. (2017). Wordbank: An open repository for developmental vocabulary data. *Journal of Child Language, 44*, 677–694. https://doi.org/10.1017/S0305000916000209

Friedlmeier, W., Corapci, F., & Cole, P. M. (2011). Emotion socialization in cross-cultural perspective. *Social and Personality Psychology Compass, 5*(7), 410–427. https://doi.org/10.1111/j.1751-9004.2011.00362.x

Garner, P. W., Bolt, E., & Roth, A. N. (2019). Emotion- focused curricula models and expressions of and talk about emotions between teachers and young children. *Journal of Research in Childhood Education, 33*(2), 180–193. https://doi.org/10.1080/02568543.2019.1577772

Garner, P. W., Dunsmore, J. C., & Southam-Gerrow, M. (2008). Mother–child conversations about emotions: Linkages to child aggression and prosocial behavior. *Social development, 17*(2), 259–277. https://doi.org/10.1111/j.1467-9507.2007.00424.x

Grazzani, I., & Ornaghi, V. (2011). Emotional state talk and emotion understanding: A training study with preschool children. *Journal of Child Language, 38*, 1124–1139. https://doi.org/10.1017/S0305000910000772

Grazzani, I., Ornaghi, V., Agliati, A., & Brazzelli, E. (2016). How to foster toddlers' mental-state talk, emotion understanding, and prosocial behavior: A conversation-based intervention at nursery school. *Infancy, 21*, 199–227. https://doi.org/10.1111/infa.12107

Hart, B., & Risley, T.R. (1995). Meaningful differences in the everyday experience of young American children. Paul H Brookes Publishing.

Henrich, J., Heine, S., & Norenzayan, A. (2010). Most people are not WEIRD. *Nature, 466*, 29. https://doi.org/10.1038/466029a

Hernandez, E., Smith, C. L., Day, K. L., Neal, A., & Dunsmore, J. C. (2018). Patterns of parental emotion-related discourse and links with children's problem behaviors: A person-centered approach. *Developmental Psychology, 54*(11), 2077–2089. https://doi.org/10.1037/dev0000602

Hoemann, K., Xu, F., & Barrett, L. F. (2019). Emotion words, emotion concepts, and emotional development in children: A constructionist hypothesis. *Developmental Psychology, 55*(9), 1830–1849. https://doi.org/10.1037/dev0000686

Hoffstetter, J., & McHugh, M. (2021). *Immigrant and US-Born parents of young and elementary-school-age children: Key sociodemographic characteristics.* ⟨https://www.migrationpolicy.org/research/immigrant-us-born-parents-young-children⟩.

Iceland, J. (2004). Beyond Black and White Metropolitan residential segregation in multi-ethnic America. *Social Science Research, 33*, 248–271. https://doi.org/10.1016/S0049-089X(03)00056-5

Jacobs, Karen, & Struyf, Elke (2013). Integrated social and emotional guidance: What do secondary education teachers think?: Research into teachers' task perception and guidance provision, and the affect of a supportive network at school. *European Journal of Psychology of Education, 28*. https://doi.org/10.1007/s10212-013-0182-5

Jones, S. M., Brown, J. L., Hoglund, W. L., & Aber, J. L. (2010). A school-randomized clinical trial of an integrated social-emotional learning and literacy intervention: impacts after 1 school year. *Journal of Consulting and Clinical Psychology, 78*(6), 829–842. https://doi.org/10.1037/a0021383

King, E., & La Paro, K. (2015). Teachers' language in interactions: An exploratory examination. of mental state talk in early childhood education classrooms. *Early Education and Development, 26*(2), 245–263. https://doi.org/10.1080/10409289.2015.989029

Klein, M., Moran, R., Cortes, L., Zalewski, R., Ruberry, M., E, J., & Lengua, L. J. (2018). Temperament, mothers' reactions to children's emotional experiences, and emotion understanding predict adjustment in preschool children. *Social Development, 27*, 351–365. https://doi.org/10.1111/sode.12282

Lagattuta, K. H., & Wellman, H. M. (2002). Differences in early parent-child conversations about negative versus positive emotions: Implications for the development of psychological understanding. *Developmental Psychology, 38*(4), 564–580. https://doi.org/10.1037/0012-1649.38.4.564

Laible, D. (2011). Does it matter if preschool children and mothers discuss positive vs. negative events during reminiscing? Links with mother-reported attachment, family emotional climate, and socioemotional development. *Social Development, 20*(2), 394–411. https://doi.org/10.1111/j.1467-9507.2010.00584.x

Laible, D., & Song, J. (2006). Constructing emotional and relational understanding: The role of affect and mother-child discourse. *Merrill-Palmer Quarterly*, (1982), 44–69. https://doi.org/10.1016/j.cogdev.2004.09.003

Lane, J. D., Wellman, H. M., Olson, S. L., LaBounty, J., & Kerr, D. C. R. (2010). Theory of mind and emotion understanding predict moral development in early childhood. *British Journal of Developmental Psychology, 28*, 871–889. https://doi.org/10.1348/026151009X483056

Lecce, S., Ronchi, L., & Devine, R. T. (2021). Mind what teacher says: teachers' propensity for. mental-state language and children's theory of mind in middle childhood. *Social Development. Advance Online Publication.* https://doi.org/10.1111/sode.12552

Li, S., Tang, Y., & Zheng, Y. (2023). How the home learning environment contributes to children's social–emotional competence: A moderated mediation model. *Front. Psychol., 14*, 1–19. https://doi.org/10.3389/fpsyg.2023.1065978

LoBue, V., & Ogren, M. (2022). How the emotional environment shapes the emotional life of the child. *Policy Insights from the Behavioral and Brain Sciences, 9*, 137–144. https://doi.org/10.1177/23727322211067264

Lunkenheimer, E. S., Shields, A. M., & Cortina, K. S. (2007). Parental emotion coaching and dismissing in family interaction. *Social Development, 16*(2), 232–248. https://doi.org/10.1111/j.1467-9507.2007.00382.x

McGillion, M., Pine, J. M., Herbert, J. S., & Matthews, D. (2017). A randomised controlled trial to test the effect of promoting caregiver contingent talk on language development in infants from diverse socioeconomic status backgrounds. *Journal of Child Psychology and Psychiatry and Allied Disciplines, 58*(10), 1122–1131. https://doi.org/10.1111/jcpp.12725

Melson, G. F. (2020). Rethinking Children's Connections with Other Animals: A Childhood NaturePerspective. In A. Cutter-Mackenzie-Knowles, K. Malone, & E. Barratt Hacking (Eds.), *Research Handbook on Childhood Nature. Springer International Handbooks of Education* (pp. 1221–1236). *Cham*: Springer. https://doi.org/10.1007/978-3-319-67286-1_70.

Mendelsohn, A. L., Cates, C. B., Weisleder, A., Johnson, S. B., Seery, A. M., Canfield, C. F., Huberman, H. S., & Dreyer, B. P. (2018). Reading Aloud, Play, and Social-Emotional Development. *Pediatrics, 141*(5), 2–11. https://doi.org/10.1542/peds.2017-3393

Mesquita, B., & Frijda, N. H. (1992). Cultural variations in emotions: A review. *Psychological Bulletin, 112*(2), 179–204. https://doi.org/10.1037/0033-2909.112.2.179

Montague, D. P., & Walker-Andrews, A. S. (2001). Peekaboo: A new look at infants' perception of emotion expressions. *Developmental Psychology, 37*, 826–838. https://doi.org/10.1037/0012-1649.37.6.826

Mumme, D. L., & Fernald, A. (2003). The infant as onlooker: Learning from emotional reactions observed in a television scenario. *Child Development, 74*, 221–237. https://doi.org/10.1111/1467-8624.00532

Muris, P., Bodden, D., Merckelbach, H., Ollendick, T. H., & King, N. (2003). Fear of the beast: A prospective study on the effects of negative information on childhood fear. *Behaviour Research and Therapy, 41*(2), 195–208. https://doi.org/10.1016/S0005-7967(01)00137-1

Muris, P., van Zwol, L., Huijding, J., & Mayer, B. (2010). Mom told me scary things about this animal: Parents installing fear beliefs in their children via the verbal information pathway. *Behaviour Research and Therapy, 48*(4), 341–346. https://doi.org/10.1016/j.brat.2009.12.001

Nencheva, M. L., Tamir, D. I., & Lew-Williams, C. (2023). Caregiver speech predicts the emergence of children's emotion vocabulary. *Child Development, 94*(3), 585–602. https://doi.org/10.1111/cdev.13897

Neuman, S. B., & Moland, N. (2019). Book deserts: The consequences of income segregation on children's access to print. *Urban Education, 54*(1), 126–147. https://doi.org/10.1177/0042085916654525

Newton, E. K., Thompson, R. A., & Goodman, M. (2016). Individual differences in toddlers' prosociality: Experiences in early relationships explain variability in prosocial behavior. *Child Development, 87*, 1715–1726. https://doi.org/10.1111/cdev.12631

Nook, E. C., Sasse, S. F., Lambert, H. K., McLaughlin, K. A., & Somerville, L. H. (2017). Increasing verbal knowledge mediates development of multidimensional emotion representations. *Nature Human Behaviour, 1*, 881–889. https://doi.org/10.1038/s41562-017-0238-7

Oakes, L. M. (2017). Plasticity may change inputs as well as processes, structures, and responses. *Cognitive development, 42*, 4–14. https://doi.org/10.1016/j.cogdev.2017.02.012

Oberle, E., Schonert-Reichl, K. A., Hertzman, C., & Zumbo, B. D. (2014). Social-emotional competencies make the grade: Predicting academic success in early adolescence. *Journal of Applied Developmental Psychology, 35*, 138–147. https://doi.org/10.1016/j.appdev.2014.02.004

Ogren, M., & Johnson, S. P. (2020). Factors facilitating early emotion understanding development: Contributions to individual differences. *Human Development, 64*(3), 108–118. https://doi.org/10.1159/000511628

Ogren, M., & Johnson, S. P. (2021). Intermodal emotion matching at 15 months, but not 9 or 21 months, predicts early childhood emotion understanding: A longitudinal investigation. *Cognition and Emotion, 34*, 1343–1356. https://doi.org/10.1080/02699931.2020.1743236

Ogren, M., & Sandhofer, C. M. (2021). Emotion words in early childhood: A language transcript analysis. *Cognitive Development, 60*, Article 101122. https://doi.org/10.1016/j.cogdev.2021.101122

Ogren, M., & Sandhofer, C. M. (2022). Emotion words link faces to emotional scenarios in early childhood. *Emotion, 22*(1), 167–178. https://doi.org/10.1037/emo0001063

Pons, F., Lawson, J., Harris, P. L., & De Rosnay, M. (2003). Individual differences in children's emotion understanding: Effects of age and language. *Scandinavian Journal of Psychology, 44*, 347–353. https://doi.org/10.1111/1467-9450.00354

Price, G. F., Ogren, M., & Sandhofer, C. M. (2022). Sorting out emotions: How labels influence emotion categorization. *Developmental Psychology, 58*(9), 1665–1675. https://doi.org/10.1037/dev0001391

Purewal, R., Christley, R., Kordas, K., Joinson, C., Meints, K., Gee, N., & Westgarth, C. (2017). Companion animals and child/adolescent development: A systematic review of the evidence. *International Journal of Environmental Research and Public Health, 14* (3), 234. https://doi.org/10.3390/ijerph14030234

Rad, M. S., Martingano, A. J., & Ginges, J. (2018). Toward a psychology of *Homo sapiens*: Making psychological science more representative of the human population. *Proceedings of the National Academy of Sciences ((USA)), 115*, 11401–11405. https://doi.org/10.1073/pnas.1721165115

Ramsook, K. A., Welsh, J. A., & Bierman, K. L. (2019). What you say, and how you say it: Preschoolers' growth in vocabulary and communication skills differentially predict kindergarten academic achievement and self-regulation. *Social Development, 29*, 783–800. https://doi.org/10.1111/sode.12425

Reese, E., Bird, A., & Tripp, G. (2007). Children's self-esteem and moral self: Links to parent–child conversations regarding emotion. *Social Development, 16*(3), 460–478. https://doi.org/10.1111/j.1467-9507.2007.00393.x

Reider, L. B., Mahaffey, E. M., Barylski, B., & LoBue, V. (2022). It bites!": The transmission of negative information about snakes and spiders through a naturalistic picture book interaction. *Developmental Psychology, 58*(11), 2140–2157. https://doi.org/10.1037/dev0001429

Reider, L. B., Kim, E., Mahaffey, E., & LoBue, V. (2023). The Impact of Household Pets on Children's Daily Lives. *Developmental Psychology, 59*(11), 2148–2161. https://doi.org/10.1037/dev0001595

Reschke, P. J., Clifford, B. N., Brown, M., Siufanua, M., Graver, H., Cooper, A. M., … Coyne, S. M. (2023). Links between parent–child conversations about emotions and changes in children's emotion knowledge across early childhood. *Child Development*. https://doi.org/10.1111/cdev.13960

Roby, E., & Scott, R. M. (2022). Exploring the impact of parental education, ethnicity and context on parent and child mental-state language. *Cognitive Development, 62*, Article 101169. https://doi.org/10.1016/j.cogdev.2022.101169

Ruba, A. L., Kalia, V., & Wilbourn, M. P. (2022). Happy, sad, or yucky? Parental emotion talk with infants in a book-sharing task. *Infancy, 27*(2), 277–290. https://doi.org/10.1111/infa.12448

Rumbaut, R. G. (2004). Ages, life stages, and generational cohorts: Decomposing the immigrant first and second-generations in the United States. *International Migration Review, 38*, 1160–1205. http://dx.doi.org/10.1111/j.1747-7379.2004.tb00232.x.

Russell, J. A., & Widen, S. C. (2002). A label superiority effect in children's categorization of facial expressions. *Social Development, 11*, 30–53. https://doi.org/10.1111/1467-9507.00185

Schröder, L., Keller, H., & Kleis, A. (2013). Parent-child conversations in three urban middle-class contexts: Mothers and fathers reminisce with their daughters and sons in Costa Rica, Mexico, and Germany. *Actualidades en psicología, 27*, 49–73. https://doi.org/10.15517/ap.v27i115.9885

Schwartz, H. L., Bongard, M., Bogan, E. D., Boyle, A. E., Meyers, D. C., & Jagers, R. J. (2022). *Social and emotional learning in schools nationally and in the collaborating districts initiative: Selected findings from the American Teacher Panel and the American School Leader Panel Surveys.* Santa Monica, CA: RAND Corporation.

Shin, E., Smith, C. L., Devine, D., Day, K. L., & Dunsmore, J. C. (2023). Predicting preschool children's self-regulation from positive emotion: The moderating role of parental positive emotion socialization. *Early Childhood Research Quarterly, 62*, 53–63. https://doi.org/10.1016/j.ecresq.2022.07.011

Shiraev, E., & Levy, D. (2020). Understanding cross-cultural psychology. *In Cross-cultural Psychology: Critical thinking and contemporary applications* (7th edition, pp. 1–26). Taylor & Francis.

Simons, D. J., Shoda, Y., & Lindsay, D. S. (2017). Constraints on generality (COG): A proposed addition to all empirical papers. *Perspectives on. Psychological Science, 12*, 1123–1128. https://doi.org/10.1177/174569167708630

Smith, L. B., Jayaraman, S., Clerkin, E., & Yu, C. (2018). The developing infant creates a curriculum for statistical learning. *Trends in Cognitive Sciences, 22*, 325–336. https://doi.org/10.1016/j.tics.2018.02.004

Sorce, J. F., Emde, R. N., Campos, J., & Klinnert, M. D. (1985). Maternal emotional signaling: Its effects on the visual cliff behavior of 1-year-olds. *Developmental Psychology, 21*, 195–200. https://doi.org/10.1037/0012-1649.21.1.195

Sperry, D. E., Sperry, L. L., & Miller, P. J. (2019). Reexamining the verbal environments of children from different socioeconomic backgrounds. *Child Development, 90*(4), 1303–1318. https://doi.org/10.1111/cdev.13072

Sprung, M., Münch, H., Harris, P., Ebesutani, C., & Hofmann, S. (2015). Children's emotion understanding: A meta-analysis of training studies. *Developmental Review, 37*, 41–65. https://doi.org/10.1016/j.dr.2015.05.001

Steele, H., Steele, M., Croft, C., & Fonagy, P. (1999). Infant-mother attachment at one year predicts children's understanding of mixed emotions at six years. *Social Development, 8*, 161–178. https://doi.org/10.1111/1467-9507.00089

Streubel, B., Gunzenhauser, C., Grosse, G., & Saalbach, H. (2020). Emotion-specific vocabulary and its contribution to emotion understanding in 4-to 9-year-old children. *Journal of Experimental Child Psychology, 193*, Article 104790. https://doi.org/10.1016/j.jecp.2019.104790

Suárez-Orozco, C., Hernández, M., & Casanova, S. (2015). It's sort of my calling": The civic engagement and social responsibility of Latino immigrant-origin young adults. *Research in Human Development, 12*, 1–16. https://doi.org/10.1080/15427609.2015.1010350

Suárez-Orozco, C., Motti-Stefanidi, F., Marks, A., & Katsiaficas, D. (2018). An integrative risk and resilience model for understanding the adaptation of immigrant-origin children and youth. *American Psychologist, 73*(6), 781–796. https://doi.org/10.1037/amp0000265

Tao, A., Zhou, Q., Lau, N., & Liu, H. (2012). Chinese American immigrant mothers' discussion of emotion with children: Relations to cultural orientations. *Journal of Cross-Cultural Psychology, 44*, 478–501. https://doi.org/10.1177/0022022112453318

Taumoepeau, M., & Ruffman, T. (2006). Mother and infant talk about mental states relates to desire language and emotion understanding. *Child development, 77*(2), 465–481. https://doi.org/10.1111/j.1467-8624.2006.00882.x

Taumoepeau, M., & Ruffman, T. (2008). Stepping stones to others' minds: Maternal talk relates to child mental state language and emotion understanding at 15, 24, and 33 months. *Child Development, 79*(2), 284–302. https://doi.org/10.1111/j.1467-8624.2007.01126.x

Tompkins, V., Benigno, J. P., Kiger Lee, B., & Wright, B. M. (2018). The relation between parents' mental state talk and children's social understanding: A meta-analysis. *Social Development, 27*(2), 223–246. https://doi.org/10.1111/sode.12280

Tsethlikai, M., & Rogoff, B. (2013). Involvement in traditional cultural practices and American Indian children's incidental recall of a folktale. *Developmental Psychology, 49*, 568–578.

U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. (2021). Home Literacy Activities with Young Children. *The Condition of Education, 2021*, 1–5.

Vélez-Agosto, N. M., Soto-Crespo, J. G., Vizcarrondo-Oppenheimer, M., Vega-Molina, S., & García Coll, C. (2017). Bronfenbrenner's bioecological theory revision: Moving culture from the macro into the micro. *Perspectives on Psychological Science, 12*(5), 900–910. https://doi.org/10.1177/1745691617704397

Weissberg, R. P., & Cascarino, J. (2013). Academic learning + social emotional learning = national priority. *Phi Delta Kappan, 95*(2), 8–13. https://doi.org/10.1177/003172171309500203

Widen, S. C. (2013). Children's interpretation of facial expressions: The long path from valence-based to specific discrete categories. *Emotion Review, 5*, 72–77. https://doi.org/10.1177/1754073912451492

Widen, S. C., & Russell, J. A. (2008). Children acquire emotion categories gradually. *Cognitive Development, 23*(2), 291–312. https://doi.org/10.1016/j.cogdev.2008.01.002

Yang, C., Bear, G. G., & May, H. (2018). Multilevel associations between school-wide social–emotional learning approach and student engagement across elementary, middle, and high schools. *School Psychology Review, 47*(1), 45–61. https://doi.org/10.17105/SPR-2017-0003.V47-1

Yap, M. B., Allen, N. B., & Ladouceur, C. D. (2008). Maternal socialization of positive affect: The impact of invalidation on adolescent emotion regulation and depressive symptomatology. *Child Development, 79*(5), 1415–1431. https://doi.org/10.1111/j.1467-8624.2008.01196.x

Yelinek, J., & Grady, J. S. (2019). Show me your mad faces!' preschool teachers' emotion talk in the classroom. *Early Child Development and Care, 189*(7), 1063–1071. https://doi.org/10.1080/03004430.2017.1363740

Yi, C. Y., Gentzler, A. L., Ramsey, M. A., & Root, A. E. (2016). Linking maternal socialization of positive emotions to children's behavioral problems: The moderating role of self-control. *Journal of Child and Family Studies, 25*, 1550–1558. https://doi.org/10.1007/s10826-015-0329-x

Young, K. T., Davis, K., Schoen, C., & Parker, S. (1998). Listening to parents. A national survey of parents with young children, 255-62 *Archives of Pediatrics & Adolescent Medicine, 152*. https://doi.org/10.1001/archpedi.152.3.255.

Young-Browne, G., Rosenfeld, H. M., & Horowitz, F. D. (1977). Infant discrimination of facial expressions. *Child Development, 48*, 555–562. https://doi.org/10.2307/1128653

Zahn-Waxler, C., Radke-Yarrow, M., & King, R. A. (1979). Child rearing and children's prosocial initiations toward victims of distress. *Child Development, 50*(2), 319–330. https://doi.org/10.2307/1129406

Zhang, Y., Edwards, R. C., & Hans, S. L. (2020). Parenting profiles of young low-income African American and Latina Mothers and infant socioemotional development. *Parenting, Science, and Practice, 20*(1), 28–52. https://doi.org/10.1080/15295192.2019.1642088

Ziv, M., Smadja, M.-L., & Aram, D. (2014). Mothers' and Teachers' Mental-State Discourse With Preschoolers During Storybook Reading. *Journal of Cognitive Education and Psychology, 13*, 103–119. https://doi.org/10.1891/1945-8959.13.1.103