Let's Talk! An Investigation of Parent-Child Conversations About Self-Conscious Emotions

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Let’s Talk! An Investigation of Parent-Child Conversations About Self-Conscious Emotions

Alexandra Marie Cooper

A thesis submitted to the faculty of Brigham Young University in partial fulfillment of the requirements for the degree of Master of Science

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ABSTRACT

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Parents play an important role in socializing children’s emotion understanding. Previous research on parents’ conversations with their children shows that parents emphasize different aspects of emotion contexts depending on the emotion depicted. However, there is limited research on how parents and children discuss self-conscious emotions, such as embarrassment, guilt, and shame. The current study explored the socialization of self-conscious emotions in parent-child conversations during a storybook task. One hundred and sixty-six children between the ages of 24 and 36 months were observed reading a storybook with their parent. Analyses of parent-child conversations revealed that while parent and child utterances were highly correlated, only parents differentially discussed different aspects of each self-conscious emotion. Additionally, the frequency of parents’ causality and knowledge-based questions directed towards their children differed by self-conscious emotion. Whether parent communication of emotion serves as a framework for child understanding and interpretation of self-conscious emotions will be discussed.

Keywords: self-conscious emotions, socialization, parent-child talk, relational aboutness, emotion understanding
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Emotion knowledge is an essential element of children’s healthy social development (Denham, 2007; Denham et al., 2012; Salmon et al., 2013). Children at 18-24 months begin to label emotions, talk about past and future emotions, and converse about the context of emotional states (Ridgeway et al., 1985; Lewis, 2016; Knothe & Walle, 2018). Such emotion understanding is associated with later social competence, academic achievement, and overall health (Denham et al., 1994; Denham, 2007; Eisenberg et al., 2005; Izard et al., 2001).

One way that children gain knowledge about emotions is through interpersonal interactions, including conversations with their parents (Brownell et al., 2013; Dunn et al., 1991; Izard & Malatesta, 1987; Knothe & Walle, 2018; LaBounty et al., 2008; Thompson, 2006). Much research over the past few decades has examined different aspects of parent-child conversations about basic emotions (e.g., sadness, fear, joy; Brown & Dunn, 1996; Dunn et al., 1991; Knothe & Walle, 2018; Taumoepeau & Ruffman, 2006; Van Bergen & Salmon, 2010). However, research has yet to investigate how parents discuss self-conscious emotions (e.g., embarrassment, guilt, and shame) with their young children. Knowledge about self-conscious emotions is thought to allow individuals to improve social functioning and better navigate society (Lewis, 2016). Thus, this study sought to address this hole in the literature by examining the socialization of self-conscious emotions in parent-child conversations.

Self-Conscious Emotions

Though there are no studies to date regarding parent-child talk about self-conscious emotions, there is extensive research regarding the characteristics of these emotions that provide a foundation for this study. Self-conscious emotions are experienced in the presence of an
“other” physically present or imagined (Leary, 2004; Robins & Schriber, 2009), and are associated with distinct social functions, emotional displays, and action tendencies (see Table 1). For instance, some self-conscious emotions are characterized by an inward focus on the individual, while others are outwardly focused. Specifically, shame is manifest by an individual’s violation of a social norm (e.g., “I am bad”), pride focuses on an individual having accomplished a difficult feat (e.g., “I am good”), and embarrassment centers on shortcomings in physical appearance (Keltner, 1996; Saarni et al., 2006). Outward-focusing emotions like guilt and awe focus on circumstances or context external to the individual. For example, guilt focuses more on the negative results of one’s actions (Saarni et al., 2006), whereas awe is characterized by the attempt to comprehend a stimulus overwhelmingly larger than oneself (Keltner & Haidt, 2003). Given that parent-child conversations have been shown to highlight functional differences in basic emotions (Knothe & Walle, 2018), it stands to reason that similar differences might be present in parent-child conversations of self-conscious emotions, providing a better understanding of the socialization of self-conscious emotions.

**Socialization of Emotion**

Socialization in the home context is one mechanism through which children learn to recognize, appreciate, experience, express, regulate, and understand emotion (Barrett & Campos, 1987; Denham, 2007; Denham et al., 2012; Dunn et al., 1991; Lagattuta & Wellman, 2002; Knothe & Walle, 2018; Racine et al., 2007; Ruffman et al., 2002; Zahn-Waxler, 2010). From a functionalist perspective, this socialization can teach children more about their personal relation with their environment and how to respond accordingly (Campos et al., 1989; Campos, 1994). Parents may serve as a particularly important source of emotion socialization (Denham et al., 2012; Dunn et al., 1991; Lagattuta & Wellman, 2002; Thompson, 2006; Zahn-Waxler, 2010). Of
specific importance to the development of self-conscious emotions, parents may provide an environment where children are exposed to standards and norms for appropriate behavior (Abell & Gecas, 1997) and expectations as to how to respond emotionally in different situations (Lewis, 1995; Tracy et al., 2007). Moreover, parents’ reactions to children’s emotions (Denham et al., 2012; Gottman et al., 1997; Perlman et al., 2008), parents’ expression of emotion (Denham et al., 2012), and parents’ discussion of emotion likely play significant roles in the development of children’s emotion understanding (Dunn et al., 1991; Thompson, 2006; see Eisenberg et al., 1998). Similarly, communication between child and parent may foster the child’s emotion vocabulary and improve the child’s ability to communicate to others about emotions (Brownell et al., 2013; Dunn et al., 1991; LaBounty et al., 2008; Ridgeway et al., 1985; Thompson, 2006).

Taken together, these studies demonstrate that parent-child conversations are an important socialization factor in the development of children’s emotion knowledge.

**Parent-Child Emotion Talk**

Parent discussions of emotions have immediate and long-term effects on children’s emotion understanding (Brown & Dunn, 1996; Dunn et al., 1991; Eisenberg et al., 1998; Taumoepeau & Ruffman, 2006; Van Bergen & Salmon, 2010). Children whose parents explained and discussed their emotions with them were better able to appropriately express and identify basic emotions (i.e., anger, disgust, fear, joy, sadness; Denham et al., 1994; Van Bergen & Salmon, 2010). Additionally, greater frequency of early parent-child emotion talk is associated with later improvements in emotion understanding. For example, Dunn et al. (1991) found that 3-year-old children who frequently experienced “feeling talk” (e.g., “That’s disgusting!”) with their mothers and siblings more accurately judged the emotions of strangers at 6.5 years of age than children who experienced less frequent feeling talk.
The quality of emotion talk also plays an important role in emotion socialization. For instance, discussions about the antecedent causes of emotions or why emotions occur (e.g., “He was sad because you hit him, so he didn’t want to play anymore.”; Aznar & Tenenbaum, 2013) are linked to better recognition of emotions, increased vocabulary, improved identification of psychological phenomena, and enhanced memory later in development (Cervantes & Callanan, 1998; Dunn et al., 1991; Lagattuta & Wellman, 2002; Thompson, 2006; Van Bergen & Salmon, 2010). Moreover, more frequent use of parent causal language has been found to be a better predictor of their children’s later emotion understanding (e.g., emotion talk and identification of emotions) than the frequency of parent emotion talk (Martin & Green, 2005; Van Bergen & Salmon, 2010). Less is known, however, about how parents elicit causal talk in their children. For example, differences in the types of questions parents ask their children may lead to differences in the quality of children’s response. Parent causal questions (e.g., referential questions; “what is making him sad?”) may elicit more causal talk and be linked to better understanding of emotion antecedents, whereas knowledge-based questions (e.g., evaluative questions; “what emotion is that?”; Kearsley, 1976) may induce discussions about emotion labels and be linked to increased emotion identification. Overall, investigating these conversations deeper will provide greater insight into how children learn about emotions.

Parents overall discuss and elaborate (through questions, emotion labels, and causal talk) negative emotions more than positive emotions (Lagattuta & Wellman, 2002; Fivush & Wang, 2005; Knothe & Walle, 2018; Vaish et al., 2008). Moreover, parents discuss positive and negative emotions differently with their daughters and sons (Aznar & Tenenbaum, 2015; Denham et al., 2010; Fivush & Wang, 2005; Fivush et al., 2000; Lagattuta & Wellman, 2002). For instance, previous work has found that parents mention more emotion words, ask more
questions, and elaborate more when having emotion conversations for their daughters than their sons (Adams et al., 1995; Aznar & Tenenbaum, 2015; Fivush, 1991; Knothe & Walle, 2018). With regards to basic emotions, Fivush (1991) found that mothers had longer conversations about sadness with their daughters and longer conversations about anger with their sons. Taken together, these results indicate that at least among basic emotions there are gender differences in the socialization of emotion and development of emotion understanding for children based on various factors.

**Relational Aboutness**

Another factor that plays a role in the socialization of emotion is parental attention allocation. Functionalist theory posits that emotions are characterized by the significance of the relation between aspects within the emotional context (e.g., emoter, referent; Barrett & Campos, 1987; Campos, 1994, Knothe & Walle, 2019). For example, when an individual (i.e., the emoter) experiences sadness because they dropped their ice cream (i.e., the referent), attention is drawn to both the emoter and referent in a way that emphasizes the relational significance (e.g., irrevocable loss) between the two (e.g., “they are sad because they wanted to eat their ice cream but now they can’t because it fell in the dirt.” Barrett & Campos, 1987; Lazarus, 1991; Knothe & Walle, 2018, 2019). Parents allocate attention to these different aspects of emotion contexts through discussions with their children (Lagattuta & Wellman, 2002; Knothe & Walle, 2018; Knothe & Walle, 2019; Van Bergen & Salmon, 2010). Recent research has shown that parent-child discussions of the relational aboutness of emotions differ depending on the emotion being discussed. For instance, Knothe and Walle (2018) found that parents when reading a story to their children allocated varying amounts of attention to different aspects of emotional contexts depending on the basic emotion (i.e., anger, sadness, disgust, fear, joy) presented. More
specifically, parents spoke more about the emoter for images depicting sadness and anger, yet focused more on the referent for images depicting disgust, fear, and joy. Such differential focus may be reflected in children’s emerging differential responses to basic emotions (Walle et al., 2017). It remains an open question, however, whether parent-child conversations about self-conscious emotions also reflect differential focus on different aspects of emotion contexts.

**Current Study**

This study sought to address some of the unexplored areas of self-conscious emotions as identified previously regarding relational aboutness and children’s emotion understanding. Specifically, this study examined the conversations about self-conscious emotions of parents and their young children between the ages of 24-36 months using a storybook task. Picture book reading is a useful catalyst for eliciting parent-child emotion talk and creating an environment for learning about emotions, their meanings, and how to link them to distinct contexts or situations (Drummond et al., 2014; Dyer et al., 2000; Fletcher & Reese, 2005; Taumoepeau & Ruffman, 2006, 2008). This study also investigated whether parents differed in the frequency and quality of questions they directed towards daughters compared to sons.

This study included several questions and analyses. Specifically, (1) whether parents’ and children’s conversations about self-conscious emotions were correlated, (2) whether parents and children differentially talk and focus on different emotional aspects as a function of emotion, and (3) whether parents differentially ask questions, including types of questions (e.g., causal and knowledge), as a function of emotion and child gender. Several primary hypotheses were pre-registered on the Open Science Framework (10.17605/OSF.IO/THQRX). Other hypotheses were exploratory due to the novel nature of the study of parent-child conversations about self-conscious emotions. The differences in social function between the self-conscious emotions
examined in this study are summarized in Table 1, and formed the basis of several predictions: I predicted that (1) children’s responses would mirror that of their parents, (2) parents would focus on the emoter more than the referent for shame, embarrassment, and pride, (3) parents would focus more on the referent more than the emoter for awe and guilt, and (4) parents would generally ask more questions to daughters than sons, as has been demonstrated in past research (Knothe & Walle, 2018; Lagattuta & Wellman, 2002). As an exploratory question, this study also examined parents’ use of causal questions and knowledge questions as a function of picture emotion and child gender.

**Methods**

**Participants**

One hundred and sixty-six children between the ages of 24 and 36 months (77 females; $M_{age} = 2.46$ years, $SD = 0.26$) and their primary caregiver were drawn from the second wave of an ongoing longitudinal study, Project M.E.D.I.A. (Media Effects on Development from Infancy to Adulthood; IRB Protocol #: F2020-017). Participants were initially recruited for Project M.E.D.I.A. from the greater metropolitan area of Denver, Colorado through the Colorado Office of Health and Vital Records (34.4%), flyers and referrals (17.8%), and an external data collection company (47.8%). Participants for the current study were part of the recruited sample that completed in-home tasks and surveys ($N = 267$). Families who participated in this large, multifactorial study received a gift card worth up to $175. All parents spoke fluent English and were instructed to complete the storybook task in the language most comfortable for them. Dyads spoke in either English ($n = 165$) or Spanish ($n = 1$). The sample was racially, ethnically, and socioeconomically diverse. Specifically, 65.5% of parents were European American, 10.2% were Black, 17.5% were Hispanic, 2.4% were Asian American, and 5.4% identified as ‘Other.’
Regarding highest level of education, 2.2% of parents completed middle school, 16.1% completed high school, 37.2% completed some college, 28.3% received their bachelor’s degree, 13.1% received their master’s degree, and 3.2% received a doctoral or professional degree. For income categories, 29.5% made less than $30,000 per year, 20.4% made between $30,000 and $49,999 a year, and 24.1% made between $50,000 and $79,999, and 7.2% made between $80,000 and $100,000, and 3.6% made over $100,000. Of the parents who participated with their child, 95.2% were women.

**Stimuli**

The stimuli consisted of ten (5 male and 5 female) 8.5” x 11” professionally-drawn color cartoon illustrations depicting different cartoon children “emoters” expressing facially and posturally one self-conscious emotion (i.e., awe, embarrassment, guilt, pride, and shame) in response to a “referent” (see Figure 1). The cartoon children were depicted with varying degrees of medium skin tone. The images contained no words. The professional artist consulted with two experts in emotion research to ensure that the images were based on scientific literature regarding facial and postural displays of emotion (see Table 1). Since certain self-conscious emotions are experienced in the presence of an “other” who is physically present or imagined (Leary, 2004; Robins & Schriber, 2009), images depicting embarrassment, guilt, pride, and shame featured a silhouette in the corner of each image to represent the “other.”

**Procedure**

Each dyad completed the task in their home. Parents gave informed consent and received detailed instructions on the task procedures. The child was seated on the parent’s lap or next to the parent. The parent was instructed to describe each image to their child as if telling a story. Parents were asked to progress through the book at a natural pace, but that they would be
instructed to turn the page if they exceeded 45 seconds on a single page. The parent was shown a
sample image as an example before starting. Five other images not relevant to the current study
were interspersed throughout the storybook in a random order. The parent-child interaction was
recorded via two video camcorders on tripods with one capturing the parent and child’s faces and
the other capturing the pages of the storybook.

Coding

Transcription

The narrations of parents and their children were transcribed into digital text through
TEMI, a professional automated transcription service (TEMI, 2020). A trained researcher
compared each transcription to the original recording and made corrections, if necessary, and
separated the text by emotion condition. Another trained researcher conducted a final review of
each transcription, again comparing each transcription to the original recording.

Python Script

Transcripts were transformed into variables of interest using a “bag of words” approach
(Zhang et al., 2010; see Table 2). Specifically, each transcript was processed by a Python script
to derive the following count variables for each parent and child for each emotion condition: (1)
Emoter: words referencing the child in each image (e.g., “she,” “child,” “boy”); (2) Referent:
words referring to the object in each image (e.g., “stain,” “vase”); (3) Emotion labels: words
referring to the label of each emotion condition (e.g., “disappoint,” “confident,” “wonder”).

Hand Coding

Due to the difficult nature of automating certain types of words using the bag of words
approach, demonstrative pronouns (i.e., “this,” “that,” “it,” “these,” “those”), proper nouns (i.e.,
pet names), and words referring to the silhouette, observer referent (e.g., “...her mommy...”) were
hand-coded by two independent coders naïve to the hypotheses of the study and added to the word counts derived from the Python script for each emotion condition. Interrater reliability was acceptable ($r_s > .86, p_s < .001$).

**Question Coding**

As a secondary question, types of parent questions regarding self-conscious emotions were investigated. As mentioned previously, past research has found that parents direct more questions to different emotions (i.e., negative emotions) during emotion talk (Knothe & Walle, 2018; Lagattuta & Wellman, 2002), likely to direct the child’s attention during discussions (Yu et al., 2019; Ervin-Tripp & Miller, 1977; Van Bergen & Salmon, 2010). Importantly, the types of questions asked may elicit different responses (Kearsley, 1976) and vary by emotion. Therefore, this study examined two different qualities of questions: causal and knowledge (see Kearsley, 1976), as well as the total number of questions parents asked. Causal questions were characterized by seeking to understand and address antecedent and consequent information (e.g., what happened to the vase?), whereas knowledge questions focused on the child’s fact-based knowledge (e.g., what color is the vase?; Kearsley, 1976). Parent questions about each image were coded independently by two trained researchers. Interrater reliability was acceptable ($r_s > .76, p < .001$; Cronbach’s $\alpha_s > .85$). Questions unrelated to the storybook images (e.g., “can you come back and sit by me?”) were excluded.

**Power Analysis**

A power analysis using effect size estimates from previous research using storybook tasks (Knothe & Walle, 2018) was conducted to determine if the primary questions of interest were possible given the existing sample size. Results indicated that a minimum sample size of $N$
= 35 would be necessary to detect effect sizes ranging from $\eta^2_p = .04$ to .26, with power $1-B = .80$. The existing sample of $N = 166$ exceeded this criterion.

**Analytic Strategy**

Associations between parent and child words referring to the emoter, referent, emotion labels, and observer referent was first assessed using bivariate correlations to examine if children’s responses mirrored that of their parents. Separate repeated-measures generalized mixed linear models for parents and children examined mean differences in the frequency of words referring to the emoter, referent, emotion labels, and observer referent, as well as parent questions (causal, knowledge, overall). Picture emotion (i.e., awe, embarrassment, guilt, pride, and shame) was included as a within-subjects factor in all models and child gender was included as a between-subjects factor in the question models. Parent education and the age of the child were included in each model as covariates. Additional model-specific covariates are described below. Each model was specified with a normal distribution, an identity link function, and a compound symmetry covariance matrix and used restricted maximum likelihood and Satterthwaite approximation for degrees of freedom.

**Results**

**Relations Between Parent and Child Emotion Talk**

As shown in Table 3 all bivariate correlations between parent and corresponding child dependent variables (e.g., parent emoter and child emoter) were significant ($ps < .001$), suggesting that children’s responses mirrored that of their parents.
Parent Emotion Talk

In addition to the covariates described in the analytic strategy, models examining parent emotion talk also included the total number of parent words to control for individual differences in talking speed. The results of each model for parent emotion talk are displayed in Table 4.

Parent Reference to the Emoter

The main effect of picture emotion was significant. Pairwise comparisons revealed that parents referred to the emoter (i.e., the individual) significantly less for embarrassment than awe, \(t(713) = 2.87, p = .004, 95\% \text{ CI } [0.34, 1.79]\), guilt, \(t(713) = 3.64, p < .001, 95\% \text{ CI } [0.62, 2.08]\), and pride, \(t(713) = 2.71, p = .007, 95\% \text{ CI } [0.28, 1.76]\).

Parent Reference to the Referent

The main effect of picture emotion was significant. Further comparisons revealed that parents discussed the referent (i.e., the elicitor of the individual’s emotion) significantly less often for awe than embarrassment, \(t(713) = 2.92, p = .004, 95\% \text{ CI } [0.27, 1.36]\), guilt, \(t(713) = 4.35, p < .001, 95\% \text{ CI } [0.67, 1.76]\), and shame \(t(713) = 4.68, p < .001, 95\% \text{ CI } [0.76, 1.86]\). Similarly, parents referred to the referent significantly less often for pride than embarrassment, \(t(713) = 2.13, p = .03, 95\% \text{ CI } [0.05, 1.16]\), guilt, \(t(713) = 3.55, p < .001, 95\% \text{ CI } [0.45, 1.56]\), and shame \(t(713) = 3.86, p < .001, 95\% \text{ CI } [0.54, 1.66]\).

Parent Use of Emotion Label

The main effect of picture emotion for parent emotion labels was significant. Pairwise comparisons indicated that parents labeled the emotion significantly more often for pride than all other emotions: embarrassment, \(t(713) = 3.90, p < .001, 95\% \text{ CI } [0.12, 0.37]\), guilt, \(t(713) = 6.62, p < .001, 95\% \text{ CI } [0.29, 0.54]\), shame, \(t(713) = 7.94, p < .001, 95\% \text{ CI } [0.38, 0.62]\), and awe, \(t(713) = 9.01, p < .001, 95\% \text{ CI } [0.44, 0.69]\). Additionally, parents labeled embarrassment
significantly more than guilt, $t(713) = 2.76, p = .006, 95\% \text{ CI } [0.05, 0.29]$, shame, $t(713) = 4.12, p < .001, 95\% \text{ CI } [0.13, 0.38]$, and awe, $t(713) = 5.16, p < .001, 95\% \text{ CI } [0.20, 0.44]$. Lastly the emotion guilt was labeled significantly more often than awe, $t(713) = 2.38, p = .02, 95\% \text{ CI } [0.03, 0.27]$

**Parent Reference to the Observer Referent**

Picture emotion was not significant for the observer referent (e.g., the silhouette), thus no pairwise comparisons were conducted.

**Child Emotion Talk**

Models examining child talk also included the total number of child words to control for individual differences in talking speed. The effect of picture emotion was not significant for all child dependent variables. The results of each model for child emotion talk are displayed in Table 4.

**Parent Questions**

The total number of parent questions was included in the causal (e.g., what happened to the boy?) and knowledge question (e.g., what color is the boy’s shirt?) models to control for individual differences in baseline question frequency. Gender differences were not found within any of the models. The results of each model for parent questions are displayed in Table 5.

**Causal Questions**

The effect of picture emotions was significant. Pairwise comparisons revealed that parents asked causal questions significantly more often for guilt than all other emotions: embarrassment, $t(709) = 3.63, p < .001, 95\% \text{ CI } [0.15, 0.51]$, shame, $t(709) = 3.42, p = .001, 95\% \text{ CI } [0.13, 0.50]$, awe, $t(709) = 8.97, p < .001, 95\% \text{ CI } [0.64, 1.00]$, and pride, $t(709) = 6.27, p < .001, 95\% \text{ CI } [0.40, 0.76]$. Significantly more causal questions were asked by parents for
embarrassment than awe, \( t(709) = 5.36, p < .001, 95\% \text{ CI} [0.31, 0.67] \) and pride, \( t(709) = 2.69, p = .007, 95\% \text{ CI} [0.07, 0.43] \). Additionally, parents asked causal questions for shame significantly more than awe, \( t(709) = 5.53, p < .001, 95\% \text{ CI} [0.33, 0.69] \) and pride, \( t(709) = 2.87, p = .004, 95\% \text{ CI} [0.08, 0.45] \). Lastly, parents asked more questions for pride than awe, \( t(709) = 2.63, p = .009, 95\% \text{ CI} [0.06, 0.42] \).

**Knowledge Questions**

The main effect of picture emotions was significant for knowledge questions. Further pairwise comparisons indicated that parents asked knowledge questions significantly more often for awe than all other emotions: embarrassment, \( t(709) = 5.36, p < .001, 95\% \text{ CI} [0.31, 0.67] \), guilt, \( t(709) = 8.97, p < .001, 95\% \text{ CI} [0.64, 1.00] \), shame, \( t(709) = 5.53, p < .001, 95\% \text{ CI} [0.33, 0.69] \), and pride, \( t(709) = 2.63, p = .009, 95\% \text{ CI} [0.06, 0.42] \). Moreover, significantly more knowledge questions were asked for pride than embarrassment, \( t(709) = 2.69, p = .007, 95\% \text{ CI} [0.07, 0.43] \), guilt, \( t(709) = 6.27, p < .001, 95\% \text{ CI} [0.40, 0.76] \), and shame, \( t(709) = 2.87, p = .004, 95\% \text{ CI} [0.08, 0.45] \). Parents asked significantly less knowledge questions for guilt than embarrassment \( t(709) = 2.63, p < .001, 95\% \text{ CI} [0.15, 0.51] \) and shame, \( t(709) = 3.42, p = .001, 95\% \text{ CI} [0.13, 0.50] \).

**Overall Questions**

The effect of picture emotion was significant in the model examining total parent questions (i.e., combined count of knowledge and causal questions). Results of pairwise comparisons demonstrated that significantly more questions were asked for awe than shame, \( t(710) = 2.07, p = .04, 95\% \text{ CI} [0.02, 0.79] \) and pride, \( t(710) = 2.58, p = .01, 95\% \text{ CI} [0.12, 0.90] \). Parents also ask significantly more questions for guilt than pride, \( t(710) = 2.40, p = .02, 95\% \text{ CI} [0.09, 0.87] \).
Discussion

This study examined parents’ and children’s differential focus on aspects of emotion contexts during a storybook task. The main aims of the study were to examine the process of emotion socialization by investigating (1) whether parents’ and children’s conversations about self-conscious emotions were correlated, and if so, to identify patterns of attention allocation to different aspects of emotion contexts, and (2) whether parents differentially ask certain questions as a function of emotion and child gender. Several interesting patterns emerged and are discussed below.

Parent Differential Focus on Self-Conscious Emotions

Interestingly, only parents demonstrated differential focus on different emotional elements. Each attentional element (i.e., emoter, referent, emotion label, observer referent) is discussed in turn below.

The Emoter

It was hypothesized that that parents would focus on the emoter more for shame, embarrassment, and pride. However, contrary to this hypothesis, parents mentioned the emoter significantly less when talking about embarrassment than all other emotions, particularly guilt. This increased focus on the guilty emoter is in line with other earlier approaches viewing guilt as an internal, self-reprimanding, and self-judging emotion (Erikson, 1963) with a tendency to punish oneself (Saarni et al., 2006). Thus, it is possible that such differential focus on the guilty emoter functions to draw attention to the internal attribution of committing wrongdoing (Erikson, 1963; Lewis, 1995; Saarni et al., 2006).

The emoter being least mentioned in embarrassment contexts is a particularly interesting finding because one social function of embarrassment is to elicit feelings of being “out of place”
and increased self-awareness (Modigliani, 1971). However, the lack of parent focus on the emoter might be due to the choice to draw more attention to other aspects of the emotion context, like the violation of the social norm (e.g., embarrassing act) which is also key to the social function of embarrassment (Edelmann, 1987; Keltner & Buswell, 1997; Lewis, 2016).

**The Referent**

It was also hypothesized that parents would focus more on the referent for awe and guilt. In partial support of this prediction, parents mentioned the referent significantly more for guilt and shame than awe and pride. The increased focus on the referent was expected for guilt based on its primary function to elicit concern for the wrongdoing committed with an action tendency repair the situation (Saarni et al., 2006; Tangney, 1990; Tracy & Robins, 2007). However, with shame being an inward reflecting emotion, the higher amount of attention allocated to the referent for shame was unexpected (Saarni et al., 2006). Part of this may be due to shared characteristics between shame and guilt (Lindsay-Hartz, 1984). For example, shame and guilt are emotions elicited by wrongdoing, but one difference arises on whether the individual then focuses inwardly or on making reparations for the specific actions committed (Lewis, 1995; Wong & Tsai, 2007). Additionally, the individual experience may differ across cultures, societal norms, and personal beliefs (Knothe & Walle, 2019; Lewis, 1995). Lastly, lower amounts of attention directed to the referent for pride may reflect a social function of pride to draw attention to the individual (e.g., “look how good I am”) rather than the achievement (Saarni et al., 2006).

**Emotion Labels**

Parents labeled the emotions pride and embarrassment significantly more often than awe and shame. This finding supports past research on the developmental trajectory of self-conscious emotions, with embarrassment emerging at 18-24 months (see Table 1; Lewis, 2016) and shame
emerging at the beginning of the third year (Lewis, 2003; Lewis et al., 1992). This provides preliminary evidence that parental labeling of self-conscious emotions may mirror the developmental trajectory of children’s ability to experience these emotions (e.g., Belsky et al., 1997; Lewis et al., 1992).

**Observer Referent**

The final emotional aspect of parent emotion talk examined was the observer referent (i.e., the silhouette). Findings indicated that there was no significant difference in the focus given to the “other” in the image. The findings may be due to the possibility that the presence of the “other” is key in describing all of the self-conscious emotions (Leary, 2004; Robins & Schriber, 2009).

**Child Talk About Self-Conscious Emotions**

Children did not demonstrate differential focus with self-conscious emotions. However, children's frequencies referring to the emoter, referent, and emotion labels were positively associated with their parents’ frequencies of the same, as was hypothesized. This provides some evidence that parent attention allocation and emotion talk influence child emotion focus and relational understanding of different emotion contexts (Knothe & Walle, 2018, 2019). This also supports past research emphasizing the role parents have in emotion socialization and their child’s emotion understanding (Brown & Dunn, 1996; Dunn et al., 1991; Eisenberg et al., 1998; Lamb & Lewis, 2005; Maccoby, 2000; Taumoepeau & Ruffman, 2006; Van Bergen & Salmon, 2010). An examination of differential parent emotion talk provides a foundational base about how children are learning about complex, self-conscious emotions from a young age (Knothe & Walle, 2018, 2019).
Parent Questions as a Mechanism of Emotion Talk

Questions are one way that parents can teach their children and direct their attention. (Ervin-Tripp & Miller, 1977; Van Bergen & Salmon, 2010; Yu et al., 2019). This study demonstrated that parents use different types of questions when discussing different emotions. Specifically, parents asked significantly more casual questions for guilt than awe and pride, and asked significantly more knowledge questions for awe and pride than guilt. This pattern suggests that that parents sought to elicit more causal reasoning when discussing negative self-conscious emotions (Lagattuta & Wellman, 2002) and more fact-based knowledge when discussing positive self-conscious emotions. Previous research has shown that parents direct more questions, particularly open-ended questions, when discussing negative emotions compared to positive emotions (Knothe & Walle, 2018; Lagattuta & Wellman, 2002). Whether parent’s differential use of questions when discussing negative and positive self-conscious emotions is related to children’s emotion regulation could be an interesting avenue of future research.

Implications

The findings of this study hold important implications for the development of emotion knowledge. The significant correlations between parent and child references to the emoter, referent, emotion label, and observer referent support the notion that parents’ focus on certain emotional aspects influences children to adapt similar patterns of attention (Barrett & Campos, 1987; Knothe & Walle, 2018, 2019). Parent-child conversations about emotion are related to children’s understanding of emotion (Garner et al., 1997). Thus, with children attending to the same emotional elements as directed by their parents, this may transition into how these children then approach and respond to such emotions (Walle et al., 2017). For example, parents’ increased focus on the emoter for pride may teach children to focus less on the action that was
done and more on congratulating and praising the individual that accomplished something. Similarly, increased attention to the referent in shame contexts may teach the child to focus and dwell on the wrong that was done. Therefore, these findings may provide greater insight into how children acquire knowledge about self-conscious emotions.

**Additional Considerations and Future Directions**

Some additional considerations regarding the current findings merit additional discussion. First, children did not differentially talk about contextual aspects as a function of emotion. There are at least two possibilities for this unexpected finding: (1) Children in this age range may have had too limited a vocabulary to demonstrate differential understanding or identification of self-conscious emotions (Ridgeway et al., 1985). Children’s vocabulary increases with age and is enhanced by parent-child talk (Ridgeway et al., 1985; Rowe, 2008). Furthermore, children in this age range may be more likely to have emotion knowledge of basic emotions (i.e., joy, sadness, fear, anger, disgust) than self-conscious emotions. Thus, additional work with a variety of emotions and a wider age range is needed to examine this possibility. (2) Another reason that children may not have differentially talked about self-conscious emotions is that 45-s limit for each page may have limited children’s engagement. Future research with more flexibility in time limit could explore this possibility. Furthermore, a study designed to elicit more child emotion talk (e.g., through standardized causal and knowledge questions) is likely warranted. On the other hand, examining the natural prevalence of children’s talk using a more naturalistic setting is also much needed.

Another consideration is that parent questions (overall) directed towards sons and daughters did not differ, contrary to predictions and previous research (e.g., Knothe & Walle, 2018). It is possible that this discrepancy is due to the type of emotions examined (i.e., self-
conscious instead of basic). This may also be explained by the greater complexity and later development of self-conscious emotions compared to basic emotions (Lewis, 2003, 2016). Longitudinal research including parent-child discussions of basic and self-conscious emotions may be needed to examine the emergence of possible gender bias and its effects on individual differences in emotion knowledge and social competence.

**Conclusion**

This study builds upon past research and knowledge about how parents and their children talk about emotions. To date, this is the first study to investigate parent-child talk about self-conscious emotions, adding to a growing body of research examining parent-child talk about basic emotions (Brown & Dunn, 1996; Dunn et al., 1991; Eisenberg et al., 1998; Knothe & Walle, 2018; Taumoepeau & Ruffman, 2006; Van Bergen & Salmon, 2010). Overall, these results suggest that parent communication of emotion may serve as a framework for child understanding and interpretation of self-conscious emotions. Future study of how this socialization changes over time and how it influences children’s emotion knowledge can improve our understanding of children’s emotion development.
References


https://doi.org/10.3389/fpsyg.2013.00670


https://doi.org/10.1111/bjdp.12069


<table>
<thead>
<tr>
<th>Embarrassment</th>
<th>Social Function</th>
<th>Emotional Display</th>
<th>Action Tendencies</th>
<th>Developmental Emergence</th>
<th>Requirement of “other”</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Portraying oneself in a manner different from what is deemed appropriate by society (Lewis, 2016; Edelmann, 1987; Keltner &amp; Buswell, 1997). When a violation is committed, the individual feels out of place and tends to experience a decline in self-esteem (Modigliani, 1971).</td>
<td>Averted gaze, a rigid slouch position, and face touches (Asendorpf, 1990; Keltner &amp; Buswell, 1997).</td>
<td>Withdrawal or motivation to hide from others (Asendorpf, 1990; Keltner &amp; Buswell, 1997; Miller, 1996)</td>
<td>18-24 months (Lewis et al., 1991).</td>
<td>Yes</td>
</tr>
<tr>
<td>Guilt</td>
<td>The elicitation of concern and acknowledgment of others in response to committing a wrong or making a mistake (Tangney, 1990). A guilty individual has a desire to amend the wrong, and might engage in prosocial behaviors (Tracy &amp; Robins, 2007).</td>
<td>Averted gaze, frowning, and neck touching (Julle-Danière et al., 2020; Vaish et al., 2011; Keltner, 1996).</td>
<td>Outward movement; inclination to make reparation, to inform others, and to punish oneself (Saarni et al., 2006)</td>
<td>As early as 22 months (Kochanska et al., 2002)</td>
<td>Yes</td>
</tr>
<tr>
<td>Shame</td>
<td>Associated with having fallen short of reaching a norm, goal, or social standard (Piers &amp; Singer, 1953). Shame signals that one’s social relationships are at risk (Scheff, 2003).</td>
<td>Lowered posture, head tilted downward, slouched shoulders, and narrow chest (Lewis, 2016; Lewis et al., 1992; Tracy &amp; Matsumoto, 2008).</td>
<td>Active or passive withdrawal; avoiding others; hiding self (Saarni et al., 2006)</td>
<td>As early as the beginning of the third year (Lewis, 2003; Lewis et al., 1992)</td>
<td>Yes</td>
</tr>
<tr>
<td>Awe</td>
<td>Associated with the presence of a novel stimulus greater or more complex than oneself that requires additional cognitive effort to comprehend (Keltner &amp; Haidt, 2003; Sauter, 2017). Individuals in awe may feel small in comparison to the referent (object, event, individual) or they may encounter a situation that challenges their understanding (Campos et al., 2013).</td>
<td>Widened eyes, raised eyebrows, and open mouth (Campos et al., 2013; Shiota et al., 2003).</td>
<td>Pausing in amazement, wonder, and admire (Frijda 1986; Haidt, 2003)</td>
<td>unknown</td>
<td>No</td>
</tr>
<tr>
<td>Pride</td>
<td>Experienced after accomplishing a challenging task. A proud individual is able to attribute an outcome to their own efforts (Lewis, 2000). Pride may help build self-esteem and increase recurrences of future good behavior (Tracy &amp; Robins, 2007).</td>
<td>A subtle smile, head tilted, and hands on hips or in the air (Lewis et al., 1992; Tracy &amp; Matsumoto, 2008; Tracy et al., 2005).</td>
<td>Outward/upward movement; inclination to show/inform others about one’s accomplishments (Saarni et al., 2006)</td>
<td>27-42 months (Belsky et al., 1997; Lewis et al., 1992).</td>
<td>Yes</td>
</tr>
</tbody>
</table>
Table 2. Bag of Words for Language Processing

<table>
<thead>
<tr>
<th>Dependent Variables</th>
<th>Bag of Words</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emoter</td>
<td>child, she, her, girl, lady, he, him, boy, guy, they, person</td>
</tr>
<tr>
<td>Referent</td>
<td>that, castle, fortress, house, home, food stain, stain, spot, mess, chocolate, milk, dirt, mud, vase, award, trophy, prize, broke, bed, throw up, mud, pee, potty, accident, wet, flag, soda, fort, sheets, shirt, glass, pottery, vomit, blood, temple, clothes, pants, cup</td>
</tr>
<tr>
<td>Emotion Labels</td>
<td>awe, curious, interested, wonder, embarrass, guilt, pride, proud, disappoint, bad, shame, confident</td>
</tr>
</tbody>
</table>

*Note: Experimenters formulated lists from viewing several recordings.*
Table 3. Bivariate Correlations for Parent and Child Dependent Variables

<table>
<thead>
<tr>
<th></th>
<th>M (SE)</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Parent Emoter</td>
<td>5.63 (3.08)</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Child Emoter</td>
<td>.39 (.69)</td>
<td>.35***</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Parent Referent</td>
<td>3.58 (1.85)</td>
<td>.55***</td>
<td>.29***</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Child Referent</td>
<td>.52 (.63)</td>
<td>.28***</td>
<td>.54***</td>
<td>.46***</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Parent Emotion Label</td>
<td>.22 (.27)</td>
<td>.36***</td>
<td>-.02</td>
<td>.22**</td>
<td>.03</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Child Emotion Label</td>
<td>.03 (.10)</td>
<td>.34***</td>
<td>.33***</td>
<td>.19*</td>
<td>.37***</td>
<td>.38***</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Parent Observer Referent</td>
<td>.36 (.52)</td>
<td>.39***</td>
<td>.14</td>
<td>.23**</td>
<td>.15</td>
<td>.23**</td>
<td>.24**</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>8. Child Observer Referent</td>
<td>.13 (.29)</td>
<td>.22**</td>
<td>.23**</td>
<td>.19*</td>
<td>.15</td>
<td>.12</td>
<td>.26**</td>
<td>.68***</td>
<td>-</td>
</tr>
</tbody>
</table>

* p ≤ .05, ** p ≤ .01, and *** p ≤ .001
Table 4. Estimated Marginal Means and Standard Errors of Each Dependent Variable

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>Effect of Picture Emotion</th>
<th>Embarrassment</th>
<th>Guilt</th>
<th>Shame</th>
<th>Awe</th>
<th>Pride</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parent Emoter</td>
<td>F(4, 713) = 3.87</td>
<td>M = 4.82</td>
<td>M = 6.17</td>
<td>M = 5.51</td>
<td>M = 5.88</td>
<td>M = 5.84</td>
</tr>
<tr>
<td></td>
<td>p = .004</td>
<td>SE = .30</td>
<td>SE = .30</td>
<td>SE = .30</td>
<td>SE = .29</td>
<td>SE = .30</td>
</tr>
<tr>
<td></td>
<td>η² = .02</td>
<td>G*** A** P**</td>
<td>E***</td>
<td>E***</td>
<td>E**</td>
<td>E**</td>
</tr>
<tr>
<td>Referent</td>
<td>F(4, 713) = 8.72</td>
<td>M = 3.81</td>
<td>M = 4.21</td>
<td>M = 4.30</td>
<td>M = 2.99</td>
<td>M = 3.21</td>
</tr>
<tr>
<td></td>
<td>p &lt; .001</td>
<td>SE = .21</td>
<td>SE = .21</td>
<td>SE = .21</td>
<td>SE = .21</td>
<td>SE = .21</td>
</tr>
<tr>
<td></td>
<td>η² = .05</td>
<td>A** P*</td>
<td>A*** p***</td>
<td>E*** p***</td>
<td>E** S*** G***</td>
<td>E* G*** S***</td>
</tr>
<tr>
<td>Emotion Label</td>
<td>F(4, 713) = 26.15</td>
<td>M = .32</td>
<td>M = .15</td>
<td>M = .07</td>
<td>M = .01</td>
<td>M = .57</td>
</tr>
<tr>
<td></td>
<td>p &lt; .001</td>
<td>SE = .04</td>
<td>SE = .04</td>
<td>SE = .05</td>
<td>SE = .04</td>
<td>SE = .05</td>
</tr>
<tr>
<td></td>
<td>η² = .13</td>
<td>G** S*** A*** P***</td>
<td>E** A* P***</td>
<td>E*** p***</td>
<td>E*** G* P***</td>
<td>E*** G*** S*** A***</td>
</tr>
<tr>
<td>Observer Referent</td>
<td>F(3, 567) = .11</td>
<td>M = .46</td>
<td>M = .42</td>
<td>M = .43</td>
<td>M = .47</td>
<td></td>
</tr>
<tr>
<td></td>
<td>p = .96</td>
<td>SE = .08</td>
<td>SE = .08</td>
<td>SE = .08</td>
<td>SE = .08</td>
<td></td>
</tr>
</tbody>
</table>

Child Emoter

| Parent Referent | F(4, 709) = 1.04 | M = .47 | M = .34 | M = .31 | M = .40 | M = .39 |
|                | p = .44            | SE = .07 | SE = .07 | SE = .07 | SE = .07 | SE = .07 |
| η² = .01       |                   |         |         |         |         |         |

Referent

| Emotion Label | F(4, 709) = 1.69 | M = .56 | M = .52 | M = .54 | M = .54 | M = .44 |
|              | p = .15           | SE = .07 | SE = .07 | SE = .07 | SE = .07 | SE = .07 |
| η² = .01      |                   |         |         |         |         |         |

Observer Referent

| Child Emoter | F(3, 567) = 1.03 | M = .21 | M = .14 | M = .12 | M = .16 |
|             | p = .38           | SE = .04 | SE = .04 | SE = .04 | SE = .04 |
| η² = .01    |                   |         |         |         |         |

Note. Letters next to each mean (E = embarrassment, G = guilt, S = shame, A = awe, P = pride) designate which pairwise comparisons were significantly different at *p < .05, **p < .01 and ***p < .001. Means displayed represent the average number of words used in reference to each dependent variable for the corresponding emotion image. For example, the mean 6.17 for total references toward the emoter for the image guilt, indicates that parents referred to the emoter on average 6.17 times for this image.
Table 5. Estimated Marginal Means and Standard Errors of Each Parent Question Variable

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>Effect of Picture Emotion</th>
<th>Embarrassment</th>
<th>Guilt</th>
<th>Shame</th>
<th>Awe</th>
<th>Pride</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parent Questions</td>
<td>Causal</td>
<td>$F(4, 709) = 22.72$</td>
<td>$M = .91$</td>
<td>$M = 1.24$</td>
<td>$M = .92$</td>
<td>$M = .42$</td>
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<td></td>
<td>$p &lt; .001$</td>
<td>$SE = .07$</td>
<td>$SE = .07$</td>
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<td>$SE = .07$</td>
<td>$SE = .07$</td>
</tr>
<tr>
<td></td>
<td>$\eta^2_p = .11$</td>
<td>G*** A*** P**</td>
<td>E*** S** P*** A***</td>
<td>G** A*** P**</td>
<td>E*** G*** S*** P**</td>
<td>E** G*** S** A**</td>
</tr>
<tr>
<td></td>
<td>Knowledge</td>
<td>$F(4, 709) = 22.72$</td>
<td>$M = 1.16$</td>
<td>$M = .82$</td>
<td>$M = 1.14$</td>
<td>$M = 1.65$</td>
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<td></td>
<td>$p &lt; .001$</td>
<td>$SE = .07$</td>
<td>$SE = .07$</td>
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<td>$SE = .07$</td>
</tr>
<tr>
<td></td>
<td>$\eta^2_p = .11$</td>
<td>A*** G*** P**</td>
<td>E*** A*** S** P***</td>
<td>G** A*** P**</td>
<td>E*** G*** S*** P**</td>
<td>E** G*** S** A**</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>$F(4, 710) = 2.65$</td>
<td>$M = 1.98$</td>
<td>$M = 2.28$</td>
<td>$M = 1.91$</td>
<td>$M = 2.31$</td>
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<td></td>
<td>$\eta^2_p = .01$</td>
<td>P*</td>
<td>A*</td>
<td>S* P*</td>
<td>G* A*</td>
<td></td>
</tr>
</tbody>
</table>

**Note.** Letters next to each mean (E = embarrassment, G = guilt, S = shame, A = awe, P = pride) designate which pairwise comparisons were significantly different at *$p < .05$, **$p < .01$ and ***$p < .001$. Means displayed represent the average number of questions asked for the corresponding emotion image. For example, the mean 2.28 for total parent questions asked for guilt, indicates that parents asked on average 2.28 questions for this image.
Figure 1. Examples of Stimuli from Storybook Task. A = embarrassment, B = guilt, C = shame, D = awe, E = pride