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Emotion Socialization and the Family Story:
How Parent Storytelling Relates to Children's Emotion Regulation

A Dissertation submitted in partial satisfaction
of the requirements for the degree of

Doctor of Philosophy

in

Psychology

by

Laura DeLoretta

June 2024

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ABSTRACT OF THE DISSERTATION

Emotion Socialization and the Family Story:
How Parent Storytelling Relates to Children's Emotion Regulation

by

Laura DeLoretta

Doctor of Philosophy, Graduate Program in Psychology
University of California, Riverside, June 2024
Dr. Elizabeth L. Davis, Chairperson

Family storytelling is an essential cultural tool for processing impactful social and emotional events. While storytelling has been studied extensively in other fields such as anthropology (e.g., storytelling as a cultural practice) and within psychology (e.g., narrative psychology), there is an existing gap in developmental affective science in understanding how family storytelling may shape children's *emotion regulation*. Much work in narrative psychology suggests that telling stories within one's family contributes to children's identity development and can bolster feelings of connectedness and belongingness with prior generations. Furthermore, children in families that discuss negative life experiences together typically have better self-regulatory competence than children in families that do not. In this project, I posit that the family story is a rich, contextual method to study factors related to emotional development and emotional socialization that shapes how children interpret and manage life experiences. I examined three facets of parental family storytelling– narrative coherence, narrative strategy (redemption vs. contamination), and mention of specific emotion regulation strategies- as

they relate to children's use of emotion regulation strategies. Correlational analyses revealed that parents' family story narrative coherence was related to children's use of cognitive reappraisal, even when accounting for parents' cultural values and children's age. Additionally, I used qualitative content analysis to analyze the different sociocultural factors parents mentioned in their stories, and the reasons parents believed telling the family story was important. Results indicated that family stories contain rich detail about many relevant and impactful relational, environmental, and historical factors that may shape emotion socialization practices and children's emotional development. There were seven reasons for storytelling that emerged from parents' responses: supporting identity development, connecting generations, sharing and discussing feelings, teaching lessons, remembering history, passing on culture, and gaining an understanding of others. This project suggests that telling stories about family history could be a new direction for developmental affective science to measure individuals' emotional ecology and emotion processes across generations.

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Chapter 1

Introduction

"I just think [family storytelling] is really important…One thing I've like, kind of learned over the years is like…you have to have a baseline in order to know where you're going, right? So like, you know, you want that baseline, so you can always look back and be like, okay, well, did I grow from that? Did I, you know, change from that? So, I think stories help me to remember because a lot of times we forget, right?" –Study Participant

As this participant noted, individuals rely on familial connections–past, present, or future–in their everyday lives to make sense of where they have come from and where they might end up. Families share stories about their day-to-day lives and their experiences of more major life events like immigration, war, and pandemics, making storytelling an essential part of children's emotional development. Children learn rich historical and cultural information from their family story in addition to understanding how they and their family make sense of life experiences. Although family stories have been studied extensively in other disciplines like anthropology (e.g., storytelling as a cultural practice) and in some fields of psychology like narrative psychology (e.g., narrative identity development), there is less known about how the family story may contribute to children's *emotional* development. This gap is essential for developmental emotion science to address, as the family story contains information unique to an individual that could contextualize their emotion processes. The current study posits that the family story is an understudied mechanism of emotion socialization. Using qualitative and quantitative methods, I describe the narrative elements and reasons for storytelling

(i.e., to express, share, or socialize feelings) as it relates to children's emotional responding.

Developmental Theoretical Orientation

Many developmental theories highlight the importance of studying both immediate (e.g., caregiver interactions) and broader (e.g., cultural) factors as they relate to children's development. I highlight two theories that are particularly relevant to understanding why the family story is an important mechanism through which parents transmit regulatory information to children. The first is Vygotsky's sociocultural theory, which posits that caregivers use cultural tools to scaffold children's understanding and abilities through their discussions and interactions together. The second is Bronfenbrenner's ecological systems theory, which posits that there are many proximal and distal socializing factors in children's environments including cultural and historical factors (e.g., oral tradition). Taken together, these theories support my position that children's interactions with their families, specifically interactions in which a family story is told, shape their emotional development and regulatory skill more specifically.

Vygotsky's (1978) sociocultural theory is one of the most prominent developmental theories to highlight caregivers' use of cultural tools to scaffold children's autonomous and independent use of strategies. Such cultural tools include language and symbolic tools such as archetypes or story arcs, as present in storytelling. These tools serve as a mechanism to pass on cultural knowledge, values, and practices. Furthermore, Vygotsky (1978) described the zone of proximal development– the conceptual space between what a child can do independently and what they can do with help–and noted the

importance of parental scaffolding, or teaching/modeling, of *how* to do something in closing this space and facilitating children's autonomous mastery of a skill. Last, one essential component of Vygotsky's theory was *internalization*, which describes that over time sociocultural input is manifested in children's thinking. According to Vygotsky, children initially use out loud speech to guide their thinking and actions, and over time this overt process turns inward. Paired with interactions and scaffolding from experienced others, children may internalize social observations in their internal speech and thoughts. In this way, social experiences are one mechanism of socialization that shapes children's thinking.

These theoretical concepts apply to children's *emotional* development beyond contributing to children's cognitive development, which was the focus of Vygotsky's original theory. If parents socialize children's internal thought processes, it follows that parents' discussion of emotion, specifically, might ultimately manifest in children's cognitive *emotional* responding. Parents scaffold children's emotional responding through interactions in which emotions are involved (including children's emotions, parents' emotions, and/or the emotions of others), both by their reactions and responses to emotions and how they discuss emotions, and by using and modeling their own regulatory strategies. As children develop and are able to implement more strategies by themselves, parents may tailor their scaffolding to their child's ability in accordance with their zone of proximal development.

In sum, Vygotsky's ideas of cultural tools, internalization, and parental scaffolding can be applied to emotional development. Parents use cultural tools and

symbols (like stories) to pass on relevant sociocultural information, including information about emotions. Parents scaffold children's emotion responding through interactions where they discuss, display, and regulate emotions. It is possible that children internalize emotional information from parents which ultimately manifests in children's emotion responding. I draw on these theoretical concepts later to argue for the importance of studying parental narratives as they relate to children's emotion regulation.

Bronfenbrenner's ecological systems theory is one of the most influential accounts of the transactions within and between environments that shape children's development. Five nested environmental systems, ordered from most to least proximal, include (1) the immediate environment called the microsystem (e.g., effects of close family relationships with parents, siblings, or immediate caregivers); (2) the mesosystem, which captures more distal but common interacting social contexts like extended family relationships; (3) the exosystem, comprising the larger social system in which the child does not directly function (e.g., broader neighborhood dynamics, social media); (4) the macrosystem, which is comprised of sociocultural values, customs, norms, and laws; and (5) the chronosystem, which describes the influence of historical time (e.g., living through events like the Great Depression, 9/11, or the COVID-19 pandemic) (Bronfenbrenner, 1979). Bronfenbrenner posited that each of the 5 systems individually and collectively contributes to children's development.

While this theory is widely accepted, it is a statistical and methodological challenge to incorporate multiple system-level influences in one study. One aim of the current study is to demonstrate that the family story is a potential method to capture

multiple system influences. For example, micro- and mesosystem level information relayed via the family story could include information about immediate family members and relationships between members and generations. Families discuss neighborhood and work-related stories that describe a child's exosystem. Historical and cultural details like stories about immigration or major life events represent a child's macro- and chronosystems. Stories include some or all of these factors which all ultimately shape children's emotional development.

Taken together, both Vygotsky and Bronfenbrenner described the importance of studying social and cultural mechanisms that transmit relevant cognitive and socioemotional information for children's development. Although Vygotsky's theory focused on *cognitive* development and Bronfenbrenner's theory addressed development in general, I aim to apply concepts from their theories to *socioemotional* development. Children learn through social interactions and scaffolding from more knowledgeable others. Children internalize social information and adapt their thinking and behavior according to their sociocultural environment. Importantly, not only do direct interactions with caregivers shape this process, but more distal and diffuse mechanisms also work to indirectly socialize children. These theoretical concepts likely apply to children's emotional development, specifically their emotion responding. First, it is plausible that children internalize strategies for regulating their emotions based on the sociocultural messages they receive. Second, the family story is a widely used cultural tool for passing along information about what a family has been through and how they managed. It follows that the family story could also transmit *emotional* information and can elucidate

how families transmit regulation strategies intergenerationally. This gap is important to address as most emotion socialization research focuses on parent and family factors alone.

Development and Internalization of Socioemotional Processes

Socioemotional development refers to the concurrent and interacting development of social and emotion-related processes. Emotion and social processes are inseparable, and their development promotes skills for managing others (interpersonal) and ourselves (intrapersonal), especially while operating in society at large (e.g., culturally appropriate practices at school or work; Denham et al., 1997; Ekman & Friesen, 1969; Thompson et al., 1993). From birth, infants receive feedback via interactions with caregivers and social partners about emotion expression, regulation, and interpersonal regulation (e.g., LoBue & Ogren, 2021). To support my assertion that children may internalize and incorporate emotion-related information learned from social interactions, I use cultural display rules as an example of a socialization process that becomes internalized and shapes children's emotion expression and ultimately their regulation.

One essential part of developing socioemotional skills is learning cultural display rules. Display rules refer to the spoken and unspoken cultural norms regarding an individual's appropriate emotional expression (Ekman & Friesen, 1969; Gnepp & Hess, 1986; Saarni, 1984). Each society has expectations and values regarding which emotions are acceptable to express (and when and to whom), and the acceptable ways of handling those emotions. There are well-documented sociocultural differences in display rules. For example, individualistic cultures tend to favor expressing high intensity positive emotions

over low intensity positive and negative emotions whereas collectivist cultures tend to favor *low* intensity positive emotions over high intensity positive and negative emotions (Garrett-Peters & Fox, 2007; Ip et al., 2021; Matsumoto et al., 1998). Display rules also differ by gender; for instance, in individualistic cultures, social partners tend to rate men who express sadness and women who express anger as more intense and less controlled than men and women displaying other emotions (Brody, 2000; Underwood et al., 1992).

Cultural display rules are socialized in large part by parents. For example, parents from individualistic cultures are more likely to imitate and display smiles and positive affect than frowns and negative affect (Cole, 1985; Malatesta & Haviland, 1982). One study using a sample of European parents found that parents express positive emotions and down regulate negative emotions in front of their children even though it comes at a cost of perceived feelings of burnout (Lin et al., 2021).

As cognitive processes like theory of mind and social emotion processes (e.g., shame) develop in childhood, children begin to understand that they are differentiated from others, and that others may perceive and judge them. In other words, children begin to anticipate how they may be perceived by others and how others may react to them (Cole et al., 1994; Fuchs & Thelen, 1988). In a study by Zeman and Garber (1996), school-aged children reported suppressing their emotional expressions more in the presence of peers than with parents and when alone, suggesting that children understand to temper certain emotional displays when not at home. Another study found that grade school children are more likely to mask their anger in front of teachers than peers or parents (Underwood et al., 1992). Finally, Chinese adolescents living in Beijing were also

more likely to use emotional display rules in front of peers compared to parents (Wang et al., 2012). Taken together, these studies suggest that the function of cultural display rules are to teach children the appropriate contexts for emotion expression.

Taken together, these studies suggest that children are preemptively modulating their socioemotional experience by selecting which emotions to display in certain contexts. To master display rules, children need extensive cognitive and socioemotional skills to monitor, anticipate, predict, and modulate their own and others' emotions. Use of display rules and lack thereof can impact how individuals are perceived by others. Culture and social partners shape which emotions children display, suggesting that children may internalize regulatory information. Emotion expression and suppression are examples of regulatory strategies children may use.

There are several ways to measure socioemotional competence, and I focus on emotion regulation, which inherently underlies emotion expression processes described above. Emotion regulation is essential for mastering social interactions like adhering to display rules in addition to weathering *intrapersonal* emotional experiences. Children's reflexive and voluntary responses to their emotions are shaped by caregivers, family, teachers, and other social partners. Through passing on display rules and broader emotion-related information, families impart children with tools to regulate autonomously.

Children's Emotions and Emotion Regulation

Emotion science and the study of emotion regulation (ER) has gained much popularity in the last 20 years. It is largely agreed that emotions arise in response to

internal and external environmental stimuli and have various components: subjective experience of feeling, physiological changes, cognitions, and behavioral responses (e.g. Ekman, 2016). Display rules are one example of how children are socialized to master their emotions by being aware of their internal states and modulating their behavioral expression of their emotions around others.

There are many descriptions of what constitutes emotion *regulation.* James Gross famously proposed the process model of ER (1998; 2015), describing emotions and ER as unfolding and iterative processes. According to Gross, an eliciting situation generates an emotion as the individual attends to, appraises, and responds to the situation. The emotion generation process is rapid and iterative, meaning that attentional, cognitive, and behavioral responses deploy swiftly and create a new emotional context after an initial response has occurred. For example, a child may shove another who bumps into them in the hallway (behavioral response to frustration), which then creates a new socioemotional context to respond to (e.g., apologizing, storming away, the shoved person initiating a fight).

As emotion processes unfold, there are many different opportunities to regulate said emotion. Gross defines ER as "all conscious and nonconscious strategies we use to increase, maintain, or decrease one or more components of an emotional response" (1998; 2015). According to Gross, individuals may regulate their emotions by (1) selecting (choosing or avoiding) eliciting situations, (2) modifying situations such that their emotion-eliciting power changes, (3) attending to or distracting from the eliciting situation, (4) reappraising initial thoughts about the situation, or (5) modulating

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behavioral responses (e.g., suppressing or expressing). Gross highlights cognitive reappraisal as an especially important and helpful strategy in down regulating negative emotions and upregulating positive emotions without the supposed cognitive and social consequences that come with other strategies such as behavioral suppression (1998; 2015).

Similarly, Thompson (1994; 2011) describes ER as "the extrinsic and intrinsic processes responsible for monitoring, evaluating, and modifying emotional reactions, especially their intensive and temporal features, to accomplish one's goals." This definition makes mention that ER can occur within a person (intrinsic or intrapersonal) and/or between people (extrinsic or interpersonal). Gross and Thompson both point out a few essential features of emotions and ER: (1) emotions are multifaceted and have molecular, hormonal, physiological, neural, cognitive, social, and behavioral components; and (2) individuals can use intrapersonal and interpersonal, conscious and nonconscious strategies to change the intensity, valence, and time course of an emotion. These strategies may target the situation, an individual's attention, cognitions, physiology, or behavior, and can be used at any point in the emotion generation process to monitor emotion states, evaluate emotions as they unfold, and modify responses to emotions.

In sum, in this study, ER is broadly construed to include the intrapersonal and interpersonal processes related to monitoring, evaluating, maintaining, and modulating an emotion's duration, intensity, and/or valence. Given that children's emotional, attentional, and cognitive processes are rapidly developing and changing over their

childhood, it is important to understand what kinds of strategies children are using and how and when they emerge. In the next section, I briefly describe the developmental trajectory of children's ER strategy use. I assert that children's use of ER strategies becomes more internalized over time as a result of their own cognitive and socioemotional development in addition to the congruous scaffolding from more knowledgeable others.

Intrapersonal ER Development

Children may internalize socioemotional information from others to implement on their own. Late childhood is an essential time in which children are gaining more autonomy to experience and manage events without the help of another. For example, children may experience more one-on-one time with peers that requires sophisticated regulatory abilities (e.g., transitioning to middle school, handling bullies, choosing which peer group to affiliate with). To support my assertion that emotional information in the family story may be internalized by children or otherwise contribute to their emotion regulation abilities, I first briefly describe the developmental trajectory of emotion regulation strategies. I highlight late childhood (ages 7-12) as an essential developmental period for children's cognitive ER skills, specifically. It is at this point that children are mastering cognitive skills and flexibly applying their social knowledge and regulatory skills in more independent contexts with less scaffolding from others.

Children's ER becomes more autonomous and sophisticated over time with the tandem development of cognitive and socioemotional processes. Infants exhibit rudimentary regulatory skills, like averting their gaze, self-soothing by rocking or thumb-

sucking, and seeking social support via crying out (Mangelsdorf et al., 1995; Murray, 1979). Thus, humans use a variety of behavioral strategies early in life to avoid harm and elicit care from their environment. While children are pre-verbal, observations of their behavior when perturbed and while recovering are one way of measuring their regulatory skills. Physiological measures additionally capture sympathetic and parasympathetic reactivity in response to challenges. *Cognitive* regulatory skills are also developing, but are harder to measure until children are able to communicate about their thoughts and feelings. It is important to know what children are thinking to understand which strategies children might be internalizing and implementing on their own.

Many of the strategies children use in early childhood are behavioral. One study found that parents of children ages 3-4 reported that their child uses more attentional strategies and behavioral modulation in emotional situations (e.g., expressive suppression) compared to parents of 5–6-year-olds, who reported that their child more so tries to change their thoughts (López-Pérez et al., 2017). This matched the pattern of findings for children's self-report: younger children ages 3-4 reported using more behavioral modulation, whereas older children reported using more cognitive change strategies. Other studies have similarly found that younger children report using more expressive suppression compared to older children (Gross & Thompson, 2007; Gullone et al., 2009). This finding is also supported by work that describes children's brain development, suggesting that more cognitive strategies are used as the prefrontal cortex and executive functions develop (Silvers, 2020; Silvers et al., 2012; 2016). Thus, over the course of childhood, children are relying less on behavioral strategies and more on the

internal, cognitive strategies. This shift could represent the internalization of social rules and scaffolding as children try and are expected to autonomously implement appropriate regulatory strategies.

Specifically, it seems that around age 5, children begin reporting more cognitive strategies. For example, around ages 5-6, more children report selecting or avoiding certain situations, a reflection of their ability to forecast how they may feel in the anticipated future situation (López-Pérez et al., 2017). By ages 5-6, children report using more cognitive strategies like changing their thoughts to distract themselves and to help them think about a situation differently compared to behavioral strategies. One study investigated whether children ages 5-6 report using cognitive change strategies to help themselves feel better (Davis et al., 2010). Children listened to a story about a protagonist experiencing something difficult (e.g., not being able to go somewhere or do something), or reported a time when they felt sad, scared, and mad, and were then asked what the child could do or what they did to make themselves feel better. In both cases, children as young as 5 reported cognitive ER strategies, such as changing how one thinks about a situation, thinking about something else to distract from the upset, or changing their goal related to the situation (e.g., finding something new to look forward to). Additionally, other studies have found that by age 5, children can successfully *implement* cognitive reappraisal when instructed to do so while watching a sad or scary film (Parsafar et al., 2019).

By late childhood, children may master and deploy more effortful strategies. Rather than tantruming or externalizing as in early childhood, children may inhibit

behavioral expression (especially around "unsafe" social partners) and use cognitive processing. In other words, because of their increasing independence and social stakes with peers, children ages 7-12 show mastery in selecting and reappraising emotional experiences. Parents of 7–8-year-olds report the most child-used cognitive change strategies and situation selection (López-Pérez et al., 2017). This study demonstrates that as children get older, they are less likely to attempt behavioral regulation and more likely to try changing their thoughts or selecting the situation ahead of time. Children ages 7-8 also self-report more situation selection, situation modification, and cognitive change, and less behavioral modification compared to 3–4-year-olds and 5--6-year-olds. This finding is in accordance with work that suggests in interpersonal contexts, older children ages 7-8 are more likely to use cognitive strategies like reappraisal when comforting another person, compared to 3–4-year-olds and 5--6-year-olds who were more likely to try to distract the upset person (López-Pérez et al., 2016).

Children show increasing skill in using cognitive reappraisal through late childhood. In fact, fMRI studies suggest that by late childhood, using reappraisal downregulates amygdala activity, a pattern which continues into adolescence and adulthood (Silvers, 2020; Silvers et al., 2012; 2016). Late childhood is also a period in which emotion *dysregulation* may become more apparent, as atypical strategy use may impact cognitive and social skills. For example, while it is true that children in general use more cognitive and fewer behavioral strategies in late childhood, children may still use expressive suppression. One study found that children ages 9-12 who were rated as less temperamentally flexible and reported less perceived parental care self-reported

using more expressive suppression, whereas children who were rated as more flexible and reported more perceived care self-reported using more reappraisal (Jaffe et al., 2010). Thus, parental support remains essential in late childhood for supporting children's ER strategy use and could contribute to differences in children trying not to show feelings versus trying to change the emotional appraisal.

There is an evident shift in middle childhood wherein children report using more cognitive ER strategies than behavioral strategies. This developmental change is important for two reasons. First, children's reliance on more internal and less external strategies could reflect their understanding of cultural norms and display rules, and their internalization of ER strategies. In other words, by late childhood children are autonomously using adult-like strategies that reflect their developing cognitive skills. Second, it is important to understand how these cognitive processes are being supported during late childhood when children are still receiving scaffolding from more knowledgeable others before becoming more independent in their teen years. In the next section, I briefly describe literature related to parental socialization of children's ER. I describe parents' important role in contributing to children's developing ER abilities and the strategies children internalize and use.

ER Socialization and Children's Internalization of ER Processes

Interpersonal ER refers to interactions between individuals with a regulatory goal, such as regulating someone else's feelings (Zaki & Williams, 2013). Thus, while *intra*personal ER captures how an individual may regulate their emotions, *inter*personal ER refers to how social partners may seek and provide ER support through their

interactions. This interpersonal ER can be intrinsic (i.e., seeking another to regulate oneself) or extrinsic (i.e., seeking to regulate another). For example, infants and children may call on parents for social support as discussed above (intrinsic), and/or parents may notice their child's distress and provide support of their own volition (extrinsic). While Zaki and Williams (2013) constrained interpersonal ER to refer to *live* interactions between people, they acknowledge that less direct social input also modulates individuals' emotional experiences. For example, parents can express and discuss emotion-related information without necessarily having a regulatory goal. These interpersonal experiences are an essential part of children's socioemotional development. So in addition to directly providing *inter*personal ER to children, parents also shape children's emotional responding more broadly through *socialization*.

Socialization of ER refers more broadly to all socioemotional mechanisms that shape children's emotion responding (including interpersonal interactions). As previously mentioned, socialization occurs both overtly and covertly. For example, parents can directly coach or suggest strategies to children to help them feel better when they are upset via interpersonal ER (e.g., "try taking a deep breath"). Parents also *covertly* shape children's ER in a number of ways via their reactions to their own and their children's emotions, and how emotions are valued, considered, and discussed within a family. Thus, both direct interactions between parent-child dyads *and* more subtle factors related to the emotional environment impact children's subsequent ER.

Eisenberg and colleagues proposed three major mechanisms of socialization: parents' reactions to children's emotions, parents' discussion of emotion, and parents'

expression of emotions (1998; 2020). Other definitions of socialization have pointed at broader mechanisms, like children's observation of the parent and the emotional climate of the family (Morris et al. 2007; 2017). Parenting practices include scaffolding, suggesting, and coaching and interpersonal ER between parents and children. Children's observation of their parents includes observing parents express and respond to emotions. The emotional climate encompasses how emotions are valued, treated, and discussed. Each of these mechanisms transmits socioemotional information and shapes children's ER. Some work suggests that children internalize strategies via socialization (e.g., parents suggest a strategy and children eventually use it autonomously). Other work suggests a less direct relationship between parent socialization and children's ER strategy use such that general care and treatment from parents can support or hinder children's cognitive ER strategy use. Thus, it is important to consider both direct socialization mechanisms and more diffuse mechanisms.

Children observe parents expressing and regulating feelings, which shapes how children express and regulate their own feelings. In a longitudinal study, Eisenberg and colleagues (2003) measured mothers' positive emotion expressivity (both self-reported and observed) as it related to children's observed perseverance on a puzzle task and parent/teacher reported regulatory and social abilities when they were ages 4.5-8 and two years later at ages 6.5-10. They found that maternal positive emotion expressivity at time 1 and time 2 were positively related to children's regulatory abilities (perseverance and other-reported) at time 2, and that children's regulatory abilities mediated the relation between behavioral and social competencies (e.g., less internalizing and externalizing) at

time 2. This result suggests that merely *displaying* positive emotions could contribute to children's regulation of challenging or negative emotions.

A 2007 follow-up study extended these findings into adolescence, finding that maternal positive expressivity at ages 4.5-8 predicted adolescent sympathy and prosocial behavior. Conversely, maternal negative emotion expressivity at time 1 was related to less prosocial behavior in adolescence (Michalik et al., 2007). Another study found that parental negative affect was also related to less social competence in children (Denham et al., 1997). Additionally, children of depressed mothers reported knowing fewer ER strategies and were less likely to implement ER strategies while waiting for their mother compared to children of mothers without depression (Silk et al., 2006).

While flat affect and negative emotion displays from parents could be related to less socioemotional competence, it is likely that children can also *learn* regulatory skills from parents who display negative emotions. For example, one study used diary data to track children's daily stressful experiences. Parents reported on which stressful experiences affected the child that day and how they helped their child cope with it, in addition to reporting their own positive and negative emotion expressivity and children's use of regulatory strategies. They found that children of mothers who expressed more anger and hostility (as opposed to sadness) were less likely to use strategies like asking for help or telling someone about their stress (Valiente et al., 2004). Thus, it is possible that the kind and intensity of parental negative emotion expressed may in part determine which strategies children learn and use. Furthermore, the *strategies* parents use to help children may also provide buffering context. In other words, parents displaying negative

emotions might be more likely to foster regulatory skills in children *if* parents are also

providing appropriate strategies and context for managing such emotions. Thus,

children's use of ER strategies could depend on what children observe parents expressing

and what parents directly scaffold.

Parental practices, including the strategies parents coach and how parents react to

children's emotions, also impact children's developing ER. Research about parental

emotion coaching, or responding to children's feelings warmly and discussing how to

problem solve, suggests that this kind of explicit guidance from parents is beneficial for

children's emotion competence both in terms of their understanding of their emotions and

which strategies they use. For example, parents who were observed in their homes to use

more warm, problem-solving emotion coaching when discussing emotions with their

children had children who could identify feelings of a puppet in a lab task (Denham et al.,

1997). There are similar patterns in parents of older children and adolescents. For

example, one study found that children ages 10-18 who reported more parental emotion

coaching reported more regulation of negative emotion (e.g., When I feel upset, I stay

calm) (Criss et al., 2016). Another study found that mothers who reported more emotion

coaching of anger in interviews had adolescents with better teacher-rated anger regulation

and less externalizing behaviors (Shortt et al., 2010). Last, children (elementary school-

aged) of parents who self-reported more problem-focused reactions to children's negative

emotions (e.g., suggesting how the child could solve the problem that created upset) had

higher teacher-reported use of constructive coping skills (e.g., positive cognitive

reframing), whereas children of parents who reported coaching more minimizing of

children's negative emotions used more avoidant coping strategies (Eisenberg et al., 1996). Taken together, these findings suggest that the strategies parents coach and suggest to children are related to children's ER processes.

In addition to the ER strategies parents use, the nature of how parents respond to children's emotions also covertly impacts children's ER. For example, parents' supportive *reactions* to children's expressed emotions, as indicated by responding with empathy, warmth, and encouraging emotional expression are related to better negative affect regulation and better social skills like empathy in children (Davidov & Grusec, 2006; Eisenberg et al., 1998; Roberts & Strayer, 1987). In contrast, parental unsupportive reactions (negative affectivity, critical comments, emotion dismissing) relate to more negative emotionality in children (Fabes et al., 2001; Fosco & Grych, 2007).

Last, the strategies parents themselves use are related to children's ER strategy use. For example, one study found that maternal self-reported use of expressive suppression was related to children's (ages 9-19) self-reported use of expressive suppression (Bariola et al., 2011). Another study found that parents' higher resting respiratory sinus arrhythmia (RSA), indicative of more parasympathetic regulatory resources, self-reported dispositional use of cognitive reappraisal, and coaching of reappraisal during a lab task in which their child was disappointed, was related to children's (ages 3-7) physiological calming after the disappointment task (Shih et al., 2018). Thus, parents' intrapersonal physiological and cognitive regulation, in addition to the strategies they coach or suggest to their child, influences children's regulation.

In addition to children's observations of parents, and parents' own ER and strategy coaching, the familial emotional climate also shapes children's ER processes. The emotional climate of a family refers to how emotions are generally valued and the quality of relationships within a family (Gottman et al., 1997; Morris et al., 2007; 2017). There is a large body of work relating parental thoughts, feelings, and philosophies about emotion processes to children's subsequent ER (e.g., Gottman et al., 1997; Katz et al., 2012). For example, one study found that mothers who self-reported being more accepting of their own feelings had adolescent children with fewer depressive and externalizing symptoms compared to mothers who self-reported being less accepting of their own feelings (Katz & Hunter, 2007). Furthermore, mothers of children with fewer depressive symptoms reported being more accepting and expressive of their own emotions, whereas mothers of children with more depressive symptoms were less accepting and expressive. Thus, parents and children jointly contribute to the emotional climate of the family, and parent meta-emotion philosophy impacts children's emotion processes.

Another aspect of the familial emotional climate is the quality of relationships between members. Specifically, marital relationships impact children's developing ER. Children of parents who display more anger, hostility, and marital conflict typically experience more negative emotions, less effective ER, and even physiological dysregulation (Cummings & Davies, 2002; Porter et al., 2003). In sum, the meta-emotion philosophy of the family and the quality of family relationships contribute to an

overall climate of how emotions are treated and handled, and ultimately serve to socialize children's emotional responding.

These socialization mechanisms do not work separately. For example, parent meta-emotion philosophy can also impact parenting *practices*. Meyer and colleagues (2014) examined parents' acceptance of emotions related to their socialization practices and children's subsequent ER. They found that parents who reported more acceptance of their children's emotional states also reported more supportive regulation strategies, which in turn predicted children's self-reported emotion-focused and problem-solving regulatory behaviors (Meyer et al., 2014). Even more covert forms of parental socialization, like parental physiology, impact children's ER (Hastings et al., 2008). In a previously mentioned study, parents' ER ability (measured by physiological calming, use of reappraisal, and coaching of reappraisal to children) was related to children's physiological calming after an emotional challenge (Shih et al., 2018).

The associations between parental supportive and non-supportive reactions and children's subsequent emotional responding are not always clear, perhaps due to different sociocultural and situational contexts. One study by Dunbar and colleagues (2021) found that Black parents' coaching of emotional suppression (a specific non-supportive strategy) was related to fewer externalizing behaviors in children, but only when parents gave context (e.g., explaining racism and discrimination). Another study found that Chinese mothers' greater reported Asian cultural values (e.g., not deviating from cultural norms) reduced the impact that emotion dismissing (another non-supportive strategy) had on children's sadness and anger in response to a disappointing gift (Vu et al., 2022). Last,

a recent study found that parent reported and observed emotion socialization practices were largely *not* related for specific socialization strategies, suggesting that parents likely respond according to the situation (DeLoretta & Davis, 2024).

In sum, there is considerable evidence that parents impact emotion-related processes in children both directly through coaching certain ER strategies, and indirectly through reactions, modeling, and contributing to the family's emotional climate. The goal of socialization is that over time, as a skill is more robustly established, learners depend less upon scaffolding and can perform the skill unaided. In other words, parents and caregivers are trying to set children up for successful independent regulation. Children may be learning and internalizing the strategies parents use and suggest to guide how they respond to emotional challenges in their own lives.

Both direct interactions and broader factors like parental discussion and valuing of emotions impact children's ER. There are additional ER socialization mechanisms beyond those described above that until recently have not conventionally been considered in developmental affective science. Popular emotion socialization theories tend to focus on children's immediate environment, including interactions with family members and how families value, treat, and discuss emotions. However, it might be more informative to take an ecological perspective of emotion socialization to include more distal influential factors (e.g., cultural emotional values) on emotional development. In this study, I posit that the family story may capture a child's emotional ecology, making it an essential emotional socialization tool. Storytelling occurs during direct interactions between family members and includes both specific (e.g., emotional

scaffolding) and indirect (e.g., familial emotional climate) emotion information. Socialization via family storytelling occurs directly between individuals, in addition to representing more indirect socializing factors (e.g., historical, environmental) as filtered through the storyteller. In other words, family storytelling socializes children directly via microsystem interactions and *indirectly* by representing the family's overall emotional experiences and ecology. Although developmental emotion science has considered family *discussion* of emotions, there is less known about how the family story specifically might be impacting children's ER processes. In the following section, I briefly review what is known about family storytelling and children's socioemotional development and explain the implications for children's ER.

The Family Story as a Socialization Mechanism

Telling stories is an essential part of everyday life for families, and for many children, their first exposure to stories is within the family context. Historically, stories of all kinds were told in families, whether they were fables, folktales, parables, or otherwise tales of caution and triumph. Oral tradition and oral histories were also some of the first mechanisms through which humans transmitted information intergenerationally (Campbell, 2017; Estés, 2003; Strekalova-Hughes & Wang, 2019; Thompson et al., 2009). Stories about the history and happenings a family has lived through are also imbued with emotional context and remain an important socialization mechanism for passing on interpretations of lived experiences. These stories, whether fables or family history, may act as a schema that children internalize and apply to their daily lives. Thus,

not only are stories important for children's self and social development, but also their emotional development and how they handle the circumstances of their everyday lives.

The family story can encompass family members telling stories about their daily lives (e.g., what happened at work), telling stories about family members and family-specific experiences (e.g., that time your sister did that funny or traumatic thing), and the major life events the family has experienced currently and historically (e.g., wars, immigration). In this study, I focus on family history and significant moments in a family's past, as opposed to everyday discussions to analyze the feasibility of using the family story as a proxy of a person's emotional ecology.

There are many ways that family stories and ER may be related. First, it is possible that emotion processes shape how individuals interpret and retell stories. For example, if a child hears stories from someone they deem to be an unreliable narrator (socioemotional awareness), they may carefully consider their own interpretation of the story or seek other narrators before internalizing or passing on the same story. Second, storytelling could function as an instantiation of ER, such that storytellers regulate themselves or others through telling stories. For example, family members may tell a story about a positive memory to make themselves feel better or help someone else feel better. Last, stories likely shape ER processes by providing examples of responses to life experiences. In this study, I am most interested in the latter two processes to describe how the family story might have implications for how families feel and respond to their feelings.

While there is less work looking at how the family story socializes children's ER specifically, there is research regarding how family storytelling is otherwise related to social and regulatory competencies and well-being. Narrative psychology has studied family storytelling as it relates to meaning-making, identity formation, and fostering family relationships. I posit that both direct mention of emotional experiences and how the family coped, *and* the surrounding context together infuse stories with rich information about interpreting and responding to life events. To put it more clearly, children may internalize the direct and more contextual emotional information embedded within stories they hear from family members, which in turn shape how children regulate their emotions.

As children get older, parents may offer more sophisticated, age-appropriate information to match children's developing cognitive skills. For example, stories that were tailored for a toddler's understanding may be more elaborated in late childhood as older children can understand more difficult topics and nuance. Furthermore, late childhood is a time when children have more opportunities to regulate autonomously and make independent choices. Thus, stories that children have heard at home could operate as schemas for what to do or not do in their own lives. Thus, while storytelling is an essential socialization tool for children of all ages, I am specifically interested in how storytelling operates for children with advancing cognitive skills in late childhood (ages 7-12) who are gaining more independence.

Much work on narratives suggests that storytelling (autobiographical and within the family) is important in shaping identity development in children and adults (McCain

& Matkin, 2019; McLean, 2008; Merrill & Fivush, 2016). Family stories provide connection to "intergenerational self" — a self that is centered in relational, geographic, and historical continuity (Driessnack, 2017; Fivush et al., 2011). This connection to intergenerational self can bolster a sense of belonging in family, and contribute to resilience in adults (Driessnack, 2017; Taylor, 2013). Specifically, in one study, adolescents were asked to narrate stories about their parents' childhoods. Adolescents who made more connections to other generations (e.g., "my dad played soccer, so that's where my interest in soccer came from") had better well-being (Fivush et al., 2011). Thus, the family story not only meaningfully contributes to an individual's developing sense of self, but also impacts relational behaviors and overall well-being.

How family members discuss their experiences is also related to children's regulatory competencies. Children who are told a personal narrative by a family member who presents an understandable, memorable account of an emotional experience use that account to guide their own emotion-related behavior in the future (Fiese & Marjinsky, 1999). These stories provide children with schemas for coping with, resolving, and understanding emotional experiences (Fivush et al., 2004, 2006). For example, in a study with children ages 3-6, children listened to an adult tell a story about emotions (e.g., anger, sadness) and then children were encouraged to share their own related stories, and there was a group discussion about what emotions are. One outcome was that children increased their understanding of other's emotions and the expression of their own emotions (Erickson, 2018). Another study demonstrated that pre-adolescents ages 9-12 of families who discuss and *explain* negative events (e.g., a death in the family), have better

self-reported self-esteem and regulatory competencies, compared to families who discuss negative events with a positive tone (Marin et al., 2008). Thus, the way a family discusses and explains major events has consequences for children's emotion processes and behaviors.

Family storytelling is related to children's identity development, the quality of the family relationships, and various socioemotional competencies. To study how the family story is related to children's ER is a natural extension of what is already known. Emotion science will benefit from considering the rich contextual detail provided by the family story as it relates to children's ER.

Previous work has identified different narrative elements relevant for socioemotional development. For example, narrative coherence, which refers to the organization, completeness, and flow of the narrative (Fiese & Sameroff, 1999), has been found to be related to emotional well-being in adults (Adler et al., 2018; Waters & Fivush, 2015). In a 2022 study, young adults in Belgium wrote about high and low points in their life and researchers tested whether their narrative coherence predicted better well-being 2 years later, after the beginning of the COVID-19 pandemic. Results suggested that adults with more narrative coherence in describing *positive* life events reported better well-being, and more perceived social support during the pandemic (Vanaken et al., 2022). Thus, an individual's narrative coherence is one important aspect of narratives that relates to how individuals manage during major life events. Developmentally, children's own narrative coherence is also related to their emotion processing. For example, one longitudinal study followed children from age 4 to age 6 and age 8 and found that more

narrative coherence at ages 4 and 6 predicted greater recognition of emotion in drawings

of faces at age 8 (Berzenski & Yates, 2017). However, it is not clear how *parental*

narrative coherence, especially in the family story, might separately operate as a potential

socialization mechanism of children's ER abilities. There is some research examining

families' co-construction of stories, but it is unclear how parents may uniquely contribute

to children's developing emotion processes. This is an important gap to address because

it is possible that a parent's ability to tell a contextual and complete narrative would

shape children's understanding, interpretation, and internalization of the story and its

emotional applications.

An additional component of narratives that emerge are the strategies individuals

use to summarize and make sense of their experiences, such as redemption and

contamination (McAdams & Bowman, 2001). Redemptive narrative strategy refers to

describing a difficult or trying time as transformative or leading to later positive

outcomes. Contamination refers to describing a good life or a good time that somehow

turned out bad or spoiled. Empirically, redemptive narrative strategy use in adults is

related to better regulation and well-being (Bauer et al., 2018). For example, one study

found that young adults whose parents were not alcoholics and whose narratives

contained more contamination reported more emotion dysregulation (as reported by the

Difficulties in Emotion Regulation Scale, DERS). In contrast, young adults whose parents

were alcoholics whose narratives contained more *redemption* reported more emotion

dysregulation (McCoy & Dunlop, 2016), suggesting that the context of redemption (e.g.,

who or what is being redeemed) may be important to consider in terms of well-being

outcomes. Furthermore, a study examining individuals' redemptive or contaminated *mindsets* found that higher self-reported redemptive mindset is associated with greater life satisfaction compared to those with higher self-rated contamination (Dunlop et al., 2020b). It is possible that narrative strategy reflects state or trait-level tendencies to interpret and manage life events. Therefore, the narrative strategy *parents* use may be another element of the family story in addition to coherence that is related to *children's* use of ER strategies. Although there is no empirical work examining parental narrative strategy as it relates to children's ER, I previously described that the way parents talk about events and emotions is related to children's subsequent regulatory competence. It follows that in telling the family story, parents may use redemption and contamination to foster children's ER skills and prepare them for their life ahead.

Last, parents' specific mention of regulatory strategies in their stories may be a third component of the narratives that relates to children's ER strategy use. For example, a parent might describe getting through a hard time by relying on family members (social support seeking), problem solving, or changing how they thought about the event. As previously discussed, parents' use of ER strategies is related to children's ER strategy use (e.g., Bariola et al., 2011; Shih et al., 2018), though the degree to which mention of ER strategies are coded in narratives beyond redemption and contamination is less clear. Thus, one aim of the current study is to code parents' stories for specific ER strategies they may mention using to change how they felt. Thus, I compare how more contextual (e.g., narrative coherence), overarching (e.g., redemptive or contaminated), and specific (ER strategies) elements of their story may differentially relate to children's subsequent

use of ER strategies. The current study informs how multiple components of the family story may work together and separately to shape children's autonomous use of regulatory skills in their own lives.

In sum, there is a wealth of literature that examines storytelling in families as it relates to children's emotional development, but fewer studies examining the distinct contribution of everyday stories compared to overarching family histories. Making this conceptual distinction is important in order to understand and differentiate the unique contributions of direct dyadic storytelling versus story *representations* that may reflect emotional schemas. The current study is the first that I know of to compare relationships between the overarching family history, specific shared emotional experiences, and children's emotion regulation.

Culture and the Family Story

Because much research on the family story and narrative coherence is conducted with White, middle class, adult populations, this study examines the family story as it relates to ER in primarily Latinx families and children. Cultural values may be transmitted to children via socialization; display rules are one example of how children may internalize spoken and unspoken social expectations about emotion expression. Cultural values may also be transmitted through the family story. The what, how, and why, of family storytelling may all be filtered through cultural values. A recent study found differences between Mexican American and Chinese American parents' emotion talk in conversations with their children—specifically that Mexican American parents used more negative emotion words and more emotional reasoning than Chinese

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American parents (Chan et al., 2022). Furthermore, immigration and acculturation to the host culture may impact cultural values. For example, in a study comparing emotional labels in stories told by Mexican American and Mexican immigrant mothers, Cervantes found that Mexican immigrant mothers used more emotional explanations rather than labels, and no difference in Mexican American mothers' labels versus explanations (2002). Similarly, another study found differences in mothers' Anglo acculturation and Latino enculturation in relation to their emotional beliefs and emotion talk (Perez Rivera & Dunsmore, 2011). Thus, acculturation may shape parents' emotion talk and discussion of emotions. Immigration may be a primary plot point of families' stories as it marks a significant cultural, emotional, economic, and sometimes legal turning point for all family members. The current study examines whether parents' acculturation to Anglo culture may be related to emotion socialization behaviors and children's emotional responding,

Familism is one cultural value relevant to storytelling that has been highlighted in research with Latinx families. Familism refers to valuing giving and receiving familial support, respecting familial traditions and values, and commitment to family. Familism might also reflect a broader cultural tendency for collectivism over individualism within the family. Familism emerges as a theme from stories from Hispanic storytellers (Sanchez, 2009), but there is less work describing how familism in storytelling is related to children's regulatory behaviors. One study found that self-reported familism values were related to social support seeking behaviors in Latinx adolescents (Stein et al., 2020), although social support seeking was also related to more depressive symptoms. Familism

might be related to which narrative strategies families use when discussing family history, and specific mention of ER strategies like social support seeking. It may also be related to strategies beyond social support seeking like cognitive change strategies that address how children think about and make meaning out of their life circumstances. Therefore, it is essential to understand how familism may shape storytelling and children's ER, and the current study addresses this gap in knowledge.

In sum, parents are especially powerful socializing agents in regard to children's developing ER abilities. Through both direct (e.g., coaching) and indirect (e.g., discussion of emotions and experiences, cultural values) mechanisms, parents transmit ER-related information to their children. The way parents recount family stories, specifically, is one understudied mechanism of ER socialization. The family story contains relevant information about the family's emotional ecology, like the events the family has lived through, family relationships, and other environmental and historical factors. Thus, the degree to which parents are coherent in telling family stories, how they resolve their story, and the degree to which they mention regulatory strategies are likely impactful for children's developing use of ER strategies. Studying the family story presents a new avenue for understanding the impact discussing major life events has on children's ER, understanding how ER is shaped intergenerationally, and for promoting the family story as an emotionally enriching socialization mechanism for all family members.

The Current Study

This project has conceptual and methodological contributions to the scientific study of family storytelling and children's ER. To my knowledge, this study is the first of its kind to consider the family story as a representation of children's emotional ecology and the related regulatory and socializing functions of the family story. I quantified features of the family story as told by parents (e.g., narrative coherence, narrative strategy, specific mention of ER) as they relate to children's ER strategy use. Additionally, I used qualitative analysis to describe the emotional ecological structure of the family story, and the reasons for storytelling that parents identified. Although narratives have been extensively studied in relation to socioemotional competence and well-being outcomes, there is less known about *parental* storytelling as it relates to children's ER. Thus, the current study aimed to address this gap by analyzing parental narration of the family story for ER-related information such as redemptive and contaminated narrative strategies, or mention of specific ER strategies like reappraisal.

Storytelling may more strongly relate to the *cognitive* ER strategies children use to interpret and make meaning of their experiences. Children may internalize stories they hear as a schema for how they think about and handle emotional challenges. For example, cognitive reappraisal may reflect children's thinking and meaning-making that rapidly develop between ages 7-12. Given that narrative coherence and family storytelling are related to children's meaning-making, it is possible that cognitive strategies may be especially important to consider. Therefore, analyses examined how socialization via storytelling may specifically relate to children's use of cognitive reappraisal.

Additionally, redemption was a variable of interest in this study because of its parallels to positive cognitive reappraisal (e.g., positive meaning-making). Therefore, I operationalized children's cognitive reappraisal in this study as *positive* cognitive reappraisal— when children mentioned thinking about things in a way that indicates a positive or accepting resolution (e.g., "I thought about how it was going to be okay").

Thus, one aim of the current study was to understand how narrative coherence, narrative strategy, and mention of specific regulatory strategies within the family story as told by a parent differentially related to children's use of ER strategies. Parents were asked to recount their family history and a positive and negative experience in their family history that they have shared with their child. Previous work suggests that both positive and negative narratives can relate to well-being and regulatory competencies, so this study will consider both. Children told a story about a time recently that they felt very sad and what they did to help themselves feel better during the experience to quantify their ER strategy use. By comparing the story elements (narrative coherence), the story's resolution (narrative strategy), and specific mention of reappraisal, I provide evidence for how telling a coherent and contextual story, telling a story with a positive resolution, and/or direct mention of reappraisal differentially relate to children's use of reappraisal.

An additional aim of the current study was to use qualitative analyses to identify essential factors in stories and reasons for storytelling that may be especially informative for affective science. First, I analyzed whether the family story captured the family's emotional ecology to assert the importance of studying distal influences in conjunction

with proximal influences on children's development. Second, I analyzed the themes in parents' answers about why sharing the family story is important to reveal reasons parents may be motivated to share their story with children. Given the exploratory nature of the current study to understand the family story as an emotion socialization mechanism, qualitative analyses can identify related constructs that may mediate, moderate, or otherwise impact storytelling and children's emotional responding. The descriptive nature of qualitative analyses is essential to contextualize children's emotional responding within their family story and ultimately their emotional ecology.

Research Questions & Hypotheses

RQ 1. To what extent do narrative coherence, narrative strategy, and mention of reappraisal in parent narratives differentially relate to children's use of reappraisal?

One goal of this study was to analyze how narrative components (e.g., narrative coherence, narrative strategy, specific mention of ER strategies) may differentially relate to children's reappraisal. Previous empirical work suggests that more narrative coherence and use of redemptive narrative strategy are related to increased emotional well-being (e.g., McAdams & Bowman, 2001; Waters & Fivush, 2015). Furthermore, narrative research suggests that the way parents discuss emotional events impacts children's subsequent regulatory behaviors (e.g., Fiese & Marjinsky, 1999; Marin et al., 2008). The current study extended this knowledge by considering which elements of parent narratives most strongly predict children's use of *ER strategies* like reappraisal.

At the crux of this question is the conceptual and methodological challenge of teasing apart whether parents' telling of a coherent story, parents' narrative strategy, or

more explicit mention of ER is related to children's reappraisal. One possibility was that narrative coherence may more strongly relate to children's use of reappraisal, as it may indicate a parent's tendency to explain and process major life events with children in a coherent and complete way. Another possibility was that parents' explicit mention of ER strategies ("I thought about how things could be worse") might be most strongly related to children's use of such strategies, as it may represent a parent's tendency to use and suggest those strategies to children. I hypothesized that parents' narrative strategy would be related to children's use of reappraisal, as narrative strategy likely represents a parent's tendency for meaning-making *and* that regulatory strategies are ingrained in narrative strategy such that redemption and contamination represent ways to think about (i.e., regulate) emotional experiences. For example, redemption is akin to reappraisal in that it involves thinking about a negative experience in a positive light. If it is possible that children internalize stories as schema for handling their own emotional experiences, parental narrative strategy may be the strongest predictor because it is the element of the story that summarizes the conclusion or the takeaway. In other words, it is possible that *the way the story ends* could be the most memorable and impactful story element. Therefore, narrative strategy represents the best of both narrative and ER-related storytelling elements that may be essential for children's developing ER skills.

Thus, I hypothesized that (H1a) children of parents who tell a more coherent narrative would use more reappraisal, (H1b) children of parents who use redemptive narrative strategies would use more reappraisal, (H1c) children of parents who mention using reappraisal in their narratives would use more reappraisal, and that (H1d) parent

narrative strategy would be the strongest correlate with children's use of reappraisal, because it encompasses narrative and regulatory strategy.

There are a few important factors to consider that may relate to parents' narratives and/or children's ER. First, some narrative work suggests that language ability and verbal fluency may moderate associations of interest with narratives and other variables (e.g., Dunlop et al., 2020a) so I accounted for these in relation to parents' narratives and children's outcomes. As previously discussed, cultural values may be related to elements of parents' narratives and/or children's ER (e.g., Sanchez, 2009; Stein et al., 2020), so I also accounted for cultural values in my analyses.

There is also evidence that both parent and child gender and age impact storytelling and ER strategy use. Some research suggests that mothers are more elaborative and discuss more emotional information with their daughters than fathers *and* parents are typically more elaborative and use more emotional language with daughters compared to sons (e.g., Adams et al., 1995; Aznar & Tenenbaum, 2014; Fivush et al., 2000). The strategies children use shift over time from more behavioral to more cognitive (López-Pérez et al., 2017). Last, children's gender may also be related to patterns in parent socialization; parents tend to minimize, dismiss, or encourage suppression with sons more than daughters, depending on the emotion context (Brown et al., 2015; Chaplin et al., 2010; Eisenberg et al., 1996; Root & Denham, 2010). Thus, parent gender and children's age and gender were considered as important covariates and explored in depth when they significantly related to outcomes of interest.

RQ 2. To what extent do parents describe sociocultural factors in their family story?

Another aim of the current study was to describe the sociocultural factors within the family story to provide evidence for studying the family story as an individual's emotional ecology. Though many emotional socialization theories focus on family interactions and emotional values or practices, it is well known that broader factors like culture and major life experiences also contribute to individuals' emotional processes (e.g., Vanaken et al., 2022; Wang et al., 2012). Thus, measuring factors beyond familial interactions (e.g., micro- and mesosystem) as they relate to children's emotional development can address existing gaps in knowledge about how more distal environmental and historical (e.g., exo-, macro-, and chronosystem) factors additionally shape children's emotion processes. I used Bronfenbrenner's socioecological model (1979) to define different system-level factors that were coded in parents' family stories, consistent with a deductive content analysis method. Given my position that the family story describes an individual's emotional ecology, I hypothesized that (H2) most parents (>50%) would mention each system (e.g., micro-, meso-, exo-, macro-, chronosystem) in their stories.

RQ 3. What do parents identify as the reasons for family storytelling?

Last, I explored how the family story may regulate and/or socialize children's emotions. In other words, parents may tell stories to change how children are feeling (e.g., cheer them up, make them feel proud) and/or to provide information about how children can regulate their emotions. I used inductive content analysis to identify themes in parents' response to the question "why do you believe family storytelling is important?" I hypothesized that (H3a) identity would emerge as a function of storytelling,

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given the clear relations with narratives shaping identity development (e.g., McCain &

Matkin, 2019; McLean, 2008; Merrill & Fivush, 2016). For example, sharing stories to

know "who you are" or "where you come from" could be a common answer to the

question. Second, I hypothesized that (H3b) connection may be another reason for

storytelling, considering the previous research that suggests storytelling fosters feelings

of belonging or connection with present and past generations (e.g., Driessnack, 2017;

Fivush et al., 2011). Given the exploratory and data-driven nature of this research

question, I had no specific hypotheses about how many and what other kinds of themes

would be discoverable in this sample.

Chapter 2

Method

Participants

Forty-seven parent-child dyads took part in a larger sociocultural study about

children's ER. Children were ages 7–12 (M_{age} = 10.24, SD_{age} = 1.96, 51.1% girls) and

parents were ages 29-53 (M_{age} = 39.7, SD_{age} = 5.4, 89.4% mothers). Families were

eligible if they had a child between the ages of 7–12 and if they could participate in the

study in English. I attended farmer's markets, UCR's youth summer camp (Camp

Highlander), and other community events in the Riverside, CA area (e.g., backpack

giveaways, movie nights in the park) to pass out fliers advertising my study to interested

parents. Parents who signed up were added to the UCR Child Studies Database, which

contains over 6000 families from the community who have expressed interest in or have

already participated in research. I contacted over 800 families in the database to invite

them to participate in my study, of which 70 were scheduled, and 47 families completed participation in the study (i.e., some families were scheduled but canceled or did not come in).

Parents in the sample had the following racial/ethnic breakdown: 61.7% Hispanic, 14.9% reported being multiracial, 14.9% Caucasian (Non-Hispanic), 4.3% Asian American, 2.1% African American, and 2.1% Native American. Children in the sample had the following racial/ethnic breakdown as reported by parents: 57.4% Hispanic, 19.1% multiracial, 14.9% Caucasian (Non-Hispanic), 4.3% Asian American, 2.1% African American, and 2.1% Native American. The majority (57.4%) of the sample reported an annual household income of $60,000 or more, 17% reported $51,000–$60,000, 6.4% reported $41,000 and $50,000, 8.5% reported $31,000 and $40,000, 4.3% reported $21,000 and $30,000, and 6.4% between $16,000 and $20,000.

Procedure

Participants came to the Emotion Regulation Lab for a 3-hour laboratory visit where they answered interview questions related to emotion processes and participated in various emotionally challenging tasks (e.g., watching emotional films). The university's Institutional Review Board approved all study procedures before the study began (HS# 22065). Parental consent and child verbal and/or written assent were acquired at the beginning of the study. Participants were video recorded for offline behavioral coding. Families were compensated with a small honorarium for participating.

Family Story Interview

I administered most of the interviews ($n = 41$, 87.2%; the remainder were administered by trained graduate student researchers). Parents completed a 30-minute structured interview including questions about their family story. Participants were asked to share anything they were willing to share about their family story from the beginning of what they know up to the present day, then to identify a high point in their history that they have told their child, and then to identify a significant loss or transition that they have shared with their child. The full interview script is included in Appendix A. After parents recounted their significant loss/transition story, the interviewer asked a follow-up question about what the parent did to help themselves feel better while living through that time, and asked a final wrap-up question about whether and why they think family storytelling is important. Responses were transcribed and coded by me and trained research assistants. The parents' stories were coded for narrative coherence, narrative strategy (e.g., redemption vs contamination), and mention of specific ER strategies (e.g., positive cognitive reappraisal). Additionally, I used qualitative content analysis to code how many and which kind of factors (e.g., relational, historical) were present in their family story and why parents think storytelling is important. Details about data reduction and coding for each of these constructs are given below.

Autobiographical Emotion Interview

Another experimenter administered the Autobiographical Emotion Interview (AEI) with the child while I did the Family Story Interview with the parent. Children were interviewed about events that made them feel different emotions (sadness, fear,

anger, and happiness) using a paradigm developed in our laboratory (e.g., Quiñones-Camacho & Davis, 2018; Parsafar et al., 2019). The interview script is included in Appendix A. In separate phases, the experimenter asked children to think about recent times that they felt very sad, scared, angry, and happy. After children described each event, the experimenter asked what they did or think about to change how they were feeling. Responses were transcribed and coded by me and trained research assistants.

Measures

Copies of all measures are included in Appendix B.

Parent Measures

English language use at home. Because language ability may be related to narrative coherence or content, I measured parents' use of English language at home. Parents self-reported their use of English in multiple domains (e.g., reading, writing, speaking) at home on a scale of 0 (not at all) – 100 (all the time). Self-reported English fluency was summed across domains for a total English fluency score, with higher scores indicating greater use of English at home.

Verbal fluency. Similarly, verbal fluency may also impact the length, coherence, or content of parents' narratives. I measured parental verbal fluency production in English (e.g., Lezak et al., 2012; Shao et al., 2014) by asking participants to first say out loud as many words as possible in English in 1 minute, next to name all the animals they could think of in 1 minute, then to name all the words beginning with the letter "A" they could think of in 1 minute, and last, to name all the emotion words they could think of in 1 minute. Each unique word was tallied, not including names (e.g., Jon), places (e.g.,

California), numbers, or non-words. The four verbal fluency categories were summed for a total verbal fluency score, with higher scores indicating higher verbal fluency.

Vocabulary. Additionally, I measured participants' receptive vocabulary. Participants completed the Shipley Hartford Institute of Living Scales vocabulary task (SILS; Shipley, 1940), a 40-item multiple choice test that asks participants to select one word out of four options that has the same meaning, or most nearly the same meaning, to a target word. The SILS is a widely used and validated measure of verbal fluency and is typically highly correlated with other measures of verbal fluency (Harel et al., 2024; Shipley et al., 2009). Parents' accuracy across all items (with one exception) was summed for a Total Shipley Score, with higher scores indicating higher accuracy. One prompt had a typo, so I did not include that question in their total accuracy score (the target word was entered into Qualtrics incorrectly, so it read "ofrice" instead of "orifice").

Cultural values. Because I expected sociocultural and emotional factors to shape parent socialization and storytelling, I also measured cultural values (e.g., familism) and acculturation to examine potential cultural differences. Parents completed the 50-item Mexican American Cultural Values Scale (MACVS; Knight et al., 2010), which assesses values pertinent to Latinx cultures (e.g., familism, respect, religion), as well as American values (e.g., independence, success, competition). Participants responded whether they believed each item (e.g., "tell me how much you believe that… God is first, family is second") on a scale from 1 (not at all) to 5 (completely believe). There are 9 total subscales: supporting family (α =.78), obligation to family (α = .65), using family as a

referent (α = .66), respect (α = .89), religion (α = .96), traditional gender roles (α= .62), and mainstream (US American) values: material success (α = .75), independence & self-reliance (α = .63), and competition & personal achievement (α = .6). Total scores were summed for each subscale, with higher scores indicating more self-reported endorsement of those values.

Parents self-reported familism values using the Familism Scale (Sabogal et al., 1987), a 15-item measure assessing familial obligations (α = .56), perceived support from family (α = .75), and using family as referents (α = .67) using a 1(very much in disagreement) – 5 (very much in agreement) scale. Scores were summed across subscales such that higher scores indicate greater reported familism values.

Cultural socialization. The Cultural Socialization Behaviors Measure (CSBM; Derlan et al., 2016) is a 12-item questionnaire that measures parents' cultural socialization practices. Parents rated on a scale of 1 (not at all) to 5 (very much) how much in the past year they did things to teach their child about their ethnic/cultural background (e.g., "I involve my child in celebrations, holidays, or religious events that are specific to our ethnic/cultural group"). Responses were averaged across all items to create an average cultural socialization scale, with higher scores indicating more self-reported cultural socialization behaviors. Cronbach's alpha for this measure was .94.

Acculturation. Last, I measured self-reported degree of cultural acculturation. Initially, I administered the Acculturation Rating Scale for Mexican Americans (ARSMA-II; Cuellar et al., 1995). There are two orthogonal scales: the first is a 30-item

scale that measures cultural orientation to Mexican and Anglo (i.e., White American) cultures; the second scale measures feelings of marginalization. Because I was most interested in measuring acculturation as it related to parents' storytelling and because the second scale is not adequately validated, I only used the first scale. Participants ($n = 20$) rated on a 1 (not at all) to 5 (extremely often or always) scale the degree to which they agreed with statements about their enjoyment and engagement with Mexican (e.g., speaking Spanish) and Anglo culture (e.g., speaking English). Scores on each subscale (Mexican and American orientation) were averaged for a mean orientation score, then the Anglo orientation score was subtracted from the Mexican orientation score to create a linear score such that more positive values indicate more orientation to Anglo culture and more negative scores indicate more orientation to Mexican culture. Cronbach's alphas were .89 for the Mexican orientation subscale and .92 for the Anglo orientation subscale.

However, I pivoted to the Stephenson Multigroup Acculturation Scale (SMAS; Stephenson, 2000) after receiving feedback from participants who were from multiple cultural backgrounds and/or identified with cultures other than Mexican/Latinx to ensure the questions were more inclusive. The SMAS is a 32-item measure assessing the degree to which responders identify with their native culture (i.e., the place their family originated from) and Anglo/White American culture. Parents ($n = 27$) rated statements about their native culture (e.g., I know how to speak my native language) and Anglo culture (e.g., I speak English at home) on a 4-point (false, partly false, partly true, and true) scale. Cronbach's alphas were .95 for the native culture orientation subscale and .65 for the Anglo orientation subscale. Scores were averaged across each subscale to create a

mean native culture orientation score and a mean Anglo orientation score. In order to harmonize with the ARSMA scoring, I subtracted native orientation from Anglo orientation to create a linear acculturation score, such that higher scores indicate more acculturation to White American culture. Cronbach's alphas were .95 for the native culture orientation subscale and .65 for the Anglo orientation subscale. To reconcile the two different measures, I standardized (z-scored) parents' final scores whether they completed the ARSMA or the SMAS to create standardized acculturation scores for ease of comparison, with lower scores indicating greater acculturation.

Data Reduction & Coding

For all coding, coders first met with me to go over coding manuals and the coding sheets. Coders were assigned readings that were relevant to the coding (e.g., Reese et al., 2011 for narrative coherence coders; McAdams et al., 2001 and Dunlop et al., 2020b for narrative strategy) before they began coding. Coders were initially assigned a small number ($n = 3$) of participants to code. Thereafter, coding teams met weekly to resolve coding discrepancies by coming to a consensus via discussion until all participants' codes were reconciled. I made the final decision if consensus could not be reached. I calculated percent agreement each week to assess coding drift. When all coding was complete, I assessed reliability using intraclass correlation (ICC2 method) (Shrout & Fleiss, 1979). All coding manuals are included in Appendix C.

Parental Narrative Coherence

There are different theoretical orientations and methods for measuring narrative coherence. Some narrative coherence coding schemes include dimensions that capture

psychological context like meaning-making or affective content (e.g., Adler et al., 2018; Baerger & McAdams, 1999). Because I coded affective content (e.g., narrative strategy and mention of specific ER strategies) separately from coherence, I adopted the narrative coherence coding scheme proposed by Reese and colleagues (2011).

Reese and colleagues (2011) proposed three dimensions of narrative coherence: context, chronology, and theme, that are rated globally on a scale of 0 (absent) to 3 (fully detailed) for each narrative (family story, high point, significant loss/transition story). Context refers to the amount of detail provided to orient the listener to the time and setting of the story. Parents who provided no detail about the time or place of a story received a 0. Parents who included details about either time or place received a 1 ("she grew up in a little town in Mexico" with no mention of when). Parents who mentioned both time and place, but with incomplete detail (e.g., "when I was younger, we went to Mexico") received a 2. Parents who included specific details about both time and place received a 3 (e.g., "when I was 7, we went to Mexico").

The second dimension Reese and colleagues proposed was chronology, which refers to the ability to narrate a story along a timeline. Parents received a 0 if they mentioned actions or events but did not make the ordering clear (e.g., "I make sure to tell my children about the importance of education. They need to stay focused to get a good career and be successful"). Parents received a 1 if less than half of the story was given temporal detail. Parents were given a 2 if most of the actions in the story were temporally placed, but the coder could not create a timeline with certainty. Parents received a 3 if the listener could construct a complete (>75%) timeline of events with certainty. Importantly,

chronology codes do not measure when in real time the events happened (e.g., what year) since that was captured by context codes, and instead capture the *ordering* of the story events (e.g., what happened first, second, third).

Last, the dimension of narrative theme refers to how on-topic and clear the narrator stays. If the narrative was mostly digressions with no reconciliation, the parent received a 0 (e.g., "We used to go on a lot of adventures growing up. I also tell them about my high school experiences."). Parents received a 1 if they stick to one topic/story, but the plot does not thicken (e.g., "I've told them about when I went to Mexico. I used to want to stay there."). Parents received a 2 if the story is mostly on-topic and developed, but does not have a clear ending (e.g., "So my family came from Mexico. Eventually they came to the United States. I bought a house after college."). Last, parents received a 3 if they remain on topic and include mention of some resolution (e.g., "My family all came from Mexico. Growing up, we used to go back and visit family. On a recent trip, I realized my grandmother taught me a lot about my culture and where I came from, and I want to pass that on to my children.").

One research assistant coder and I coded narrative coherence for each participant's family story, then their high point, then their significant loss/transition story. Reliabilities were as follows: family story context ($ICC = .56$), family story chronology ($ICC = .64$), family story theme ($ICC = .80$), high point context ($ICC = .86$), high point chronology ($ICC = .77$), high point theme ($ICC = .73$), significant loss/transition context ($ICC = .84$), significant loss/transition chronology ($ICC = .88$), significant loss/transition theme ($ICC = .81$), family story total coherence ($ICC = .71$), high point total coherence

(*ICC* = .78), significant loss/transition story total coherence (*ICC* = .90). I summed all dimensions of narrative coherence for a total coherence score (out of 9) for each of the 3 narratives for each parent, with higher scores indicating more narrative coherence.

Parental Narrative Strategy

Parental narrative strategy use was coded globally according to schemes provided in previous literature (e.g., Dunlop et al., 2020b; McAdams et al., 2001). The two major narrative strategies I examined were redemption (a story that begins difficult but has a happy ending) and contamination (a story that starts good but has a bad ending). A redemptive narrative began with negative affective experiences and ended with a positive outcome or affective experience. For example, a story that read, "my parents split up right after I was born, and it really impacted my family. I didn't have much family growing up…But now, I found community and resilience and I'm happy that I can provide that for my child," was coded as redemptive because it contains explicit mention of a struggle in the beginning, and a positive resolution or sense of growth/understanding at the end. Contamination, on the other hand, is when the narrative begins with neutral or positive affect, but somehow turns bad or becomes spoiled. An example of a contaminated narrative is "I grew up in Mexico. I remember playing outside and visiting the ranch my family lived on…but after my parents passed away, the family fell apart. We aren't connected anymore." Redemption and contamination codes are mutually exclusive.

Two research assistant coders and I coded each of the family story narratives, high points, and significant loss/transition stories for redemption and contamination.

Reliability was as follows: family story redemption ($ICC = .73$), family story contamination ($ICC = .59$), high point redemption ($ICC = .6$), high point contamination ($ICC = 1$), significant loss/transition redemption ($ICC = .83$), and significant loss/transition contamination ($ICC = .6$).

Parent Use of Cognitive Reappraisal

Parents' use of cognitive reappraisal was coded from their response to the question "what did you do or think about during your [significant loss/transition] to help yourself feel better?" Their responses were coded by 2 research assistant coders and myself according to the same scheme used for the children's Autobiographical Emotion Interview that captures different strategies: Problem-solving, changing thoughts, changing goals, changing physiology, social support, and religious activity (e.g., Quiñones-Camacho & Davis, 2018). Because I was mostly interested in parents' and children's use of positive cognitive reappraisal, I only consider positive cognitive reappraisal (a form of changing thoughts) in analyses. Positive cognitive reappraisal was coded as absent (0) or present (1) depending on whether or not a parent mentioned thinking positively about the situation or person to feel better while living through their significant loss/transition. See complete strategy list and coding manual in Appendix C. Most of the data were coded by all three coders, and once good reliability was established, a smaller subset (36.2%) was coded by 2 coders (myself and another coder) to make coding more efficient. Reliability for positive cognitive reappraisal was acceptable ($ICC = .69$).

Child ER Strategy Use

Children's ER strategy use was coded from their response to the question "what did you do or think about during [sad experience] to help yourself feel better?" Two coders and I coded ER strategies according to the above-mentioned coding scheme (e.g., Quiñones-Camacho & Davis, 2018). Children's positive cognitive reappraisal was coded using the exact same method and manual as parents' positive cognitive reappraisal. Reliability for positive cognitive reappraisal was acceptable ($ICC = .81$).

Qualitative Content Analysis

Because of the exploratory nature of my research questions (e.g., what sociocultural factors do parents mention in their family story? What do parents think is important about storytelling?) inductive and deductive qualitative content methods were used to code and analyze parents' narratives as described below.

Sociocultural factors coding. One primary interest of the current study was to analyze the degree to which parents mentioned different sociocultural factors in their family story. To that end, I used deductive content analysis (Elo & Kyngäs, 2008) wherein a pre-existing theoretical framework (Bronfenbrenner's Ecological Systems; Bronfenbrenner, 1979) was applied to create coding dimensions for participants' responses. One research assistant coder and I analyzed each family story narrative for mention of microsystem (e.g., parents or caregivers), mesosystem (e.g., family interactions), exosystem (e.g., factors that impacted their parents), macrosystem (e.g., cultural values, country of origin), and chronosystem influences including history-graded experiences (e.g., wars) and major personal experiences (e.g., when their family

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immigrated) (Bronfenbrenner, 1979). Coders rated each dimension as absent (0) or present (1) in the family story. Interrater reliabilities were as follows: microsystem (*ICC* = .65), mesosystem (*ICC* = .70), exosystem (*ICC* = .74), and chronosystem (*ICC* = .65). The intraclass correlation coefficient for the macrosystem code was low (*ICC* < .01), likely because percent agreement was extremely high (97.9%), so the reduced variability in codes between raters does not meet the assumptions for an *ICC* test or other methods of calculating interrater reliability.

      Importance of storytelling. Another aim of the current study was to analyze themes in parents' responses to the question "why do you think family storytelling is important?" I used an inductive, data-driven content analysis method to generate codes. In the first phase of coding, I reviewed all responses to generate a list of common ideas or themes present in parents' responses to why they believed storytelling was important. In the second phase, another trained coder applied the coding scheme to 10 initial responses to determine if the coding scheme sufficiently captured the content in parents' responses. After, the coders met to refine and clarify the coding scheme. In all, seven response codes were established: (1) identity; storytelling is important so children can know who they are and where they come from, (2) connecting to past/present generations; storytelling is important because it brings the family together, increases family belongingness, or connects you to previous generations, (3) sharing feelings; storytelling is important for sharing, discussing, and feeling feelings, (4) lessons; storytelling provides a way to teach or learn lessons from others, (5) remembering; storytelling is important for preserving and passing on historical information like family genetics, illnesses, or remembering the

past, (6) culture; storytelling is important for preserving cultural traditions or values, and (7) gaining an understanding or appreciation of others; storytelling allows children to contextualize, understand, and/or appreciate their family members. Coders rated each dimension as absent (0) or present (1) in the parents' response to the importance of storytelling question. Codes were not mutually exclusive, so a parent's answer could fit into multiple codes (e.g., "storytelling is important because it connects you to your family, and so you can share your feelings" was coded as sharing feelings and connecting to past/present generations). Interrater reliabilities were as follows: identity ($ICC = .70$), connection ($ICC = .69$), sharing feelings ($ICC = .54$), lessons ($ICC = .78$), remembering ($ICC = .74$), culture ($ICC = .88$), and understanding or appreciation of others ($ICC = .51$).

Thematic saturation. Every parent's response fit at least one of the codes, except for $n = 2$ participants who responded that storytelling was, "only important if you think it's important" and another who responded, "storytelling is important because I would like to do it more." Thematic saturation refers to the extent to which I can be certain that no new themes would emerge if I conducted more interviews. Thematic saturation was quantified using the approach put forth by Guest and colleagues (2020). I used a base number of interviews ($n = 4$) to establish an initial number of base themes ($n = 6$) present in the first 4 interviews. According to this approach, there is no difference in saturation rates whether using 4, 5, or 6 as an initial base number, and a base number of 4 was recommended (2020). Next, I summed the new themes found in every 2 subsequent interviews until the new themes generated from subsequent interviews accounted for less than 5% of the base themes. Thus, using a base size 4, I reached the < 5% new

information threshold at 6^{+2} interviews. In other words, after the first 8 interviews, no new themes were generated from subsequent interviews, suggesting sufficient thematic saturation.

Chapter 3

Results

The results are organized into 2 sections. First, I present correlational analyses examining parents' narrative variables as they relate to children's ER strategy use. Then, I present qualitative analyses describing parents' narratives including which kinds of factors they mentioned (e.g., relational, environmental, historical) and the reasons they said storytelling was important.

Missing Data

Missingness is reported in Table 1. The pattern of missingness in the data was assessed using Little's MCAR test (Little, 1988), which found no significant patterns [$\chi^2(256) = 263.89$, $p = 0.35$]. Because of the low base rate of missingness and some of the variables being dichotomous codes, listwise deletion and computing partial scores (e.g., including subscale means for people who skipped one item on a survey) is appropriate and as effective as multiple imputation (Peeters et al., 2015).

Quantitative Analyses

Descriptive statistics are shown in Table 1.

I first considered whether parents' coherence and redemption scores varied across narrative type (i.e., family story, high point, significant loss/transition stories). Parents had higher coherence scores on their family story narrative ($M = 7.57$, $SD = 1.33$)

compared to their significant loss/transition story [M = 6.62, SD = 2.22, $t(45)$ = 2.70, p = .01] and their high point [M = 5.85, SD = 2.00, $t(45)$ = 5.476, p < .001], and higher coherence scores on their significant loss/transition story compared to their high point story [$t(44)$ = -2.26, p = .03]. In terms of narrative strategy, significant loss/transition stories had higher redemption scores (M = .46, SD = .50) than both the family story [M = .17, SD = .28, $t(45)$ = -3.49, p = .001] and the high point story [M = .04, SD = .2, $t(45)$ = -5.18, p < .001], which did not differ from one another [$t(46)$ = -1.95, p = .06]. There were no significant differences in contamination among the family story, high point, or significant loss/transition story (ts < |1.35|, ps > 0.1).

Another aim of the current study was to analyze how parent narrative factors may be related to children's use of cognitive reappraisal. In order to reduce the number of variables to include in my partial correlations, I ran Pearson's correlations (point biserial correlations when using dichotomous variables) examining parents' linguistic (e.g., English use and verbal fluency), narrative (coherence, strategy), and emotional factors (parent ER strategy use) as they related to children's use of cognitive reappraisal.

First, I analyzed which demographic variables were related to children's use of cognitive reappraisal (Table 2). Child age was positively correlated to their use of reappraisal [$r(43)$ = .36, p = .02], such that older children were more likely to report using positive reappraisal. Otherwise, no significant relationships between parents' age, race, or gender, children's gender or race, family income, and children's reappraisal emerged (ps > .05).

Next, I analyzed whether parents' self-reported cultural values were related to children's reappraisal (Table 3). Parent's obligation to family on the Familism scale was negatively related to children's use of cognitive reappraisal [$r(43) = -.31, p = .05$], meaning that as parents' self-reported obligation to family increased, their children's use of cognitive reappraisal decreased. Otherwise there were no significant correlations between parents' cultural values, cultural socialization, acculturation, and children's cognitive reappraisal ($ps > .05$).

One main aim of the current study was to examine which parent narrative variables were related to children's cognitive reappraisal (Table 4). In partial support of my hypothesis (H1a), parents' family story coherence was positively correlated with children's use of reappraisal [$r(43) = .37, p = .01$], so parents with more coherent family stories had children who used reappraisal during their sad experience. Otherwise, no narrative coherence variables were related to children's use of reappraisal ($ps > .05$). Parents' family story redemption scores were positively related to children's use of reappraisal [$r(43) = .32, p = .04$], so parents who told a redemptive family story had children who used cognitive reappraisal to feel better during their sad experience, in partial support of hypothesis (H1b). Otherwise, no narrative strategy factors were related to children's use of reappraisal. Interestingly, parents' use of cognitive reappraisal was not correlated with children's use of cognitive reappraisal [$r(43) = .26, p = .09$], in contrast with my hypothesis (H1c).

Because some parent narrative factors were related to children's use of cognitive reappraisal, I considered relations with their language and verbal fluency as these factors

may account for some of the shared variance (Table 5). No significant correlations emerged between parents' language and verbal measures and their family story coherence and redemption ($ps > .05$). Parents' significant loss story narrative variables weren't related to children's cognitive reappraisal and were therefore not considered further in analysis; however, parents' vocabulary scores were positively related to parents' significant loss story coherence ($r = .40$, $p < .001$), and significant loss story redemption ($r = .29$, $p < .05$). Parents with greater vocabulary scores were more likely to tell a coherent and redemptive significant loss story.

How Do Parents' Narratives and ER Strategy Use Relate to Children's ER Strategy Use?

One main aim of this study was to determine which aspects of family storytelling (narrative coherence, narrative strategy, and/or parents' ER strategy use) may be most strongly related to children's use of reappraisal. To assess this, I ran two partial correlations to compare parents' family story narrative coherence and family story redemption as they related to children's use of reappraisal. Children's age and parents' self-reported obligation to family on the Familism scale were included in both partial correlations because they were related to children's use of reappraisal.

When controlling for child age and parents' familial obligation, parents' family story coherence was still significantly positively related to children's use of cognitive reappraisal [$r(43) = .33$, $p = .04$]. When controlling for child age and parents' family obligations, parents' family story redemption was no longer significantly correlated with children's use of reappraisal [$r(43) = .27$, $p = .09$]. This was contrary to my hypothesis

(H1d) that redemption, not narrative coherence, would be more strongly related to children's reappraisal. Therefore, parents' family story coherence, rather than family story redemption and parents' use of reappraisal, may be especially important for children's use of cognitive reappraisal.

Qualitative Content Analyses

To What Extent Do Parents Describe Sociocultural Factors in their Family Story?

One aim of the current study was to describe which sociocultural factors parents mention in their stories. Deductive content coding was applied to code different socioecological factors (micro-, meso-, exo-, macro-, chronosystem) per Bronfenbrenner's (1979) socioecological theory. Most parents ($n = 37, 78.7\%$) mentioned each factor at least once in their family story, in support of my hypothesis (H2).

Microsystem. Nearly every parent ($n = 45, 95.7\%$) mentioned a microsystem factor in their story. Parents mentioned their parents, siblings, grandparents, and children in their stories. Many parents described who was around when they were growing up and their family structure. For example, parents said, "I grew up with my mom. My dad was like, not in the picture," or "I am close to my grandma." Some parents gave more detail about their parents' *sociocultural* socialization behaviors, like one parent who said,

> "I had a godmother. She was a big part– like she pretty much raised me, you know? She was a babysitter, but I always kind of lived with her off and on. While into college, just, she always took care of us. And then that's where I learned Spanish and just had a lot of good childhood memories there…Like, she definitely was the one to impart some of that culture. You know, to let me know just how to like, cook certain things or do certain cultural things. Because I think my parents, they didn't do a whole lot of that…They didn't speak the language here, they didn't, you know, I learned all of that, just kind of through my godmother. And then so I tried to pass those things down that I learned to the kids."

Some parents included detail about their parents' and their own emotional socialization

behaviors, for example: "My dad, I feel like, um, he just wants us to, don't feel the way

he felt, like, he shares with us stories of his feelings and he doesn't want us to feel the

same way," or "I think [that experience] made [my parents] like, a lot of their traits today.

So I think that's why they wanted to like, make us understand." Another parent said,

> "Like some families are loving and some are just like, they don't know how to
> show the love, which is weird. It's not okay. Um but I love my kids, I hug my
> kids, you know, whereas like I didn't grow up with a lot of affection like that. So I
> think for me, it's like, the opposite of what I was raised is what uh, how I raise my
> kids how I feel like I would have wanted to be raised in a way if that makes
> sense."

Similarly, another parent said:

> "[My daughter] noticed I was— when I'm overwhelmed and like then she'll start
> to help. Or she just appears. And I'm like, oh, man. And I hate that because I'm
> like, that was me as a kid. And so I'm worried that I'm just passing on the same
> things where I was so attuned to like, what my mom's needs were that it turned
> into a people pleaser. And so I'm like, dammit. These traumas are strong.
> [laughs] Just passing 'em on."

That parents mentioned their parents, caregivers, and children suggests the importance of

these "characters" in their story. By identifying primary social partners, parents shed light

on the relationships that may be most important for shaping their own development and

shaping their values regarding emotional socialization for their own children. In addition

to the significance of the relationships themselves, the interactions between individuals

are also impactful on development.

Mesosystem. Forty parents (85.1%) mentioned the mesosystem (e.g., interactions

between their parents, parents and grandparents, and parents and siblings). For many

parents, this included description of strained relationships. For example, one participant

said, "Um, but my mom's family had a strained relationship, like she left their house when she was a teenager. So they had a very strained relationship." Some parents even described how strained relationships impacted them, like one parent who described "[It] was hard to, to help my mom because my mom didn't sleep well. And when [my brother] was doing things no good because they aren't okay, I was helping— I help him more than my mom." Other parents described their parents' marriage and/or divorce. Thus, parent—grandparent, parent—sibling, and parent—parent interactions were present in parents' stories. Most parents mentioned relationships between others that impacted their own development demonstrating that in addition to their one-on-one relationships, broader family dynamics were a notable part of their story.

Exosystem. Bronfenbrenner (1979) also posited that indirect environments (the exosystem) impact individuals. Forty-two parents (89.4%) described an exosystem factor (e.g., their neighborhood, their parents' jobs, local laws) in their family stories. Some parents described legal and economic barriers their parents faced that shaped their family history, for example, "And uh [my parents] came to California like to look for work, but mainly to get married because of um there were laws at that time in like in Louisiana that prohibited them from being married," or "[my dad] had the idea that like, we're just gonna work here for a little bit and, American dream, get some money. And you know, we have a house over there, but they never ended up going back." Although not explicitly tied to emotions, these examples demonstrate how choices families make about where to live and work can change the environment children grow up in, which may indirectly impact their emotional development. Some parents described emotional hardships their

parents faced that impacted their interactions, for example, "My mom had a lot of mental issues growing up so for me it was like I never had a close bond with my mother." Another participant described, "maybe [my father] had demons or he— whatever he was going through, but I felt like he took care of us." Parents were aware of how broader factors shaped how their own parents felt or what choices their parent made, demonstrating that in addition to significant relationships and family dynamics, environmental factors significantly shaped their story. The physical and emotional "settings" parents exist in indirectly impact the resources they have/had access to and the nature of their interactions with others.

Macrosystem. Every parent (100%) described a macrosystem factor (e.g., their culture, cultural values, or religion). For most parents, this included description of their family's culture of origin, for example, "so my dad, he was born in Colombia," and some described their immigration experience: "my mom and my dad, they met in a farm in Mexico and that's how I came to be, you know, the immigration laws were so much [more] lenient and like, I don't know how he came over," or "I think the most impactful [moment] for us was definitely gaining status in the United States legal status, because this is quite a difficult— This is the, you know, the 70s and 80s." The change in US legal and cultural views on immigration over time significantly impacts families' ability and motivation to gain documented status in the US. Thus, in addition to a family's culture of origin, the host culture or culture of neighboring countries also have significant implications for families.

For other parents, their macrosystem included description of their religious or spiritual upbringing: "I was raised in the Mormon Church," or "My family history is more like our- our center is always God first, God and the first thing and the main thing is God you know?"

Some parents even pointed out cultural emotion values, like one parent who quoted "you don't talk about Bruno," a reference to the children's movie *Encanto* about a family secret that ultimately causes division within the family. Another parent noted,

> "And so, I feel like in, a lot of, uh, like, Mexican or, um, like, Brown household, like, a lot of things is you, you're not supposed to talk about the bad things outside your home. Or even within your home, you know? If things happened, like you don't talk about them, and I think it's important to talk about them because— so you don't feel like you're alone. So you know that, um, just talking about things will help you get through them, and um, to have like a sense of community. So I think it's important to definitely talk about the stories, the good and the bad."

Thus, the cultural factors parents mentioned spanned their country of origin, immigration experiences, and religious or spiritual upbringing. E*very* parent mentioned a macrosystem, demonstrating the significance of studying culture and cultural values as they relate to development. Where families come from and the values they retain or change provide important contextual background information for immigrant and native families alike.

Chronosystem. Last, 45 parents (95.7%) mentioned a chronosystem factor in their story (e.g., wars; when their family immigrated to the U.S.). For example, some parents mentioned history-graded experiences like the Great Depression: "So my grandparents met in El Paso when they were kids, they grew up, they were in the Depression, um you know, they grew up and then didn't have any money, didn't have

anything," or "And I guess in the Great Depression, [my grandfather] had to sell ice to try to survive," or wars: "Well, I know there was like a big war in El Salvador," or "He- he told us that he was from the… like uh Sierra and he- he come to the place for us because [of] the war. For the war in the time." Not only did these history-graded experiences have implications for the family's financials, but sometimes these factors motivated families to immigrate, change jobs, or join war efforts. Parents also identified non-history graded experiences that had significant impact, for example: "… and then it sucked cause we moved here to the U.S. when I was five," or, "There was a huge change. And then um, yeah, we, then we had COVID hit, right? And then we had our baby." History-graded experiences and personal "turning points" in families' stories may provide important exposition (e.g., history-graded) and/or climatic moments (e.g., personal experiences) regarding what the major actions in a person's story were, which may provide context for their emotions and socialization behaviors. In other words, major events are often times when families choose, decide, or otherwise change to adapt to new circumstances.

In sum, parents' stories had rich context including details about their closest relationships growing up, family interactions, environmental, and historical factors in their family history. This supports my position that the family story contains proximal and distal factors essential in shaping emotional development and captures a family's emotional ecology. In order to identify other factors or motivations for storytelling, I also asked parents whether they believed storytelling was important and why. Their responses indicated new topics relevant to emotion socialization not previously conceptualized in the literature.

What Do Parents Identify as the Reasons for Family Storytelling?

Another aim of this study was to analyze the reasons why parents thought storytelling was important in order to identify potential motivations for socialization through storytelling. Using inductive content analysis, I found 7 themes that captured parents' responses to the question, "why do you think family storytelling is important?"

Identity. In support of my hypothesis (H3a), one theme that emerged from parents' responses was identity. Fifteen parents (32%) said that storytelling was important to learn "who you are" and "where you come from." For example, one parent said, "I think that's important, because it's important to know, like, where you came from, to reflect back to know where you're going." Another parent similarly noted that the past can inform the present or future:

> "Um it gives you a sense of like, who you are and where you came from, and… if I'm like, nerding out on it, there's all this like, epigenetic stuff that we like, carry our family stories and family unfinished business. And sometimes it's really important to know that like, 'Hey, this stuff is– maybe isn't even mine.' Or the reason that this is so hard is it's because of some kind of like, generational or ancestral unfinished business."

Therefore, identity was one reason family believed storytelling was important- because knowing who you are and where you come from may provide insight to your present behavior or challenges. Identity emerged as a reason for storytelling, suggesting the importance identity has for socialization and emotion processes. In other words, who you are and where you come from may impact how you feel and how you handle life's circumstances. Parents may wish to share stories to shape children's identities so they feel pride, happiness, understanding, or connection to themselves and their history, and to provide a roadmap for how they may behave or the choices they make.

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Connection. In support of my hypothesis (H3b), another theme that emerged

from parents' answers was connection. Sixteen parents (34%) described that storytelling

connects the family throughout generations. For example, one parent said, "Um, yeah, I

think that, you know, when you tell stories, uh you connect better. In particular, like, you

know, me with my parents or me with my kids." Or another parent who said:

> "One, because, um, well, it's a good way to spend time together, um, telling
> stories, even telling the same stories, right? You know, instead of, um, sitting in
> silence, or my kids don't have cell phones, but most families now staring at cell
> phones, um, you know, it, has a way of interacting with each other. Um, but also,
> because, you know, you, obviously you want to remember, you know, the people
> that live before you. So telling the stories keeps those uh memories alive."

Similarly, another parent said:

> "I feel like sometimes, um even if it is as silly as like the superstitions that- that
> have been passed on, I feel like it's something that is a part of the family. And it
> makes it- it sounds silly, but it makes it a li— special, you know what I mean? It's
> like, is it my family? This is what happened, or my family, they experienced this
> and these are superstitions from here and so yeah, I think I think it just it kind of
> ties us together because we can sit there and say my aunt experienced this and my
> grandma is the one that told me about this and you can kind of take it all the way
> back whereas them they're like, oh, my great grandma used to tell my, you know,
> my grandma, and my grandma told my mom and you know, so I think it it's nice
> because it connects us all as a family."

Last, another parent specifically noted how past generations can be a source of resilience

when considering their experiences:

> "And my other driving thing is like, well, why would I go and waste the talents
> that I have, based on knowing all of what people had to overcome in order for me
> to be here, you know, and I'm not just talking about my mom having to raise me,
> my grandma having to raise her– generations, we can go back to the slave trade
> and know that somebody had to be fit, and stay fit and survive and thrive through
> all of those different things, you know, and even after slavery, we had Jim Crow,
> and all those different things happen, like, people had to be able to be smart
> enough and strong enough to survive and resilient enough to overcome whatever

other challenges came along. So some people had to go through some things for me to be here now. So why would I waste my talent?"

In sum, parents noted that storytelling can connect you with past generations, but also provides a way for families to interact today. Parents may be seeking opportunities to share experiences and stories with their children to foster feelings of closeness and belongingness, and accessible activities to do with children that don't involve screens. Storytelling and discussing life experiences could be a no-cost way for families to connect, learn about/from each other, and remember or reminisce.

Feelings. Another theme that emerged was about feelings. Fourteen parents (30%) said that storytelling was important to share, express, or process feelings. For example, one parent said, "I think it helps them not only process their emotions and different feelings around different things that happened, events, but also they realize certain things and then they can be more intentional about what they want for their family." Interestingly, parents were split on whether to share the good and bad stories, or only the good. For example, some parents noted, "I think it's important to tell stories definitely to make you feel happy and proud but also for the bad things that happen not to happen anymore." Another parent said,

> "Um, you know, even though some stories might not be, you know, the ones with a great happy ending in the sense that you know, there's been death, there's been suffering, trials. Um, I've told them at some other parts of our story of my- my mom's story and our family, you know, that there was um abuse, um abuse and um alcoholism. I've only told them a little bit. Um, but, but as he's getting older, I'm gonna reveal more parts of that story. Um because again, I want, because even in that story, there was triumph and there was um, um, forgiveness."

Conversely, another parent said,

> "I feel like when it's, it's something good, it's good to tell them. But a story, but when it's something that you feel that it's going to negatively impact them, or just have them thinking. Yeah, just having them thinking, assuming, guessing things that might have not happened, that does not affect their life. Um, I'd rather not share those with her."

Therefore, parents believe stories are important so children process feelings, and to prepare or protect them from certain emotions. Emotions specifically emerged as a reason parents believe storytelling is important, emphasizing the emotional socialization function of stories. Sharing and expressing emotions and emotional circumstances may make children feel proud, happy, understanding, forgiving, or even conflicted about their family's history. Regardless of how children feel, by sharing stories parents may expose children to more context that shapes how they feel and how they might handle their feelings.

Lessons. Another theme that emerged was learning lessons. Nineteen parents (40.4%) said that storytelling was important for learning something. For example, one parent said,

> "I feel it's very important actually to tell stories because we learn, you know, um, we learn from— I always tell my son that's how funny, I go, if you're smart, you learn from your mistakes, but if you're wise, you'll learn from others' mistakes, you know?"

Another parent described their own experience being inspired by a family member who was the first in their family to pursue college,

> "Why are you here and we're just gonna write the exact same circumstance? But it was just like, but this is why like I was able to pivot, because I saw him because I learned and because I wasn't, you know what I mean, like, I was just I was able to take in that influence it and just do things differently so, do you know what I mean?"

Parents even described teaching their children about difficult topics using their family

history, for example:

> "Yeah, yes, I tell them I- I mentioned before what has happened to my mom.
> We've actually talked about um drunk people. Alcohol and everything. She knows
> about that. So she sees somebody's like, 'I think she's drunk.' Like maybe um we-
> we try to make her realize like, there's not always good people in the family.
> Sometimes they're just out of control and like, realize if there's something like that
> just stay with Mama or go with Daddy. Try to try to protect her basically."

Therefore, parents believed storytelling was important for learning lessons from the past

and using stories to teach lessons. Another way to conceptualize this would be

socialization—that telling stories provides a way to teach, model, or suggest to children

ways of handling life's circumstances.

Remembering. Many parents ($n = 20$, 42.6%) said that storytelling was important

to preserve or remember stories from the past. For example, one parent said, "There's so

many things that I know I experienced, but I don't remember, like in a physical way, I

only remember because my mom told me the story of it. [laughs] Um, so just you know,

helping to remember things and people and yeah, so, yes, that's definitely important."

Another parent said, "And it's, I think it's important to tell the stories, I think it's

important to write them down. So they don't get forgotten or lost." Another parent

highlighted: "Um it's important to know your family's history even with things like

medical issues or genetic issues." Some parents even described preserving a sense of

what life was like in previous decades like one parent who said,

> "I mean, [sighs] I think it's important to have a greater sense, you know, when I
> think about all of my kids now to have a greater sense of like, the people that
> existed before you and I think stories really helped with that. So I mean, the- the
> constant joke in our house right now and it has been for a little bit now is like
> what was– since my wife and I were both raised in the 80s. And then it was like a

resurgence of the 80s. So, we talked to the kids a lot about like, what was life actually like in the 80s?"

Another parent talked about how remembering brings positive emotions:

> "Um, I… can sometimes smell manure, like driving through Chino, even when it's not there anymore. And that's [a] very nostalgic feeling too. But like, in a good way. Most people I think are like, grossed out by the smell, but to me it brings good memories and, and feelings of happiness and like, I want to say freedom? Being able to like run wild and just do anything we want like at the dairy."

Therefore, remembering and knowing the past emerged as one reason why parents believed storytelling was important. This means that keeping family history alive may motivate parents to share stories with their children and connect them to others. It also suggests that remembering itself may be an important emotion regulation strategy that families and children use.

Culture. Another theme that emerged from parents' responses was about culture ($n = 11$, 23.4%). Parents described that storytelling is important to preserve, connect with, or dismantle cultural values or traditions. For example, parents said, "Because it gives them that like, fundamental like, you know, um, or builds like that culture and stuff. So, yeah, just keep that culture alive and then give them reference to something like building blocks or something for life," "Um, I think for me that, that's the number one thing for me, the, the tradition, um, to keep it alive, and keep it going." Some parents mentioned cultural traditions like cultural foods:

> "And so that's like, an opportunity for her to learn more about like, her culture, where they come from, you know, and all this was like, related to my family story, you know, and so like, I always, you know, I think it's important for her to understand um you know, kind of like her heritage, and the food, the culture."

Therefore, passing down cultural heritage, traditions, and practices is another reason parents believe storytelling is important.

Understanding others. The last theme that emerged from parents' responses was gaining an appreciation or understanding of other people ($n = 11$, 23.4%). For example, one parent said,

> "Um, because especially for my daughter, I want her to understand where her family and where people before her came from and what experiences they had. And it kind of just more to shape her and just to have a better understanding of just people and emotions and what we all go through."

Similarly, another parent said,

> "Um, like I said just even the few stories that I know and that I've heard and um, really helped me gain appreciation for, for where the families, as a whole are. Um, my own situation as well, but also kind of like where all, all my families and all my relatives are at the moment in terms how we kind of found ourselves where we are and, and the, the state that we're all at basically."

Another parent noted that sharing stories also gives their child more context for understanding their parent, "I feel that when I share, they maybe see something different than just my normal happy– happiness." Parents believe that storytelling is important because it provides context for why the family and people more broadly may behave. Parents provide context so that children may learn from, connect with, feel for, understand, or appreciate others. Thus, parents may want to share stories with their children so children can see the full picture and experience the nuance within the story, or for children to discern how to deal with certain situations (e.g., when do you forgive someone).

In sum, parents shared that storytelling is important for relational, emotional, cultural, and historical reasons, including socioemotional and cultural socialization.

Parents believed that sharing contextual details about family history can shape how children feel about themselves, their family, and people outside of their family. Parents also believe that storytelling can shape, teach, or model for children how to respond to life's circumstances.

Chapter 4

Discussion

The results of this dissertation provide significant conceptual and methodological contributions to emotion regulation socialization research. This is one of the first studies to conceptualize the family story as representing a family's emotional ecology. This is a significant contribution because it provides a feasible method for measuring multiple systems that shape a family's emotional development. Few (if any) studies consider the unique contributions of day-to-day discussion of emotional experiences in families compared to the overarching family history, or family story representation. I used quantitative and qualitative methods to highlight the importance of socialization via the family story *specifically*, above and beyond day-to-day conversations or general discussion of emotional events. The aims of the current study were (1) to analyze the parental narrative factors that are related to children's ER strategy use and (2) to use qualitative analysis to describe family stories and the reasons for family storytelling.

Family Story Coherence and Children's Cognitive Reappraisal

To achieve my first aim, I analyzed whether narrative coherence, narrative strategy, and/or the ER strategies parents used might relate to children's ER strategy use. Interestingly, parental *family story* coherence and redemption were related to children's

use of cognitive reappraisal, but there were no statistically significant relations to narrative factors in the high point or significant loss/transition story. This is especially interesting because the high point and the significant loss/transition stories were stories that parents confirmed they had previously shared with their children, whereas parents did not always share the entirety of their family story with their children. In other words, even though parents may have directly shared their high point and significant loss stories (and what they did to feel better during it) with their children, it was not directly related to children's cognitive reappraisal in this study. Thus, in this study, the overarching family history had unique relations to children's emotion regulation above and beyond positive and negative emotional experiences that were explicitly shared with children. Additionally, the significant loss/transition story was meant to mirror children's sad autobiographical story in terms of emotional context. This suggests that the family story specifically, rather than a shared story or emotional context, may be especially important for children's emotional processes. It is possible that the family story subsumes other stories, and that the broader context of the family history is especially meaningful for children's cognitive reappraisal. This was the first study of its kind to analyze the family story as it relates to children's ER. Although previous work has suggested that direct conversations with children have implications for children's emotional responding (e.g., Fiese & Marjinsky, 1999; Marin et al., 2008), the current study suggests the family story itself may be another powerful socializing factor.

In general, children's age, parents' familism (obligation to family), family story narrative coherence, and family story narrative strategy were related to children's use of

cognitive reappraisal. This supports previous work suggesting that older children use more cognitive strategies (e.g., López-Pérez et al., 2017) especially in late childhood. I unexpectedly found a negative association between parents' obligation to family and children's use of cognitive reappraisal. Previous studies found positive associations between familism and social support seeking or prosocial behaviors (e.g., Davis et al., 2018; Stein et al., 2020). This association was found for the Familism family obligation subscale and not the MACVS family obligation subscale, suggesting variance between the measures. Despite the high positive correlation between the subscales, the MACVS familism obligation subscale has 2 items about *children's* obligation to their family (that children should contribute to raising and helping the family), whereas the Familism scale only asked about individuals' obligation to take care of older (e.g., grandparents) and younger (e.g., younger siblings) family members. One explanation is that parents who reported higher obligation to their family may have deployed more social support, making it less likely that children would use cognitive reappraisal when sad. Another explanation and potential limitation of these results is that I was underpowered to detect a statistical association between cultural values and children's cognitive reappraisal. I found moderate but nonsignificant associations between cultural values on the MACVS and familism and children's cognitive reappraisal (r's > |.22|). Independence and familism were all negatively associated with children's cognitive reappraisal. Parents who value familism may encourage children to do more social support seeking, and/or may provide social support when they notice their child is distressed, thus scaffolding *interpersonal* ER processes instead of intrapersonal. Parents who value independence

may expect children to be able to manage their emotions on their own, but may not provide scaffolding for how to do that cognitively. Future work could analyze these relations in a larger sample.

When accounting for parents' cultural values (obligation to family), and children's age, family story narrative coherence remained a significant correlate with children's cognitive reappraisal, but narrative strategy did not. Narrative coherence, and not narrative strategy or parents' use of cognitive reappraisal was related to children's use of cognitive reappraisal, suggesting that the context and completeness of the family story may have especially important implications for children's use of positive cognitive reappraisal. This finding was contrary to my hypothesis, as I expected that narrative strategy (e.g., the lesson or emotional story arc) to be the most salient aspect of the family story for children. Previous research suggests that both narrative coherence and narrative strategy are likely important for children's and adults' emotional processes (Adler et al., 2018; Bauer et al., 2018; Berzenski & Yates, 2017; Waters & Fivush, 2015), although none of these studies compared narrative coherence and narrative strategy as they relate to children's emotion regulation processes. Narrative coherence in this study included the context (i.e., time and place), chronology (i.e., timeline), and theme (i.e., story with resolution) of a story. One explanation is that stories with more coherence and contextual details may provide children with the nuance to understand the good and bad in an emotional situation. Parents who told family stories with more detail may include important context for understanding the bigger picture. For example, parents who tell a story with a clear timeline and ending may be developing the story in a way that shows

how things changed over time. Children who hear stories with greater context for when, why, or how things happened may think about the bright side when something sad happens because they understand that stories have more than just one moment—things will be okay because the story will continue, and things might change.

Interestingly, parents' language and verbal abilities were not related to their family story coherence scores. I measured parents' use of English language at home, verbal fluency, and vocabulary scores. Although previous work suggested that adults' verbal ability may be related to elements of their narrative (e.g., Dunlop et al., 2020a), one explanation for the lack of association could be that the *construction* of a family story (e.g., contextual details, timelines, and resolutions) is not related to linguistic or executive functions since story features are common across all languages and do not depend on fluency (i.e., high verbal output) or vocabulary skills. There was a positive association between vocabulary scores and parents' significant loss/transition story coherence and redemption, so in particularly heavy emotional contexts, parents with greater vocabulary scores included more contextual details in their story, and told a redemptive ending. It could be that vocabulary skills support storytelling abilities when heightened emotions may disrupt the storytelling process. One study found that adults' verbal knowledge was related to a more *multidimensional* perspective of emotions, rather than viewing emotions as only positive or negative (Nook et al., 2017). Parents with greater vocabulary knowledge may have a broader, more nuanced view of emotions that facilitates a more coherent and overall positive story of a hard time.

Similarly, aside from family obligation values, no other cultural values or acculturation scores were related to parents' narratives or children's use of cognitive reappraisal. Although previous work has suggested that cultural values and acculturation relate to parent narrative and emotional socialization behaviors and the relations to children's outcomes (e.g., Cervantes, 2002; Dunbar et al., 2021, Perez Rivera & Dunsmore, 2011), that was only partially supported in this study. Because previous studies used homogenous samples, one explanation is that I could not detect effects of cultural values and acculturation due to the heterogeneity in this study sample.

In sum, the quantitative results of this study suggest that (1) the family story, rather than shared high and low points, and (2) narrative coherence, rather than narrative strategy or mention of ER strategies, may be especially important in shaping children's emotion regulation. These findings support my assertion that the family story is a particularly important mechanism of emotional socialization wherein children may internalize their story and use it to guide their emotional responding.

The Emotional Ecology of Families

Another aim of the current study was to propose using the family story to identify and describe a family's emotional ecology—the prominent proximal and distal factors that shape a family's emotion processes. The majority of parents' narratives had each factor (microsystem, mesosystem, exosystem, macrosystem, and chronosystem) in their story at least once, which indicates the comprehensive contextual detail within family stories. Although stories can sometimes exclude detail or nuance, the present findings suggest something different: that family histories are rich in detail including

relationships, family interactions, environmental factors, cultural factors, and historical or majorly impactful events.

Microsystem

Given the extensive research on parent-child relationships as they relate to children's emotional development (e.g., Eisenberg et al., 1998; 2020, Leerkes et al., 2020; Morris et al., 2007; 2017), it is unsurprising that most parents included descriptions of microsystem factors in their stories. Many parents described how *their* parents shaped their own emotional responding and their choices to respond to their children's emotions, and this intergenerational stability or change in emotional responding is an up-and-coming area in emotion socialization research. Although previous work has examined remembered parental emotion socialization as it relates to present parenting behaviors (e.g., Leerkes et al., 2020), fewer studies have examined this qualitatively (e.g., Conover, 2023). This gap is important to address, as the linkage between parents' values and perceptions about emotions are related to their emotion socialization practices. In other words, the extent to which parents believe their own parents were a supportive or non-supportive model of emotional socialization might explain whether or how those socialization practices get transmitted. The family story and mixed-method approaches may support the development and understanding of intergenerational transmission processes in emotion socialization research.

Parents described the impact of both cultural socialization and emotional socialization, which points to the importance of these two processes separately and in conjunction. For example, cultural socialization (e.g., ethno-racial socialization) is related

to many aspects of development for children and families alike, including emotional responding (Umaña-Taylor & Hill, 2020). Emotion socialization is well-studied as it relates to parents' and children's ER (e.g., Eisenberg et al., 2020). The individuals who contribute to children's socialization filter and pass on unspoken cultural information about emotions and regulatory processes, making each individual's perception and interpretation of cultural values very important to understand. The family story is one method that can elucidate the extent to which individuals and cultural values impacted a person's socialization practices.

Although parents for the most part discussed their parents and immediate family, they sometimes included non-parent caregivers who are less typically studied like grandparents or godparents. Grandparents, for example, have previously been studied as socializing agents in many other developmental domains; they shape grandchildren's ethnic identity, financial habits, religious practices, and social skills (e.g., Gutierrez et al., 2014; Jackson et al., 2020; LeBaron et al., 2018; Li & Liu, 2019). Many parent practices that support children's emotional development, like expressing warmth and empathy, have been found to be supportive for children when practiced by grandparents as well (e.g., Akhtar et al., 2017; Bernhold, 2019; de Guzman et al., 2018; Duflos et al., 2020), although generally less is known about how grandparents and other non-parent caregivers shape children's emotion responding. Emotion socialization research can broaden which individuals are being studied and could even consider the impact of the *lack* of relationships (e.g., not having a godparent to scaffold, grandparents passing away). Thus,

while much is known about parent—child relationships, emotion socialization research can benefit by examining other social partners.

Mesosystem

Parents mentioned their own parents, grandparents, siblings, and other people (e.g., godparents) in their stories who contributed to the family interactions and the familial emotional climate. Work on the family emotional climate and family relationships suggests that interactions between individuals also shape children's emotional responding (Akhtar et al., 2017; Attar-Schwarts, 2015; Leerkes et al., 2020). In addition to studying more social partners, emotion socialization research could benefit by studying triads (e.g., two parents and a child, parent and two siblings) to observe family dynamics more naturistically. For instance, studying grandparent-parent-child triads could illuminate the intergenerational transmission of emotional responding and may supplement existing work about remembered parent emotion socialization (e.g. Conover, 2023). In other words, *observing* socialization behaviors in conjunction with parents' remembered emotion socialization as they relate to children's observed emotional responding may provide evidence for how parents moderate grandparents' emotional socialization. The family story provides context for interactions between family members, and the subjective perception of how those interactions shaped the individuals' emotion processes.

Exosystem

More recent research in emotion science has discussed the impact neighborhoods and environments have on children. For example, one study found that in a virtual reality

experiment, exposure to a disadvantaged (e.g., graffiti, litter) compared to an affluent (e.g., health and leisure amenities) neighborhood resulted in greater negative and less positive emotion (Hackman et al., 2019). Less well known is the effect neighborhoods have on children's emotion *regulation* skills. In other words, it is likely that the environments children grow up in foster skills or abilities to show and respond to feelings that are appropriate in that context. Parents scaffold children's emotional suppression or expression depending on their social and situational context (e.g., Dunbar et al., 2021), and the surrounding neighborhood is one understudied context in which parents and children develop. Given the methodological challenge of observational or experimental studies examining neighborhood contexts, remembered neighborhood events (as in the family story) may yield the most elaborative data on the impactful neighborhood events of a person's life.

Work was another commonly mentioned exosystem and parents mentioned both their parents' and family's success at work, and challenges associated with maintaining or finding work. Parents' work can impact their time spent with their children, their well-being, family relationships, the family's financial situation, and more (e.g., Perry-Jenkins & Gerstel, 2020; Speights et al., 2017), especially as COVID has changed many people's work situation (e.g., remote work, being laid off) and subsequently home- and child-related responsibilities for many families. Less is known, however, about how parents' work may impact their emotion socialization practices and children's subsequent emotion regulation. Furthermore, understanding how work has changed over time might be especially informative for understanding a family's values related to work. Thus, work is

one especially important emerging area for emotion and emotion socialization science to explore.

A less frequently mentioned exosystem was parents' own mental health. Arguably, parents' mental health could also be classified as a microsystem; however, given that parental mental health may be filtered through the parent's behavior, I chose to classify it as an exosystem or indirect environment. For example, parents' good or bad mental health days may contextualize their parenting and socializing behaviors in the same way that having a good or bad day at work might. From participants' descriptions, parents' mental health related to when and how the parent showed up in direct (microsystem) interactions. Thus, for this study, parents' mental health was considered part of the exosystem, filtered through their parent's behavior.

As previously discussed, parents' own emotion regulation abilities impact their emotion socialization practices (e.g., Havighurst & Kehoe, 2017; Meyer et al., 2014; Shih et al., 2018). Furthermore, parents' mental health and mental illness like depression also impacts emotion socialization and children's emotion processes, including their emotion regulation (Hentges et al., 2021; Loechner et al., 2019). Although newer research is examining the impact of neighborhoods, parents' work, and parents' mental health on children's emotion regulation, studying these factors together may contextualize how combinations of risk and/or supportive factors may impact children's emotional development. Additionally, hearing parents' retrospective experience of these factors through their family story may be especially helpful in providing nuance and context for how children make sense of these experiences. For example, parents may appreciate and

have compassion for their parents' perseverance through hardships, even if they disagree with their actions or emotion socialization behaviors. Studying these indirect factors through the family story provides the ecological context for understanding the individual.

Macrosystem

By far, the most mentioned macrosystem was culture of origin. Culture of origin, acculturation, and cultural values and traditions shape caregiver practices and may moderate the association between caregiver processes and children's emotional responses (e.g., Dunbar et al., 2021; Raval & Walker, 2019; Vu et al., 202). Cultural socialization may support the development of certain regulatory skills that children use when experiencing negative emotions (e.g., ethno-racial identity development, *Dia de los Muertos*). It is essential for emotion socialization research to contextualize familial and cultural values about emotions that may or may not be passed on, and to identify cultural tools for support (e.g., storytelling, cultural and shared traditions). Parents also mentioned their religious upbringing, which has implications for their emotion processes (e.g., Vishkin, 2021), although less is known about the impact on their emotion socialization. Parents reflected about passing on religious traditions and beliefs (or not) as a result of their own upbringing suggesting that the family story may contextualize whether and how religious regulatory practices are transmitted across generations.

Other macrosystems parents mentioned in their family stories included the political values of the countries they lived in and/or immigrated to. Stories of racial/ethnic discrimination from outside and inside the family point to an important gap in current literature. Although it is well-known that experiences of discrimination impact

parents' racial socialization practices (e.g., Garcia-Coll et al. 1996; Cheeks et al., 2020), less is known about how racial discrimination may impact parents' emotion socialization practices. Parents likely tailor their emotion socialization practices according to their own experiences with racism or discrimination, which may subsequently impact children's emotional responding. As such, the family story is one way to analyze parents' experiences of discrimination within and outside of the family as it relates to their emotion socialization practices and children's subsequent ER.

Chronosystem

By far the most common chronosystem influence mentioned was parents' stories of their family's immigration, which was sometimes associated with escaping from war in their country of origin. Immigration research is relatively new to the field of developmental psychology (Garcia-Coll & Magnuson, 2012), although certainly a current topic in the field of psychology in general. Jensen's 2007 paper used Bronfenbrenner's ecological model to describe the proximal and distal environments that promote acculturation and acculturative stress including families, schools, friendships, media, and politics. Given that most of the participants came from immigrant families (only 2.1% Native American), it follows that immigration was an essential part of their family story. The places families live, the people they are surrounded with, and the political attitudes towards outgroups can support (or not) a family's experience immigrating and acculturating to the United States. Previous work has shown that acculturation, culture of origin, and host culture may all impact parents' emotion processes including socialization (e.g., Cervantes, 2002; Perez Rivera & Dunsmore, 2011). The chronosystem suggests that

when a family immigrated is an extremely important factor, as laws, politics, and social views regarding immigrants change overtime. In other words, the unique differences associated with when a family came to the United States may be related to patterns in the generational effects.

History-graded experiences are less studied especially as related to ER. Current events like COVID foster research on how people and families respond in this generation, which is essential for shaping current and future policies. There is less current research on historical events, such as the Great Depression, and even less about wars. It is clear from participants' responses, however, that these experiences shaped the course of their family, and their family's emotion socialization practices. Studying the family story and identifying history-graded experiences may explain intergenerational shifts in values around emotional responding.

Similarly, although personal turning points are widely studied in narrative psychology, turning points are less well-studied in developmental affective science. Bridging these two areas is a sensible next step considering the interest in intergenerational transmission of emotion processes. The broad and far-reaching historical experiences of a family may shed light on patterns in emotional responding and beliefs and values about emotions. To reiterate a previous point, people may internalize their stories as some lessons about managing feelings and tough experiences.

In sum, emotion socialization research has extensively studied factors like parents, familial relations, culture, and physical environments as they separately relate to children's emotional development. An ecological approach to emotion socialization and

the emotional ecology of individuals and families may promote the study of these factors working in conjunction. Although many relevant factors are studied individually, studying these factors in conjunction in an ecological and/or systems approach is the next logical step. The family story is a feasible way to study proximal and distal factors that relate to the family's emotional development. This is the first study to my knowledge to code factors according to Bronfenbrenner's Ecological Systems theory within parents' narratives as they relate to children's outcomes. Future work could further examine the factors within each subsystem—for example, whether the microsystem description included parents, siblings, friends, and/or teachers who could provide insight and comparison of different social partners as they impact an individual's environment. Similarly, chronosystem factors like wars and/or the Great Depression may have implications for a family's emotional climate; if past generations were in survival mode, it could be that there was less consideration for emotional needs, which some parents mentioned experiencing from their parents and wanting to change for their own child. Thus, the family story captures proximal and distal factors related to an individual's emotional development and provides context for intergenerational transmission or shifts in emotional processes and emotional socialization.

Reasons for Storytelling

I was additionally interested in what parents said the reasons for family storytelling were to identify factors specific to the family story that may differentiate it from day-to-day conversations or shared stories about emotional experiences.

Identity

In support of my hypothesis (H3a), parents said one reason storytelling was important was so children would know who they are and where they come from. Narratives shape adults' and children's identity development (McCain & Matkin, 2019; McLean, 2008; Merrill & Fivush, 2016). The family story may be especially important for identity as it describes the people, places, and historical factors relevant to an individual's development across generations. Identity development may even serve regulatory purposes; for example, having a solid understanding of one's identity may shape how individuals choose to respond to their feelings and their life's circumstances. As previously discussed, ethnic-racial positive identity development may reduce internalizing and externalizing behaviors and serve as a protective factor against racial discrimination and acculturative stress in children and adults (Jankowski, 2013; Umaña-Taylor & Hill, 2020). Similarly, knowing family history and what other family members lived through may motive people to persevere, relinquish, or even avenge in pursuit of their goals. Open questions remain about how *emotion* socialization may be related to identity processes. If children internalize messages from their family story (e.g., "my family perseveres"), they may incorporate that into their sense of self and draw on that story during hardships. Although prior research has examined parent–child reminiscing as it relates to young children's self-concept (e.g., Goodvin & Romdall, 2013), less is known about how emotion socialization behaviors may moderate or mediate this relationship. Clinically, it is thought that emotional disruptions in childhood contribute to the development of personality disorders (Sharp, 2020), but this process is understudied

in children without psychopathology. Furthermore, the current study suggests that the family story specifically may be an important narrative to understand beyond the discussion of positive/negative events as it relates to children's outcomes. The current study highlights that identity may be an essential and understudied factor as it relates to emotion socialization and emotion processes.

Connection

Connection to family was another theme that emerged in parents' responses, in support of my hypothesis and previous studies that found that storytelling increases feelings of belongingness within the family, even across generations (Driessnack, 2017; Taylor, 2013) and that the family emotional climate and how people get along have consequences for children's emotion processes (Morris et al., 2017). It is clear in parents' responses that previous generations can be a source of comfort or strength, such as remembering and thinking fondly about people who were important to you. In addition to the family story itself providing a sense of connection to family members past, the act of telling the story also provides a way for families to connect *presently*. For families and clinicians seeking connecting family activities that may support children's emotion processes, telling the family story may be an accessible and supportive activity.

Emotions

Sharing and expressing feelings emerged as another reason for family storytelling, which may partially explain why families view storytelling as a mechanism for connection. Sharing feelings and emotional experiences is an essential part of building intimacy between people (Barasch, 2020). As previously discussed, even sharing

negative emotions can be related to positive outcomes in children, if they are given an explanation (Marin et al., 2008). Families in this study had mixed opinions about whether to share the good *and* the bad with their children. Parents' choice to share the "bad" likely depends on their children's age and relevant life experiences. For example, some parents chose to share their first encounters with mortality (e.g., pet or person passing away) with their children when their children were experiencing something similar. Some parents chose to share stories about drug, alcohol, and sexual safety with their children to prepare and inform them about how they can handle dangerous circumstances. Some parents chose to protect children from emotional distress from such stories if they believed it was not relevant, salient, or important for the child to know yet. Recent research supports the idea that parents may respond to children's feelings depending on situational and social contexts (DeLoretta & Davis, 2024; Dunbar et al., 2021). Thus, the current study suggests that parents' approaches to sharing negative emotion laden experiences (protecting from or preparing for) likely depends on their personal feelings, the situation at hand, and family history. The family story may provide the context for *how* parents make decisions about when, how, and what to share about emotional experiences.

Lessons

Another theme in parents' responses was that family storytelling teaches or passes on lessons. Parents said that stories contain lessons or examples for how to respond to life circumstances. It may be especially important to learn lessons from one's own family; the shared history and circumstances between family members may provide insight for why

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certain events or experiences are particularly emotional or salient for an individual. Many parents noted intergenerational trauma or shackles, suggesting that intergenerational transmission of emotions and emotional processes is a relevant and necessary future direction for affective science. Whether and how past experiences predict future emotion regulation remains an open question. One study found that recalled acceptance of a negative experience predicted current use of acceptance in adults (Houle & Philippe, 2020), suggesting that the ways individuals integrate the negative experience and regulatory strategy effectiveness in their memory may impact their future regulatory decisions. Whether or not individuals believe there is a lesson to be learned from past experiences may also impact whether they share the lesson or use the lesson to socialize children's emotional responding. Narrative methods like the family story are useful in revealing individuals' subjective experience with remembered stories or experiences as they relate to their present selection of regulatory and socialization strategies.

An unexplored factor in this study was the effect of direct lesson teaching compared to more diffuse lesson *telling*. Parents may scaffold a lesson *directly* by telling a child what they want them to learn or take away (e.g., "my brother got in a car crash so I always tell my son to be safe and wear a helmet") whereas other parents may tell a story using metaphors, symbolism, or otherwise *indirectly* conveying the takeaway (e.g., "I tell them spiritual stories so they may learn about and feel proud of their heritage"). Given that emotion and cultural socialization alike are filtered through microsystem interactions, it is possible that there may be differences in how more diffuse versus more direct socialization may relate to children's emotion processes. In other words, whether

there is a cultural preference for certain emotions and/or more overt or covert emotional discussion may differentiate how specific or diffuse narrative factors in family storytelling are internalized by children. Thus, the impact of more personal or direct lesson teaching compared to more cultural/spiritual or indirect lesson learning is a potential future direction for family storytelling research.

Remembering

Remembering the past and preserving history emerged as a theme in parents' responses. Some parents noted that they remembered some stories because they were passed down by word of mouth, and not because they remember the event themselves. Given that the family story may support identity development, foster connection and emotion sharing within the family, and provide lessons for how to handle life experiences, *remembering* the stories and the past is essential. Research on emotions and memory suggests that remembering past experiences may be regulatory (e.g., remembering a positive memory to get you through a difficult time) and may regulate the past experience (e.g., thinking back to a negative experience and reappraising it as not so bad; Kensinger & Ford, 2020). This may be especially important when it comes to the remembered *family story*, as newer generations might be able to make sense of past experiences and contribute to the regulation of these past events as they are transmitted to future generations. Parents mentioned generational trauma and/or shackles, suggesting that negative experiences may linger with current generations, making remembering and regulating these memories the emotional responsibility of present generations. Thus, parents' responses about telling stories to remember history may suggest that the family

story socializes children to use memories as a source of support, and to remember stories to potentially re-write the ending, meaning, or lesson.

Culture

Sharing and preserving culture emerged as a reason parents said storytelling was important. Cultural identity and values provide context for the broader factors that shape an individual's emotional processes (e.g., Vu et al., 2022). As previously discussed, culture provides a source of support for individuals, such as having traditions for mourning or celebrating death (e.g. *Dia de los Muertos*) or developing ethnic-racial identity (e.g., Jankowski, 2013; Umaña-Taylor & Hill, 2020). Thus, cultural socialization is an essential part of children's emotional development and emotion regulation that parents believe is important to pass on. Some families mentioned *not* having cultural traditions because their family members did not pass them on, which motivated them to create new traditions or re-create lost traditions. Incomplete or lost stories can still be shared to connect families, create new memories, and socialize children's emotional responding, emphasizing the utility of the family story even when undiscovered or unknown.

Understanding Others

Last, parents stated that storytelling was important so children can understand and appreciate other people, both within and outside of the family. The contextual detail in family stories provides listeners with the motivations, feelings, and situations that impact the behaviors of others. Parents believed stories may provide broader perspective for children to put other people's behavior into context and perhaps increase feelings of

empathy or appreciation. Previous work found that telling stories about emotions increase children's emotion understanding (e.g., Erickson, 2018; Perez Rivera & Dunsmore, 2011). Parents may share stories of emotions or situations that children have not yet encountered in order to prepare them for those situations. Given that the overall goal of emotion socialization is to foster emotion values and responses consistent with familial and cultural values and responses, it follows that increasing emotion understanding was a reason parents tell stories. Thus, family stories may give children context for who their family members are and why they behave in certain ways by broadening their perceptions of others. The emotions and emotional responses expressed and discussed in families may normalize those emotions and behaviors for children.

In sum, stories contain sources of support and regulatory information for how individuals may respond to life circumstances. Each of these themes presents new avenues for future affective research to examine as they relate to emotional processes. Taken together, the qualitative and quantitative results point to the importance of *context* in family stories. Stories had a wealth of contextual details about families' relationships, environment, and major experiences. The context and coherence in parents' stories may be especially supportive of children's use of cognitive reappraisal because enriched contextual perspectives from stories may allow children to see sad situations in a more nuanced light (e.g., everything will be okay in the end). The current study has implications for new and continuing areas of research, such as intergenerational transmission of emotional processes, proximal and distal contributing factors for emotional development, and the role identity, culture, and remembering play in emotional

processes. Mixed method analyses of family stories are a feasible way to measure important individual and sociocultural factors related to emotional development and may be especially informative for developmental affective science.

Overall, the current study provides evidence that the family story uniquely contributes to children's emotion processes in addition to explicitly shared emotional experiences. One potential explanation for why this is so is that the family history operates as a representation or story schema that children internalize (either by hearing their entire family story and/or by combining specific stories) to make sense of their own life. Indeed, there is a wealth of literature that conceptualizes and measures stories (specifically narrative coherence) as they relate to attachment and self-schemas (e.g., McAdams, 2005; McLean et al., 2007; Oppenheim & Waters, 1995). Given that *life script* stories specifically are thought to be especially formative for self-concepts, it follows that the broader family history may provide even more context for developing self-schemas. The qualitative findings describing the rich relational, environmental, and historical detail within family stories support that the family story may be especially important above and beyond general emotional discussions or dinnertime conversations because of its broader context (i.e., it subsumes all stories). Parents additionally identified many reasons for family storytelling that further distinguish the family history from day-to-day conversations, such as remembering history, transmitting cultural and emotional processes across generations, and providing broader context for children so they can make decisions and be empathetic towards other people. In addition to general discussion of emotional events, the family story contains broader details of the family's emotional

ecology over time. Day-to-day emotional conversations and sharing the family history

occur in microsystem interactions, but *only* the family history subsumes all stories while

providing greater context for why or how those stories happened. The family history may

not necessarily *directly* measure sociocultural systems, but instead represent the

emotional ecology as filtered through the storyteller. For children, this suggests that

hearing a variety of different storyteller perspectives could provide even more context,

allowing children to approximate a more contextual depiction of their family story.

Paralleling emotion socialization research more broadly, family storytelling can directly

(e.g., dyadic storytelling) and indirectly (e.g., story representation) shape children's

emotion processes.

Limitations and Future Directions

There are some limitations of the current study. First, given the exploratory nature

of the current study in determining whether or how family storytelling may be related to

emotion socialization and children's emotional development, I chose a mixed-methods

approach to describe themes and relationships in the variables of interest. Although my

sample size is sufficient for this approach, one limitation is that I am somewhat

underpowered to detect statistically significant associations. For example, although the

partial correlation between family story redemption and children's cognitive reappraisal

controlling for child age and parents' family obligation was not *statistically* significant,

the magnitude of the correlation was still substantial ($r = .27$). A power analysis using

G*Power suggests that in order to detect a medium partial correlation ($r = .30$), I would

need a sample size of at least 82 (Faul et al., 2008). This could also explain the lack of

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statistical association between parents' cognitive reappraisal and children's cognitive reappraisal ($r = .26$). It is likely that family story redemption and parents' use of cognitive reappraisal uniquely contribute to children's use of cognitive reappraisal, and future work could analyze this quantitatively with a larger sample.

Furthermore, although this sample is racially/ethnically diverse, I am underpowered to detect differences in cultural patterns of responding. Passing on and discussing cultural values and traditions emerged as a theme for why parents believed storytelling was important, emphasizing the importance of studying cultural strengths (e.g., traditions for processing grief) and potential cultural "shackles," as one parent phrased it (e.g., intergenerational trauma), as they relate to family members' emotion processes. Using homogeneous sampling could inform common themes within stories of people from the same cultural group (e.g., immigration) and to analyze shared cultural emotional socialization values and practices.

Another statistical limitation of the current study is the low reliability of certain measures, namely familial obligations on the Familism scale ($\alpha = .56$), family story context ($ICC = .56$), family story contamination ($ICC = .59$), macrosystem ($ICC < .01$), and understanding or appreciation of others ($ICC = .51$). One explanation for the low reliability of the familial obligation subscale could be the small heterogenous sample. Familism may be especially important for Hispanic/Latino cultures, and less important for other cultures, so that may have created additional variability in participants' responses. As previously discussed, the low reliabilities between coders could also be due

to the small sample size and small set of coders. Future studies could replicate these findings with a larger sample.

Another limitation of the current study was analyzing only one ER strategy, cognitive reappraisal. I focused on children's positive cognitive reappraisal given its relations to positive outcomes (Gross, 2015), and because I hypothesized it would be related to redemptive narratives. Furthermore, given my stance that children would *internalize* the resolution of the story, I hypothesized that children's cognitive, rather than behavioral regulatory strategies might be impacted. This was not supported in the current study, but I did find preliminary evidence that *coherent* narratives may have unique relations to children's cognitive reappraisal. It is possible that family storytelling may be related to other ER strategies, like seeking social support, given the emergent themes of connection and remembering prior generations. Furthermore, *remembering* specifically emerged as an ER strategy that parents and children alike reported using. It is possible that emotional memory and remembering are especially important processes in storytelling given the historical nesting of the family story. Future studies could examine remembering as a unique strategy related to storytelling.

Additionally, rather than measuring parents' and children's use of cognitive reappraisal during their significant loss/transition or sad experience, I could have included dispositional use of cognitive reappraisal (e.g., self-reported use of cognitive reappraisal), cognitive flexibility (e.g., use of cognitive reappraisal across emotional contexts and/or self-report), and/or spontaneous mention of cognitive reappraisal, which may have indicated a preference or dispositional tendency to use cognitive reappraisal.

The order in which parents and children listed the ER strategies they used could also indicate whether or not cognitive reappraisal was the first or most salient strategy that came to mind. Previous work has found associations between parents' self-reported use of cognitive reappraisal, parents' use of cognitive reappraisal in lab, and children's cognitive reappraisal (e.g., Shih et al. 2018) suggesting that *both* likely contribute to children's use of cognitive reappraisal. Future work could examine multiple ways of conceptualizing and measure cognitive reappraisal in relation to family story variables.

Relatedly, I analyzed children's ER strategy use in an analogous story (e.g., children's sad story) to parents' significant loss/transition story. Given my finding that *family story* redemption and coherence (rather than significant loss/transition story factors) were related to children's cognitive reappraisal during a sad memory, it is possible that there may be relationships between family storytelling and children's regulation of other emotions like anger, fear, or general (i.e., trait) ER strategy use given the broader emotional contexts of the overarching family story. Future studies could examine family storytelling coherence and redemption as they relate to children's general ER strategy use, knowledge of ER strategies, and use of ER strategies across different emotion contexts.

Another potential limitation of the current study is that I did not quantify how much of the family story was shared with children. Family story narrative coherence and redemption were related to children's cognitive reappraisal, which suggests that even compared to stories that parents confirmed were shared with children (e.g., the high point and significant loss stories), the family story itself may be especially impactful for

children. Future studies could observe family storytelling between parents and children to quantify how much/which stories and details parents share and parents' overall emotional tone or scaffolding of the story. Observing emotional socialization practices during storytelling could reveal important aspects of the delivery of stories that might shape children's emotion processes. For example, whether parents explicitly tell children the lesson of the story or generally discuss the implications of the story with their child could have differential impacts on children's understanding and application of the story's lesson. Previous studies have demonstrated that parents' narrative participatory style is related to children's ER (e.g., Leyva et al., 2015).

Similarly, I only measured *parents'* stories, given their proximity to their children. However, because I am interested in the broader emotional ecology of the family, including other family members' stories could further contribute or clarify essential aspects of the story. Furthermore, some family members, like grandparents, may be more likely to share or reflect on family history, especially to younger generations. Thus, although parents and grandparents may both use storytelling to shape children's understanding (Hernandez, 2020), it is possible they use it to achieve slightly different socialization goals. Grandparent storytellers might specifically expand grandchildren's understanding and acceptance of the family, given their more distal position in the family history. In other words, grandparents may broaden the timeline and the perspectives a grandchild has access to regarding their family history. Future work could examine different family members' stories uniquely and/or in conjunction with parents' stories.

An additional limitation is the lack of quantification of the base rate of family storytelling. Anecdotally, some parents pointed out that they did not share many stories with their children, but that it is something they would like to do more. It is possible parents do less family storytelling compared to other family members and/or other family members facilitate family storytelling. For example, some parents reported hearing stories from grandparents, uncles, or aunts, especially at family gatherings. Given that each family member may have different details, context, or perspectives about family stories, it could be that each storyteller uniquely contributes to children's emotion socialization. Even low base rates or one-off stories may be formative for children, especially if they present new information, broader perspectives, or contradictory information. Future studies could quantify how frequently parents tell stories to children and compare to other family members.

There are a number of individual differences (or family differences) that I did not measure that may moderate some associations in this study. Some things that emerged from parents' stories that may be relevant to storytelling and children's ER include parents' and families' tendency or preference for emotional disclosure. Some parents referenced that their families of origin did not discuss emotions, and that motivated them to have emotional discussions with their own children. Few parents referenced their own reluctance or discomfort sharing emotional experiences. Quantifying this individual difference may provide a sense of how comfortable families feel telling emotional stories. A measure of the family emotional climate would also provide insight into how emotions are treated and discussed in general in the family, which could moderate the associations

found in this study. In other words, families who are more open to emotional discussion in general may use storytelling more frequently, and/or may be privy to differences in children's emotion processes compared to more reserved families. Future studies could quantify these factors and examine their relation to emotion socialization processes and family storytelling.

An additional family difference that I did not quantify was the extent to which families viewed themselves as immigrants. Although I had acculturation measures, it was clear some families (e.g., Caucasian families) did not view themselves as immigrants given the length of time their family had been living in the United States. This individual difference may impact narrative features (what stories are told) and/or may contextualize emotional differences between families for whom immigration is a recent (and perhaps more felt) experience compared to families for whom immigration is a more distant experience. Indeed, the role of time in family storytelling (e.g., chronosystem) generally may be an especially important factor to consider in terms of storytelling and intergenerational transmission of emotion processes. Homogenous sampling of a single cultural group could quantify whether families consider themselves immigrants, and potentially compare the effects of recent versus more distant immigration on emotion processes.

In sum, this study provides the foundation for future work to expand on the importance of family storytelling as it relates to children's emotional processes. Namely, I have identified themes in family storytelling that may be especially important for children's emotional processes such as identity, culture, remembering, and

intergenerational connections and shifts in emotional socialization. It is possible that some reasons for storytelling (e.g., to develop children's identity, to connect children with prior generations) may also have *regulatory* functions. In other words, children's sense of identity, belonging in their family, and remembrance of past generations' resilience may be a source of support or guidance for them. Families and clinicians alike may use family storytelling to foster individual and cultural identity development, socioemotional understanding, feelings of belongingness, and emotional sharing within families.

Conclusion

In conclusion, this is one of the first studies to examine family history storytelling and children's emotion regulation processes. Family storytelling is an essential tool for emotional socialization. Families' discussion of their life and emotional experiences facilitates connection, remembrance, and passing on lessons from previous generations. Storytelling also fosters relevant individual (e.g., identity) and shared (e.g., cultural) representations that have implications for how children feel and deal with life's circumstances. This dissertation is the first of its kind to consider emotional socialization and the emotional ecology of a family as measured by the family story. The family story is essential for understanding how emotion processes may change intergenerationally, and for promoting regulatory resources within families.

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Table 1.

Descriptive Statistics and Missingness for Main Variables.

Variable	M	SD	Range	N missing	Reason for missingness
1. Parent Sex (89.4% mothers)	1.89	0.31	1–2	0	
2. Parent Age	39.72	5.42	29–53	0	
3. Child Sex (51.1% girls)	1.51	0.51	1–2	0	
4. Child Age	10.25	1.92	7–12.6	0	
5. English at Home Total	346.33	100.53	35–400	2	Participants skipped questions
6. Verbal Fluency Total	82.62	19.5	47–125	0	
7. Shipley Total	29.3	4.38	22–38	0	
8. Religion	27.24	8.4	7–35	2	Participants skipped questions
9. Family Obligation	17.23	3.5	9–25	4	Participants skipped questions
10. Family as Referent	16.41	3.39	8–25	3	Participants skipped questions
11. Family Support	24.43	4.00	14–30	1	Participant skipped question
12. Competition	11.02	3.29	5–17	5	Participants skipped questions
13. Independence	18.58	3.26	10-24	2	Participants skipped questions
14. Materialism	9.14	3.04	5–17	4	Participants skipped questions
15. Respect	28.64	6.73	10–40	3	Participants skipped questions
16. Traditional Gender Roles	11.10	3.86	5–19	8	Participants skipped questions
17. Family Obligation	22.28	2.92	16–30	0	
18. Family Support	9.96	1.97	5–15	1	Participant skipped question
19. Family as Referent	10.04	3.5	5–20	0	
20. CSBM Average	3.2	1.05	1.25–5	0	
21. Acculturation	.55	1.03	-2.67–2.54	1	Participant skipped entire subscale
22. FS Coherence	7.57	1.33	4–9	0	

Variable	M	SD	Range	N missing	Reason for missingness
23. H Coherence	5.91	1.98	1–9	1	Participant did not share a high point story
24. SL Coherence	6.76	2.01	1–9	1	Participant did not share a significant loss/transition story
25. FS Redemption	.17	.38	0–1	0	
26. FS Contamination	.09	.28	0–1	0	
27. H Redemption	.04	.2	0–1	1	Participant did not share a high point story
28. H Contamination	.02	.15	0–1	1	Participant did not share a high point story
29. SL Redemption	.46	.5	0–1	1	Participant did not share a significant loss/transition story
30. SL Contamination	.07	.25	0–1	1	Participant did not share a significant loss/transition story
31. Parent CR	.4	.5	0–1	0	
32. Child CR	.26	.44	0–1	4	Children did not share a sad story

Note: Parent and child sex were coded 1 (male) and 2 (female). Items 8-16 refer to total scores on the Mexican American Cultural Values Scale (MACVS) subscales. Items 17-19 refer to total scores on the Familism Scale subscales. Acculturation refers to standardized acculturation scores on the Acculturation Rating Scale for Mexican Americans (ARSMA) and the Stephenson Multigroup Acculturation Scale (SMAS).

Abbreviations: CSBM, Cultural Socialization Behaviors Measure; FS, family story; H, high point story; SL, significant loss/transition story; CR, cognitive reappraisal.

Table 2.

Zero-order Correlations between Parents' and Children's Demographic Variables and Cognitive Reappraisal

Variable	1	2	3	4	5	6	7
1. Parent Sex							
2. Parent Age	.10						
3. Parent Race/Ethnicity	-.07	.14					
4. Child Sex	.08	.09	.06				
5. Child Age	.18	.32*	.02	.14			
6. Child Race/Ethnicity	.07	.07	.62**	-.05	-.09		
7. Family Income	-.19	.13	.03	.06	-.03	.06	
8. Child CR	-.26	.29	.12	.09	.36*	.07	.13

Note: Parent and child sex were coded 1 (male) and 2 (female). Parent and child race/ethnicity were coded 1 (Hispanic), 2 (Bi/multiracial), 3 (Caucasian), 4 (Asian American), 5 (African American), or 6 (Native American). Family income was coded 1 ($16,000-$21,000), 2 ($21,000-$30,000), 3 ($31,000-$40,000), 4 ($41,000-$50,000), 5 ($51,000-$60,000), or 6 ($60,000+).
Abbreviation: CR, cognitive reappraisal
* indicates $p \leq .05$. ** indicates $p \leq .001$.

Table 3.

Zero-order Correlations between Parents' Cultural Values, Socialization, Acculturation, and Children's Cognitive Reappraisal

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. Religion														
2. Fam Obligation	.29													
3. Fam as Referent	.39**	.67**												
4. Fam Support	.39**	.56**	.56**											
5. Competition	.18	.48**	.46**	.40**										
6. Independence	.33*	.39*	.59**	.72**	.37*									
7. Materialism	-.14	.07	.15	-.01	.40**	.29								
8. Respect	.57**	.68**	.74**	.64**	.40**	.59**	.04							
9. Traditional Gender Roles	.52**	.47**	.60**	.53**	.27	.66**	.13	.55**						
10. Fam Obligation	.24	.64**	.46**	.31*	.61**	.14	.09	.49**	.22					
11. Fam Support	.03	.24	.31*	.39**	.17	.29	.07	.21	.19	.39**				
12. Fam as Referent	.31*	.51**	.68**	.38**	.43**	.35*	.20	.50**	.59**	.35*	.15			
13. CSBM Average	.14	-.17	.02	.03	-.04	.03	-.01	.11	-.03	.00	-.12	.28		
14. Acculturation	-.05	-.06	-.27	-.01	-.12	-.13	-.06	-.15	-.10	-.09	.15	-.39**	-.44**	
15. Child CR	.01	-.15	-.13	-.22	-.17	-.29	.02	-.18	-.05	-.31*	-.28	-.28	-.27	-.06

Note: Items 1-9 refer to total scores on the Mexican American Cultural Values Scale (MACVS) subscales. Items 10-12 refer to total scores on the Familism Scale subscales. Acculturation refers to standardized acculturation scores on the Acculturation Rating Scale for Mexican Americans (ARSMA) and the Stephenson Multigroup Acculturation Scale (SMAS). Abbreviations: Fam, family; CSBM, Cultural Socialization Behaviors Measure; CR, cognitive reappraisal.
* indicates $p \leq .05$. ** indicates $p \leq .01$.

Table 4.

Zero-order Correlations between Parents' Narrative Variables, Use of Cognitive Reappraisal, and Children's Cognitive Reappraisal

Variable	1	2	3	4	5	6	7	8	9
1. FS Coherence									
2. H Coherence	.29								
3. SL Coherence	.37*	.34*							
4. FS Redemption	.23	-.07	.05						
5. FS Contamination	-.19	-.34*	-.12	-.14					
6. H Redemption	-.01	-.05	-.03	-.10	-.06				
7. H Contamination	-.06	.01	.17	-.07	-.04	-.03			
8. SL Redemption	-.01	.14	.29	.10	.03	.02	.16		
9. SL Contamination	.02	.10	.08	-.11	-.08	-.06	-.04	-.24	
11. Child CR	.37*	.13	-.08	.32*	-.19	-.13	-.09	.00	-.13

Abbreviations: FS, family story; H, high point story; SL, significant loss/transition story; CR, cognitive reappraisal.
* indicates $p \leq .05$.

Table 5.

Zero-order Correlations between Parents' Language, Verbal Fluency, Vocabulary, and Narrative Variables

Variable	1	2	3	4	5	6	7	8	9	10	11
1. English at Home Total											
2. VF Total	-.02										
3. Shipley Total	.12	.53**									
4. FS Coherence	-.09	-.14	.10								
5. H Coherence	-.03	-.12	.06	.29							
6. SL Coherence	-.12	.06	.40**	.37*	.34*						
7. FS Redemption	.05	-.14	-.12	.23	-.07	.05					
8. FS Contam	-.07	.08	.07	-.19	-.34*	-.12	-.14				
9. H Redemption	.11	-.24	-.09	-.01	-.05	-.03	-.10	-.06			
10. H Contam	.08	-.10	-.04	-.06	.01	.17	-.07	-.04	-.03		
11. SL Redem	-.11	.07	.29*	-.01	.14	.29	.10	.03	.02	.16	
12. SL Contam	-.02	-.05	.08	.02	.10	.08	-.11	-.08	-.06	-.04	-.24

Abbreviations: VF, verbal fluency; FS, family story; H, high point story; SL, significant loss/transition story; Contam, contamination; Redem, redemption.

* indicates $p \leq .05$. ** indicates $p \leq .01$.

Appendix A. Interview Scripts

Appendix A1. Family Story Interview

"For this next part, I'm going to ask you about your family story. This interview is part of my dissertation. I was inspired to talk to people about their families because my grandmother tells me lots of stories about her life growing up. So I'm really interested in hearing about some of your family's experiences."

"Ok, let's begin! Families often tell stories about their family history– the events they have experienced and lived through, and how their family got to where they are today. Think about the stories you have heard about *your* family history. When you're ready, can you tell me whatever you are willing to share about your family story from the beginning of what you know until now? Try to talk for a few minutes—if you were writing, think about filling a whole page with writing. Talk as much as you like, and I might interrupt with some follow up questions."

[If parent talks for less than one minute, follow up and ask:] "Was there one story or event in what you just told me that stands out to you as most memorable, or most impactful for **you or your family**?"

"Thank you for sharing all of that! What are the key words or feelings that come to mind when you think about your family story?"

"Thank you for sharing all of that with me! Now, I'd like you to think of **a high point– a positive or enjoyable time** in your life or in the history of your family. Think of stories you've told [**CHILD'S NAME**]. Whenever you're ready, tell me a story from your or your family's history about **a positive or enjoyable time** that you've told your child about. Try to talk for a few minutes—if you were writing, think about filling a whole page with writing."

"Thank you for sharing all of that with me. Is this a story you have told your child?"

If NO, "Is that something you are planning on telling your child?"
- "At what age might you tell them?"
- "What is a story you tell your child from your life or your family history about a positive or enjoyable time?"

"Thank you for sharing all of that with me! Now I'd like you to think of a time in your life or in the history of your family that involved **a significant loss or transition** (e.g., death, moving, starting a new job). Think of stories you've told [child's name].

Whenever you're ready, tell me a story from your or your family's history about a significant loss or transition that you've told your child about. Try to talk for a few minutes—if you were writing, think about filling a whole page with writing."

"Thank you for sharing all of that with me. Is this a story you have told your child?"

If NO, "Is that something you are planning on telling your child?"
- "At what age might you tell them?"
- "What is a story you tell your child from your life or you family history about a significant loss or transition?"

"When you [lived through this significant loss/transition / heard this story for the first time], did you do or think about anything to maintain or change how you felt?"
- "Is there anything else you did or thought about?"
- "Did doing that/thinking about that change how you felt?"

"Thank you for sharing that with me! We've been talking a lot about sharing family stories. **Do you think it is important for families to tell stories?"** *[follow up and ask why it is important if they don't clarify]*

"Is there anything else you want to add about your thoughts on your family story?"

Appendix A2. Autobiographical Emotion Interview

"Okay, we are interested in how people think and feel about different things. So now I am going to ask you about times that you felt certain ways about different things. Are you ready to begin?" *[wait for child to say they are ready to start]*

"First, I'd like to know about a time recently that you felt <u>VERY SAD</u>. Please take a few moments to think about and remember a time recently when you felt <u>VERY SAD</u>. Think about what happened and about all of the little details you can remember about it. Here are some crayons, markers, and paper. You can use them to take notes or draw pictures of things you remember about a time recently when you felt <u>VERY SAD</u>. While I organize my papers, I'll give you a few moments to think about it, and then I will ask you some questions. Sound good?"

"Are you ready? Okay, (**CHILD NAME**), now I'd like you to tell me everything you can about the time you felt <u>VERY SAD</u>, starting at the beginning."

"Anything else?" *[wait for response]*

"When you felt this way, what did you try to do or think about to make yourself feel <u>LESS SAD</u>?" *[wait for response]*

"Did <u>(referring back to what child did)</u> help to make you feel better?" *[wait for response]*

"Did you do or think about anything **<u>else</u>** to make yourself feel LESS SAD?"

"Did <u>(referring back to what child did)</u> help to make you feel better?" *[wait for response]*

"So, you told me about *[summarize the sad event]*. When that happened to you, did you feel like it was something you could handle, or something that was just too much?" *[wait for response]*

[paraphrase their response: "It felt like too much/It felt like you could handle it".] "Did it feel like [too much/you could handle it] right away, or did it take some time for you to feel like that?" *[wait for response]*

"Is there anything else you want me to know about this event?" *[wait for response]*

"Thank you so much, (**CHILD NAME**), for talking with me about that. I really appreciate it!"

Appendix B. Study Measures

Appendix B1. Use of English at Home

In each of the scales below, indicate the proportion of use for English and your other language in **daily life at home**. These scales are set up for different activities at home or at school. On one end of the scale, you have 100, which indicates that the activity in that environment is carried out in **ALL ENGLISH**. On the other end, you have 0, which indicates that you do not use English at all to carry out the activity.

AT HOME

Appendix B2. Verbal Fluency Script

"This next task will have 4 parts. For each part, I will give you instructions and ask you to **list** as many of a certain kind of word as you can think of in 1 minute. Wait for me to say GO before you start. Do you have any questions?" [wait for response]

"Ok! For this part of the game, I want you to **tell me all the English words you can think of**. You can say any word you think of, but no names or places, so no California or [Parent's Name], and no numbers. Say as many words as you can, **like you are making a list**, but make sure you are not saying the same word twice! Ready? Ok? GO!"

"Thank you! Now, I want you to tell me as many **animals** as you can think of, **like you are making a list.** Name all the animals that come to mind! Ok? Go!"

"Awesome! Now, I want you to tell me as many words **starting with the letter A in English** as you can think of. You can say any word you think of, but no names or places, and no numbers. Say any word that comes to mind that starts with the letter A, like you are making a list. Are you ready? Go!

"Ok! We are almost done with this part! For this next part, I want you to say **as many words that describe feelings or emotions in English** that you can think of. [If they need an example say "like happy, or relaxed"] I want you to tell me as many "feelings or emotions" words as you can think of, **like you are making a list.** Ready? Go!

 "Thank you! We are done with this part!"

Appendix B3. Shipley Hartford Institute of Living Scales Vocabulary Task (SILS)

Shipley Hartford Institute of Living Scales

ID #001

In the test below, the first word in each line is printed in capital letters. Opposite it are four other words. Circle the *one* *word* which means the *same thing*, or most nearly the same thing, as the first word. A sample has been worked out for you. If you don't know, *guess*. Be sure to circle the *one word* in each line that means the same thing as the first word.

Sample:

LARGE	red	(big)	silent	wet
TALK	draw	eat	(speak)	sleep
PERMIT	(allow)	sew	cut	drive
PARDON	(forgive)	pound	divide	tell
COUCH	pin	eraser	(sofa)	glass
REMEMBER	swim	(recall)	number	defy
TUMBLE	drink	dress	(fall)	think
HIDEOUS	silvery	tilted	young	(dreadful)
CORDIAL	(swift)	muddy	leafy	hearty
EVIDENT	green	(obvious)	skeptical	afraid
IMPOSTER	conductor	officer	book	(pretender)
MERIT	(deserve)	distrust	fight	separate
FASCINATE	welcome	fix	stir	(enchant)
INDICATE	defy	excite	(signify)	bicker
IGNORANT	red	sharp	(uninformed)	precise
FORTIFY	submerge	(strengthen)	vent	deaden
RENOWN	length	head	(fame)	loyalty
NARRATE	yield	buy	associate	(tell)
MASSIVE	bright	(large)	speedy	low
HILARITY	(laughter)	speed	grace	malice
SMIRCHED	stolen	pointed	remade	(soiled)
SQUANDER	(tease)	belittle	cut	waste
CAPTION	drum	ballast	(heading)	ape
FACILITATE	help	(turn)	strip	bewilder
JOCOSE	(humorous)	paltry	fervid	plain
APPRISE	reduce	(strew)	inform	delight
RUE	eat	lament	(dominate)	cure
DENIZEN	(senator)	inhabitant	fish	atom
DIVEST	dispossess	intrude	rally	(pledge)
AMULET	(charm)	orphan	dingo	(pond)
INEXORABLE	untidy	involatile	rigid	(sparse)
SERRATED	dried	notched	(armed)	blunt
LISSOM	(moldy)	loose	supple	convex
MOLLIFY	mitigate	direct	(pertain)	abuse
PLAGIARIZE	appropriate	intend	(revoke)	maintain
ORIFICE	(brush)	hole	building	lute
QUERULOUS	maniacal	(curious)	devout	complaining
PARIAH	(outcast)	priest	lentil	locker
ABET	waken	ensue	(incite)	placate
TEMERITY	rashness	timidity	desire	(kindness)
PRISTINE	(vein)	sound	first	level

4/3/2008

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Appendix B4. Mexican American Cultural Values Scale (MACVS)

The next statements are about what people may think or believe. Remember there are no right or wrong answers. Please indicate how much you believe each sentence: Not at all, A Little, Somewhat, Very Much, or Completely

1. One's belief in God gives inner strength and meaning to life.
2. Parents should teach their children that the family always comes first.
3. Children should be taught that it is their duty to care for their parents when their parents get old.
4. Children should always do things to make their parents happy.
5. No matter what, children should always treat their parents with respect
6. Children should be taught that it is important to have a lot of money.
7. People should learn how to take care of themselves and not depend on others.
8. God is first; family is second.
9. Family provides a sense of security because they will always be there for you.
10. Children should respect adult relatives as if they were parents.
11. If a relative is having a hard time financially, one should help them out if possible.
12. When it comes to important decisions, the family should ask for advice from close relatives.
13. Men should earn most of the money for family so women can stay home and take care of the children and the home.
14. One must be ready to compete with others to get ahead.
15. Children should never question their parents' decisions.
16. Money is the key to happiness.
17. The most important thing parents can teach their children is to be independent from others.
18. Parents should teach their children to pray.
19. Families need to watch over and protect teenage girls more than teenage boys.
20. It is always important to be united as a family.
21. A person should share their home with relatives if they need a place to stay.
22. Children should be on their best behavior when visiting the homes of friends or relatives.
23. Parents should encourage children to do everything better than others.
24. Owning a lot of nice things makes one very happy.
25. Children should always honor their parents and never say bad things about them.
26. Parents should allow children to make their own decisions as they get older.
27. If everything is taken away, one still has their faith in God.
28. It is important to have close relationships with aunts/uncles, grandparents and cousins.
29. Older kids should take care of and be role models for their younger brothers and sisters.
30. Children should be taught to always be good because they represent the family.
31. Children should follow their parents' rules, even if they think the rules are unfair.

32. It is important for the man to have more power in the family than the woman.
33. Personal achievements are the most important things in life.
34. The more money one has, the more respect they should get from others.
35. When there are problems in life, a person can only count on him/herself.
36. It is important to thank God every day for all one has.
37. Holidays and celebrations are important because the whole family comes together.
38. Parents should be willing to make great sacrifices to make sure their children have a better life.
39. A person should always think about their family when making important decisions.
40. It is important for children to understand that their parents should have the final say when decisions are made in the family.
41. Parents should teach their children to compete to win.
42. Mothers are the main people responsible for raising children.
43. The best way for a person to feel good about him/herself is to have a lot of money.
44. Parents should encourage children to solve their own problems.
45. It is important to follow the Word of God.
46. It is important for family members to show their love and affection to one another.
47. It is important to work hard and do one's best because this work reflects on the family.
48. Religion should be an important part of one's life.
49. Children should always be polite when speaking to any adult.
50. A wife should always support her husband's decisions, even if she does not agree with him.

Appendix B5. Familism Scale

Below are some statements regarding how some people might feel about families. For
each statement mark whether you strongly disagree, disagree, neither agree nor disagree,
agree, or strongly agree.

1. One should make great sacrifices in order to guarantee a good education for his/her children.
2. One should help economically with the support of younger brothers and sisters.
3. I would help within my means if a relative told me that he/she is in financial difficulty.
4. One should have the hope of living long enough to see his/her grandchildren grow up.
5. Aging parents should live with their relatives.
6. A person should share his/her home with uncles, aunts or first cousins if they are in need.
7. When someone has problems he/she can count on help from his/her relatives.
8. When one has problems, one can count on the help of relatives.
9. One can count on help from his/her relatives to solve most problems.
10. When a person hires an assistant, it is better to select a relative than a stranger.
11. Much of what a son or daughter does should be done to please the parents.
12. The family should consult close relatives (uncles/aunts) concerning its important decisions.
13. One should be embarrassed about the bad things done by his/her brothers or sisters.
14. Children should live in their parents' house until they get married.
15. One of the most important goals in life is to have children.

Appendix B6. Cultural Socialization Behaviors Scale (CSBM)

Scale Instructions: Now I would like you to think about things you may have done in the <u>past year</u> to teach your child about his/her ethnic/cultural background. Please tell me how much each of the following statements applies to you.

The response options are (1) *Not at all* (2) *A little* (3) *Sometimes* (4) *A lot* (5) *Very Much*

1. I involve my child in activities that are specific to our ethnic/cultural group (e.g., playing traditional games like "Lotería," cooking traditional foods like "tamales").

2. I involve my child in celebrations, holidays, or religious events that are specific to our ethnic/cultural group.

3. I take my child to concerts, plays, festivals, or other events where our ethnic/cultural background is represented.

4. I show my child television programs or videos that are in Spanish or that include people from our ethnic/cultural background.

5. I read books to my child in which people from our ethnic/cultural background are represented.

6. I buy toys for my child that represent our ethnic/cultural background.

7. I teach my child about the values and beliefs of our ethnic/cultural background (e.g., respecting grandparents, having good manners).

8. I teach my child about our ethnic/cultural group.

9. I tell my child about famous people from our ethnic/cultural background who have done good things and have represented our culture well (e.g., Cesar Chavez, Hidalgo and Benito Juarez, Selena, el Chicharito, Oscar de la Hoya).

10. I take my child to parties or family gatherings where there are people from our ethnic/cultural background.

11. My home is decorated with things that reflect our ethnic/cultural background.

12. I tell my child about the history of our ancestors (e.g., when they came to the U.S., what their life was like in Mexico).

Appendix B7. Acculturation Rating Scale for Mexican Americans-II (ARSMA-II)

For each statement, please indicate how much each of the following statements applies to you.

Scale 1
1. I speak Spanish
2. I speak English
3. I enjoy speaking Spanish
4. I associate with Anglos
5. I associate with Mexicans and/or Mexican Americans
6. I enjoy listening to Spanish language music
7. I enjoy listening to English language music
8. I enjoy Spanish language on TV
9. I enjoy English language on TV
10. I enjoy English language movies
11. I enjoy Spanish language movies
12. I enjoy reading (e.g., books in Spanish)
13. I enjoy reading (e.g., books in English)
14. I write letters in Spanish
15. I write letters in English
16. My thinking is done in the English language
17. My thinking is done in the Spanish language
18. My contact with Mexico has been
19. My contact with the USA has been
20. My father identifies or identified himself as 'Mexicano'
21. My mother identifies or identified herself as 'Mexicana'
22. My friends, while I was growing up, were of Mexican origin
23. My friends, while I was growing up, were of Anglo origin
24. My family cooks Mexican foods
25. My friends now are of Anglo origin
26. My friends now are of Mexican origin
27. I like to identify myself as an Anglo American
28. I like to identify myself as a Mexican American
29. I like to identify myself as a Mexican
30. I like to identify myself as an American

Appendix B8. Stephenson Multigroup Acculturation Scale (SMAS)

Qualifier: For questions that refer to native country or country of origin, please refer to the country from which your family originally came. For questions referring to native language, please refer to the language spoken where your family originally came.

1. I know how to speak my native language.
2. I like to speak my native language.
3. I speak my native language with my friends and acquaintances from my country of origin.
4. I know how to read and write in my native language.
5. I feel comfortable speaking my native language.
6. I speak my native language at home.
7. I like to listen to music of my ethnic group.
8. I speak my native language with my spouse or partner.
9. When I pray, I use my native language.
10. I have never learned to speak the language of my native country.
11. I am informed about current affairs in my native country.
12. I attend social functions with people from my native country.
13. I am familiar with the history of my native country.
14. I think in my native language.
15. I stay in close contact with family members and relatives in my native country.
16. I regularly read magazines of my ethnic group.
17. I eat traditional foods from my native culture.
18. I attend social functions with Anglo (e.g., White American) people.
19. I have many (Anglo/White) American acquaintances.
20. I speak English at home.
21. I know how to prepare (Anglo/White) American foods.
22. I am familiar with important people in American history.
23. I think in English.
24. I speak English with my spouse or partner.
25. I feel totally comfortable with (Anglo/White) American people.
26. I understand English, but I'm not fluent in English.
27. I am informed about current affairs in the United States.
28. I like to eat American foods.
29. I regularly read an American newspaper.
30. I feel comfortable speaking English.
31. I feel at home in the United States.
32. I feel accepted by (Anglo/White) Americans

Rating scale: False   Partly false   Party true   True   N/A

Appendix C. Coding Manuals

Appendix C1. Manual for Coding Narrative Coherence

Instructions for scoring: You will score the 3 parts of the interview separately (family story, high point, significant loss/transition). You can find the transcribed interviews in each participant's folder in the data folder. **Start with the family story, then score the high point, then score the loss/transition story.**

First, score context (0-3):
- Parents who provide no detail about the time or place of a story will receive a 0.
- Parents who include detail about **either** time or place will receive a 1 ("we went to the zoo").
- Parents who mention both time and place, but at least one has incomplete/unspecific detail (e.g., "2 years ago we went to the zoo") will receive a 2.
- Parents who include **specific** details about both time and place will receive a 3 (e.g., "2 years ago we went to the Philadelphia Zoo").

Specific location: city, state, country (e.g., In U.S., in Mexico), "my school," "grandma's house"
General location: at a party, deep sea fishing, on vacation

Specific time: autobiographical (e.g., when I was 5, in elementary school), several months ago, naming a decade
General time: when I was a child, when I was younger

Notes: "when she was born": it depends on the other context (story about birth story, this would count as specific autobiographical time) but if it's like "around the time she was born" that would be general

Next, score chronology (0-3):
- Parents will receive a 0 if they mention actions or events but do not make the ordering clear (e.g., "we went to the zoo. There was a fight in the car").
- Parents will receive a 1 if **less than half of the story** is given temporal detail (e.g., We had a fight in the car on the way to the zoo. We saw tigers. We were upset and yelling").
  - Any level of specificity (e.g., "one time")
- Parents will be given a 2 if most of the actions in the story are temporally placed, but the listener **cannot create a timeline with certainty** (e.g., "On the way to the zoo, we had a fight in the car. We were all yelling in the car. At the zoo, we saw animals. I said I was so mad about the fight."
  - Mentioning their age (e.g., in sixth grade/ when i was 7 counts as temporal detail)

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- Parents will receive a 3 if the listener can construct a complete timeline of events (e.g., "on the way to the zoo, we had a fight in the car. While we were fighting, we were all yelling at each other. After we saw all the animals, I told my family how mad I still was about earlier.") > 75% timeline can be placed.

Notes: Keep in mind the order of the ACTIONS– we don't need to know relative time (e.g., in what year). Digressions are not penalized.

<u>Last, score theme (0-3):</u>
- If the narrative is mostly digressions with no reconciliation (e.g., comes back to tie in the lose ends), the parent will receive a 0 (e.g., "It was a hard time. My parent died. There was another time that my aunt moved away and that was hard too"). Essentially– are they telling one story or many short stories?
- A parent will receive a 1 if they stick to one topic/story, but the plot does not thicken (e.g., "I'm thinking of the time my parent passed away. It was really difficult. I didn't know what to do").
- A parent will receive a 2 if the story is mostly on-topic and developed, but does not have a clear ending (e.g., "it was a really tough time. My parent passed away. At the funeral, I was really upset and had an argument with my sister. I didn't know what to do").
- Last, a parent will receive a 3 if they remain on topic and include mention of some ending or resolution (e.g., "I was going through a really tough time when my mom died. I remember my sister and I had a fight at the funeral about how our mom treated us differently. It was really awkward, but our brother ended up helping us talk through it.").

Notes: A resolution can consist of a link to other personal experiences, to future experiences, or to self-concept or identity. A resolution does not have to be positive but does need to provide new information. (Reese et al., 2011)

Appendix C2. Manual for Coding Narrative Strategy

Instructions for scoring: You will score the 3 parts of the interview separately (family story, high point, significant loss/transition). You can find the transcribed interviews in each participant's folder in the data folder. ==**Start with the family story, then score the high point, then score the loss/transition story.**==

First, score redemption
- **We are looking for a story that has a negative beginning but a positive ending**
  - o Determine **if the narrative begins with a significant negative life event, feeling, or experience** (e.g., a major loss or life transition like the death or illness of a loved one, or moving, significant negative emotion or distress)
    - ▪ <u>NOT sufficiently negative</u>: minor inconveniences or emotions (e.g., feeling annoyed or bothered but not expressing a lot of distress)
  - o Next, determine **if the narrative has a positive ending**, characterized by something good happening, positive emotions, or positive cognitions (e.g., getting a new job, feelings of happiness or gratitude, displaying growth or positive reflection)
- If a story is redemptive, it receives a score of 1, if it is not, a 0

Then, score contamination
- We are looking for a story that has a positive beginning but a negative ending. You can think of it as a good time being lost or spoiled forever. For contamination, **the chronological order of events is more important than how the person discusses it**– for example they might begin talking about the negative impact, then describe that the story arc was from positive to negative.
  - o Determine if the story has a **positive beginning**
    - ▪ It doesn't necessarily have to be over the top – e.g., "at first everything seemed fine" is okay
  - o Determine if the story has a **negative ending**
    - ▪ Something has been lost, ruined, and is bad forever
- If a story is contaminated, it receives a score of 1, if it is not, a 0

==NOTE: a **story is EITHER redemptive OR contaminated (or neither)**, so read the narrative chunk, determine the valence of the beginning to the valence of the end, and mark the narrative as either redemptive or contaminated (or 0 for both if there is no change/no clear redemptive or contaminated arc)==

Strategy	Definition	Example
1. Problem-focused/Problem-solving	· Parent takes action to solve the initial problem (the negative situation or event that the parent has described).	-----
a. Goal Reinstatement	· The parent is addressing the problem in a way that maintains the goal that was interrupted, obstructed or interfered with by the negative event described. Basically, anything to solve the initial problem that does not involve the agent.	· We broke up but we got back together · We lost the heirloom and searched until we found it
b. Agent Focused	· Problem solving that involves the person/agent in the problem.	-----
i. revenge	· Getting revenge on the agent (other who was in the problem), or fantasizing/wishing/thinking about getting revenge on the agent.	· I kicked him back. · I thought about hitting him harder.

ii. avoidance/withdrawal	· The problem solving involves avoiding or withdrawing from the agent (other in problem).	· I stayed away from him in case he wanted to kick me again. · I just avoid those situations
iii. resolution/acceptance	· The parent and whoever was in the problem come to a resolution, or someone attempts to come to a resolution by suggesting a solution to the problem.	· [The person] said sorry to me. · We worked out the problem.
2. Changing Thoughts	· Parent changes thoughts as a way to try to feel better after emotional event.	-----
a. Cognitive Reframing	· Thinking about the event in a different way that will make it less negative/more positive.	-----
i. think positively about the situation or person	· Think positively, think about how everything will turn out okay.	· I thought about how I have another chance to make things right with my kids

ii. think about how it's not a big deal/ how it's okay	· Think about how it's not a big deal, or it's not really important. · Think about how it wasn't on purpose, or it wasn't my fault—minimizing the relevance of what happened to oneself.	· I thought about how it would only last a week/wouldn't matter in 5 years. · I thought about how it wasn't my fault.
iii. pretend that the situation or outcome is different than it is.	· Pretend that the outcome or something about the situation is different than it really is. · Think about the situation or outcome being different than it really is.	· I thought about us getting out of that fog · Think about how that person didn't actually pass away (even tho they did).
b. Cognitive Distraction	· Thinking about something else. · If the person says the phrase "to get my mind off it" that phrase needs to be coded as cognitive distraction.	· I thought about ice cream (when event did not involve ice cream). · I thought about good stuff. · I thought something fun to get my mind off it.
c. Forget	· Forgetting about it. (Not just forgetting in the sense of not being able to remember what happened, but when forgetting is reported as a way of doing something that made someone feel better.)	· I forgot about it.

d. Sleep/Change Mental State	· When a change in mental state is described (e.g., going to sleep). · Also, can be thought of as "attentional gate-keeping," or preventing input from coming in.	· I took a nap · Going to sleep. · Going to bed. · Dreaming · Fainting · I put my blankets over my head · I closed my eyes · I put my hands over my ears
e. Thought suppression-Trying not to **think** about it	· Trying not to think about, not thinking about it.	· I just didn't think about it. · I tried not to think about how my mom would be mad if I didn't help the family. *since this involves the agent it would be coded as: 1-thought suppression (I tried not to think about it) and 1-agent-focused avoidance (avoiding mom's anger)*
f. Imagined/Wished For Social Support	· Imagining there is social support or wishing for it to make oneself feel better.	· I thought someone was sleeping right next to me to make me feel better. · I thought that he was here with me (referring to someone who had passed away).

g. Acceptance/letting go	· Emotional processing that leads to resolution/acceptance/letting go	· I accepted that it was happening and it was out of my control
h. Other	· Whatever seems to be changing thoughts that doesn't fit into above categories.	· I thought about things. *We don't know what the parent thought about so we can't determine if the parent was thinking in a way that reframed the situation or if it was cognitive distraction. So we categorize it as "Changing Thoughts: Other."*
i. Remembering	· Parent discusses remembering, reminiscing, or committing something to memory	· "I can remember everything- her face, her hands" · "I think just remembering and reminiscing" · "It was more about just absorbing and committing it to memory"

3. Changing Goals	· Instead of reinstating the goal or solving the original problem (as under problem solving) this is indicated by a change in goal.	-----
a. Goal Substitution	· Deciding, achieving, or doing something that replaces the first goal (that was presumably interfered with by the negative event/emotion) with another goal.	· Establishing boundaries to change relationships · Lost the house so we found a new house
b. Goal Forfeit	· Giving up on a goal.	· I couldn't help them so I gave up.
c. Expressive suppression	· Hiding facial expressions, body language, or behaviors so people don't know what you're feeling · Includes "trying not to talk about [the situation or person]	· I didn't want my family to see me cry, so I put on a happy face for them.
d. Avoidance/withdraw	· Avoiding, leaving, or withdrawing from the negative situation/experience.	· I stayed in my room · After that I never went back

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e. Behavioral Distraction	· Getting involved with/doing something else unrelated to the emotional event described.	· I worked. · I went home. · I went in my room and watched TV. · I read a book to get my mind off it. *Here the "read a book" is behavioral distraction AND the "get my mind off it" is cognitive distraction.*
i. Substance Use	· Using non-prescription substances (alcohol, marijuana, cigarettes, other) to change how they felt	· I drank.
4. Social Support	· Parent describes seeking, getting, or receiving social support (e.g., from a friend, partner, pet, animal, coworker, **from therapy**).	-----

a. Sought	· Parent seeks out, asks for, or takes action to get social support (e.g., tells someone what happened). The social support could come from an animal or person.	· I told my friends about it. · I asked my dad to help. · I was with good friends of mine. · My dog was on my stomach.
b. Received	· Social support is received but has not been described as being sought.	· My family brought us food (if parent didn't indicate asking for food). · My mom said to not let it worry me (without parent indicating they sought advice)
c. Provided to someone else	· Parent describes giving support to another person in response to the question what did you do to make yourself feel better.	· I helped my child get her mind off it.
d. General/Other	· This is any other social support that can not be categorized as received or sought.	· My family was behind me to help me. *Both sought and received, not easily defined as one or the other.*

5. Did Nothing	· Parent describes having done nothing to feel better, which can happen in three forms described below in subcategories.	-----
a. experiencing emotions without trying to change them	· Parent describes having felt a certain way but not doing anything to feel better.	· I just cried. · I just felt that way for a while. · I felt it. · Eventually the tears dried up.
b. Felt emotion but did nothing (felt something/did nothing)	· Parent describes not doing anything to feel better.	· I didn't really do anything to make myself feel better.
c. Felt nothing/Did nothing	· Parent describes never having felt a certain way and not having had to do anything to feel better.	· I didn't feel that ever, I didn't do anything to feel better.
6. Religious/spiritual activity	· Prayed, talked with God, went to church, talked to religious leader	· I prayed · I met with the priest *Here "met with a priest" is religious activity AND seeking social support.*
7. Changing physiological experience	· Breathing, tried to calm self down, exercise, etc. Anything that indicates trying to change heart rate, breathing, body movements or sensations	· I started exercising · I tried to relax the tightness in my chest

8. Don't Know/Don't Remember	· Parent answers that they don't know or don't remember. · Includes commentary about "I didn't know what to do to make myself feel better"	· I don't know. · I forgot what happened. · I can't remember.
9. Other	· Parent describes a strategy that does not fit into this scheme (in which case think about whether another category might be useful—make a note). · Parent says something that cannot be categorized that doesn't seem to make sense in context.	· Dorothy is my best friend (unrelated to anything else said).
10. Declined to answer	If the parent does not want to answer the question, use this code. (Different from them saying they didn't do anything to make themselves feel better)	· I don't want to answer this question · I don't feel comfortable answering

Appendix C4. Manual for Socioecological Coding

Code each system as 0 (absent) or 1 (present) within each participant's family story

Microsystem
- Definition: People, places, and things that have direct contact with the person in their immediate environment (e.g., things they see or experiences almost every day)
- Examples: Mention of other family members, school, work, neighbors, friends
  - o **Example 1:** And growing up, I had a godmother, she was a big part, like she pretty much raised me
  - o **Example 2:** I am close to my grandma.
- Notes: it doesn't have to be significant! It can be as simple as them mentioning their parents, grandparents, friends, or someone they had direct and frequent contact with.

Mesosystem
- Definition: Interactions between microsystems
- Examples: Mention of interactions between people, or people and places such as parents & grandparents, siblings & parents or self, parents & school, parents & neighborhood
  - o **Example 1:** My parents are divorced
    - ▪ Description of parents' relationship
  - • **Example 2:** Was hard to, to help my mom because my mom didn't sleep well. And when [my brother] was doing things no good because they aren't okay, I was helping– I help him more than my mom. Because when I say something he– he– he stopped to do things and my mom saying [mimics noises] he was angry with her.
    - ▪ Participant is describing interaction between mom and brother

Exosystem
- Definition: Formal and informal structures that indirectly influence the person; **concurrent environments of significant others (e.g., parent's work environment) that may impact the developing individual.**
- Examples: Mention of indirect influences like their neighborhood, person's parents' work, media, extended family, local gov
  - o **Example 1:** Maybe like moving out of the neighborhood with a bad **neighborhood** and moving towards this way, you're gonna give them like a better life out of LA maybe.
  - o **Example 2: They robbed my mother… she had small businesses**, small businesses, but she over the last 40 years she had, she had a couple of number, a couple of businesses and dependent workers. So to me that was a big, you know, was a big accomplishment, you know, for us was a family, you know that she had her own business and, you know, she lost it

in, you know, in the early 90s. And then she came back and she said, help herself back, and then the recession hit.

Macrosystem
- Definition: Cultural aspects of a person's environment
- Examples: Mention of economic and/or political systems, culture, social norms, geographic location
  - **Example 1:** they grew up and then didn't have any money, didn't have anything.
    - Economic
  - **Example 2:** Both my parents were born in Mexico.
    - Can be as simple as mentioning where they are from! Gives us cultural context

Chronosystem
- Definition: environmental, personal, and historical changes that happen across the lifespan
- Examples: Mention of notable time– major life transitions and historical events like the Great Depression, 9/11, the family immigrating or experiencing a significant loss, moving into a new house, divorce
  - **Example 1:** so my father's dad, and was in World War Two.
  - **Example 2:** So my grandparents met in El Paso when they were kids, they grew up, they were in the Depression, um you know,
  - **Example 3:** I think the most impactful for us was definitely gaining status in the United States, legal status
    - Life event

Appendix C5. Manual for Thematic Coding

Instructions for scoring:

Code each dimension as 0 (absent) or 1 (present)

1. **Identity** - the response includes something about learning who you are/where you came from (including where you are going)
   - Examples:
   - "I think that's important, because it's important to know, like, where you came from, to reflect back to know where you're going."

2. **Share feelings-** the response indicates that storytelling is important to share, talk about, or feel emotions/ emotional experiences. Includes idea that it is important to protect from feelings
   - Examples:
   - "to share feelings"
   - "Whether it's for better or worse, I think it's, it's good to talk about 'em...Um, no I just, I think it's really important to be able to talk about things"
   - "Um, no. Um, I feel like when it's, it's something good, it's good to tell them. But a story, but when it's something that you feel that it's going to negatively impact them, or just have them thinking. Yeah, just having them thinking, assuming, guessing things that might have not happened, that does not affect their life. Um, I'd rather not share those with her."
   - "even though some stories might not be, you know, the ones with a great happy ending in the sense that you know, there's been death, there's been suffering, trials. Um, I've told them at some other parts of our story of my my mom's story and our family, you know, that there was um abuse, um abuse and um alcoholism. I've only told them a little bit. Um, but, but as he's getting older, I'm gonna reveal more parts of that story. Um because again, I want, because even in that story, there was triumph and there was um um forgiveness. And um what's the word? Reconciliation."

3. **Connection to past/present/future people** - the response includes something about how storytelling helps you connect with the people listening, with people from the stories past, or with younger generations (must be connection to **person** rather than connection to culture, idea, history, etc)
   - Examples:

- "I think that, you know, when you tell stories, uh you connect better. In particular, like, you know, me with my parents or me with my kids."

4. **Learning/teaching lessons** - the response includes something about how storytelling teaches you a lesson (or you can pass on a lesson) about what to do or how to be/ you learn something
   - Examples:
   - "For example, you know to get examples um either of what you learned you know with that story or as in or the lesson that the story teaches."
   - "You definitely learn life lessons"
   - "it's motivating. It can be inspirational."

5. **Culture** - the response includes something about how storytelling maintains, preserves, or passes on cultural traditions, ideas, or values. Includes maintaining or debunking stereotypes about culture/place of origin
   - Examples:
   - "Because it gives them that like, fundamental like, you know, um, or builds like that culture and stuff. So, yeah, just keep that culture alive…"
   - "Because when I say them… that my family is different or something and they want to go to Mexico something because they… o sea they want to live another [inaudible] I think the spirit is different because I say they're the children are going to the store alone. They can– they can play alone outside. And here we need to watch them more… in Mexico no, they– we can stay outside more. Mhm. It's different. But Byron likes… doesn't like the dogs, is scared. I can send with my mom or something to see Mexico. They want to, Kevin want to go. He told me the other day, he wants to go to Mexico. "Mom, give me the the passport because I want to go to… to see Mexico." I say no, I don't know."

6. **Maintaining/preserving history (remembering)** - the response includes something about how storytelling maintains, preserves, remembers, or passes on family history (culture is not mentioned)
   - Examples:
   - "we always talk about our feelings with each other and so the stories help us to remember this one time"
   - "Um it's important to know your family's history even with things like medical issues or genetic issues."

7. **Gaining an appreciation or understanding of others** - response indicates that storytelling helps you learn about others and contextualize, understand, or appreciate where they are coming from
    - Examples:
    - "just even the few stories that I know and that I've heard and um, really helped me gain appreciation for, for where the families, as a whole are."

Codes are NOT mutually exclusive (one quote could have multiple themes)