The Effects of Relational Savoring on Maternal Responsiveness: Investigating the Role of Culture

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The Effects of Relational Savoring on Maternal Responsiveness:
Investigating the Role of Culture

Submitted to
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by
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Abstract: Savoring, or the process of prolonging a specific experience of positive emotions, is associated with positive health outcomes and feelings of interpersonal connectedness. Few studies have examined the process of savoring in a family context, and even fewer studies have explored the extent to which it may vary across cultures. In a sample of mother-child dyads ($n = 66$; White = 33 and Latinx, non-White = 30), we investigated the effect of savoring on verbal and behavioral indicators of maternal responsiveness as compared to a control condition, a reflecting exercise about daily routines. The results suggest an interaction effect of experimental condition and race on verbal maternal responsiveness, such that White moms who savored were more responsive than those who had reflected. Unexpectedly, Latina moms who reflected were more responsive than those who had savored. This effect may be explained by Latinx cultural values of collectivism and familism interacting with participants’ interpretation of the experimental tasks. These findings suggest the use of savoring and positive emotion to improve parent-child relationships and highlight the importance of studying the role of culture in psychological interventions.

Keywords: maternal responsiveness, savoring, Latina moms, cross-cultural positive psychology
Maternal responsiveness, or the ability to promptly and perceptively meet a child’s physical and emotional demands, and its effects on children’s adjustment and outcomes have been heavily studied (Burchinal et al., 1997; Landry et al., 2001; Egeland et al., 1993; Marfo, 1992). Attachment theory states that child outcomes are largely dictated by responsive parenting styles that create a secure base of trust with caregivers and their environment (Ainsworth et al., 1978; Zeanah & Zeanah, 1989). In the context of emotion socialization, maternal responsiveness is associated with better self-regulation and overall well-being (Kopp, 1989; Sroufe et al., 1989) and children’s cognitive and socioemotional development (Landry et al., 2001; Bornstein, 1989; Bradley et al., 2001; Shonkoff & Phillips, 2000). Toddlers with unresponsive parents develop more insecure attachment relationships, which can lead to feelings of unworthiness of love and an inability to effectively cope with stress (Cohn, 1992; Sameroff et al., 1982; Bowlby, 1973; Bretherton, 1985; Cummings & Cicchetti, 1990). While unresponsive parenting exacerbates childhood psychopathology and predicts adversity later in life (Repetti et al., 2002), maternal responsiveness protects children from deleterious effects of environmental risk factors, including poverty and violence (Bailey et al., 2006; Ceballo et al., 2003).

The numerous benefits of responsive parenting are not confined not only to the child; positive parenting and its effects can have significant psychological impacts on parents themselves. It has been shown that increasing a parent’s responsiveness improved their attachment security with their child (Bakermans-Kranenburg et al., 2003). By practicing responsive parenting and developing healthy attachment relationships with their children, parents can also experience psychological stability and well-being.
Unsurprisingly, parental responsiveness to their child is compromised in the context of stress and adversity (Evans et al., 2012). There is a well-documented inverse relationship between household income and maternal responsiveness (Bradley & Corwyn, 2003; Grant et al., 2003; Hoff et al., 2002; Magnuson & Duncan, 2002; McLoyd, 1998; Repetti et al., 2002). This relationship is mediated by the combination of high maternal stress and diminished social support (Evans et al., 2008). Parenting in itself is a psychological stressor (e.g., Esdaile & Greenwood, 1995; Ventura, 1987) and is linked to decreased marital satisfaction (e.g., Lawrence et al., 2006; Twenge et al., 2003). Responsive parenting, while paramount to the outcomes of both parent and the child, is also very vulnerable to life stress and hardships. Thus, it is in society’s best interest to research and develop strategies to improve parenting behaviors.

Savoring as a Model for Positive Emotion

Savoring, a positive psychology practice, is a model for individuals to reminisce and prolong positive emotions. It can be conceptualized as the set of cognitive strategies that regulate the intensity and duration of a positive feeling regarding previous experiences (Bryant, 1989, 2003). More specifically, savoring can be understood as the process in which people attend to, prolong, and appreciate the positive experiences in their lives (Bryant & Veroff, 2007). Studies utilizing savoring interventions have found improvements in depression and negative moods (Hurley & Kwon, 2011; McMakin et al., 2011) and an overall sense of happiness (Smith & Hanni, 2019) and well-being, such as self-reported optimism, life satisfaction, and self-esteem (Bryant, 2003). The savoring manipulations conducted by McMakin and her colleagues (2011) and Smith and Hanni (2019) were similar in that participants were instructed to write or reflect
on an experience that brought them pleasure to think about, recalling specific details about the event, and appreciating and re-experiencing the positive emotions associated with the memory.

Research suggests that the most typical focus of savoring is social connection (Bryant et al., 2005). Interpersonal relationships (i.e. family, friends, or romantic partners) were most commonly reported by participants as sources of positive reminiscence. Relational savoring is the act of intensely concentrating on a memory of a moment of a positive connection with another person (Borelli et al., 2014; Bryant, 2013). The theoretical goal of relational savoring is to engage in a positive mental representation of the chosen individual, which in turn not only increases positive affect but also helps to establish a secure attachment representation about the relationship (Borelli et al., 2014). This theory is consistent with past research that demonstrates that sharing positive experiences between individuals can enhance feelings of connectedness (Gable et al., 2004).

There is much evidence that positive emotions have beneficial effects for individual’s psychological health, many of which are especially relevant for mothers of young children. Longitudinal studies show that positive affect predicts a number of desirable life outcomes, including happiness (Fredrickson & Joiner, 2002), resilience to adversity (Frederickson et al., 2003), and reduced cortisol (Steptoe et al., 2005). An induction of positive affect is associated with increased interpersonal skills, such as prosocial behavior and interpersonal generosity (Isen, 2001), and a broadening of behaviors (Fredrickson & Branigan, 2005). In sum, since positive affect and positive relational representations are critical to achieving optimal responsiveness, savoring lends itself quite well to improving parenting skills like maternal responsiveness.
Despite this fact, there is limited research on the potential impact of savoring on the well-being of parents and their relationships with their children. Besides two studies that examined romantic partners (Borelli et al., 2014; Borelli et al., 2014), Burkhart and her colleagues (2015) were the first to study the effects of savoring on parental relationship satisfaction. Parents, mostly mothers, with children who were on average 1 year old, were randomly assigned to one of three conditions: personal savoring, relational savoring, or a neutral control condition. The savoring manipulations were a blend of mental reflection, answering questions about specific sensory details, and writing. In the personal savoring task, participants were instructed to recall an individual positive event (i.e. a solo walk or a promotion), while those in the relational savoring group were instructed to recall a positive memory with their child. In the control condition, participants were instructed to reflect on their daily morning routine. Following the manipulations, parents were exposed to a stressor in which they imagined their child incessantly crying at a grocery store. Parent’s relationship satisfaction with their child was measured using the Kansas Parental Satisfaction Scale (James et al., 1985). They found that parents who participated in the relational savoring task regarding their children had enhanced relationship satisfaction with them, even after a simulated stressor. The authors hypothesize that the feelings of positive emotions, such as security and connectedness, led to an increase in relationship satisfaction. This was an important first step in understanding the potential beneficial nature of positive psychology interventions for parents, but the literature of parental savoring remains scarce.
The Role of Culture in Positive Emotions

Culture plays a strong role in individual’s attitudes towards both positive emotions and specific behaviors following those experiences (Bryant, 2007). Cultural scripts, or a culture’s set of values and practices, can create guides for an individual’s emotional experience. There is cross-cultural research on the norms of positive emotions in different cultures, particularly those of Western versus Eastern cultures (Hofmann & Doan, 2018). While Westerners associate positive feelings with high self-esteem and overall good health, and tend to maximize these positive emotions (Kitayama et al., 2000; Taylor & Brown, 1988), the cultural script of Eastern culture is less focused on the maximization of a particular kind of feeling and instead on the balancing of positive and negative emotions (Peng & Nisbett, 1999).

The ways in which people actually experience positive emotions are consistent with their cultures (Suh et al., 1998; Wierzbicka, 1994). For example, people from Asian cultures tend to associate happiness with negative social consequences and report less frequent positive emotions than Westerners (Uchida & Kitayama, 2009; Kitayama et al., 2000; Mesquita & Karasawa, 2002). In other words, these individuals’ cultural scripts guide their emotional experiences. Research indicates that Easterners engaged in less hedonic emotion regulations (i.e. savoring) than Westerners, and culturally-based values on emotions mediate cultural differences on hedonic emotion regulation (Miyamoto & Ryff, 2011). That is not to say that Easterners do not want to feel pleasure nor are unhealthy. Miyamoto & Ryff (2011) also found that individuals who engage in emotionally balanced patterns (less extreme lows and highs) is associated with fewer health problems in Japan than in the United States. This indicates a potentially adaptive emotion regulation patterns.
Furthermore, studies have shown that adults socialize their children differently according to their cultural scripts, which manifest in their parenting styles and interactions with their child. For example, consistent with the research on individual emotion regulation, Western mothers emphasize positive reinforcement regarding their child’s success, while Chinese mothers emphasize discipline and down-regulate child’s positive emotions (Miller et al., 2002; Ng et al., 2007). These children, in turn, may internalize these behaviors and experience positive emotions in this way. Thus, cultural variance could play a role in both parents’ experience of positive emotions and their responsiveness to their child.

Although the majority of positive emotion research has been based mostly based on Western samples, with some research on Eastern populations, research is limited on the Latinx emotional cultural script and its effect on the experience and effects of positive emotions. There is a gap in the literature to understand how Latinx individuals experience positive emotions and what mechanisms are involved in this process. However, there are some similarities between Asian and Latinx cultures as they both strongly emphasize collectivism, with the family unit at the center (Sue & Sue, 2008). The collectivist nature of Asian cultural values puts family honor before individual needs (Rothbaum et al., 2000). Likewise, Latino culture is also strongly collectivist, valuing strong family ties and interdependence (Santiago-Rivera et al., 2002). On the other hand, American culture promotes individualism and autonomy from social units, diverging from the collectivist outlook (Sue & Sue, 2008). Thus, similar to the documented differences between Asian and White positive emotion experiences, the collectivist and familial orientation of Latinx cultural values may lead to differences in the experience of positive emotions.
The current study

The current study aims to expand research by adding to the new literature of savoring for parents by (1) evaluating the effects of a brief savoring manipulation against a neutral control condition on maternal responsiveness, and (2) investigate the role of culture in this relationship to better understand the role of positive psychology in Latinx families.

First, we evaluate the effects of a savoring task as compared to a control task (in which participants recall their morning routine with their child.) Here we predict that immediately following the mental reflection tasks, mothers who engage in savoring will be more verbally responsive to their children than those in the control condition (Hypothesis 1.) We also predict that mothers who engage in savoring will be more behaviorally responsive to their children than those in the control condition (Hypothesis 2.) We will also examine whether mothers’ cultural background plays a role in the effects of savoring. Due to the lack of literature regarding this topic, we make no specific hypothesis regarding the effects of race. Although there is little information on Latinx savoring, the cross-cultural literature on Western versus Eastern positive psychology strongly suggests that culture plays a role in the experience of positive emotions between racial groups. An exploratory analysis will be conducted to examine these effects. (Hypothesis 3.)

Method

Participants. Participants were drawn from a larger study on emotions and health in families. Only tasks relevant to the current study are described here. Families with children between the ages of 3 and 4 years of age (36 to 48 months) were screened to have
typically-developing children, have no more than three children in the household, and live no more than 30 miles from Claremont, CA. Advertisements for “an in-depth study on emotions and relationships between parents and children” were placed in local businesses and social networking sites (i.e. Facebook) to recruit participants. Some participants were also recruited from a previous study studying parent-child relationships. Families were compensated $100 for the completion of the study. Data was collected and analyzed for 80 participants, but 14 dyads were excluded due to relevant race identification. The final sample consisted of 66 mothers ($M_{age} = 33.41$ years, $SD_{age} = 5.70$) and their children ($M_{age} = 42.17$ months, $SD_{age} = 4.57$). The White, non-Latinx sample included in this analysis consisted of 32 female adults ($M_{age} = 33.52$ years, $SD_{age} = 5.29$) and their children ($M_{age} = 41.81$ months, $SD_{age} = 5.10$, 50% female.) The Latina sample consisted of 34 mothers ($M_{age} = 33.32$ years, $SD_{age} = 6.12$) and their children ($M_{age} = 42.50$ months, $SD_{age} = 5.59$, 53% female). There was no significant difference in child’s age between the White and Latinx groups. The samples were socioeconomically diverse (32% reported annual income < $40,000, 27% reported between $40,000 and 80,000, 26% reported between $81,000 and 120,000). 48% reported having obtained a bachelor’s degree or higher.

**Design.** The design of this study was a quasi-experimental, between-subjects design, in which participants were randomly assigned to either the savor ($n = 30$) or control ($n = 33$) condition. The dependent measure was maternal responsiveness, which was operationalized by mothers’ verbal and nonverbal behavior during the mother-child interaction after the manipulation. Participants’ race and ethnicity were self-reported.

**Procedure.** Mothers were led into a room while their child was occupied in another room. Participants were randomly assigned to one of two conditions, each of which involved
receiving instructions both orally and visually and responding aloud in a
stream-of-consciousness way for four minutes. The protocol for the savoring task was derived
from a previously used protocol to evoke moments of intensely positive connections between
relationship partners (Borelli et al., 2014; Borelli et al., 2010). Participants in the savoring group
were instructed to reflect on a positive memory when they felt extremely connected to their
child. The instructions prompted participants to recall a time when “(they) found joy in helping
(t)heir child grow, or a time when (they) enjoyed being there to support or comfort (their) child.”
They were encouraged to talk about what their relationship meant to them and how this
experience made them feel. For the control group, participants were prompted to reflect about
their weekly routine with their child. The instructions prompted participants to describe their
morning and bedtime routines and activities on the weekday versus weekend. Participants in both
conditions responded to their prompts aloud for four minutes in a stream-of-consciousness
manner.

All participants were then instructed to think of a memory in which their child had
emotionally rejected them and pushed them away. This memory could be a hurtful incident in
which participants “offered help or comfort to (their) child and s/he didn’t like what (they) had
done or that what (they) had done wasn’t right or wasn’t enough.” Participants recalled the
memory of when their child “pushed (them) away” aloud in a stream-of-consciousness way for
four minutes. After being disconnected from the chassis, mothers joined their child in the main
study room, where they were directed to have a conversation with him or her about the negative
memory that she had just recounted privately. Mothers were instructed to talk with their child
about the details of the incident and how it made them feel. These conversations were video
taped and transcribed.

**Scoring.** Race was coded as 0=white, 1=Latinx, non-White. Gender of the child was
coded as 0 = male, 1 = female. Level of education was coded on a 0-5 scale, with 0 = Less than
High School, 1 = High School, 2 = Some College, 3 = Community College, 4 = Bachelor’s
Degree, 5 = Graduate Degree.

To score the quality of maternal responsiveness, both verbal and non-verbal components
of the interaction were analyzed. A coding scheme was developed to assess the quality of
mother’s verbal content based on constructs such as verbal style, flexibility in perspective-taking,
sensitive emotion teaching, and a maternally-proposed resolution of the negative incident (see
Appendix A.) Gottman and his colleagues’ (1996) concept of emotion coaching was an
important influence on the development of the coding scheme, particularly valuing and resolving
negative emotions. Aspects of the coding scheme were also inspired by the Parent Development
Interview (PDI) and its emphasis on maternal curiosity about the internal states about both
herself and her child (Slade et al., 2009). Mothers who exhibited such behaviors were awarded
higher scores. On the other hand, mothers who exhibited emotion-dismissing behaviors, such as
lack of awareness or denial of the child’s negative emotions, were awarded lower scores. A team
of coders was trained using a manual that provided thorough instructions and a description of
each possible score, as well as exemplars of each score and collaborative training coding
sessions. Coders provided a global score of maternal emotion coaching on a 7-point scale (1-3 =
below average, 4 = average, 5-7 = above average). Although children's responses during the
conversation were not calculated for the global score, their explicit or implicit requests informed
the mothers’ responses. Inter-rater reliability was excellent, as the intraclass correlation coefficient was .91, based on an absolute-agreement, 2-way random model.

To score maternal behavioral responsiveness, her interactions with their children were rated on three behavioral dimensions: the way that a mother touched her child (affectionate or controlling), her orientation in relation to her child (engaged or disengaged), and her affect during the conversation (positive or negative). The Maternal Interactive Behavioral Scale was developed to measure participant’s positive (affectionate, engaged, positive) behaviors and negative (controlling, disengaged, negative) behaviors towards their child during the conversation (see Appendix B.) A team of two undergraduate coders were trained to reliably distinguish between mothers’ use of these behaviors. A hug would be coded as affectionate touch, while an example of controlling touch would be physically redirecting the child’s head. Engaged orientation was coded as whether mothers’ faces were positioned towards the child and eye contact was maintained, while disengaged orientation was coded when mothers were positioned away from the child during the conversation. Positive affect was coded as lips apart or together and curled up into a smile, while negative affect was coded as lips pursed or turned down into a frown. Touch and orientation behaviors were coded as $1 = \text{present and } 0 = \text{not present}$. For affect, the scale ranged from $0 = \text{none}$, $1 = \text{mild}$, $2 = \text{extreme}$. Scores for each dimension were given for every 15-second interval and standardized, summed, and averaged to derive global positive and negative nonverbal behavior scores for each participant. Coders were unaware of participants’ experimental condition. The intraclass correlation coefficient, computed on 15% of the data based on an absolute-agreement, 2-way random ICC model, was .95 for positive nonverbal behavior and .65 for negative nonverbal behavior.
Results

Table 1 lists the means and standard deviations of maternal and child variables of the savoring and control conditions. The experimental groups did not differ on demographic variables. A correlation analysis across all variables for both samples was conducted (see Table 2.) Maternal education was found to be higher in White mothers ($M = 3.69$, $SD = 1.51$) than Latina mothers ($M = 2.50$, $SD = 1.46$), $t(64) = 3.24$, $p < .01$. Positive nonverbal behavior was negatively correlated with negative nonverbal behavior, $r(75) = - .39$, $p < .01$.

To test our hypothesis that savoring would lead to an increase in maternal verbal responsiveness, we conducted an ANOVA analysis. Child gender and level of education were held constant. Table 3 reports the summary of the results. The model indicates that there was no main effects of neither savoring nor maternal race on verbal responsiveness. However, there was a significant interaction effect of savoring and race on maternal verbal responsiveness, $F(1,66) = 7.02$, $p = .01$, resulting in a crossover effect between White and Latina moms (Figure 1.) For White moms, those in the savoring condition were more verbally responsive ($M_{WhiteSavor} = 3.46$, $SD_{WhiteSavor} = .35$) than those in the control condition ($M_{WhiteReflect} = 2.63$, $SD_{WhiteReflect} = .34$).

However, the effect was opposite for Latinx moms such that those in the control condition ($M_{LatinaControl} = 3.39$, $SD_{LatinaControl} = .34$) were more verbally responsive than those in the savor condition ($M_{LatinaSavor} = 2.50$, $SD_{LatinaSavor} = .33$).

We conducted another ANOVA analysis to test Hypothesis 2, or if savoring leads to high maternal responsive behavior. There was no main effects of savoring on neither positive nor
negative nonverbal behavior, suggesting that savoring did not have an effect on maternal behaviors towards their children. There was a main effect of child gender on maternal negative nonverbal behavior, $F(1,63) = 6.53, p = .01$, such that mothers with sons exhibited more negative nonverbal behavior ($M_{boys} = .34, SD_{boys} = 1.80$) than those with daughters ($M_{girls} = -.54, SD_{girls} = 1.31$). Upon further analysis, we observed that the effects of savoring on negative nonverbal behavior was consistent with that of verbal responsiveness, $F(1,63) = 6.53, p = .01$. While White moms in the savoring condition exhibited less negative behavior ($M_{WhiteSavor} = -.20, SD_{WhiteSavor} = .41$) than those in the control condition ($M_{WhiteReflect} = .43, SD_{WhiteReflect} = .43$), Latina moms in the control condition engaged in less negative behaviors ($M_{LatinaControl} = -.54, SD_{LatinaControl} = .40$) than their savoring counterparts ($M_{LatinaSavor} = .001, SD_{LatinaSavor} = .40$). Although these results did not reach significance, $F(1,63) = 2.17, p = .15$, the directional effect of savoring was consistent with that of maternal verbal responsiveness.

Discussion

The present study examines the effects of savoring on maternal responsiveness and explores cross-cultural influences in White and Latina mothers. Results suggest that while White mothers who savored were more verbally responsive to their children compared to those that reflected on their day-to-day activities, Latina mothers who did the latter were more verbally responsive than those who savored. Although these effects did not reach significance with the nonverbal behaviors, the direction of effects for nonverbal negative behaviors were consistent with verbal responsiveness levels in White and Latina mothers.
For White mothers, relational savoring led to increased maternal responsiveness during a difficult discussion task with their young children. This finding is consistent with previous literature that indicates that savoring bolsters interpersonal relationships (Isen, 2001; Borelli et al., 2015). Specifically, the results indicate that the savoring manipulation helped strengthen the parent-child relationship, consistent with the small body of research of savoring as a tool to bolster parent-child relations (Burkhart et al., 2015). Our results are a promising sign of the efficacy of positive emotions and savoring as an intervention to improve parenting.

However, for Latina mothers, savoring was not related to their responsiveness. On the contrary, reflecting on their daily routine, the control condition, improved their verbal responsiveness. When creating the various prompts for the savoring and control task, we aimed to keep the control similar to the experimental manipulation in that they both were memory-based about their child. Specifically, the instructions of the control condition was to reflect on the weekly routines that the mom and child do together, such as morning and bedtime routines or weekday versus weekend routines. Why was the control condition neutral for White mothers but not so for Latin mothers with regards to their responsiveness levels? We offer some preliminary hypotheses.

In an attempt to understand what was happening during the mothers’ private recollections, we reviewed mothers’ responses to the condition instructions. From a preliminary analysis of participant responses in the control condition, most Latina mothers spoke about other family members that also help to provide daily care for the child, including their partner, their own parents, and their other children. This pattern was seen more so in Latina participants than in White participants, who tended to focus on their individual role and activities with their child.
It is possible that reflecting on the family unit in this sense led to increase positive affect for Latina but not White moms.

The role of culture may help explain this effect. *Familismo*, or familism, is the collectivist belief that the family unit is one of the most important institutions. This social pattern privileges family interests above those of the individual (Sabogal et al., 1987) and holds that one’s family provides both emotional support and healthy psychological growth (Moore, 1970). Compared to other racial groups, familism is strongest among Latinx families (Desmond & Turley 2009; Roschelle, 1999). This belief can be seen across different ethnic cultures, including in those of Mexican Americans (Alvirez & Bean, 1976), Puerto Ricans (Szapocznik & Kurtines, 1980), and Central and South Americans (Cohen, 1979). This collectivist emphasis in Latinx culture, which centers around the pride of affiliative achievement of bolstering overall family well-being, is quite different from the emphasis of Western culture, which tends to focus on more individual achievements (Gonzales-Ramos et al., 1998; Santisteban et al., 2002).

Following this cultural pattern, reflecting on the daily tasks in which Latina families provide for their children may produce strong positive feelings for Latina mothers, perhaps more so than a more individualistic recollection of a positive moment with their child. For these mothers, reflecting on both their own and other family members’ contributions to raise their young child may tap into familism, which in turn may evoke strong positive emotions, such as pride and happiness, and result in more responsive behaviors. Although this condition was intended to be neutral, the control prompt may have invoked more positive feelings for Latina mothers than White mothers, which affected their levels of responsiveness. If this is the case, the control manipulation is essentially serving as a savoring-type task, acting as the mechanism for
positive emotions. Researchers have begun to establish a link between high levels of familism and both greater psychological well-being and better social relationships (Rodriguez et al., 2007; Gallo et al., 2009). The induction of positive emotions accompanied by cognitive processes about family may be a potential pathway for this relationship.

With these findings come several limitations of the study. One is the relatively small sample size, which makes it more difficult to generalize the results. Another limitation is the lack of available information on the ethnic subgroups within the Latinx participants due to sample size and participant nondisclosure. We recognize that our Latinx sample is not homogenous; cultural scripts and familial norms vary not only by race but also by ethnicity and should be studied as unique and individual norms. Future studies should analyze ethnic subgroup differences. Additionally, the novel coding schemes may not be capturing all aspects of the mother-child interaction. Further validation of the codes is necessary, one way being analyzing the content of mother’s responses in both conditions, using programs such as Linguistic Inquiry and Word Count (LIWC) to measure the length of maternal savoring and valences of positive emotion words. Finally, our control prompt did not actually serve as a neutral stimulus as we originally intended. To truly understand the effect of savoring, a neutral control condition should be used to compare results.

Future directions of this research topic could be to qualitatively analyze mothers’ physical responses to their respective prompts in each condition, paying close attention to their body language and facial affect. We could also monitor their physiological responses during this task to see if savoring regulates their heartbeat or galvanic skin responses in a different manner than reflecting. By doing so, the data would give us a better understanding of not only different
pathways connecting the task to responsiveness with their children but also insights on potential differences between the responses of White and Latina mothers. It would be interesting to use longer savoring manipulations with parents, especially as their child matures and develops and the parent-child dynamic shifts. Figuring out developmentally applicable savoring interventions would allow parents to use this in every stage of their child’s growth. Finally, another direction may be to examine the effects of savoring for fathers, also taking into account race. In the current study, we only examined mothers. Do the effects of savoring work in the same way for White and Latino fathers?

The findings support the growing literature of savoring as a tool for parents to increase responsiveness to their children. With further research and validation of these effects, savoring could develop into an intervention to improve both the psychological well-being of parents and their relationships with their children. The benefits of maternal responsiveness would also be advantageous for children’s outcomes and adjustment into their adolescence and adulthood. As parents learn and teach their children how to manage their positive emotions and use their emotional life to better themselves, the family unit may also experience collective mental and emotional well-being. Savoring is a worthwhile intervention to research in order to improve the well-being of parents and their relations with their young children.

Additionally, the present findings highlight the continuous need to consider and research diverse samples and the effects of culture on psychological interventions. To generalize interventions based on Western contexts is to overlook minority subsets of the population, who are historically underrepresented in research and face disproportionately more social challenges, including racism and poverty. Our finding that inducing positive emotions through savoring may
require different mechanisms for a racial minority group has practical implications for clinicians. For example, psychotherapists should be aware and utilize the importance of family and collectivist values when prompting positive emotions in their Latinx clients. Culturally-competent interventions based in positive psychology have the potential to reduce the development of emotional distress and strained relationships that may otherwise occur as a function of adversity, as well as bolster social relationships and overall well-being.
References


Table 1

*Means and standard deviations of variables by condition*

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*p<0.05  **p<0.01*
Table 2

*Correlations for variables across both experimental groups*

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*p<0.05  **p<0.01

*Race coded as 0=white, 1=latina*
Table 3

ANOVA analysis for variables predicting maternal verbal responsiveness

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*<p<0.05  **p<0.01
Figure 1. The effects of savoring on maternal verbal responsiveness.
Table 4

*ANOVA analysis for variables predicting maternal positive nonverbal behavior*

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*p<0.05  **p<0.01
Table 5

**ANOVA analysis for variables predicting maternal negative nonverbal behavior**

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*p<0.05  **p<0.01
Appendix A

Rejection Conversation Scoring Scheme

1 Low

A response that receives a score of ‘1’ has the following features:

- **Mom Describes Own Emotion**
  - Mom does not state her own emotion
  - Mom blames child for her emotion ("You made me feel" or "Do you want to make me feel...?")

- **Mom Turns Attention to Child's Actions**
  - Mom narrates using "we" about Child's action ("We were throwing a fit")
  - Mom narrates using "you" in a way that seems distant, blaming
  - Mom characterizes Child's behavior as habitual ("always"; "when you get mad"; "when you do that")
  - Mom asks Child to recall with Y/N question ("Do you remember when...?")

- **Mom Turns Attention to Child's Emotions**
  - Mom denies/dismisses Child's Emotion ("There's no need to cry")
  - Mom does not inquire about or guess child's emotion
  - Mom assigns using "you" ("You were sad")

- **Mom Addresses Child's Need in the Moment** *(depends on what child needs)*
  - Ignores Child's Need
  - Hears child's need/desire but does not address (hunger; “Alright, come here, I love you”)

- **Mom's Overall Verbal Style**
  - Directive (controlling) (imperatives; yes, but")

- **Emotion Teaching**
  - No emotion teaching

- **Resolution Type**
  - “No resolution” is the most common, but this will vary with the rejection topic
  - Behavioral
Mom instructs proper/acceptable behavior with negative language ("We don't kick" or "No kicking")

A response that receives a score of ‘2’ has the following features:

- **Mom Describes Own Emotion**
  - Mom uses impersonal language ("It made me sad/upset")
  - Mom blames child for her emotion ("You made me feel" or "Do you want to make me feel...?")
  - Mom repeats her own rejection feeling more than twice (heightened self-focus)
- **Mom Turns Attention to Child's Actions**
  - Mom narrates using "you" in a way that seems distant, blaming
  - Mom characterizes Child's behavior as habitual ("always"; "when you get mad"; "when you do that")
  - Mom asks Child to recall with Y/N question ("Do you remember when...?")
- **Mom Turns Attention to Child's Emotions**
  - Mom does not inquire about or guess child's emotion
  - Mom assigns using "you" ("You were sad")
  - Mom asks leading question about emotion ("Remember when this happened and it made you sad?" or "You were sad, right?") - rare*
- **Mom Addresses Child's Need in the Moment (depends on what child needs)**
  - Ignores Child's Need
  - Hears child's need/desire but does not address (hunger; “Alright, come here, I love you”)
  - Affirms and tries to address child's need/desire
- **Mom's Overall Verbal Style**
  - Directive (controlling) (imperatives; yes, but")
  - Neutral/Affirming/Assuming (asks for agreement OR assumes she knows)
- **Emotion Teaching**
  - No emotion teaching (very rare)
- **Resolution Type**
  - “No resolution” is the most common, but this will vary with the rejection topic
  - No emotional resolution, purely Behavioral
    - Mom instructs proper/acceptable behavior with negative language ("We don't kick" or "No kicking")
    - Mom instructs proper/acceptable behavior with positive language ("Use your words")
A response that receives a score of ‘3’ has the following features:

- **Mom Describes Own Emotion**
  - Mom uses impersonal language ("It made me sad/upset")
  - Mom repeats her own rejection feeling more than twice (heightened self-focus)
  - Mom states her specific emotion ("I was sad" or "Mom was sad")

- **Mom Turns Attention to Child's Actions**
  - Mom narrates using "you" in a way that seems distant, blaming
  - Mom asks Child to recall with Y/N question ("Do you remember when...?")
  - Mom asks leading question about action/desire ("You like spending the night with your cousin?")
  - Mom asks Child with open-ended question about action ("Why were you kicking and screaming?") - occasionally*

- **Mom Turns Attention to Child's Emotions**
  - Mom does not inquire about or guess child's emotion
  - Mom assigns using "you" ("You were sad")
  - Mom asks leading question about emotion ("Remember when this happened and it made you sad?" or "You were sad, right?")
  - Mom asks Child with open-ended question about emotion ("How did you feel?") - occasionally*

- **Mom Addresses Child's Need in the Moment** *(depends on what child needs)*
  - Hears child's need/desire but does not address (hunger; “Alright, come here, I love you”)
  - Affirms and tries to address child's need/desire
  - Accepts Child's requests for physical affection (hugs, kisses)
  - Shifts focus, affirms, and resolves child’s current emotional/physical state or interest

- **Mom's Overall Verbal Style**
  - Neutral/Affirming/Assuming (asks for agreement OR assumes she knows)

- **Emotion coaching**
  - *Mom may try a little emotion coaching and put in some effort, but mostly*

- **Resolution Type**
  - No resolution/vague - some
  - Behavioral
    - Mom instructs proper/acceptable behavior with **negative** language ("We don't kick" or "No kicking")
    - Mom instructs proper/acceptable behavior with **positive** language ("Use your words")

4 Average
A response that receives a score of ‘4’ has the following features:

- **Mom Describes Own Emotion**
  - Mom uses impersonal language ("It made me sad/upset")
  - Mom states her specific emotion ("I was sad" or "Mom was sad")

- **Mom Turns Attention to Child's Actions**
  - Mom asks Child to recall with Y/N question ("Do you remember when...?")
  - Mom asks Child with open-ended question about action ("Why were you kicking and screaming?") *(beginning to see this more often)*

- **Mom Turns Attention to Child's Emotions**
  - Mom assigns using "you" ("You were sad")
  - Mom asks leading question about emotion ("Remember when this happened and it made you sad?" or "You were sad, right?")
  - Mom asks Child to recall with Y/N question ("Do you remember when...?")
  - Mom asks Child with open-ended question about emotion ("How did you feel?")

- **Mom Addresses Child's Need in the Moment** *(depends on what child needs)*
  - Affirms and tries to address child's need/desire *(Mostly this)*
  - Accepts Child's requests for physical affection (hugs, kisses)

- **Mom's Overall Verbal Style** *(mostly both neutral and open but see slightly more neutral)*
  - Neutral/Affirming/Assuming (asks for agreement OR assumes she knows)
  - Open/Probing ("How did you feel?" followed by "Why were you feeling sad?")

- **Emotion Teaching**
  - *Generally mom is attempting at emotion teaching but is not totally successful. She will touch on it or will try to teach but the child will not allow, etc.*

- **Resolution Type**
  - None or Vague sparsely *(leaning more towards at least a vague resolution)*
  - Mom instructs proper/acceptable behavior with **positive** language ("Use your words") *(MOST COMMON)*

*Leading questions are a way of getting information on the table (what the child felt, why the child was angry or rejected mom) and they are probably “average” Mom behavior but they don’t acknowledge the child’s autonomy in being able to recount the event or participate in recounting the event herself.

**5 Above Average**

A response that receives a score of ‘5’ has the following features:

- **Mom Describes Own Emotion** *(almost necessary that mom mentions her emotion)*
  - Mom uses impersonal language ("It made me sad/upset")
  - Mom states her specific emotion ("I was sad" or "Mom was sad")
● Mom Turns Attention to Child's Actions
  ○ Mom asks Child to recall with Y/N question ("Do you remember when...?")
  ○ Mom asks leading question about action/desire ("You like spending the night with your cousin?")
  ○ Mom asks Child with open-ended question about action ("Why were you kicking and screaming?") *(very common)*
● Mom Turns Attention to Child's Emotions
  ○ Mom asks leading question about emotion ("Remember when this happened and it made you sad?" or "You were sad, right?")
  ○ Mom asks Child to recall with Y/N question ("Do you remember when...?")
  ○ Mom asks Child with open-ended question about emotion ("How did you feel?")
  ○ Mom asks process question about emotion ("When did you start to feel better?")
● Mom Addresses Child's Need in the Moment *(depends on what child needs)*
  ○ Affirms and tries to address child's need/desire
  ○ Accepts Child's requests for physical affection (hugs, kisses)
  ○ Shifts focus, affirms, and resolves child’s current emotional/physical state or interest
● Mom's Overall Verbal Style *(leaning much more towards open but still some neutral)*
  ○ Neutral/Affirming/Assuming (asks for agreement OR assumes she knows)
  ○ Open/Probing ("How did you feel?" followed by "Why were you feeling sad?")
● Emotion Teaching
  ○ *There should be some emotion teaching.*
  ○ Recounts the emotion cycle (action, emotion, resolution) *(most common)*
  ○ Mom instructs about function/value of emotion ("It makes sense that you felt angry because...")
● Resolution Type
  ○ Mom instructs proper/acceptable behavior with **positive** language ("Use your words")
  ○ Physical affection (kiss, hug) or "I love you"
  ○ Mom conveys that negative emotions can resolve ("When did you start to feel better?")

6

A response that receives a score of ‘6’ has the following features:

- **Mom Describes Own Emotion**
  ○ Mom states her general emotion ("I was upset")
  ○ Mom states her specific emotion ("I was sad" or "Mom was sad")
- **Mom Turns Attention to Child's Actions**
  ○ Mom asks Child to recall with Y/N question ("Do you remember when...?")
○ Mom asks Child with open-ended question about action ("Why were you kicking and screaming?") (very common)

● Mom Turns Attention to Child's Emotions (Cl is common but lean more towards the Ws)
  ○ Mom asks leading question about emotion ("Remember when this happened and it made you sad?" or "You were sad, right?")
  ○ Mom asks Child to recall with Y/N question ("Do you remember when...?")
  ○ Mom asks Child with open-ended question about emotion ("How did you feel?")
  ○ Mom asks process question about emotion ("When did you start to feel better?")

● Mom Addresses Child's Need in the Moment (depends on what child needs)
  ○ Affirms and tries to address child's need/desire
  ○ Accepts Child's requests for physical affection (hugs, kisses)
  ○ Shifts focus, affirms, and resolves child’s current emotional/physical state or interest (this is most important)

● Mom's Overall Verbal Style
  ○ Open/Probing ("How did you feel?") followed by "Why were you feeling sad?")

● Emotion Teaching
  ○ There is emotion teaching...
  ○ Recounts the emotion cycle (action, emotion, resolution) (most common)
  ○ Mom instructs about function/value of emotion ("It makes sense that you felt angry because...")

● Resolution Type
  ○ Mom instructs proper/acceptable behavior with positive language ("Use your words")
  ○ Mom conveys that negative emotions can resolve ("When did you start to feel better?")

7 High
● Mom Describes Own Emotion:
  ○ Mom states her specific emotion ("I was sad" or "Mom was sad")

● Mom Turns Attention to Child's Actions:
  ○ Mom asks Child with open-ended question about action ("Why were you kicking and screaming?")

● Mom Turns Attention to Child's Emotions:
  ○ Mom asks process question about emotion ("When did you start to feel better?")
  ○ Mom asks Child with open-ended question about emotion ("How did you feel?")

● Mom Addresses Child's Need in the Moment:
  ○ Accepts Child's requests for physical affection (hugs, kisses)
  ○ Shifts focus, affirms, and resolves child’s current emotional/physical state or interest
● Mom's Overall Verbal Style:
  ○ Open/Probing ("How did you feel?" followed by "Why were you feeling sad?") most common*
  ○ Neutral/Affirming/Assuming (asks for agreement OR assumes she knows) *some

● Emotion Teaching (*must have to be a 7):
  ○ Recounts the emotion cycle (action, emotion, resolution)
  ○ Mom instructs about function/value of emotion ("It makes sense that you felt angry because...")

● Resolution Type:
  ○ Mom conveys that negative emotions can resolve ("When did you start to feel better?")
  ○ (Mom and child both reach a future-oriented resolution on emotions and not solely behavior)
Appendix B

Maternal Interactive Behavioral Scale

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<th>Positive Nonverbal Behavior</th>
<th>Affectionate Touch</th>
<th>Mother hugs, kisses, pats, caresses, or strokes Child in a warm manner.</th>
<th>(0 = no, 1 = yes)</th>
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<td>Positive Affect</td>
<td>Positive Affect</td>
<td>Mother is smiling (lips apart/together and curled up.)</td>
<td>(0 = neutral, 1 = mild, 2 = extreme)</td>
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<tr>
<td>Negative Nonverbal Behavior</td>
<td>Controlling Touch</td>
<td>Moving Child’s head to force attention, pulls arm, restricts Child’s movement.</td>
<td>(0 = no, 1 = yes)</td>
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<td>Disengaged Orientation</td>
<td>Disengaged Orientation</td>
<td>Mother has back or leans away from Child, has poor eye contact.</td>
<td>(0 = no, 1 = yes)</td>
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<td>Negative Affect</td>
<td>Mother is frowning (lips are pursed or turned down.)</td>
<td>(0 = neutral, 1 = mild, 2 = extreme)</td>
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