Mothers’ attachment styles and their children’s self-reported security, as related to maternal socialization of children’s positive affect regulation

Amy L. Gentzler*, Meagan A. Ramsey and Katelyn R. Black

Department of Psychology, West Virginia University, Morgantown, WV, USA

(Received 22 December 2014; accepted 23 May 2015)

This study investigated how mothers’ attachment was related to their responses to their own and their children’s positive events and positive affect (PA). Ninety-seven mothers reported on their attachment and their responses to their own and their 7–12-year-old children’s positive events and emotions. Children reported on their mothers’ responses to the children’s positive events and their attachment security with their mothers. The results indicated that more avoidant mothers reported less intense PA in response to their own and their children’s positive events. More avoidant mothers also were less likely to encourage their children to savor positive events (through expressing PA, reflecting on PA or themselves, giving rewards, and affectionate responses). Mothers higher on anxiety reported greater likelihood of dampening (e.g., minimizing the event’s importance) their own positive events and reported being more likely to feel discomfort and to reprimand their children for expressing PA. Children’s security was predicted by mothers’ lower likelihood of encouraging children’s dampening and of reprimanding children for PA displays. This study advances the literature on how mothers’ attachment is related to the ways in which they regulate their own and their children’s PA, which may have implications for children’s attachment and developing PA regulation.

**Keywords:** attachment; positive affect; savoring; dampening; emotion regulation; socialization

Attachment is clearly tied to people’s behavior when in negative emotional states (e.g., Bowlby, 1969/1982). However, attachment has also been theoretically and empirically linked to people’s responses to positive events in childhood and adulthood (e.g., Kochanska, 2001; Shaver & Mikulincer, 2008) and to levels of positive affect (PA) in infancy (Cassidy, 1994; Waters, Wippman, & Sroufe, 1979), childhood (Borelli et al., 2010; Kerns, Abraham, Schlegelmilch, & Morgan, 2007), and adulthood (e.g., Shiota, Keltner, & John, 2006). This study offers an initial investigation into attachment-PA links in a sample of mothers and their 7–12-year-old children. Although parents’ attachment and their socialization of children’s PA have been investigated in studies with parents and infants (e.g., Feldman, 2003), little research has examined this process in older children. Our first goal was to investigate how mothers respond to their own (to address socialization via modeling) and to their children’s positive events and emotions. Our second goal was to test if mothers’ socialization of children’s PA relates to their children’s attachment. These findings would inform why, from a parental socialization perspective, attachment and PA responses may be linked.

*Corresponding author. Email: amy.gentzler@mail.wvu.edu

© 2015 Taylor & Francis
**Positive affect regulation**

People vary widely in their regulation of PA and their responses to positive events. They may use strategies to up-regulate (i.e., maintain or increase) or down-regulate (i.e., decrease or remove) their PA. Savoring is typically the term used to describe strategies used to up-regulate positive emotions (e.g., Bryant, 1989; Bryant & Veroff, 2007) and subsumes more specific terms such as capitalizing (Gable, Reis, Impett, & Asher, 2004; Langston, 1994) and maximizing (Gentzler, Kerns, & Keener, 2010). A number of savoring strategies have been shown to be effective for up-regulating PA, such as being absorbed in the moment, reflecting on one’s good feelings or good qualities, counting one’s blessings, sharing positive events with others, and expressing PA (e.g., Bryant, 2003; Gentzler, Palmer, & Ramsey, 2015; Giuliani, McRae, & Gross, 2008; Langston, 1994; Livingstone & Srivastava, 2012; Quoidbach, Berry, Hansenne, & Mikolajczak, 2010). Savoring strategies are generally associated with positive outcomes such as higher PA generally and specifically concerning the savored event, higher life satisfaction and self-esteem, and less negative affect (NA) and depression (e.g., Bryant, 2003; Bryant, Smart, & King, 2005; Gable et al., 2004; Gentzler, Morey, Palmer, & Yi, 2013; Hurley & Kwon, 2011; Jose, Lim, & Bryant, 2012; Langston, 1994; Reis et al., 2010). In contrast, dampening or minimizing responses (e.g., downplaying the importance of positive events or focusing on negative aspects) down-regulate PA (Feldman, Joormann, & Johnson, 2008; Gentzler et al., 2010; Quoidbach et al., 2010; Wood, Heimpel, & Michela, 2003). Dampening is associated with more negative outcomes such as decreased PA, lower life satisfaction and self-esteem, and greater depression (Giuliani et al., 2008; Quoidbach et al., 2010; Raes, Smets, Nelis, & Schoofs, 2012; Wood et al., 2003).

**Socialization of positive affect regulation**

*Modeling PA regulation*

Parents play an important role in socializing their children’s emotion regulation. Although most research has focused on the socialization of children’s NA regulation (Eisenberg, Cumberland, & Spinrad, 1998; Morris, Silk, Steinberg, Myers, & Robinson, 2007), similar socialization paths may be operating with PA regulation (Fredrickson, 1998). Socialization by parents can occur in various forms. A common way that children can learn emotion regulation or coping strategies is through parental modeling, which may occur intentionally or unintentionally (e.g., Bugental & Grusec, 2006; Morris et al., 2007). For example, evidence has been found in support of parents’ modeling of NA regulation and coping with negative events to their children (e.g., Bariola, Gullone, & Hughes, 2011; Kliewer, Fearnow, & Miller, 1996). Some research suggests that parents and children have similar PA experiences as well (Ben-Zur, 2003; Cassidy, Parke, Butkovsky, & Braungart, 1992; Halberstadt & Eaton, 2002; Isley, O’Neil, Clatfelter, & Parke, 1999; Sallquist et al., 2010), potentially due to modeling. Therefore, mothers’ regulation of their own PA and responses to positive events is informative for its own sake, but it may be additionally important for its potential impact on their children via modeling.

*Responses to children’s PA*

A second important way that parents socialize their children’s emotion regulation is through their reactions to their children’s emotions (e.g., Eisenberg et al., 1998). In general, parental sensitivity and acceptance of children’s emotions is central to adaptively
responding to children’s emotions (Bugental & Grusec, 2006). Effective socialization also may include emotion coaching (i.e., validating or labeling their children’s positive emotions and teaching effective strategies; Lunkenheimer, Shields, & Cortina, 2007). Coaching may occur in the moment (during an emotional situation) or during general discussions (Fivush, Brotman, Buckner, & Goodman, 2000; Lagattuta & Wellman, 2002; Laible, 2011; Laible & Thompson, 2000). Regarding less adaptive socialization, mothers who dampen their toddler’s PA have children with less vagal suppression (i.e., poorer regulation; Calkins, Smith, Gill, & Johnson, 1998) and have adolescents with higher rates of depressive symptoms (Katz et al., 2014; Yap, Allen, & Ladouceur, 2008; Yap, Schwartz, Byrne, Simmons, & Allen, 2010). Therefore, although it is clear that parents socialize their children’s PA in various ways, how parents’ attachment may influence this process is unknown.

The role of attachment
Adults’ modeling their own PA regulation

Substantial research shows that attachment is related to PA in adulthood, which suggests that parents with different attachment styles may model different PA and regulatory strategies to their children. Specifically, avoidance (or a dismissing style) is usually associated with less PA, whether in college student samples using self-report measures (Alford, Lyddon, & Schreiber, 2006) or parent samples using the Adult Attachment Interview (AAI; Adam, Gunnar, & Tanaka, 2004). These findings support the proposition that avoidant individuals try to deactivate their attachment needs, which may involve attempts to down-regulate PA (as well as NA; Cassidy, 1994; Mikulincer & Shaver, 2007; Shaver & Mikulincer, 2014). Anxious individuals generally report greater PA than avoidant individuals when using self-report (Pietromonaco & Barrett, 1997) or the AAI (Adam et al., 2004). However, compared to secure individuals, the pattern is less clear because anxious individuals have reported less PA than secure individuals (Tidwell, Reis, & Shaver, 1996), more PA after high-conflict situations than secure individuals (Pietromonaco & Barrett, 1997), or not differed from secure individuals in their PA experience (Alford et al., 2006). Anxiety, which is associated with hyperactivation of the attachment system (i.e., making attachment needs habitually accessible), may involve up-regulating NA to meet this goal (e.g., to keep attachment figures nearby or available; Mikulincer, Gillath, & Shaver, 2002; Shaver & Mikulincer, 2014). Because positive emotions could also increase intimacy in attachment relationships (Mikulincer & Shaver, 2007), anxiety could be expected to be associated with attempts to up-regulate PA. However, one study found that both more anxious and more avoidant adults reported higher levels of dampening PA following a positive life event (Gentzler et al., 2010) and less positive recall of their earlier positive emotions (Gentzler & Kerns, 2006).

Generally as implied above, attachment security (assessed via self-report) is linked to greater PA experience and expression (Magai, Distel, & Liker, 1995; Shiota et al., 2006; Tidwell et al., 1996; Torquati & Raffaelli, 2004), and a greater tendency to savor a staged positive event in the lab (Gentzler et al., 2010). Secure parents (assessed via AAI) also show more warmth during interactions with their children compared to insecure parents (Cohn, Cowan, Cowan, & Pearson, 1992), and parental warmth is linked to more effective PA regulation in children (Davidov & Grusec, 2006). Overall, this literature on adults in general and parents indicates that attachment is often related to PA and its regulation, which may impact children via modeling.
Parents’ responses to their children’s PA

Although minimal research has directly examined how parents respond to their children’s PA, other research on positive parenting qualities and parents’ responses to children’s NA is useful. In general, securely attached parents are more likely to be engaged in “high-investment parenting,” meaning that they are sensitive and responsive to their children’s needs (Belsky, 1997). In contrast, insecure parents often show less adaptive parenting characterized by low responsiveness and support, insensitivity to the children’s needs, and asynchronous interactions, regardless of whether attachment is assessed via the AAI (e.g., Pearson, Cohn, Cowan, & Cowan, 1994) or self-report measures (see Jones, Cassidy, & Shaver, 2014 for a review; also Edelstein et al., 2004; Goodman, Quas, Baterman-Faunce, Riddlesberger, & Kuhn, 1997; Jones & Cassidy, 2014; Leerkes & Siepak, 2006; Millings, Walsh, Hepper, & O’Brien, 2013; Morey & Gentzler, 2015). Insecurely attached parents also socialize less effective coping strategies in their children (Abaied & Rudolph, 2010), which may suggest they encourage less adaptive responses to positive life events. Avoidance in particular has been linked to less supportive reactions when children behaved more positively or appropriately (Rholes, Simpson, & Blakely, 1995), which fits with the broader literature linking avoidance and attempts to disengage from emotions (Mikulincer & Shaver, 2007). With anxiety, although anxious individuals may be more comfortable with positive emotions than avoidant individuals, their negative perceptions and outlook may interfere with their ability to respond effectively to their own or others’ PA (Mikulincer & Shaver, 2007). Overall, this research would suggest that parents’ attachment may influence how they respond to children’s PA.

Parents’ PA socialization and children’s attachment

Another question pertaining to attachment and PA socialization is whether parental responses to children’s PA then predict children’s attachment. However, little research has directly addressed this question. In contrast, the importance of parents’ responses to children’s NA in predicting child attachment is undisputed. Attachment theory and research indicates that individual differences in children’s attachment largely arise from how caregivers’ react to infants’ distress (Ainsworth, Blehar, Waters, & Wall, 1978; Bowlby, 1973). Specifically, we know that more avoidant or anxious children have parents who are less sensitive, warm, responsive, or empathic, and are potentially intrusive or controlling (e.g., Ainsworth et al., 1978; de Wolff & van IJzendoorn, 1997; Stern, Borelli, & Smiley, 2015). Parents who are less warm and supportive when children are distressed are likely to respond similarly when their children express PA or are not distressed (Leerkes, Blankson, & O’Brien, 2009). Thus, we might expect that parents of insecure children may be more likely to dampen their children’s PA, whereas parents of securely attached children may respond more supportively to the children’s PA and encourage savoring strategies that sustain PA. Empirical research indicates that insecure infants do show less frequent PA than do secure infants (Braungart & Stifter, 1991; Kochanska & Coy, 2002; Waters et al., 1979) and that decreases in infants’ PA expressions over time predicts the development of insecure attachment (Belsky, Fish, & Isabella, 1991; Malatesta et al., 1989). Similarly during childhood, higher levels of PA have been linked to attachment security (Borelli et al., 2010; Kerns et al., 2007; Kochanska, 2001; Park & Waters, 1989) and children who report greater savoring of a positive life event also report greater security with fathers (Gentzler, Ramsey, Yi, Palmer, & Morey, 2014). Given these findings, it is possible that parents’ socialization of PA regulation may impact
children’s attachment, although this could be due to more general parental supportiveness (to both child PA and NA). Our study can offer preliminary evidence into the question of whether parents’ encouragement and supportive reactions to children’s PA predict children’s security.

The present study

Given the limited research on parental socialization of children’s PA regulation, our study’s first goal was to examine how mothers’ attachment predicted their modeling of PA regulation (i.e., their responses to their own positive events) and their responses to their children’s PA and positive events. We expected that mothers reporting greater avoidance would, in response to their own positive events, report less PA, be less likely to engage in savoring responses, and more likely to engage in dampening responses. Similarly, in response to their children’s positive events and emotions, we expected more avoidant mothers would report less PA, be less likely to reinforce their children’s displays of PA or to encourage their children to savor, and be more likely to encourage dampening responses. We did not have clear hypotheses for mothers’ anxiety. Attachment anxiety might result in greater attention and reactivity to any emotion or emotionally evocative event (and thus more PA or savoring responses), but the many negative thoughts (e.g., worry and rumination) related to anxiety might suggest a greater tendency to dampen positive events and discourage PA. Thus, mothers reporting greater attachment anxiety may be more likely to engage in and encourage in their children both savoring and dampening strategies. Our second goal was to examine how mothers’ responses to children’s positive events or emotions were related to children’s attachment security. In predicting security, we expected mothers’ responses that involve more acceptance and encouragement of children’s PA (i.e., mothers responding with more PA and encouraging PA expression and savoring) would relate to children reporting greater attachment security.

To comprehensively capture the socialization process, we used measures that tapped into slightly different facets of PA regulation. We assessed maternal responses to hypothetical positive events (their own and their child’s), which is analogous to responses to (or coping with) negative events (Langston, 1994). We also assessed maternal responses to children’s expressions of PA, which is similar to mothers’ responses to children’s expressions of NA and socialization of negative emotion regulation. Just as the constructs of coping with negative events and emotion regulation of NA are distinct in some ways (e.g., coping is often focused on solving the problem) but are overlapping in other ways (e.g., both may involve attempts to decrease distress; Gross, 1998), we study these processes in relation to PA to provide a fuller picture of parental socialization of PA.

Method

Sample

A sample of 97 mothers and their children (one per family) participated in one in-person session. The youth in the study (55% boys) ranged in age from 7 to 12 (M = 9.26, SD = 1.35). Mothers ranged in age from 28 to 63 years (M = 38.72, SD = 6.52). Mothers reported their ethnicity as being 91% White, 5% African American or Black, 1% Asian American or Asian, 1% Hispanic or Latino, and 2% multi-ethnicity. All caregivers identified as mothers except for one who was a custodial grandmother. Mothers reported
their highest education level: 13% completed 10th–12th grade, 14% completed 2–3 years of college; 39% earned a 4-year college degree, 21% completed some graduate school or a 2–3 year graduate degree, and 14% earned a doctoral degree. Mothers reported yearly household income, which indicated that 26% of the sample was between “less than US $10,000/year to US$49,999/year”; 38% was between “US$50,000 to US$99,999/year”; and 36% was at “US$100,000/year and above.” This sample was part of a larger sample of 100 families. However, two families’ data were not included because large portions were missing (i.e., mothers skipped pages during the session or did not finish their surveys during the session and never sent back their completed survey) and one family was removed because of a problem understanding the questions (possibly because English was a second language).

**Procedure**

Participants were recruited from a small town in the eastern Appalachian area of the United States. Recruitment methods included in-person recruitment at various events in the community, posting flyers in various public outlets, and sending emails through university or community mailing lists and letters through local pediatricians’ offices. During the session, mothers and children were asked to complete various questionnaires. Mothers and children generally completed these surveys in separate rooms, and a researcher read all of the questions out loud to the children as they completed the surveys to ensure that they understood the questions. Mother–child dyads also completed additional questionnaires and two discussion tasks, but only those relevant to the current paper are described below. Families were compensated US$30 for their participation.

**Measures**

*Experiences in Close Relationships-Revised (ECR-R)*

Mothers completed the well-validated ECR-R (Fraley, Waller, & Brennan, 2000) to report their feelings, beliefs, and behaviors describing how they approach their close relationships. Mothers answered the questions based on how they generally are in their romantic relationships using a 7-point Likert scale (1 = strongly disagree to 7 = strongly agree). The measure contains two 18-item scales assessing dimensions of anxiety (α = .94) and avoidance (α = .95). The anxiety dimension reflects a strong desire for closeness with one’s partner and worry about separation and unreciprocated feelings (e.g., “I’m afraid that I will lose my partner’s love”). Avoidance reflects discomfort with emotional closeness and intimacy and difficulty relying on one’s partner for support (e.g., “I prefer not to be too close to romantic partners”).

*Security scale*

Children completed the Kerns’ Security Scale indexing attachment security with mothers (Kerns, Klepac, & Cole, 1996). For this 15-item measure, children answered on a 4-point scale using the Harter (1982) “Some kids ... & other kids ...” format. An example question is: “Some kids find it easy to trust their mom BUT other kids are not sure if they can trust their mom.” After reading the statement, children indicated which one was “more true” for them and then circled whether the chosen statement was “really true” or only “sort of true” for them. The measure had adequate internal consistency (α = .75).
Children’s security with mothers was not related to mothers’ attachment avoidance ($r = -0.16$, $p = .13$) or anxiety ($r = -0.10$, $p = .36$).

**Positive Events And Responses Survey for Adults (PEARS-A)**

Mothers reported on their potential responses to their own hypothetical positive events. The PEARS-A (Ramsey & Gentzler, 2014) is a modified version of the original Positive Events and Responses Survey (PEARS) designed for college students (Gentzler et al., 2015). For the PEARS-A, mothers read six vignettes involving positive events, including two interpersonal events, two achievement-related events, and two pleasant surprises. An example event is: “You just reached your exercise goal that you have been working toward for a long time. It was hard work, but it was a goal that you really wanted to reach.”

For each event, mothers rated how happy ($\alpha = .60$) and proud ($\alpha = .52$) they would be on an 11-point Likert scale (0 = not at all to 10 = extremely), and then indicated the likelihood that they would respond in particular ways using a 5-point Likert scale (0 = not at all to 4 = very likely). Only the subscales that are also in the PRCPE (see below) were analyzed in the current study. These scales were created by averaging corresponding responses across the six vignettes. These included savoring strategies: share ($\alpha = .50$; “tell a close friend or family member about the event”); express PA ($\alpha = .68$; “express your emotions in some way, for example smile, laugh, jump for joy”); celebrate ($\alpha = .67$; “do something to celebrate the event with others”); mark the event ($\alpha = .76$; “mark the event in some way so you can remember it later, for example take a photo”); reflect on PA ($\alpha = .66$; “think about how good you feel because of this event”); reflect on themselves ($\alpha = .85$; “think about how good of a person you are”); reward themselves ($\alpha = .68$; “do something to reward yourself”); be physically affectionate ($\alpha = .83$; “become physically affectionate, for example hug someone, kiss someone”); and be thankful ($\alpha = .57$; “be thankful that this event happened”). The three dampening scales were: minimize ($\alpha = .55$; “decide the event is not important”); stop thinking about the event ($\alpha = .47$; “not think about the event after it occurs”); and focus on the negative ($\alpha = .86$; “think about how things could go wrong”). Consistent with a recent article (Ramsey & Gentzler, 2014) and the rationale for the measure design, we created three higher-order scales (by averaging corresponding scale scores): PA reactions (happy and proud; $\alpha = .72$); savoring (share, express PA, celebrate, mark, reflect on PA, reflect on self, reward, affection, and thankful; $\alpha = .94$); and dampening (minimize, stop thinking about event, and focus on the negative; $\alpha = .80$).

**Parents’ Responses to Children’s Positive Events (PRCPE)**

Mothers completed the PRCPE (Gentzler & Ramsey, 2014), which is also derived from the PEARS (Gentzler et al., 2015). Mothers read five positive event scenarios (involving relationships, achievements, or a positive surprise) and were asked to imagine if each happened to their children. An example event is: “Your child comes home from school and just found out that he/she received an A in his/her most difficult class in school. Your child has been working hard for weeks.” Following each event description, mothers first rated how happy and proud they would be on an 11-point scale (0 = not at all to 10 = extremely). Consistent with the PEARS-A measure, mothers’ ratings of their anticipated happiness ($\alpha = .69$) and pride ($\alpha = .62$) were highly correlated ($r = .70$, $p < .001$), and thus were averaged to create a PA score ($\alpha = .78$).
Following each vignette, mothers rated how likely they would be to respond to the events in various ways on a 5-point Likert-style scale (0 = not at all to 4 = very likely). We averaged each corresponding response across the five events to create subscales. The savoring responses were: express (e.g., “encourage your child to express his/her happiness in some way”; \( \alpha = .92 \)); share (e.g., “encourage your child to tell a friend or family member about his/her good grade”; \( \alpha = .78 \)); celebrate (e.g., “do something to celebrate such as go out to dinner”; \( \alpha = .80 \)); mark (e.g., “encourage your child to post his/her project on the refrigerator or somewhere else to mark this achievement”; \( \alpha = .67 \)); reflect on PA (e.g., “encourage your child to think about how good or proud he/she must feel”; \( \alpha = .83 \)); reflect on self (e.g., “tell your child how smart he/she is or encourage them to think about it”; \( \alpha = .61 \)); reward (e.g., “reward your child for doing so well in school, such as buying them something special”; \( \alpha = .79 \)); affection (e.g., “express affection toward your child such as pat them or hug them”; \( \alpha = .72 \)); and thankful (e.g., “encourage your child to be grateful for his/her good grade”; \( \alpha = .84 \)). The other scales were: brag (e.g., “encourage your child to tell someone [friend, sibling] who does not do well in school”; \( \alpha = .80 \)), and three dampening scales of minimize (e.g., “remind your child that it is only one grade in a single class”; \( \alpha = .61 \)), stop talking (e.g., “discourage your child from continuing to talk about the grade after the initial conversation”; \( \alpha = .62 \)), and focus on negative (e.g., “tell your child he/she probably just got lucky and may never do that well in the future”; \( \alpha = .61 \)). Consistent with the PEARS-A, we computed a savoring score by averaging specific strategies (share, express, celebrate, mark, reflect on PA, reflect on self, reward, affection, and thankful, \( \alpha = .94 \)), and a dampening score by averaging minimize, stop talking, and focus on the negative (\( \alpha = .77 \)). Bragging was not included in this investigation.

Although the PRCPE is a new measure, it shows some expected associations with related measures. As shown in Table 1, mothers’ anticipated responses to their own positive events (on the PEARS-A) correlated with their anticipated responses to their children’s events (on the PRCPE, with \( r_s = .45-.68 \)). Mothers’ PRCPE responses also were related to the measure of maternal socialization of children’s PA (described below) in that mothers’ encouragement of their children to savor was positively correlated with their reports of encouraging their children to express their PA and to offer explanations about the appropriateness of the expressions, whereas mothers’ encouragement of dampening was positively correlated with their reports of reprimanding their children and being uncomfortable with their children’s PA expressions.

PRCPE-Y

Children completed a similar version of the measure assessing how they thought their mother would react to their (the child’s) positive events. However, children were not given hypothetical vignettes. Instead they answered based on how their mothers generally respond to their events using the same scales (11-point scale for how proud or happy their mothers would be and the 5-point scale for how likely their mother would be to encourage each savoring and dampening response). These items were aggregated into the same scales of mothers’ PA responses (2 items; \( \alpha = .87 \)), mothers’ encouragement of child savoring (9 items; \( \alpha = .88 \)), and mothers’ encouragement of child dampening (3 items; \( \alpha = .75 \)). However, there was limited correspondence between child and mother reports (only children’s report of mothers’ encouragement to savor was correlated with mothers’ corresponding report; see Table 1).
Table 1. Descriptive information and bivariate correlations among main variables.

<table>
<thead>
<tr>
<th>Attachment</th>
<th>PEARS</th>
<th>PRCPE</th>
<th>PRCPE-Y</th>
<th>PRCPS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mother anx.</td>
<td>2.29</td>
<td>1.22</td>
<td>-0.06</td>
<td>0.11</td>
</tr>
<tr>
<td>Mother avd.</td>
<td>2.53</td>
<td>1.32</td>
<td>-0.26*</td>
<td>-0.13</td>
</tr>
<tr>
<td>Child security</td>
<td>3.38</td>
<td>0.41</td>
<td>-0.03</td>
<td>0.13</td>
</tr>
<tr>
<td>PEARS (mother-report)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PA</td>
<td>9.10</td>
<td>0.95</td>
<td>-</td>
<td>-0.61***</td>
</tr>
<tr>
<td>Savor</td>
<td>3.54</td>
<td>0.53</td>
<td>-</td>
<td>-0.12</td>
</tr>
<tr>
<td>Dampen</td>
<td>1.93</td>
<td>0.54</td>
<td>-</td>
<td>-0.16</td>
</tr>
<tr>
<td>PRCPE (mother-report)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PA</td>
<td>9.33</td>
<td>1.14</td>
<td>-</td>
<td>0.72***</td>
</tr>
<tr>
<td>Savor</td>
<td>3.84</td>
<td>0.60</td>
<td>-</td>
<td>-0.08</td>
</tr>
<tr>
<td>Dampen</td>
<td>1.43</td>
<td>0.42</td>
<td>-</td>
<td>-0.13</td>
</tr>
<tr>
<td>PRCPE-Y (child-report)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PA</td>
<td>9.03</td>
<td>1.31</td>
<td>-</td>
<td>0.64***</td>
</tr>
<tr>
<td>Savor</td>
<td>3.20</td>
<td>0.80</td>
<td>-</td>
<td>0.14</td>
</tr>
<tr>
<td>Dampen</td>
<td>0.93</td>
<td>1.16</td>
<td>-</td>
<td>-0.03</td>
</tr>
<tr>
<td>PRCPS (mother-report)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Encourage</td>
<td>4.09</td>
<td>0.83</td>
<td>-</td>
<td>-0.25*</td>
</tr>
<tr>
<td>Explain</td>
<td>5.21</td>
<td>0.85</td>
<td>-</td>
<td>-0.37***</td>
</tr>
<tr>
<td>Reprimand</td>
<td>3.16</td>
<td>1.06</td>
<td>-</td>
<td>0.76***</td>
</tr>
<tr>
<td>Discomfort</td>
<td>2.67</td>
<td>0.91</td>
<td>-</td>
<td></td>
</tr>
</tbody>
</table>

Note: PEARS assessed mothers’ responses to their own positive events; PRCPE and PRCPE-Y assessed mothers’ responses to their children’s positive events; PRCPS assessed mothers’ responses to their children’s positive affect (PA). *p < .077; **p < .05; ***p < .01; ****p < .001.
Parent Reactions to Children’s Positive Emotions Scale (PRCPS)

Mothers also reported on how they might respond to their children’s PA displays using the Parent Reactions to Children’s Positive Emotions Scale (Ladouceur, Reid, & Jacques, 2002), which includes 12 vignettes and four responses to each. Mothers read a vignette (e.g., “If we are in a restaurant to celebrate a birthday with our family and my child jumps out of his/her chair and shouts ‘Happy Birthday!’ I would . . .”), and then answered how likely they would be to respond in certain ways using a 7-point Likert scale (1 = very unlikely to 7 = very likely). The subscales were: encouragement (e.g., “Smile showing my child that I am happy to see him/her having fun”; α = .66); explanation (e.g., “Tell my child not to shout so loudly because he/she will disturb the other clients”; α = .67); discomfort (e.g., “Be slightly embarrassed by my child’s behavior”; α = .78); and reprimand (e.g., “Tell my child in a firm voice ‘Sit down!’”; α = .83). We created subscales by averaging the corresponding items across the 12 vignettes. Prior studies have analyzed these scales as four separate scales (Ladouceur et al., 2002) or two subscales with explanation (previously called socialization), discomfort, and reprimand combined into one invalidating subscale and encouragement retained as its own validating scale (Halberstadt et al., 2013; Yap et al., 2008). However, we chose to not aggregate the three more negative scales. One reason is that explanation seems conceptually and empirically distinct from discomfort and reprimand. That is, although each one serves to down-regulate children’s PA, explanation appears more similar to parental coaching that may help children understand PA regulation. Additionally, explanation was not correlated with discomfort (see Table 1).

Results

Analytic approach

Our analyses involved a series of hierarchical linear regression models. We included socio-demographic covariates on Step 1 that related to one or more of the attachment or maternal socialization variables. These were child gender and age, maternal age, maternal education, maternal ethnicity (dichotomized as White and Other), and household income. Our first set of models involved predicting mothers’ responses to their own or their children’s events and emotions from mothers’ attachment. Thus, on the second step of each model, we entered the mothers’ anxiety and avoidance attachment scores so that beta values represent their unique contribution to the outcome given that anxiety and avoidance were positively correlated, \( r(96) = .52, p < .001 \). Although we had explored if anxiety and avoidance interacted in their effects on a third step, this interaction term never explained significant variance. Thus, we report models without the third step. Our second set of models tested if mothers’ responses to the children’s positive events and emotions predicted children’s attachment security.

Mothers’ attachment predicting mothers’ responses to their own positive events

Mothers’ attachment predicted their anticipated reactions to their own positive events (see Table 2). In line with our hypotheses, more avoidant mothers reported less intense PA (happiness and pride). Avoidance also predicted marginally less savoring, though the overall step was not significant. Our hypothesis that avoidance would predict more dampening was not supported. Instead mothers’ anxiety predicted more dampening responses.
Mothers’ attachment predicting mothers’ responses to their children’s positive events

Using mothers’ attachment to predict their reported responses to their children’s positive events, the results indicated that mothers’ avoidance was linked to their reports of feeling less PA, whereas mothers’ anxiety predicted mothers reporting marginally more intense PA reactions to their children’s positive events (see Table 3). In addition, more avoidant mothers reported being less likely to encourage their children to savor their positive events or emotions, though the step was only marginally significant. Mothers’ anxiety and avoidance were not associated with their encouragement of dampening.

Because of the significant link between avoidance and savoring and because the savoring factor consisted of nine distinct behavioral responses to the children’s positive events, we conducted exploratory analyses with each savoring subscale to investigate the particular behaviors associated with attachment. After accounting for the same covariates on Step 1, these models indicated significant effects for avoidance for five out of nine subscales. Specifically, mothers with higher levels of avoidance reported being less likely to respond to their children’s positive events by being affectionate with their children ($\beta = -0.28$, $p = 0.021$), rewarding their children ($\beta = -0.25$, $p = 0.030$), and encouraging their

Table 3. Predicting mothers’ responses to children’s positive events (using the PRCPE and PRCPE-Y) from mothers’ attachment.

<table>
<thead>
<tr>
<th></th>
<th>PA</th>
<th>Savor</th>
<th>Dampen</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$R^2_{\Delta}$</td>
<td>$\beta$</td>
<td>$R^2_{\Delta}$</td>
</tr>
<tr>
<td><strong>Step 1</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Anxiety</td>
<td>0.22**</td>
<td>0.21**</td>
<td>0.07</td>
</tr>
<tr>
<td>Avoidance</td>
<td>-0.36**</td>
<td>-0.27*</td>
<td>-0.08</td>
</tr>
<tr>
<td><strong>Step 2</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Anxiety</td>
<td>0.06</td>
<td>0.11</td>
<td>0.21**</td>
</tr>
<tr>
<td>Avoidance</td>
<td>-0.14</td>
<td>-0.01</td>
<td>-0.11</td>
</tr>
</tbody>
</table>

Note: The covariates on Step 1 were: Income_{household}, Education_{mother}, Age_{mother}, Race_{mother}, Gender_{child}, Age_{child}.
$p < .066$; *$p < .05$; **$p < .01$.
children to express their PA (β = −.26, p = .031), reflect on their PA (β = −.39, p = .001), and reflect on their good qualities (β = −.34, p = .002). Although anxiety was not associated with the overall savoring score, mothers’ anxiety was positively linked to two out of nine subscales: encouraging their children to express PA (β = .26, p = .047) and to reflect on their good qualities (β = .31, p = .008).

Contrary to the findings with mothers’ reports of their responses to children’s positive events, no significant associations were found for children’s reports of mothers’ responses to children’s positive events (see bottom of Table 3).

Mothers’ attachment predicting their responses to their children’s positive emotions

The next models examined how mothers’ attachment predicted their anticipated responses to their children’s positive emotions (see Table 4). Results indicated that mothers’ attachment was unrelated to their encouragement of their children’s PA expressions. Mothers’ avoidance was marginally predictive of being less likely to give explanations to socialize their children’s PA regulation. Mothers scoring higher on anxiety reported being more likely to reprimand their children and feel discomfort from their children’s PA displays.

Mothers’ responses to children’s positive events and emotions predicting children’s attachment security

Our final set of models examined how mothers’ responses to children’s events and emotions predicted children’s attachment security. First, mothers’ responses to children’s positive events as reported by the mothers were unrelated to children’s security (see Step 2 in Table 5). However, as shown in Step 3, children’s reports of how their mothers responded were related to their attachment. Specifically, children who reported that their mothers were less likely to encourage dampening responses reported more secure attachment, and mothers’ more intense PA reactions was marginally linked to children’s secure attachment. Additionally, mothers who reported more reprimanding responses to children’s PA had children who reported less attachment security with them (bottom portion of Table 5).
Discussion

This study advances our understanding of how mothers’ attachment influences their responses to their own and their children’s positive events and positive emotions. We found evidence that mothers’ anxiety and avoidance predicted their PA responses and various strategies relating to PA regulation for their own and their children’s positive events and emotions. Given prior research suggesting parental modeling and responses to children’s affect are essential components of the socialization process (e.g., Morris et al., 2007), these maternal behaviors may teach children how to regulate PA, which has important implications for their adjustment (Bijttebier, Raes, Vasey, & Feldman, 2012; Gentzler et al., 2013). Moreover, mothers’ responses to children’s positive events and emotions also predicted children’s reported attachment security with mothers. Finally, our focus on older children and mothers contributes to the limited research on attachment and emotion socialization during this late childhood period.

Mothers’ avoidance

We had expected avoidant attachment to relate to less PA and savoring for mothers’ responses to their own positive events as well as their children’s, and some findings supported our hypotheses. First, with mothers’ responses to their own (hypothetical)
positive events, the results indicated that more avoidant mothers reported less PA (happiness and pride) in response to the events. The finding that avoidant mothers anticipate feeling less intense PA are in line with prior findings with avoidance being linked to low PA (e.g., Adam et al., 2004), and suggests that more avoidant mothers may model less intense PA reactions for their children compared to less avoidant mothers. Given prior studies’ associations between parents’ and children’s level of PA expressiveness (Isley et al., 1999; Sallquist et al., 2010), one future direction is to examine whether children of more avoidant mothers in turn express less intense PA in response to positive events themselves. The link between mothers’ avoidance and less savoring was only marginally significant, though it was in the expected direction. Future research could explore whether different methodologies (e.g., experience sampling methods) yield stronger associations.

For mothers’ responses to their children’s events, mothers’ avoidance also predicted mothers reacting with less intense PA and being less likely to encourage their children to savor (though the overall step for savoring was only marginally significant). The finding that more avoidant mothers anticipate feeling less PA about their children’s positive events is novel for children, though it is consistent with studies on positive event sharing between romantic partners. Specifically, more avoidantly attached people reported less of an increase in PA when hearing about their partner’s positive events (Hicks & Diamond, 2008), and in an observation task, were judged as being less responsive to their partner’s disclosure of a positive event (Shallcross, Howland, Bemis, Simpson, & Frazier, 2011).

Regarding the particular savoring practices related to avoidance, more avoidant mothers were less likely to encourage their children to express their PA, reflect on their PA and good qualities, reward their children for their positive events, or respond with affection. Thus, highly avoidant mothers do not seem to value drawing attention to their children’s PA, either inwardly by reflecting on it or through outward expressions of it. This pattern may stem from their general discomfort with emotions, even positive ones (Gosnell & Gable, 2013), and is consistent with findings suggesting more avoidant fathers report less willingness to be supportive of children expressing PA (Morey & Gentzler, 2015). The link between mothers’ avoidance and decreased likelihood of responding with physical affection coincides with research indicating that mothers of avoidant babies were less affectionate (Ainsworth et al., 1978), although later research did not replicate these results (Belsky, Rovine, & Taylor, 1984) or found that it only pertained to behaviors like hugging that require close body contact (Tracy & Ainsworth, 1981). Mothers’ avoidance also has been linked to less physical comforting their children after a negative experience (Goodman et al., 1997). To our knowledge, our study is the first to document this pattern with positive events in older children. In general, these findings suggest that more avoidant mothers do not promote savoring in their children. To better understand this association, researchers could examine potential mediating variables (e.g., parental beliefs about emotions).

Surprisingly, avoidance did not predict greater dampening (either with mothers’ reactions to their own or their children’s positive events) or other responses that down-regulate children’s PA (e.g., reprimanding). Our hypotheses stemmed from research indicating that avoidance is associated with less PA (e.g., Adam et al., 2004), greater dampening of a positive life event (Gentzler et al., 2010), more suppression regulation strategies with NA (e.g., Gross & John, 2003), and greater encouragement of one’s child to use disengagement responses to negative life events (Abaied & Rudolph, 2010). However, in our study, perhaps because two measures (PEARS-A and
PRCPE) included achievement or work-related scenarios, avoidant mothers might be less likely to minimize those events if they strongly valued them (Hazan & Shaver, 1990). Different types of events (e.g., interpersonal vs. achievement) could be investigated to address this question. In addition, because PA is less threatening than NA, the need for avoidantly attached individuals to minimize PA may be less strong than is their need to minimize or suppress NA (Dewitte, 2011; Dykas & Cassidy, 2011). Finally, our reliance on hypothetical scenarios and self-reported anticipated reactions may be more subject to reporting biases than other methods (e.g., observations, other-report).

Mothers’ anxiety

We did not have clear hypotheses for anxiety. There were reasons to expect that more anxious mothers may display and encourage both positive reactions (PA, savoring, and encouraging expression) and negative reactions (e.g., dampening, reprimanding, and discomfort). The results did indicate anxious attachment was associated with a mix of socialization responses.

First, for mothers’ own (hypothetical) positive events, greater anxiety was linked to more dampening of the positive events. This finding suggests that more anxious individuals have difficulty focusing on the positive, which is consistent with other research indicating a negative attribution style (Collins, 1996) and research suggesting that even when experiencing a positive event, they may instead still direct their attention to negative thoughts (Gentzler et al., 2010). In relation to the socialization process, if mothers are making these dampening statements in front of their children, it is likely that this is one mode of transmission that could affect children’s own thought processes following their positive events.

Second, although more anxious mothers did not report greater likelihood of encouraging their children to dampen, they did report that they are more likely to feel discomfort and reprimand their children for displaying PA. Thus, anxious mothers may be uncomfortable with their children’s overt displays of PA. It is curious that anxiety related to mothers’ responses that down-regulate their children’s PA with the positive emotions measure (PRCPS) but not dampening responses with the positive events measure (PRCPE). However, the vignettes within the positive emotions measure (PRCPS) all involve the child expressing PA in front of other people, either in one’s home or public places (e.g., store, restaurant, wedding). Perhaps mothers’ anxiety better predicted their responses in these situations, given the link between anxious attachment and social anxiety (Brumariu & Kerns, 2008). A second interesting pattern is that although mothers’ anxiety was unrelated to their dampening for their children’s positive events, it did predict greater dampening for their own positive events. In future research, it would be worthwhile to tease apart how much children learn PA regulation through modeling mothers’ behaviors versus through mothers’ overt responses to the children’s PA. Overall, these findings suggest more anxious mothers may socialize maladaptive responses to positive events and emotions for their children through a variety of ways.

The somewhat contradictory findings included a marginally significant association between mothers’ anxiety and their reports of anticipating more intense PA reactions to their children’s positive events. In addition, with mothers’ responses to their children’s positive events, mothers’ anxiety did not predict their socialization of savoring overall, but it did predict two specific savoring responses. Specifically, more anxious mothers reported a greater likelihood of encouraging their children to express their PA and reflect on their
good qualities. Expressing PA is a generally positive response (e.g., Langston, 1994), but if anxious mothers also invalidate their children’s displays of PA, children may be confused by these conflicting messages. In addition, although encouraging one’s child to reflect on his or her good qualities is consistent with the construct of savoring and positive rumination (Feldman et al., 2008), it is unknown how much parents should encourage their children to do this. Another consideration is that the effects may go in the opposite direction. In other words, if more anxious mothers sense their children have low self-worth or low PA, mothers might encourage their children to think about their good qualities to help their children feel better. These socialization efforts may indeed be worthwhile because positive rumination (e.g., reflecting on one’s strengths) was shown to be protective against depressive symptoms for highly stressed children (Bijttebier et al., 2012). However, longitudinal or qualitative data would be needed to test this idea. In general, more research is needed to determine how much or in what contexts parents should encourage these behaviors in their children.

**Children’s attachment security**

We also examined if mothers’ responses to children’s positive events and emotions were related to children’s reports of their security with their mothers. Mothers’ own reports of their responses to children’s events were unrelated to children’s attachment, but children’s reports of mothers’ responses were related. Specifically, children who reported that their mothers would respond with more intense PA (marginal finding) and would be less likely to encourage dampening reported higher attachment security with mothers. We cannot be sure about why maternal-report of their responses was unrelated to child attachment, but one possibility is that shared method variance is contributing to the significant within-child findings. Another explanation is that children’s perception of mothers’ responses matters the most. That is, even if a mother thinks she is responding with ample enthusiasm and joy about her child’s successes and not dampening her child’s PA, the child’s perception may be that the mother is not happy or encouraging enough. Indeed, people’s perceptions of others’ emotional reactions are related to their attachment style in that insecure adults viewed others’ responses as less supportive than did neutral observers (Shallcross et al., 2011) and insecure adolescents less accurately identified PA in their parents (Diamond, Fagundes, & Butterworth, 2012). Thus, it is possible that more insecurely attached children perceive their mothers’ PA and responses differently than do securely attached children. With mothers’ responses to children’s PA, mothers who reported a lower likelihood of reprimanding their children for PA displays had children who reported more secure attachment. Reprimanding is an unsupportive and punitive response and this finding is consistent with a wide literature showing that more secure children (assessed in a variety of ways) have more warm and supportive parents (e.g., Cohn et al., 1992; de Wolff & van IJzendoorn, 1997).

An important future direction is to more formally test if mothers’ responses to children’s PA contributes to children’s attachment. To do this, it is critical to test if mothers’ responses to children’s PA still predict children’s security while controlling for known predictors of attachment such as responsiveness and sensitivity to children’s distress. It is possible that mothers who respond punitively to their children’s PA also would do so with NA. Thus there may not be unique additive information provided by mothers’ responses to children’s PA. Further, parental responses to children’s PA could be examined as a mediator between parent attachment and child attachment. In the present study, although there is no direct link between mother and child attachment, we did
conduct a post hoc analysis examining the one indirect pathway with significant links: mothers’ anxiety predicting reprimanding of children’s PA, which predicts children’s insecurity. Using the PROCESS macro for SPSS (Hayes, 2013) with 1000 bootstrapping samples and 95% bias-corrected confidence intervals, these results indicated a significant indirect effect of mother anxiety to child insecurity through reprimanding: $B = -.03, SE = .02, 95\% CI (-.08, -.01)$. However, this was only one path out of many non-significant ones that could not be tested. In addition, it is essential in future research to investigate if mothers’ responses to children’s PA are simply part of a broader package of parental warmth and support to children’s emotions or if their responses to PA uniquely predict children’s attachment.

**Limitations and conclusions**

A major limitation of our project is the reliance on survey data. We only assessed mothers’ anticipated reactions to hypothetical positive events and emotions instead of actual in-vivo responses in the moment. Thus, response biases (e.g., mothers’ under-reporting that they encourage their children to dampen) and shared method variance (e.g., mothers’ attachment only predicting their own, but not their children’s, reports of mothers’ responses) could be contributing to our results. Second, the sample was homogenous with respect to ethnicity, and replications across varied samples would be needed to examine generalizability. Third, we only recruited mothers into the current study, but many children were from two-parent homes and undoubtedly have fathers or other caregivers that may model or teach them ways to regulate PA. The one analysis with our only father data indicated that children who reported that fathers responded with more PA (marginal significance) and were less likely to encourage dampening also reported greater attachment security with fathers. Although these results are identical to those with mother–child data, it would be important to more thoroughly assess father–child processes in future studies as some research has shown that attachment with fathers predicts children’s PA or PA regulation more strongly than does attachment with mothers (Feldman, 2003; Gentzler et al., 2014).

Fourth, we did not examine children’s own regulation of PA. Therefore, a critical next direction is to test how mothers’ socialization may impact the children’s regulation of PA. For example, although we expect children learn PA regulation through observational learning, if mothers do not display the behavior in their children’s presence or do not engage in a response, it may be less likely to influence their children’s developing PA regulation. Finally, we analyzed individual response scales from savoring factors for exploratory reasons given the paucity of data on this topic. However, this approach makes chance findings more of a concern.

Despite the limitations, our study is an initial step toward understanding how mothers’ attachment may color their behavior surrounding their own and their children’s positive events and emotions. Although not all research has documented clear ties between attachment and aspects of children’s PA (e.g., Laible & Thompson, 1998), our study suggests that attachment matters in terms of mothers’ management of their children’s PA during the late childhood period. Much remains to be understood about parents’ socialization of PA regulation and the implications of these parenting behaviors for children, and this study offers many future directions for this line of work.

**Acknowledgements**

The authors wish to extend gratitude to the families who participated in their study.
Disclosure statement

No potential conflict of interest was reported by the authors.

Notes

1. Correlations and t-tests were conducted to examine how socio-demographic variables were associated with attachment and socialization variables. Household income was negatively related to three variables: mothers’ anxiety ($r = -.28, p = .007$), PA reactions to children’s positive events ($r = -.25, p = .014$), and mothers’ encouragement of children’s savoring ($r = -.23, p = .024$). Mothers’ education was negatively correlated with four variables: mothers’ PA reactions to their own positive events ($r = -.35, p < .001$), mothers’ PA reactions to their children’s positive events ($r = -.41, p < .001$), mothers’ encouragement of children’s savoring ($r = -.31, p = .003$), and mothers’ lower likelihood of discomfort with their children’s PA displays ($r = -.24, p = .018$). Maternal age was negatively correlated with mothers’ encouragement of children’s savoring ($r = -.35, p = .001$). Children’s age was positively correlated with mothers’ reports of their own savoring ($r = .20, p = .045$) and children’s reported security with mothers ($r = .22, p = .029$). For children’s gender, mothers reported greater encouragement of children’s PA expression for boys ($M = 4.28, SD = .83$) than girls ($M = 3.84, SD = .77$), $t(93) = -2.64, p = .01$. Non-White mothers reported greater attachment anxiety ($M = 3.26, SD = .83$) than did White mothers ($M = 2.19, SD = 1.21$), $t(94) = -2.58, p = .011$.

2. We also conducted a regression model using the same measures about fathers: children’s reports of fathers’ responses to the children’s positive events predicting children’s attachment security with fathers. The same associations emerged as those for children’s reports of mothers’ responses. Specifically, after accounting for the same covariates on Step 1, the second step of the model ($R^2 = .11, F = 3.78, p = .014$) indicated that children who reported that their fathers had marginally more intense PA reactions ($\beta = .24, p = .085$) and were less likely to dampen their PA ($\beta = -.27, p = .019$) reported more attachment security with their fathers. Fathers’ encouragement of savoring was unrelated to children’s security ($\beta = .02, p = .876$). These two measures (children’s attachment security with fathers and their reports of fathers’ responses to their positive events) are the only two measures we have pertaining to fathers in the study, which prevents us from using the more comprehensive analytic approach we used with mother–child data.

References


