

ATTACHMENT IN PREADOLESCENCE: CONSEQUENCE OR CAUSE OF CHILDREN'S
PERCEPTIONS OF PARENTING?

by

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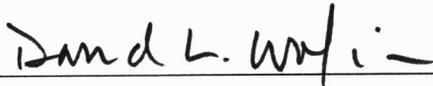
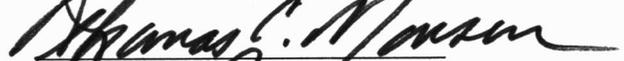
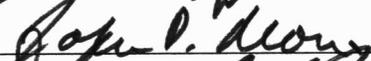
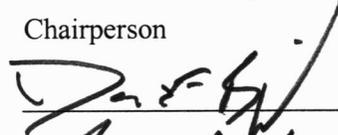
Meenakshi Menon

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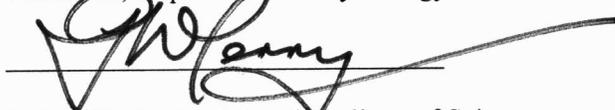
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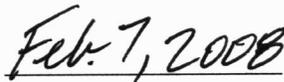
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ABSTRACT

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This one-year longitudinal study was designed to illuminate the direction of the causal arrow between children's perceptions of their mother's behavior and children's attachment style during a period of development that has been relatively neglected in research on attachment--preadolescence. The possibility that children's behavior problems moderate the influence of perceived parenting on attachment, or of attachment on perceived parenting, was also investigated. Participants were an ethnically diverse sample of 407 children (213 girls, 194 boys) who were in the fourth grade at initial testing (M age = 11 years 1 month). Measures included children's perceptions of five maternal behaviors (harassment, overprotectiveness, monitoring, affectionate contact, and reliable support), peer reports of children's behavior problems (internalizing and externalizing), and children's self-perceived attachment styles (preoccupied and avoidant). Contrary to a traditional attachment perspective, there was limited evidence that perceptions of parenting led to change in children's attachment styles. Though children with internalizing problems who perceived their mother as harassing developed preoccupied attachment over time, and children with externalizing problems who perceived their mother as

overprotective developed avoidant attachment over time. However, there was considerable support for the reverse causal hypothesis that children's attachment style influences how they perceive their mother: Preoccupied attachment predicted increasingly favorable perceptions of maternal behavior over time (reduced harassment and increased monitoring), whereas avoidant attachment predicted increasingly unfavorable perceptions of the mother over time (increased harassment, reduced monitoring, reduced affectionate contact, and reduced reliable support). Children's behavior problems moderated a few of these relations. Overall, results support a "child effects" interpretation of the links between perceived parenting and attachment styles during preadolescence.

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Introduction

Attachment theory has been conceptualized by Bowlby (1979) as a theory of social development beginning in infancy and continuing throughout the life-span. The construct of internal working models (conceptions of attachment figures and of self) is central to attachment theory (Bowlby, 1973), and much of the research on adolescent and adult attachment is based on an assumption of continuity in working models developed in childhood. However, little research has focused on the development of mental representations of the caregiver and self during the in-between period of preadolescence. Although a large body of research has investigated attachment in infancy as well as in adolescence and adulthood, the attachment relationship in preadolescence has been relatively neglected (Kerns & Richardson, 2005). It is important to study the attachment relationship during preadolescence not only because this age period has been overlooked in past research, but also because the attachment relationship during this time may develop into a complex and sophisticated representational system with lasting implications for the child's welfare.

Internal working models comprise perceptions of self and perceptions of other (caregiver in infancy and early childhood; peers, and romantic partners, as well as parents in later years) components (e.g., Bartholomew & Horowitz, 1991). These components of the working model presumably mutually influence one another and evolve with time (Bretherton & Munholland, 1999). The present longitudinal project was designed to

determine whether children's perceptions of maternal behaviors are causes or consequences (or both) of preoccupied and avoidant attachment styles in the understudied period of preadolescence. Based on attachment theory and research in infancy, which identifies parental responsiveness and sensitivity as the primary determinants of attachment security (Ainsworth, 1979), it was expected that perceptions of maternal behavior would predict changes in children's attachment styles over time. However, there also exist ample grounds for expecting that children's attachment styles might also, in reciprocal fashion, predict changes in perceived maternal behavior over time. In addition, children's behavioral vulnerabilities for internalizing and externalizing problems were also investigated as possible moderators of the hypothesized causal pathways between perceived parenting and attachment styles. Below, attachment research in infancy and adulthood is summarized, and then the rationale for each of the two causal pathways (perceived parenting as a cause, and then as a consequence, of preoccupied and avoidant attachment) is presented. Finally, the present project is introduced.

Attachment in Infancy and Adulthood

In attachment theory, infants are predisposed to seek the proximity of a caregiver as a safe haven when distressed and to use the caregiver as a secure base to further their exploration of the environment. Attachment theory distinguishes between secure and insecure attachment styles (Ainsworth, 1979; Bowlby, 1973). Infants are presumed to be secure if they seek and effectively use the caregiver to allay distress but also effectively use the caregiver as a secure base for exploration; they are thought to be insecure if they fail to use the caregiver as a safe haven when distressed or a secure base for exploration. Secure and insecure attachments are believed to be accompanied by different internal

working models of other and self. Early social interactions with a caregiver are thought to contribute to the development of these internal working models which are believed to capture the infants' expectations about both the caregiver's responsiveness and the self's own capabilities and worthiness (Bretherton & Munholland, 1999). Secure infants are thought to form a model of the caregiver as emotionally available and supportive of exploratory activities and of the self as competent and worthy of care. Insecure infants on the other hand, are thought to form a working model of the caregiver as rejecting and/or unsupportive of exploration, and of the self as incompetent, unloved, and unworthy of attention. In infancy, maternal responsiveness and sensitivity are thought to contribute to the development of secure attachment, whereas intrusive, inconsistent, or unresponsive parenting is thought to lead to the development of insecure attachment (Ainsworth, 1979; Bates, Maslin, & Frankel, 1985; Leyendecker, Lamb, Fracasso, Scholmerich, & Larson, 1997).

Insecure infants can develop different styles of coping with their attachment insecurity. Two classic patterns of relating to the caregiver that presumably reflect insecurity are the preoccupied and avoidant styles. A preoccupied attachment style (also known as resistant or ambivalent) is marked by clingy, enmeshed behavior. The preoccupied infant displays a strong need for the mother in stressful and novel situations, has trouble separating from the mother, and is unable to derive comfort from the caregiver after a separation. An avoidant attachment style (also known as dismissive) is marked by the infant failing to seek the mother when upset and by ignoring the mother during exploration and reunion following a separation. A third form of insecure attachment is a disorganized style in which the child is unable to use the caregiver

effectively as either a safe haven during distress or a secure base for exploration; children with this style may show a combination of avoidant and preoccupied behavior or simply freeze in stressful situations (Crittenden, 1998). The present project focused only on preoccupied and avoidant insecure styles. Both are organized but non-optimal ways of relating to the caregiver, and together they account for the majority of cases of insecure attachment.

The different internal working models and organized behavioral styles of secure, preoccupied, and avoidant infants are thought to guide children's approach towards, and treatment elicited from, subsequent relationship partners (Berlin & Cassidy, 1999). Secure children are believed to possess positive expectations and competencies that encourage benign reactions from others, thereby leading to positive future relationships. Insecure children, on the other hand, are thought to carry negative social expectations and incompetencies into subsequent relationships that evoke rejection and undermine the child's prospects for social success. Evidence confirming these hypotheses indicates that indeed children with secure attachments have better interactions with teachers and peers, are more liked, have more friends and higher quality friendships, and have fewer behavior problems (Berlin & Cassidy, 1999; Thompson, 1998).

Attachment theory posits continuity in working models developed in infancy. There are many reasons why an attachment style developed in infancy should continue into later childhood (Sroufe & Fleeson, 1986; Thompson, 1998). First, there may be continuity in the caregiving environment. Changes in the contextual conditions supportive of a particular attachment style may lead to discontinuity in attachment styles beyond infancy (Fox, 1997; Lewis, Feiring, & Rosenthal, 2000; Waters, Merrick,

Treboux, Crowell, & Albersheim, 2000; Weinfield, Sroufe, & Egeland, 2000). Second, children's internal working models may foster expectancy-confirmation processes. For example, an insecurely attached child's expectation that others will be rejecting may cause the child to be hostile or repudiating in subsequent interactions, leading to further rejection. Third, social skills (or a lack thereof) may affect developing peer relationships and evoke behaviors from interaction partners that help maintain the attachment style. Finally, the security of a child's attachment is believed to influence the child's ability to master subsequent developmental challenges, such as forming a secure collective identity (e.g., feeling that one fits well with the same-sex peer group), which could challenge earlier working models. Thus, there are good reasons for expecting continuity in attachment styles over time. Longitudinal studies show continuity (albeit slight) in attachment style from infancy to early adulthood (Carlson, 1997; van IJzerendoorn, 1997; Waters, Merrick, Albersheim, & Treboux, 1995). In sum, attachment theory and research posit a model of attachment as a dynamic and sometimes changing entity over the course of development, which may be characterized by either continuity or change as a function of ongoing and continuing processes of interaction between the individual and the context. While it is expected that existing structures and organizations of children's functioning (particularly infant attachment) will tend to persist, the child will reorganize functioning when confronted with persisting or significant challenges to current organization.

The notion that internal working models accompany attachment styles has been adopted by researchers studying attachment in adolescence and adulthood. The attachment styles and internal working models at these older ages, which may sometimes

grow out of earlier attachment styles and working models, as suggested above, are expected to influence personal well-being and interpersonal relationships at these older ages. The attachment literature in adolescence and adulthood has two foci. The first concentrates on individuals' mental representations of their attachments to their parents as measured by the Adult Attachment Interview. This narrative measure taps the coherence and organization of adolescents' and adults' recall and memory of their relationship with their parents and allows individuals to be classified as secure, preoccupied, or avoidant (Main, Kaplan, & Cassidy, 1985). Preoccupied and avoidant adults display problematic adjustment as well as inept parenting of their own children (Crowell, Fraley, & Shaver, 1999). The second area of emphasis in adult attachment research concerns adults' styles of relating to their romantic partners. Researchers have used (primarily) self-report questionnaires to identify secure, preoccupied, and avoidant romantic attachments in adolescents and adults (e.g., Brennan, Clark, & Shaver, 1998; Hazan & Shaver, 1987). Secure persons are comfortable with intimacy and are not overly fearful of rejection; preoccupied individuals experience an intense need for intimacy but fear that their partner will reject them; and avoidant persons report difficulties with intimacy and trusting their partners. Adults with insecure romantic attachment styles report more distressed relationships and are less able to use their partners effectively to cope with stressors (Feeney, 1999). Pairings of romantic attachment styles are also important; for example, preoccupied women tend to experience avoidant men as problematic (e.g., Kirkpatrick & Davis, 1994).

Some aspects of the working models of preoccupied and avoidant adolescents and adults may depend on whether the relationship partner is a romantic target or a parent. In

Hazan and Shaver's (1987) self-classification approach to the study of mental representations in romantic relationships, avoidant adults identified with descriptions of lack of trust in others and a perceived inability to depend on and get close to others. Preoccupied adults, on the other hand, viewed the self as clingy and needing more intimacy and closeness, and believed that their partners did not really love them. However, a study by Kobak and Sceery (1988) that used Main's Adult Attachment Interview procedure to examine self- and other-representations in young adults' relationships with their parents, suggested that the meaning of a preoccupied or avoidant style might be somewhat different when the individual's attachment to the parent is under consideration. Consistent with Hazan and Shaver's (1987) findings, they found that avoidant adults viewed the self as undistressed, but they also found that preoccupied persons tended to view their parents as supportive rather than as positioned to reject them. These two studies differed in the particular attachment relationship focused on as well as the procedure to classify adults. Bartholomew and Horowitz (1991) addressed this lack of concordance in self- and other-views in previous findings by introducing a four category model of attachment styles ordered along two dimensions: perception of self as highly dependent versus not dependent on the partner (negative vs. positive view of the self), and perception of the other as aversive versus not aversive (negative vs. positive view of the interaction partner). In their conceptualization, avoidant adults have positive views of the self and negative views of their partners, whereas preoccupied adults have negative views of the self and positive views of their partners. Bartholomew and Horowitz's (1991) model is useful in that it delineates the nature and valences of the self and other components of preoccupied and avoidant individuals' internal working models.

However, possible mutual influences between the self and other components of preoccupied and avoidant individuals' internal working models have not been addressed in research to date (Bretherton & Munholland, 1999).

In summary, although Bowlby conceptualized a secure attachment as a boon at all ages, the attachment literature has focused primarily on attachment in infants and much older persons, with little attention given to the attachment relationship in middle childhood or preadolescence. Assessment of attachment during this in-between period poses challenges. Measures of attachment used in infancy and adulthood cannot be used effectively to capture the attachment relationship in preadolescent children. Behavioral observations are advantageous in infant attachment studies, but they may not be suitable for children older than 5 or 6 years because it is difficult to implement age-appropriate stressors and children begin to balk at the procedures (Lewis et al., 2000; Stevenson-Hinde & Shouldice, 1995). Narrative approaches employed in adult attachment measurement are also problematic. Although they allow inferences about unconscious processes (e.g., cohesiveness, defensiveness), they are difficult to score reliably, may be influenced by language competence, and may presuppose formal operational capabilities (Crowell et al., 1999).

Main (1999) has suggested that self-report scales fruitfully capture consciously accessible aspects of attachment. Self-report scales have been successfully developed to assess romantic attachment styles in adolescents and adults (e.g., Hazan & Shaver, 1987). Several self-report scales have recently been developed to assess attachment in preadolescents, and a small, but informative, literature on attachment in preadolescence has begun to form. One type of scale captures the child's view of the caregiver's

availability, responsiveness, effectiveness at relieving distress, trustworthiness, and openness to communication—qualities presumed to promote the child’s confidence in the caregiver as a safe haven at times of distress (e.g., Armsden & Greenberg, 1987; Kerns, Klepac, & Cole, 1996). High scores on such scales predict many positive adjustment outcomes, such as high self-esteem, peer social competence, and the absence of behavior problems (Kerns, Schlegelmilch, Morgan, & Abraham, 2005). Scales assessing specific styles of insecure attachment have also been developed. Finnegan, Hodges, and Perry (1996) developed measures of preoccupied and avoidant attachment. The preoccupied scale captures a strong need for the parent in stressful and novel situations, trouble separating from the parent, excessive concern for the parent’s whereabouts, prolonged upset following reunion, and trouble exploring or meeting challenges owing to excessive need for the parent. The avoidant scale captures denial of affection toward the parent, failure to seek the parent when upset, avoidance of the parent during exploration and reunion, and refusal to use the parent as a task-relevant resource. Both scales predict adjustment problems, such as low self-esteem, internalizing and externalizing problems, and poorer coping with stress within a best-friend relationship (Finnegan et al., 1996; Hodges, Finnegan, & Perry, 1999). Importantly, these attachment scales predict adjustment indices even when children’s perceptions of parenting are statistically controlled (Tobin et al., 2007; Yunger, Corby, & Perry, 2005).

The present study used Yunger et al.’s (2005) adaptation of the Finnegan et al. (1996) preoccupied and avoidant attachment scales to tap insecure attachment styles in preadolescent children. Conceptualizing insecure attachment in preadolescence along the two dimensions of preoccupied and avoidant styles is advantageous because doing so

represents a point of contact not only with research on attachment in infancy (e.g., Fraley & Spieker, 2003) but also with research on attachment in adulthood (e.g., Bartholomew & Horowitz, 1991; Brennan et al., 1998). That is, attachment styles in both infancy and adulthood have been conceptualized as falling in a two-dimensional space formed by the orthogonal dimensions of (a) anxious, preoccupied, dependent coping, and (b) avoidant, dismissive coping. The present study evaluates two main questions: (a) Do perceived maternal behaviors contribute to preoccupied and avoidant attachment styles in preadolescent children? and (b) Do preoccupied and avoidant attachment styles contribute to changes in children's perceptions of maternal behaviors at this age? Children's internalizing and externalizing problems were also investigated as possible moderators of these hypothesized relations between perceived parenting and insecure attachment styles. Below, the rationale for each of these two main hypotheses is presented.

Perceived Parenting as a Cause of Preadolescent Attachment

Research on attachment in preadolescent children has tended to focus on the consequences of attachment for children's adjustment (e.g., Finnegan et al., 1996; Tobin et al., 2007; Yunger et al., 2005). However, the developmental antecedents of preoccupied and avoidant attachment in this age period have received little attention. In traditional attachment theory, attachment styles and the internal working models that accompany them are believed to derive from the caregiver's behavior. Sensitive, responsive caregiving that calms the infant when distressed and supports exploration presumably fosters secure attachment. In infant studies, inconsistent or unpredictable responsiveness from the caregiver has been implicated as a factor that contributes to the

development of preoccupied attachment, and aversive and overstimulating treatment by an angry or rejecting caregiver has been associated with the development of avoidant attachment (Belsky, 1999; Isabella, 1993). As children become older, parent-child interactions change and the parent's role broadens to account for the growing child's emergent capabilities (Thompson, 1999). Effective parenting in older children is "authoritative" in nature, subsuming elements such as affectionate soothing of distress, granting autonomy for exploration yet monitoring the child's activities and whereabouts, participating in joint recreational activities, and maintaining respect for the child's privacy and space (Baumrind, 1991; Maccoby & Martin, 1983; Steinberg, 2001). Although there may be some continuity over time in the parenting behaviors that maintain preoccupied and avoidant attachment, the increasing diversification of parental roles in providing for the changing needs of growing children makes it possible that the sources of insecurity and the parenting correlates of preoccupied and avoidant attachment change from infancy to preadolescence.

Research has consistently demonstrated that avoidant adults perceive the self in a favorable light and perceive their interaction partners (parents, peers, romantic partners) more negatively (Bartholomew & Horowitz, 1991; Mikulincer, 1995; Mikulincer & Florian, 1995). Avoidant children and adolescents also report that their parents are rejecting, harassing, and lacking in affection (e.g., Kobak & Sceery, 1988; Yunger et al., 2005). These findings are consistent with results from infant studies which often find that parents of avoidant infants are rejecting or aversive (e.g., Bates et al., 1985; Leyendecker et al., 1997). Research on the interpersonal correlates of preoccupied attachment is not that clear. Some studies report that preoccupied attachment is associated with perceiving

others as unloving and rejecting (e.g., Collins & Reed, 1990; Hazan & Shaver, 1987), whereas others report that the preoccupied style is associated with perceiving interaction partners in a positive light such that preoccupied persons perceive their parents as loving, accepting (e.g., Bartholomew & Horowitz, 1991; Kobak & Sceery, 1988), and highly protective (e.g., Younger et al., 2005). In the present study it is hypothesized (consistent with attachment theory and prior research findings) that intrusive and rejecting maternal behaviors promote and sustain an avoidant attachment style in the preadolescent child. Further, it is hypothesized that perceiving the mother as overprotective and concerned with the child's whereabouts (engaging in monitoring behaviors) fosters preoccupied attachment in preadolescence.

The rationale for these hypotheses is based on the idea that preoccupied and avoidant attachment in preadolescence derive from different parent-child transactional processes (Rubin, Bukowski, & Parker, 1998; Younger et al., 2005) and may in fact reflect somewhat different types of underlying insecurity. It is likely that avoidant attachment originates in infancy as a consequence of rejecting parenting, but further parent-child transactions may help establish a vicious cycle of parental rejection and child avoidance. That is, the avoidant child's behavior probably evokes further rejection, disinterest, and lax discipline from the parent, and these parental reactions are likely to reinforce and strengthen the child's avoidant style. On the other hand, preoccupied attachment may originate from inconsistent parental responsiveness in infancy, but during preadolescence, parental overprotectiveness and curtailment of autonomy may become the primary motivators. Younger et al. (2005) reasoned that the growing child's increasing need for autonomy creates a strong separation anxiety among some mothers, causing the

mother to become overprotective. Via interactional and transactional processes, a mutual fear-based system is established in which the mother fears that the child will leave her by growing up, and the child fears that he or she will not be able to leave the mother or cope without her. In essence, then, Younger et al. suggested that the avoidant child cannot count on the mother for affection and understanding (safe haven insecurity) and therefore develops an “estranged” relational schema (“My mother and I cannot stand each other”); in contrast, the preoccupied child cannot count on the mother for support of exploration and autonomy (secure base insecurity) and therefore develops an “enmeshed” relational schema (“My mother and I cannot stand to be apart”).

It must be remembered that, according to attachment theory, a secure working model is theorized to derive both from the caregiver’s sensitive support of exploration and the caregiver’s sensitive care during distress (Bretherton & Munholland, 1999; Grossman, Grossman, & Zimmerman, 1999; Thompson, 1999). The suggestion here is that preoccupied and avoidant attachments derive from insecurities in the secure base and safe haven attachment systems, respectively (Tobin et al., 2007). Thus, in this study, it is hypothesized that overprotective and monitoring maternal behaviors will contribute to the development of preoccupied attachment and that rejecting and intrusive maternal behaviors will lead to the development of avoidant attachment in preadolescent children.

Although, as just described, one route to preoccupied attachment may be parental oversolicitousness and overcontrol, and one route to avoidant attachment may be parental aversiveness and rejection, there may exist alternative, additional routes to insecure attachment styles. These additional routes may implicate children’s temperamental and dispositional characteristics, especially their proneness to internalizing and externalizing

problems. There is good reason to believe that children's behavior problems, especially internalizing and externalizing problems, might play a moderating role in the impact of perceived maternal behaviors on attachment. The differing goals and values that children with internalizing and externalizing problems bring to social situations influence their information-processing as well as their overt behavior (Dodge, 1993). Children with internalizing problems tend to be behaviorally inhibited, anxious, depressed, withdrawn, helpless, victimized, and self-deprecating, thus signaling a strong need for protection and an orientation toward harm-avoidance in social situations (Avila, 2001; Carver & White, 1994; Depue & Collins, 1999). Children with internalizing problems should be especially likely to meet an overprotective, oversolicitous mother's needs for proximity with reciprocated, preoccupied proximity-seeking of their own. However, when there is a strong need for protection and an orientation towards punishment-avoidance, relationship closeness (e.g., proximity to a partner) becomes paramount, and interpersonal conflict is likely to be disturbing; thus, children with internalizing problems may also be likely to develop a clingy, preoccupied style, if they encounter stressful events, which may include hostile or threatening parenting. That is, if parents are harassing, unsupportive, or inept in other ways, children with internalizing problems may be especially likely to react with a preoccupied attachment coping style. Other qualities of children with internalizing problems may also contribute to this outcome. Children with internalizing problems are especially sensitive to others' affective cues, rendering them particularly vulnerable to parental affective messages (Kochanska, 1993). Also, children with internalizing problems are likely to feel responsible for negative relationship events and may be prone to attribute negative events to internal, global, and stable characteristics of the self (Goetz

& Dweck, 1980). Therefore, if children with internalizing problems are faced with harassing, rejecting, or neglectful mothers, they may feel they deserve the poor treatment they are receiving, and in an attempt to further their goal of protection they may develop an enmeshed, preoccupied attachment. Therefore, it is hypothesized that mothers perceived as harassing, unsupportive, untrustworthy, or rejecting would fall short of fulfilling internalizing children's need for protection and harm-avoidance, and contribute to these children developing a preoccupied coping style. In summary, perceived negative maternal behavior and children's internalizing problems should interactively influence preoccupied attachment, with negative maternal behavior leading to preoccupied attachment for children with internalizing behavior problems. Given the internalizing child's proclivities toward protection and proximity, they should be unlikely to develop an avoidant attachment.

Children with externalizing problems on the other hand, tend to be argumentative, defiant, aggressive, resistant to control, and disruptive. Such an orientation reflects a need for interpersonal control in social situations and a tendency to absolve oneself of blame when relationships go awry. Externalizing problems are an outgrowth of earlier behavioral dysregulation, and behavioral dysregulation in children is associated with impaired social competence and coercive, blaming, and controlling solutions to hypothetical social dilemmas (Olson, 1989; Dodge & Newman, 1981; Milich & Kramer, 1984). When the primary goal is to gain interpersonal control and to exonerate oneself of blame (or to feel superior), children are not likely to be concerned about gaining protection from their parents or complying with their parents' wishes; indeed, antisocial children tend to be relatively impervious to parental socialization efforts (Kochanska,

1993), and such children may react to conflict and punishment not with a stronger motive for proximity and compliance but rather with resistance and avoidance (Patterson & Newman, 1993; Snyder & Cantor, 1998). Furthermore, children with externalizing problems tend to have an external attributional style, blaming others rather than the self for negative outcomes (Cairns, 1991). Such a defensive attribution style along with resistance to socialization efforts may cause these children to react to aversive parenting (e.g., harassment, overprotectiveness) with avoidant coping. These children may even construe parental monitoring of the child's activities as an invasion on their autonomy and develop an avoidant attachment style as a consequence. Given the goal of interpersonal control, a self-exonerating external attribution style, and higher thresholds for arousal, children with externalizing problems are unlikely to develop a proximity-seeking preoccupied style of attachment.

Perceived Parenting as a Consequence of Preadolescent Attachment

Parent-child interactions allow for bidirectional influences of both parent on child and child on parent. Thus, just as parent behaviors can influence children, children's preoccupied and avoidant attachment styles could evoke parental reactions (Bell, 1968). The literature on attachment is replete with findings consistent with this idea. Preoccupied infants can encourage maternal infantilization and overprotection (Rubin et al., 1998); indeed, even secure infants can become preoccupied if their autonomy-seeking frightens their caregiver (Radke-Yarrow et al., 1995; Thompson, 1999). Caregivers of preoccupied children tend to over-monitor and stay close to their children, perhaps because the preoccupied child's fearfulness and clingy behavior signal a need for care or serve to reassure the mother that she is needed (Cassidy, 1994). Preoccupied adults

display the greatest anxiety when separated from their children, and their own infants tend to be preoccupied as well (George & Solomon, 1999; Hesse, 1999). Avoidant children, on the other hand, may elicit less than optimal caregiving via a series of parent-child transactions wherein their repudiating behavior evokes lax discipline, anger, and reduced affectionate contact from the parent, thereby confirming and reinforcing their perception of the mother as unloving and rejecting (Rubin et al., 1998).

Although preoccupied and avoidant child behavior may elicit different behavioral reactions from parents, as just described, it is also likely that the differing internal working models of preoccupied and avoidant children create changes in how the children perceive their mothers, even if the mother's behavior in reality does not change as a function of the children's behavior. For example, at a strictly representational level, preoccupied and avoidant children may engage in reality-distorting deceptive strategies to construct an image of the parent that serves to rationalize their attachment style (e.g., Menon et al., in press). According to attachment theory, internal working models of the self and other are complementary and mutually confirming (Bowlby, 1973). But preoccupied and avoidant children are presumably motivated to perceive a *difference* between how they perceive themselves and how they perceive their mother, with preoccupied children perceiving their mother as better and stronger than the self and avoidant children perceiving the mother as inferior and more blameworthy than the self. That is, the attachment strategies of preoccupied and avoidant individuals are thought to operate by constructing representations of parental behavior that are complementary to, justify, and meet the needs and goals of their attachment styles. Based on Bartholomew and Horowitz's (1991) model, it is hypothesized that preoccupied children will perceive

their mother in an increasingly favorable vein over time, that is, as more affectionate, less harassing, and more protective over time, whereas avoidant children will perceive their mother in a less favorable light over time, that is, as more harassing, rejecting and less affectionate. In Bartholomew and Horowitz's (1991) model, preoccupied persons contrast themselves with their relationship partner, such that the partner is increasingly seen as strong, capable, loving, and protective, relative to the self, which is viewed in a complementary manner as weak, helpless, and unworthy. This hypothesis is also consistent with theory and research suggesting that the feelings of anxiety in preoccupied individuals may be allayed not only by behavioral efforts but also cognitive efforts to gain and feel support from parents, to believe in them, to maintain a sense of trust in them, and to maintain proximity to them cognitively and emotionally as well as physically (Kobak & Sceery, 1988). Indeed, preoccupied individuals may idealize their parents and perceive them as positive (rather than think of them as intrusive and controlling) in order to reassure themselves that their parents are available, loving, and protective, as well as to justify their own proximity seeking behavioral strategy. For preoccupied children, the parents' efforts to protect them may be selectively noticed, remembered, or cognitively magnified, partly because the child needs to see the parent this way and partly because these perceptions of the parent serve to justify their strong proximity seeking. Preoccupied children may also be attributing real or imagined rejection by parents to internal factors within themselves, rather than seeing the idealized parents as to blame, thereby maintaining a positive view of the parent.

Individuals with an avoidant style of attachment, on the other hand, are motivated to blame their partners in order to feel superior to them and to justify their avoidance of

them; their goal is to maintain favorable impressions of the self. Avoidant individuals are also motivated to perceive a contrast between their partners and themselves, but the bias is to see the self as more favorable than the partner (the reverse contrast to the preoccupied person's). Thus, avoidant children notice, remember, and magnify instances of blameworthy parental behavior. They do not trust their parents and they look for evidence that their lack of trust is warranted. Experimental evidence indicates that when highly trusting people encounter potentially threatening information about their partner, they actively reinterpret that information in a manner that bolsters their trust and positive appraisals of the partner (Murray & Holmes, 1993). Perhaps avoidant individuals use cognitive defense mechanisms to confirm their negative view of others when they receive threatening information about their partners. Numerous studies from the social psychology literature have demonstrated that social behavior often produces responses from others that confirm the individual's interpersonal expectations and thus reinforce the relational schema in a cognitive-behavioral cycle (e.g., Safran, 1990). In addition research indicates that avoidant children with high self-esteem tend to rationalize their antisocial cognitions and behavior and as a result perceive their mothers as increasingly harassing, uninvolved, and unloving over time (Menon et al., in press). In summary, both preoccupied and avoidant children may be motivated to distort their perceptions of their parents over time (in ways that contrast with perceptions of themselves) but in opposite directions.

It was suggested above that children's internalizing and externalizing problems might moderate the impact of children's perceptions of parenting on the development of preoccupied and avoidant attachments. It is also possible that children's behavior

problems moderate the impact of children's attachment styles on their perceptions of parenting. Several exploratory hypotheses are suggested. Children's internalizing problems might moderate the impact of preoccupied attachment on children's perceptions of parenting. Two rival hypotheses about how internalizing problems might affect the tendency of preoccupied children to view their mother are possible. The first is based on the idea that internalizing problems exacerbate preoccupied children's tendency to see the parent as better than the self (i.e., to maximize a contrast favoring the relationship partner over the self). Internalizing children presumably have a strong need for protection and a tendency to take the blame for negative relationship events (Avila, 2001; Carver & White, 2001; Depue & Collins, 1999; Goetz & Dweck, 1980), and these qualities should simply exacerbate preoccupied children's tendency to cast the parent in an overly positive and salutary light, thereby causing children to maximize the difference between the way they perceive themselves ("I am weak and needy") and the way they perceive their mother ("My mother is loving and helpful"). Thus, internalizing problems and preoccupied attachment are expected to interact to predict perceptions of the mother, such that the tendency of preoccupied children to view their mother in an increasingly favorable light should be maximized for children with internalizing problems. The alternative hypothesis is that internalizing problems cause children to generate unfavorable, rather than favorable perceptions of the mother, in the manner, for example, of depression leading to generalized negative views of the world. In this case, internalizing problems might temper rather than magnify preoccupied children's tendency to perceive the mother favorably. At present, there does not exist a strong basis for preferring one hypothesis over the other.

Internalizing problems may also interact with avoidant attachment to affect perceptions of the mother. Again, two hypotheses are possible. If internalizing problems dispose children to self-blame, then internalizing might mitigate the expected negative impact of avoidant attachment on perceived mothering. Alternatively, the aversive state that accompanies internalizing might exacerbate avoidant children's tendencies to see the mother negatively.

How might externalizing problems affect the impact of attachment style on perceptions of parenting? Here, perhaps the most straightforward hypothesis is that externalizing problems will magnify the tendency of avoidant children to put psychological distance between themselves and their mother by increasingly viewing her in a negative light. As mentioned, children with externalizing problems are dysregulated, disruptive, coercive, self-exonerating, and prone to make external attributions for negative outcomes (Cairns, 1991; Olson, 1989; Dodge & Newman, 1981; Milich & Kramer, 1984). In justifying their avoidant stance, they are especially likely to look for reasons to rationalize their belief that their mother is unsupportive of their needs (Menon et al., in press). Also, children's avoidant behavior is likely to elicit further rejection from the parent (Rubin et al., 1998; Younger et al., 2005), and this effect will probably be stronger for children with externalizing problems. It is less clear that externalizing tendencies should moderate the effect of preoccupied attachment on perceptions of the mother, though it would be reasonable to expect that an externalizing disposition would nullify the aforementioned hypothesized tendency of preoccupied children to view their mother in an increasingly positive light.

The Present Study

In this one-year longitudinal project, the bidirectional influences between preadolescents' perceptions of maternal behavior and their attachment style were examined. Previous studies examining this link have been concurrent-correlational (e.g., Bartholomew & Horowitz, 1991; Kobak & Sceery, 1988; Younger et al., 2005), and therefore the question of direction of influence has remained open.

In this study, children were followed from fourth grade to fifth grade, which is their last year of elementary school. It is important to understand attachment's causes and consequences at this juncture, as children are about to embark on an often stressful transition into middle school, and the parent-child relationship may be an important factor in how well children weather this transition.

A brief summary of the hypotheses is as follows. Based on the traditional attachment notion that maternal sensitivity (i.e., effective provision of a safe haven during stress and a secure base for exploration) is the most powerful predictor of attachment security (Ainsworth, 1979), it was expected that departures from such a sensitive parenting style would contribute to insecure attachment, resulting in the establishment of an insecure attachment style. More specifically, it was hypothesized that neglectful, harsh, unsupportive, overprotective, and rejecting parenting would contribute to the development of an avoidant attachment. Building on previous research which suggests that preoccupied attachment is uniquely maintained by a mutually enmeshed fear-based relational schema (Tobin et al., 2007; Younger et al., 2005), it was hypothesized that overprotective parenting would contribute to the development of preoccupied coping strategies. Furthermore, these causal links between perceived

parenting and insecure attachment were expected to be moderated by individual differences in children's behavior problems. Specifically, rejecting, overprotective and uninvolved parenting when coupled with children's internalizing problems were hypothesized to stimulate a preoccupied attachment, whereas the same maternal behaviors when coupled with externalizing problems were expected to yield an avoidant attachment.

The general reverse causal hypothesis is that preoccupied and avoidant attachment styles influence how children perceive their mothers, partly because the attachment styles are likely to evoke specific parenting behaviors, and partly because the attachment styles bias perceptions of maternal behavior independent of any real changes in maternal behavior. Specifically, it was expected that avoidant children would increasingly view their mother in a negative light, partly because the avoidant child's behavior should evoke further rejection, disinterest, and lax discipline from the parent, and partly because avoidantly attached children are motivated to see themselves as superior to their relationship partner, especially when conflicts arise, and devaluing and blaming the relationship partner (and also selectively attending to and remembering negative acts by the partner) is one way to achieve this. The preoccupied child, on the other hand, is presumed to operate on the principles of a fear-based mutually enmeshed relationship with the mother wherein the self is viewed as weak, helpless, in need of protection, and incapable of independent thought or action, and the mother is perceived as strong, loving, protective, and sheltering. Preoccupied children presumably not only elicit sheltering, affectionate behavior from their mothers but also are motivated to believe that the mother is behaving in this way, even if she is not. These hypotheses derive from research on

adult attachment which suggests that avoidant individuals perceive interaction partners in a negative light whereas preoccupied individuals perceive their partners in a positive and salutary manner (Bartholomew & Horowitz, 1991; Kobak & Sceery, 1988). Some exploratory hypotheses about how behavior problems might moderate the impact of attachment style on perceptions of parenting were also suggested. The more plausible hypotheses were that preoccupied attachment coupled with internalizing problems would lead to positive images of the mother, whereas avoidant attachment coupled with externalizing problems would lead to perceptions of the mother as harassing, rejecting, uninvolved, and overprotective.

Method

Participants

Participants were 407 children (213 girls, 194 boys) who were in the fourth grade at initial testing (M age = 11 years 1 month). Children attended five small elementary schools serving middle and lower-middle class neighborhoods in southeast Florida. Participating children represented 67% of all fourth graders at the schools. The sample was ethnically diverse with 211 White children, 113 Black children, and 83 Hispanic children. The sample comprised two cohorts, with Cohort 1 ($n = 156$) tested in the winters of 2001 and 2002, and Cohort 2 ($n = 251$) tested in the winters of 2002 and 2003.

Procedure

When in the fourth grade (Time 1) and again in the fifth grade (Time 2), children responded to scales assessing perceptions of the mother, behavior problems, and attachment styles. Additional measures not relevant to the present report were also collected. Children were individually tested in a quiet room at their school by one of several female graduate assistants who read the items to the child.

Measures

Participants responded to questionnaires assessing perceived maternal behavior, behavior problems, and attachment styles. Each set of variables is described in turn.

Measures of perceived maternal behavior. Perceived parenting was assessed via children's self-reports of how the mother reacts to and interacts with the child in every

day situations. Five dimensions of perceived maternal behavior were measured. The format of the items was that developed by Harter (1982) to minimize the influence of social desirability response bias.

The first dimension was perceived *harassment*, or children’s perception of angry, rejecting, intrusive, and humiliating behavior by the mother. This scale of eight items is reliable; Cronbach’s alpha at Time 1 (Time 2) is .77 (.76). A sample item is:

Some mothers respect their kid’s privacy		BUT	Other mothers do not respect their kid’s privacy.	
Very true for me	Sort of true for me		Sort of true for me	Very true For me

The second dimension was perceived maternal *overprotectiveness*, or children’s perception that the mother discourages exploration and other exciting activities (e.g., from fear the child will get sick or injured). Cronbach’s alpha at Time 1 (Time 2) is .73 (.78) for this 12 item scale. A sample item is:

Some mothers let their kid explore new places		BUT	Other mothers are afraid to let their kid explore new places.	
Very true for me	Sort of true for me		Sort of true for me	Very true For me

The third dimension was perceived maternal *monitoring* i.e., the child reports the mother as knowing the child’s whereabouts, activities, and companions. Cronbach’s alpha at Time 1 (Time 2) is .67 (.68) for this six item scale. A sample item is:

Some mothers don’t know what their kids are doing with their spare time		BUT	Other mothers do know what their kids are doing with their spare time.	
Very true for me	Sort of true for me		Sort of true for me	Very true For me

The fourth dimension was perceived *affectionate contact* i.e., the mother is viewed as participating with the child in joint recreational activities. Cronbach’s alpha at Time 1 (Time 2) is .76 (.80) for this six item scale. An example:

Some kids do lots of fun things with their mother

BUT

Other kids don't do fun things with their mother.

Very true
for me

Sort of true
for me

Sort of true
for me

Very true
For me

The fifth dimension was the mother's provision of *reliable support*. This was assessed using a shortened form of the Kerns's Security Scale (Kerns et al., 1996), which captures the degree to which the caregiver is perceived as loving, accessible, and sensitive when needed for help or communication. This eight item scale is reliable; Cronbach's alpha at Time 1 (Time 2) is .72 (.77). A sample item is:

Some kids worry that their mom does not really love them

BUT

Other kids are really sure that their mother loves them.

Very true
for me

Sort of true
for me

Sort of true
for me

Very true
For me

These five scales were drawn from Finnegan, Hodges, & Perry (1998) and Younger et al. (2005). For each of these perceived parenting measures, scale scores were formed by averaging across items and could range from 1 to 4, with higher scores indicating higher harassment, higher overprotectiveness, higher monitoring, higher affectionate contact, and higher reliable support.

Measures of behavior problems. Internalizing and externalizing behavioral problems were identified using a peer nomination inventory in which children checked off the names of same-sex classmates who exhibited these behaviors during interactions with peers.

The *internalizing problems* measure captured anxious, depressed, withdrawn, helpless, self-deprecating, hovering, and victimized behaviors demonstrated in the peer group. The measure consisted of 14 items; Cronbach's alpha at Time 1 (Time 2) is .91 (.91). A sample item from the boy's form (with fictitious names) is:

	John Adams	Bryan Grant	Charlie Pierce	Alfred White
He is afraid to do things.				

The *externalizing disposition* measure tapped argumentative, dishonest, disruptive, and aggressive behaviors in the peer group. This measure comprised nine items; Cronbach's alpha at Time 1 (Time 2) is .95 (.95). An example:

	John Adams	Bryan Grant	Charlie Pierce	Alfred White
He argues a lot.				

A child's score on each item was determined by dividing the number of same-sex classmates who nominated the child for each item by the total number of same-sex nominations possible. Children's scores could range from 0 - 1, with higher scores reflecting a higher number of peer nominations for the behavior. Item scores were averaged for each scale to achieve internalizing and internalizing scale scores.

Measures of self-perceived attachment style. Preoccupied and avoidant styles of attachment were assessed. The scales were adapted by Younger et al. (2005) from Finnegan et al.'s (1996) original scales. The item format developed by Harter (1982) was used to minimize the influence of social desirability response bias.

The *preoccupied attachment* measure was designed to identify children who have a strong need for the mother in stressful and novel situations, have trouble separating from the mother, experience continued distress upon reunion, and have trouble exercising age appropriate autonomy due to excessive need for the mother. Cronbach's alpha at Time 1 (Time 2) is .78 (.80) for this 10 item scale. A sample item is:

One day you go to a movie with your friend. After the show, you are waiting for your mother to pick you up to go home. Your mother is very late.

Some kids would stay calm until their mother got there

BUT

Other kids would be very upset and worried about her.

Very true
for me

Sort of true
for me

Sort of true
for me

Very true
for me

The *avoidant attachment* measure was designed to identify children who deny affection toward the mother, avoid using the mother as a secure base during exploration and challenges, and refuse to seek the mother when upset. Cronbach's alpha at Time 1 (Time 2) was .84 (.85) for this 10 item scale. An example:

Your mother has been away for a few days but is coming home later in the day.

Some kids wouldn't care that she is
coming home

BUT

Other kids would look forward to
seeing her.

Very true
for me

Sort of true
for me

Sort of true
for me

Very true
for me

For each of these attachment measures, scale scores were formed by averaging across items and could range from 1 to 4, with higher scores indicating greater preoccupied and avoidant attachment.

Results

Results are presented in six sections summarizing (a) sex differences in the measures, (b) intercorrelations of measures, (c) simple effects of perceived parenting and behavior problems predicting attachment styles, (d) interaction effects of perceived parenting and behavior problems predicting attachment styles, (e) simple effects of attachment styles and behavior problems predicting perceived parenting, and (f) interaction effects of attachment styles and behavior problems predicting perceived parenting.

Sex Differences in Measures

Means and standard deviations of the measures are given separately by sex in Table 1. To discern significant sex differences, each measure was treated as a dependent variable in a multiple regression analysis with cohort, sex, and ethnicity (dummy coded) entered as simultaneous predictors. With cohort and ethnicity controlled, boys and girls differed significantly on affectionate contact, externalizing problems, preoccupied style, and avoidant style at Time 1, and on monitoring, preoccupied style, and avoidant style at Time 2. Boys scored significantly higher than girls on externalizing problems at Time 1, and avoidant style at both time points; girls scored higher than boys on affectionate contact and preoccupied style at Time 1, and on monitoring and preoccupied style at Time 2. These effects of sex indicated a need to control for these variables in subsequent analyses.

Intercorrelations of Measures

This section highlights the intercorrelations among the measures while controlling for cohort, sex, and ethnicity. Table 2 displays the correlations among all the measures at each time point; Table 3 displays the partial correlations among the measures between the two time points.

Several aspects of the data in Table 2 (associations among the measures at each time point) and Table 3 (associations between Time 1 and Time 2 measures) are noteworthy. Although there were some modest correlations among the five parenting variables, the parenting variables were kept separate for subsequent analyses because distinct styles of parenting have been associated with diverse outcomes (e.g., Steinberg, 2001), and because the correlations were not very large. In Table 3 entries on the diagonal running from upper left to lower right indicate that all measures showed at least moderate stability over the one-year period. Several entries showed that the parenting variables predicted preoccupied and avoidant attachment over time. However, none of these correlations controlled for baseline levels of the criterion, which is a necessary condition for testing causal hypotheses in which change over time is expected. Such causal models are addressed in the following sections.

Simple Effects of Perceived Parenting and Behavior Problems Predicting Attachment Styles

To address the question of whether perceived parenting measures predict attachment coping styles, ten multiple regression analyses were conducted, five for each of the two attachment styles. In each regression analysis, the Time-2 level of the attachment style served as the dependent variable. On the first step, sex, cohort, ethnicity

(dummy coded) and the Time-1 level of the dependent variable was entered. On the second step, one of the five parenting variables was entered, and on the third step, the interaction of the parenting variable with sex was entered. In all regression analyses, alpha was set at .05. In no analysis did parenting predict either preoccupied or avoidant attachment (Table 4). To see if behavior problems predicted attachment styles over time, a similar regression model was used. On the first step, sex, cohort, ethnicity, and the Time-1 level of the attachment variable was entered. On the second step, one of the two behavioral problems was entered, and on the third step, the interaction of the behavior problem variable with sex was entered. In no analysis did behavior problems predict either preoccupied or avoidant attachment (Table 4).

These null results indicate that none of the perceived parenting variables and neither of the behavior problems measures, when considered as an individual predictor variable, forecast change in attachment style. However, these null results do not preclude the possibility that perceived parenting and behavior problems interact to predict attachment styles. This possibility is considered next.

Interaction Effects of Perceived Parenting and Behavior Problems Predicting Attachment Styles

It was hypothesized that children's perceptions of parenting might interact with their behavioral dispositions to determine change in attachment coping styles over time. Specifically, it was expected that harassing, unloving, unsupportive, and overprotective mothers might promote a preoccupied coping style in children with internalizing problems. It was expected that harassing, unsupportive, overprotective, monitoring, and unloving mothers will aid in the development of avoidant attachment in children with

externalizing problems. These hypotheses were tested using multiple regression analyses. In each regression analysis, the Time-2 level of an attachment style served as the dependent variable. On the first step, sex, cohort, ethnicity, and the Time-1 level of the dependent variable were entered; on the second step, one of the five parenting variables and one of the two behavior problems were entered together; on the third step, the focal interaction term of parenting x behavior problem was entered; on the fourth step, interaction terms of parenting x sex and behavior problem x sex were entered; and on the fifth step, the three way-interaction of parenting x behavior problem x sex was entered.

Table 5 displays the standardized betas for the regression analyses described above. Only one focal two-way interaction predicted preoccupied attachment: The two-way interaction of perceived harassment x internalizing problems was significant ($p < .05$, $F = 6.05$). Also, only one focal two-way interaction predicted avoidant attachment: Perceived overprotection x externalizing problems predicted avoidant attachment ($p < .05$, $F = 4.53$). These significant interactions were further explored using the procedures recommended by Aiken and West (1991), as described next.

Harassment x internalizing problems predicting preoccupied attachment. As the level of internalizing problems moved from low (-1 *SD*) to medium (0 *SD*) to high (+1 *SD*), the negative association between harassment and preoccupied attachment became increasingly positive, respective β s = - .11 ($p < .05$, one-tailed test $F = 3.63$); -.01, ns; .09, ns. Thus, perceived harassment led to increased preoccupied attachment for children with internalizing problems but to decreased preoccupied attachment for children without internalizing problems.

Overprotection x externalizing problems predicting avoidant attachment. The association between maternal overprotection and avoidant attachment over time was dependent on the level of children's externalizing problems. As the level of externalizing problems moved from low (-1 *SD*) to medium (0 *SD*) to high (+1 *SD*), the relation between overprotection and avoidant attachment changed from a negative association to a positive association, respective β s = -.08, ns; .02, ns; .11 ($p < .06$, one-tailed test, $F = 2.57$). Although this pattern suggests that overprotection leads to decreases in avoidant attachment for children without externalizing problems and to increases in avoidant attachment for children with internalizing problems, the relation was not significant at any particular level.

Simple Effects of Attachment Styles and Behavior Problems Predicting Perceived Parenting

The simple effects of attachment styles predicting perceived parenting were tested using multiple regression analyses. In each regression analysis, the Time-2 level of a perceived parenting variable served as the dependent variable. On the first step, sex, cohort, ethnicity, and the Time-1 level of the dependent variable were entered. On the second step, one of the two attachment styles was entered, and on the third step, the interaction of the attachment style with sex was entered. Results are given in Table 6. The preoccupied attachment style predicted lower maternal harassment ($p < .05$, $F = 6.39$) and higher perceived monitoring ($p < .01$, $F = 9.14$) over time. The avoidant attachment style predicted higher perceived harassment ($p < .01$, $F = 9.02$), and lower perceived monitoring ($p < .01$, $F = 16.81$), affectionate contact ($p < .01$, $F = 20.25$), and reliable support ($p < .01$, $F = 7.33$) over time.

The question of whether children's internalizing and externalizing behaviors predict perceptions of parenting over time was addressed using a similar regression model. In each regression analysis, the Time-2 level of perceived parenting served as the dependent variable. On the first step, sex, cohort, ethnicity, and the Time-1 level of the dependent variable were entered. On the second step, one of the two behavior problems was entered, and on the third step, the interaction of the behavioral problem with sex was entered. Results are summarized in Table 6. Internalizing problems did not significantly predict any of the perceived parenting measures. Externalizing problems significantly predicted lower affectionate contact ($p < .05$, $F = 4.93$) over time. Except for this one significant link, these results indicate that behavior problems, considered independently of attachment styles, have few effects on perceptions of parenting.

Interaction Effects of Attachment Styles and Behavior Problems Predicting Perceived Parenting

The hypothesis that attachment styles' effects on children's perceptions of their mothers vary with children's levels of internalizing and externalizing problems was also tested using multiple regression analyses. In each regression analysis, the Time-2 level of a perceived parenting variable served as the dependent variable. On the first step, sex, cohort, ethnicity, and the Time-1 level of the dependent variable were entered; on the second step, one of the two attachment styles and one of the two behavior problems were entered together; on the third step, the focal interaction term of attachment style x behavior problem was entered; on the fourth step, interaction terms of attachment style x sex and behavior problem x sex were entered; and on the fifth step, the three-way

interaction of attachment style x behavioral disposition x sex was entered. Table 7 displays the standardized betas for these analyses.

Three interaction terms involving both an attachment style and a behavior problem predicting perceptions of parenting were significant (all $ps < .05$). These were the two-way interaction of preoccupied attachment x internalizing problems predicting monitoring ($F = 6.05$), the two-way interaction of avoidant attachment x internalizing problems predicting overprotection ($F = 4.57$), and the three-way interaction of preoccupied attachment x externalizing problems x sex predicting monitoring ($F = 4.20$). Although the last interaction (the three-way interaction of preoccupied attachment x externalizing problems x sex predicting monitoring) was significant, follow-up analyses (a separate regression for each sex) revealed that the interaction was only nearing significance for boys (standardized beta = $-.11$, $p < .10$) and not significant for girls (standardized beta = $.08$, ns). The results from subsequent analyses on this interaction must therefore be interpreted with caution. The two significant two-way interactions, as well as the three-way interaction were subjected to the procedures recommended by Aiken and West (1991). Results indicated that the influence of attachment styles on perceptions of parenting over time was a function of the level of children's behavior problems, as described next.

Preoccupied attachment x internalizing problems predicting maternal monitoring.

Preoccupied attachment significantly predicted maternal monitoring to different degrees depending on the level of internalizing problems. As the level of internalizing problems moved from low ($-1 SD$) to medium ($0 SD$) to high ($+1 SD$), the relation between

preoccupied attachment and monitoring over time became increasingly positive; respective β s = .04, ns; .04, ns; .21 ($p < .01$, $F = 13.76$).

Avoidant attachment x internalizing problems predicting maternal overprotection.

Results indicated that the association between avoidant attachment and overprotection over time was dependent on the level of children's internalizing problems. As the level of internalizing problems moved from low (-1 *SD*) to medium (0 *SD*) to high (+1 *SD*), avoidant attachment was increasingly likely to lead to a perception of the mother as overprotective; respective β s = -.02, ns; .09 ($p < .05$, $F = 4.18$); .21 ($p < .01$, $F = 9.84$). Thus avoidant attachment led to perceived maternal overprotection for children with internalizing problems but not for children without internalizing problems.

Preoccupied attachment x externalizing problems predicting maternal

monitoring. For boys only, preoccupied attachment predicted maternal monitoring to different degrees depending on the level of externalizing problems. As the level of externalizing problems moved from low (-1 *SD*) to medium (0 *SD*) to high (+1 *SD*), the positive relation between preoccupied attachment and monitoring over time weakened; respective β s = .21, ($p < .05$, $F = 4.55$); .11 ns; .00, ns. For girls, this interaction was not significant. However, beta weights from the Aiken and West (1991) procedure are reported for comparison with the boys' data. As the level of externalizing problems moved from low (-1 *SD*) to medium (0 *SD*) to high (+1 *SD*), the relation between preoccupied attachment and monitoring over time became more positive; respective β s = .12, ns; .19 ($p < .01$, $F = 10.66$); .26 ($p < .01$, $F = 10.59$).

Discussion

The primary goal of this study was to investigate mutual influences between preadolescent children's perceptions of parenting and their own self-perceived attachment styles. Based on attachment theory, it was hypothesized that perceived neglectful, harsh, and rejecting parenting would contribute to the development of avoidant coping strategies at this age. Based on more recent theorizing and research findings (e.g., Yunger et al., 2005), it was hypothesized that perceived overprotective parenting would lead to the development of preoccupied attachment. The evidence did not support either hypothesis. Not one of the parenting variables significantly predicted either preoccupied or avoidant attachment styles over time.

There was, however, some evidence that children's behavior problems moderate the impact of perceived parenting on preoccupied and avoidant attachment. The combination of perceived harassment and internalizing problems predicted preoccupied attachment in children. The combination of perceived overprotection and externalizing behaviors led to increased avoidant attachment in children. Different information processing tendencies may mediate these different pathways. For example, children with internalizing problems may be more attentive to others' affective cues (e.g., Kochanska, 1993), more prone to attribute negative events (e.g., parental criticism) to stable, internal deficiencies within themselves (e.g., Goetz & Dweck, 1980), and more likely to remain engaged with aversive stimuli (e.g., Derryberry & Reed, 1994; Matthews & MacLeod,

1994); therefore, they may feel responsible for the other's negative affect and try to rectify the situation by becoming enmeshed in a clingy, preoccupied relationship. Also, children with internalizing problems, who may have a need for reassuring protection, may experience harassment as anxiety arousing and adopt a preoccupied style in an attempt to reassure themselves of their mother's availability, and thereby reduce their anxiety. Externalizing problems interacted with perceived maternal overprotectiveness to encourage avoidant attachment. Perhaps preadolescents with externalizing tendencies perceive maternal overprotection as stifling, intrusive, and invading of their autonomy, and therefore they react with avoidant strategies.

In general, however, the evidence for the idea that perceived maternal behavior is a causal influence on attachment at this age was very slim in this study. Although the two interactions of perceived parenting with behavior problems just described do implicate perceived parenting in the development of attachment at this age, these two interactions represent only a small fraction of all the possible interactions that were tested (i.e., 2 out of 20) and should be interpreted cautiously.

The reverse causal hypothesis in this study was that self-perceived preoccupied attachment promotes positive perceptions of parenting and that self-perceived avoidant coping fosters negative perceptions of parenting (Bartholomew & Horowitz, 1991; Kobak & Sceery, 1988; Mikulincer, 1995; Mikulincer & Florian, 1995). This hypothesis was strongly supported by the results. Children with self-perceived preoccupied styles saw their mother as significantly less harassing and more monitoring over time, whereas children with self-perceived avoidant styles saw their mother as significantly more harassing and less monitoring, affectionate, and reliably supportive over time.

However, there was also evidence that internalizing and externalizing problems moderated certain effects of attachment style on perceived parenting. Preoccupied attachment led to increased perceptions of maternal monitoring only for children with internalizing problems. Because preoccupied children are in a mutually enmeshed relationship with the parent, proximity is increased, which may give these children more opportunities to disclose information to their mother about their whereabouts, thus leading to a perception of increased monitoring behavior (Kerr & Stattin, 2000; Stattin & Kerr, 2000). It is also possible that when children with internalizing problems exhibit anxious, preoccupied behaviors, their mother reacts with heightened concern and monitoring, which is recognized and reported by the child. Yet another possibility is that internalizing tendencies strengthen preoccupied children's bias to see a relationship partner in a favorable light, even if in reality the partner is not behaving any differently.

Avoidant attachment predicted increased perceptions of overprotection for children with internalizing problems. This unanticipated result may reflect increased actual overprotection by parents of avoidant children who are depressed and fearful. That is, parents of such children may perceive avoidant children with internalizing problems as needing additional protection, and the children may be reporting this.

The major contribution of this study is to show that, at this age, children's attachment styles are less likely to be influenced by the children's perceptions of the mother than they are to influence these perceptions. Preadolescents with avoidant attachments are a particular concern, as these children are especially likely increasingly to view their mothers in a negative vein over time. Given that negative perceptions of the mother are associated with multiple developmental disadvantages (e.g., Steinberg, 2001;

Yunger et al., 2005), avoidant attachment at this age is a cause for concern. It appears that at this age children's avoidant tendencies have the unfortunate consequence of causing the children increasingly to feel rejected by their mother. Of course, at a younger age, the direction of influence may be the reverse, as traditional attachment theory would hold.

Although the contributions of attachment style to perceived parenting are clear, the mechanisms responsible for the effects remain unclear. These effects of attachment style on perceived parenting may be interpreted as suggesting that preoccupied and avoidant strategies elicit particular parenting responses. The preoccupied child's close enmeshed relationship with the mother could elicit less harassing and greater monitoring behavior in the mother whereas the avoidant child's strategies of distancing the mother from the self could evoke intrusive, aversive, and disinterested behavior in the mother. Children may notice these changes in the mother's behavior and report them. However, attachment styles may simply be biasing children's perceptual and representational systems; it is possible that being preoccupied or avoidant simply alters children's perceptions of their mother over time. Preoccupied children endorsed items indicating that they have a strong need for the mother in both stressful and novel situations, have difficulty separating from her, experience continued distress upon reunion, and have trouble exercising age appropriate autonomy due to excessive need for the mother. Such weak, negative, dependant self-views prospectively predicted increased positivistic maternal perceptions. Rather than viewing the mother as increasingly overprotective and curtailing of autonomy, preoccupied children perceived her in a salutary light, perhaps to reinforce their image of her as one who cares for them and one without whom they cannot cope. These findings are consistent with Bartholomew and Horowitz's (1991)

model of the adult attachment relationship wherein preoccupied individuals are thought to possess negative, dependent views of the self and positive, competent views of the interaction partner. This finding also accords with research which indicates that preoccupied adolescents perceive themselves as distressed and their parents as supportive (Kobak & Sceery, 1988). At present, then, it is unclear whether preoccupied attachment provokes real changes in maternal behavior, changes in perception, or both.

Similarly, the mechanisms responsible for the deterioration in avoidant children's perception of their mother remain unclear. Avoidant children endorsed items indicating that they deny affection towards the mother, avoid using the mother as a secure base during exploration and challenges, and refuse to seek the mother when upset. They were also dismissive of the mother's presence and preferred being left alone. Such defensively independent, self-reliant, and positive self-views prospectively predicted increased hostility and negativity in maternal perceptions. Specifically, avoidant children perceived their mother as more harassing and less monitoring, affectionate, and trustworthy over time. It is possible that avoidant children actually provoke these changes in maternal behavior. However, perceptual bias may again be responsible. The heightened negativity in avoidant children's maternal perceptions may simply be a consequence of their own positive self-view and their need to compare themselves favorably relative to their partners. These findings are in line with Bartholomew and Horowitz's (1991) model and several other research findings suggesting that avoidant individuals possess positive views of the self and negative views of the partner (e.g., Kobak & Sceery, 1988; Mikulincer, 1995; Mikulincer & Florian, 1995).

Although it is not possible from this study to determine the precise mechanisms responsible for the influences of attachment styles on perceived parenting, the data certainly accord with the idea that children of this age have already established firm self-views (attachment coping styles) that are more likely to lead to change in their perceptions of the mother than to be influenced by these perceptions of the mother. Preoccupied and avoidant children might be using strategies to cope with unwelcome or anxiety-inducing social information by downplaying or overemphasizing parenting behaviors that confirm or justify their self-views. Social information can be processed and feedback interpreted in ways to confirm and self-verify internal models of the self and others (Caspi & Elder, 1988; Greenwald, 1982; Swann, 1983). Perhaps preoccupied children actively seek negative feedback about the self and positive information about their partners, whereas avoidant children seek positive feedback about the self and negative information about their partner, thereby maintaining complementary views of the self and others (Cassidy, Ziv, Mehta, & Feeney, 2003). Internal models function to direct attention, organize, and filter new information and determine the accessibility of past models. Relational schemas (conceptions of self and other) appear to be biased towards schema consistent information and away from inconsistencies (Westen, 1988), and this may be why children with preoccupied and avoidant attachment working models become more entrenched in characteristic ways of thinking about the self and the mother over time. Thus, there was a change in parental perceptions as a result of confirmatory processes rather than a change towards disconfirming cognitions about the self and the mother.

An important finding of this study was that children's attachment styles strongly predicted changes in perceived parenting whereas children's behavior problems generally did not. The only simple effect of behavior problems on perceived parenting was that externalizing problems predicted a reduction in perceived maternal affection. This suggests that children's behavior problems do not mediate the effects of attachment style on perceived parenting. It is something about the attachment styles independent of any association they have with behavior problems that accounts for the findings.

Given the emphasis in attachment theory on perceptions of parenting as a causal influence on attachment styles, the lack of significant effects in this study supporting this position is surprising. This finding warrants further discussion. One possible explanation is that by preadolescence attachment styles have stabilized, and thereafter children are not particularly influenced by fluctuations in parental behaviors. However, this does not mean that at earlier ages, perceptions of parents have no influence on the development of attachment styles, or that parents have little role to play in other aspects of preadolescent children's social development. Also, possibly at this age aspects of parent-child interaction that we did not study contribute to attachment style. For example, a parent-child conflict concerning an issue of particular concern to the child may have progressed in a way that effects a change in the child's attachment style. Factors extraneous to parental style, such as divorce, separation, remarriage, or death of a parent, could also impact children's attachment styles. Indeed, momentous disruptions in the family structure have been associated with shifts in relationship adaptation (Hetherington & Clingempeel, 1992; Lewis, 1997), and such disruptions are associated with children's preoccupied and avoidant attachment styles (e.g., Hodges et al., 1999).

This study has several strengths. First, it focuses on attachment during preadolescence—a period largely neglected by attachment researchers (Kerns & Richardson, 2005). It is clear that attachment at this age is a potent force in shaping the direction that the parent-child relationship takes at this age. Second, it is a longitudinal study and therefore allows evaluating the relative merits of two causal hypotheses. The results demonstrated that self-perceived attachment styles lead to changes in perceived parenting and that the reverse direction of causality is less viable at this age. Third, the study addresses the role of children's behavior problems in contributing to the impact of attachment styles on perceptions of parenting as well as to the impact of perceived parenting on attachment styles. It was found that both internalizing and externalizing problems play a moderator role (but a limited one) in the two causal hypotheses under test.

This study also has its limitations. First, data were collected at only two time-points. Having additional time-points would have provided a more reliable estimate of change. Second, there was only a year's lapse between the two time-points; a longer age span might have revealed more change. Third, children of only a single age were tested; the relations between attachment and perceived parenting may be quite different at other ages. Fourth, the present study did not allow for deciding whether the effects of attachment on perceived parenting are due to attachment causing real changes in parents' behavior or due to perceptual/representation processes alone (e.g., bias). Fifth, this study did not assess the development of disorganized attachment, which is another important area where research needs to be focused. Finally, in this study, both of the major classes of variables of interest (attachment and perceived parenting) were reported by the child,

raising the possibility that shared method variance accounted for the findings. There are several reasons why shared method variance explanations are unlikely in this study. If shared method variance were responsible for associations among these variables, the traditional attachment hypothesis that perceived parenting would contribute to attachment styles should have been confirmed as often as the reverse causal hypothesis that attachment styles contribute to changes in perceived parenting; this was not the case. Also, the longitudinal design and regression analyses significantly reduced the threat of shared method variance. In all regression analyses, the Time 1 level of the outcome variable, which is self-reported, was controlled on the first step, and therefore, self-report biases are effectively controlled (for elaboration of this point, see Harold & Conger, 1997; Kochenderfer & Ladd, 1996; Steinberg, Lamborn, Dornbusch, & Darling, 1992).

Future research could explore the social cognitive mechanisms and pathways through which preoccupied and avoidant attachment influence change in perceptions of others. It has been indicated that implicit automatic processing can influence social behavior (Greenwald & Banaji, 1995). Investigating the implications of automatic processing in relationship cognitions (e.g., Baldwin, Carrell, & Lopez, 1990) could add important insights as to why dysfunctional interaction patterns persevere, or why perceptions resist change even when change is undeniably warranted. Investigating these mechanisms can yield new insights into individual differences in non-optimal styles of attachment as well as the establishment of entrenched and fixed ways of thinking about the self and others. A good future study would be one that includes measures of parents' real behavior as well as children's perceptions of it. It would be possible to untangle

whether the impact of attachment style on perceived parenting is mainly a function of changes in real parental behavior or mainly a function of children's perceptions alone.

In conclusion, this study clearly indicates that during the period of preadolescence, attachment styles are more likely a cause than a consequence of children's perceptions of parenting. This is an unexpected and noteworthy finding, because traditional attachment theory emphasizes the development of children's attachment styles as a consequence of parenting. This study provides ample evidence to conclude that the transition from elementary school to middle school is a period marked by both stability and change. Preadolescent children's attachment styles were resistant to the influences of perceived parenting, but their perceptions of parenting were modified in response to their attachment styles.

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Appendix

About My Mother

This questionnaire contains four scales measuring perceived maternal harassment, overprotectiveness, monitoring, and affectionate contact.

Instructions to Child:

This questionnaire contains some statements that describe different kinds of mothers that children can have. As you can see from the top of your sheet where it says “About My Mother,” I am going to ask you some questions about your mother. There are no right or wrong answers to these questions. Different kids have different types of mothers. Also, remember that your answers will be completely private, and nobody except me and the research workers will see what you put down. First let me explain how the questions work. There is a sample question below marked PRACTICE QUESTION. I’ll read it aloud and you can follow along with me. (Researcher reads practice question.)

PRACTICE QUESTION

Some mothers don’t let their children eat candy

BUT

Other mothers do let their kids eat candy

Very true for me Sort of true for me

Sort of true for me Very true for me

This question talks about two kinds of mothers, and we want to know which kind of mother is more like yours.

1. So, what I want you to decide first is whether your mother is more like the mothers on the left side who don’t let their kids eat candy or is more like the mothers on the right who do let their kids eat candy. Don’t mark anything yet, but first decide which kind of mother is more like yours and go to that side of the sentence.
2. Now, the second thing I want you to think about, now that you have decided which kind of mother is more like yours, is to decide whether that is only sort of true or very true. If it’s only sort of true, then circle “sort of true for me”; if it’s really true for you, then circle “very true for me”.
3. For each question, you only circle one statement. Sometimes it will be on one side of the page, and at other times it may be on the other side of the page. You can only circle one statement per question. You don’t circle one on both sides, just the one side more like you.

4. OK, that one was just for practice. Now we have some more questions which I'm going to read aloud. For each one, just circle one statement, the one that goes with what is true for your mother, which she is most like.

About My Mother

- | | | |
|---|------------|---|
| 1. Some mothers get mad easily over little things | BUT | Other mothers don't get mad easily over little things. |
| Very true for me Sort of true for me | | Sort of true for me Very true for me |
| 2. Some kids don't go out and do fun things with their mother | BUT | Other kids do go out and do fun things with their mother. |
| Very true for me Sort of true for me | | Sort of true for me Very true for me |
| 3. Some mothers would be afraid to let their kid spend a weekend away from them | BUT | Other mothers wouldn't be afraid to let their kid spend a weekend away from them. |
| Very true for me Sort of true for me | | Sort of true for me Very true for me |
| 4. Some mothers know where their kid is when the kid is away from home | BUT | Other mothers don't know where their kid is when the kid is away from home. |
| Very true for me Sort of true for me | | Sort of true for me Very true for me |
| 5. Some mothers respect their kid's privacy | BUT | Other mothers do not respect their kid's privacy. |
| Very true for me Sort of true for me | | Sort of true for me Very true for me |
| 6. Some mothers let their kid explore new places | BUT | Other mothers are afraid to let their kid explore new places. |
| Very true for me Sort of true for me | | Sort of true for me Very true for me |
| 7. Some mothers <u>aren't</u> always afraid their kid will get sick | BUT | Other mothers <u>are</u> always afraid their kid will get sick. |
| Very true for me Sort of true for me | | Sort of true for me Very true for me |

- | | | |
|--|------------|---|
| <p>8. Some kids and their mother care about each other's feelings</p> <p style="margin-left: 40px;">Very true Sort of
for me true for me</p> | BUT | <p>Other kids and their mother <u>don't</u> care about each other's feelings</p> <p style="margin-left: 40px;">Sort of Very true
true for me for me</p> |
| <p>9. Some mothers use threats to get their kid to behave.</p> <p style="margin-left: 40px;">Very true Sort of
for me true for me</p> | BUT | <p>Other mothers <u>don't</u> use threats to get their kid to behave.</p> <p style="margin-left: 40px;">Sort of Very true
true for me for me</p> |
| <p>10. Some mothers let their kid take chances and try new things</p> <p style="margin-left: 40px;">Very true Sort of
for me true for me</p> | BUT | <p>Other mothers don't let their kid take chances and try new things</p> <p style="margin-left: 40px;">Sort of Very true
true for me for me</p> |
| <p>11. Some mothers don't know what their kids are doing with their free time</p> <p style="margin-left: 40px;">Very true Sort of
for me true for me</p> | BUT | <p>Other mothers do know what their kids are doing with their free time</p> <p style="margin-left: 40px;">Sort of Very true
true for me for me</p> |
| <p>12. Some mothers aren't always afraid their kid will get hurt</p> <p style="margin-left: 40px;">Very true Sort of
for me true for me</p> | BUT | <p>Other mothers <u>are</u> always afraid their kid will get hurt</p> <p style="margin-left: 40px;">Sort of Very true
true for me for me</p> |
| <p>13. Some mothers leave their kid alone when their kid wants to be alone</p> <p style="margin-left: 40px;">Very true Sort of
for me true for me</p> | BUT | <p>Other mothers bother their kid when the kid wants to be alone.</p> <p style="margin-left: 40px;">Sort of Very true
true for me for me</p> |
| <p>14. Some mothers baby their kids by not letting them try new things</p> <p style="margin-left: 40px;">Very true Sort of</p> | BUT | <p>Other mothers <u>don't</u> baby their kids and do let them try new things</p> <p style="margin-left: 40px;">Sort of Very true</p> |

- | | | | |
|-----|--|------------|--|
| | for me true for me | | true for me for me |
| 15. | Some kids do lots of fun things with their mother | BUT | Other kids don't do fun things with their mother |
| | Very true Sort of
for me true for me | | Sort of Very true
true for me for me |
| 16. | Some mothers <u>don't</u> worry too much about their kid when they're not with the kid | BUT | Other mothers <u>do</u> worry too much about their kid when they're not with the kid |
| | Very true Sort of
for me true for me | | Sort of Very true
true for me for me |
| 17. | Some mothers are nosy and ask embarrassing personal questions | BUT | Other mothers are not nosy and don't ask embarrassing personal questions |
| | Very true Sort of
for me true for me | | Sort of Very true
true for me for me |
| 18. | Some mothers let their kids try new and exciting things like climbing a tall tree or swimming out farther than usual | BUT | Other mothers <u>don't</u> let their kids try those kinds of new and exciting things |
| | Very true Sort of
for me true for me | | Sort of Very true
true for me for me |
| 19. | Some mothers don't know who their kid's friends are | BUT | Other mothers do know who their kid's friends are |
| | Very true Sort of
for me true for me | | Sort of Very true
true for me for me |
| 20. | When visiting new places (like a new mall)
Some mothers worry that their kid might get lost | BUT | Other mothers don't worry that their kid might get lost |
| | Very true Sort of
for me true for me | | Sort of Very true
true for me for me |
| 21. | Some mothers <u>don't</u> yell at their kid and put them down a lot | BUT | Other mothers <u>do</u> yell at their kid and put them down a lot |

- | | | | | | |
|-----|--|------------------------|------------|---|---------------------|
| | Very true
for me | Sort of
true for me | | Sort of
true for me | Very true
for me |
| 22. | Some mothers know where their kid is after school | | BUT | Other mothers don't know where their kid is after school | |
| | Very true
for me | Sort of
true for me | | Sort of
true for me | Very true
for me |
| 23. | Some kids and their mother really enjoy each other's company | | BUT | Other kids and their mother <u>don't</u> enjoy each other's company | |
| | Very true
for me | Sort of
true for me | | Sort of
true for me | Very true
for me |
| 24. | Some mothers don't let their kid try exciting new things that older kids are allowed to do | | BUT | Other mothers <u>do</u> let their kid try exciting new things that older kids are allowed to do | |
| | Very true
for me | Sort of
true for me | | Sort of
true for me | Very true
for me |
| 25. | Some mothers come into their kid's room when the kid doesn't want them to | | BUT | Other mothers don't come into the kid's room unless the kid wants them to | |
| | Very true
for me | Sort of
true for me | | Sort of
true for me | Very true
for me |
| 26. | Some mothers think lots of things are too dangerous for their kid to do | | BUT | Other mothers don't think lots of things are too dangerous for their kid to do | |
| | Very true
for me | Sort of
true for me | | Sort of
true for me | Very true
for me |
| 27. | Some mothers don't know what a kid is doing when out with a friend | | BUT | Other mothers <u>do</u> know what a kid is doing when out with a friend | |
| | Very true
for me | Sort of
true for me | | Sort of
true for me | Very true
for me |

28. Some kids don't enjoy doing things with their mother **BUT** Other kids do enjoy doing things with their mother
- Very true Sort of
for me true for me Sort of Very true
true for me for me
29. Some mothers don't butt into their kid's business **BUT** Other mothers are always butting into their kid's business
- Very true Sort of
for me true for me Sort of Very true
true for me for me
30. You go camping with your family, and at the campground you meet some kids your age.
30. Some mothers wouldn't want their kid to go off alone with their new friends to explore the campground **BUT** Other mothers would let their kid go off to explore with their new friends.
- Very true Sort of
for me true for me Sort of Very true
true for me for me
31. Some mothers always know how to get in touch with their kid when their kid is away from home **BUT** Other mothers don't always know how to get in touch with their kid when their kid is away from home
- Very true Sort of
for me true for me Sort of Very true
true for me for me
32. Some kids just don't get along with their mother **BUT** Other kids do get along well with their mother.
- Very true Sort of
for me true for me Sort of Very true
true for me for me

Key for “About My Mother”

- | | |
|----------------------------|----------------------------|
| 1. Harassment* | 17. Harassment* |
| 2. Affectionate contact | 18. Overprotectiveness |
| 3. Overprotectiveness* | 19. Monitoring |
| 4. Monitoring* | 20. Overprotectiveness* |
| 5. Harassment | 21. Harassment |
| 6. Overprotectiveness | 22. Monitoring* |
| 7. Overprotectiveness | 23. Affectionate contact * |
| 8. Affectionate contact* | 24. Overprotectiveness* |
| 9. Harassment* | 25. Harassment* |
| 10. Overprotectiveness | 26. Overprotectiveness* |
| 11. Monitoring | 27. Monitoring |
| 12. Overprotectiveness | 28. Affectionate contact |
| 13. Harassment | 29. Harassment |
| 14. Overprotectiveness* | 30. Overprotective* |
| 15. Affectionate contact * | 31. Monitoring* |
| 16. Overprotectiveness | 32. Affectionate contact |

Harassment: 1*, 5, 9*, 13, 17*, 21, 25*, 29

Affectionate contact: 2, 8*, 15*, 23*, 28, 32

Overprotectiveness: 3*, 6, 7, 10, 12, 14*, 16, 18, 20*, 24*, 26*, 30*

Monitoring: 4*, 11, 19, 22*, 27, 31*

*reverse-scored

About My Classmates

This Peer Nomination Inventory contains scales measuring internalizing and externalizing behavioral dispositions.

Instructions to Child:

(First give the child a ruler, to help the child to keep track of the item he/she is working on.) Read the following to the child:

Here is a ruler that you can use to help you do this next questionnaire. Don't turn over the paper until I tell you to. We have been having boys and girls in school describe things they do. Now we want to know how many boys and girls here at (name the school) do the same sorts of things. So we have written down lots of things that kids do. I want you to check which boys (girls) in your class do these things.

Everything is private and we will not show anybody else what any of you has put down on your paper, and none of you will find out what other kids have put down. If you have any questions about what the items mean, just ask me.

Ok, now turn over your paper. Across the top are the names of the boys (girls) in your class. I will read them aloud, and I want you to read them out loud with me, so that you are sure you know who each one is. (Read names.) Now find your own name and then mark a line through the column that has your name on it, because you won't put any "X"s under your own name.

Now look down the side of the page. See Number 1. (Have them use the ruler for a guideline.) "He likes to play sports." OK, now look across the names. Who likes to play sports? Put an "X" under his (her) name. Who else likes to play sports? Put an "X" under his (her) name too. Put an "X" under the name of every boy (girl) who likes to play sports. (Pause.) Through with that one? OK, we'll go on to the next one. Remember, for each item you can put an "X" under as many names as you want to. (Read items one by one)

About My Classmates (Teacher's Name)

BOY'S FORM	Participant A	Participant B	Participant C	Participant D	Participant E	Participant F	Participant G	Participant H	Participant I	Participant J
1. He argues a lot.										
2. He is afraid to do things.										
3. He plays by himself most of the time.										
4. He's always asking for help.										
5. He hits and pushes others around.										
6. He gets picked on by other kids.										
7. He sometimes takes things that belong to someone else.										
8. He says bad things about himself.										
9. He makes fun of people.										
10. He makes noise or bothers you in class.										
11. He doesn't talk much.										
12. He gets hit and pushed by other kids.										
13. He can't do things by himself.										

	Participant A	Participant B	Participant C	Participant D	Participant E	Participant F	Participant G	Participant H	Participant I	Participant J
14. Kids make fun of him.										
15. When other kids are playing, he watches them but doesn't join in.										
16. He's just plain mean.										
17. He seems unhappy and looks sad often.										
18. He always has to have his own way.										
19. He doesn't follow rules.										
20. On the playground he just stands around.										
21. He tells lies.										
22. He puts himself down a lot.										

Key for “About My Classmates”

1. Externalizing problem
2. Internalizing problem
3. Internalizing problem
4. Internalizing problem
5. Externalizing problem
6. Internalizing problem
7. Externalizing problem
8. Internalizing problem
9. Externalizing problem
10. Externalizing problem
11. Internalizing problem
12. Internalizing problem
13. Internalizing problem
14. Internalizing problem
15. Internalizing problem
16. Externalizing problem
17. Internalizing problem
18. Externalizing problem
19. Externalizing problem
20. Internalizing problem
21. Externalizing problem
22. Internalizing problem

Internalizing problem: 2, 3, 4, 6, 8, 11, 12, 13, 14, 15, 17, 20, and 22.

Externalizing problem: 1, 5, 7, 9, 10, 16, 18, 19, and 21.

What I Am Like With My Mother

This questionnaire contains three scales measuring preoccupied coping, avoidant coping, and reliable support.

Instructions to Child:

This questionnaire asks about what you are like with your mother – like how you act and feel around her. On this questionnaire, the items are set up in the same way that they were on the last questionnaire, only this time the questions are about you. Let's try a practice question:

PRACTICE QUESTION

One day at school you get your test back from your teacher and you see that you scored a low grade on the test. When you get home, your mother can tell that you feel bad and she asks if you want to talk about it.

Some kids would want to talk to their mother about it

BUT

Other kids would want to be left alone.

Very true for me Sort of true for me

Sort of true for me Very true for me

What I Am Like With My Mother?

1. One day you go to a movie with your friend. After the show, you are waiting for your mother to pick you up to go home. Your mother is very late.

Some kids would stay calm
until their mother got there

BUT

Other kids would be very
upset and worried about her.

Very true Sort of
for me true for me

Sort of Very true
true for me for me

2. Your mother has been away for a few days but is coming home later in the day.

Some kids wouldn't care that
she is coming home

BUT

Other kids would look
forward to seeing her.

Very true Sort of
for me true for me

Sort of Very true
true for me for me

3. One of your teachers says something mean to you at school one day.

Some kids would let their
mother know they were upset
and would talk to her about it

BUT

Other kids wouldn't let their
mother know they were upset
and would not talk to her
about it.

Very true Sort of
for me true for me

Sort of Very true
true for me for me

4. Your mother takes you to the doctor's office for a check up. While you are sitting in the waiting room, she says she is going to run an errand and will be back to pick you up later.

Some kids would be glad
their mother left them alone
to wait

BUT

Other kids would prefer that
their mother wait with them.

Very true Sort of
for me true for me

Sort of Very true
true for me for me

5. You and your mother go to a carnival one evening. Some of the rides look a little scary, but they look fun and exciting too. You want your mother to go on some of the rides with you, but your mother says she is tired and just wants to sit on the bench and watch.

Some kids would go on the

Other kids wouldn't go on

rides alone **BUT** the rides alone.

Very true Sort of
for me true for me Sort of Very true
true for me for me

6. You get sick and have to spend a few days in the hospital..

Some kids would want their mother to spend the whole time with them in their hospital room **BUT** Other kids wouldn't mind if their mother just visited them during visiting hours.

Very true Sort of
for me true for me Sort of Very true
true for me for me

7. Your mother says she is thinking about going to visit a relative for a week or two.

Some kids would be upset that she is going away for so long and would try to talk her out of going **BUT** Other kids wouldn't be upset and wouldn't try to talk her out of going.

Very true Sort of
for me true for me Sort of Very true
true for me for me

8. Let's say that you have a favorite pet, a cat or a dog, that suddenly gets very sick. You are sad about it.

Some kids would let their mother know they were feeling sad **BUT** Other kids would not let their mother know they were feeling sad.

Very true Sort of
for me true for me Sort of Very true
true for me for me

9. You are at the movies with your mother and you have to go out to the bathroom. When you come back in, the theatre is so dark that you can't find your mother.

Some kids would calmly look for their mother and not be too worried **BUT** Other kids would look for their mother and be very upset until they found her.

Very true Sort of
for me true for me Sort of Very true
true for me for me

10. You and your mother are visiting a new shopping center to see what it is like. Your mother suggests that the two of you explore the center together.

Some kids would only want to explore it on their own

BUT

Other kids wouldn't mind exploring it with their mother.

Very true Sort of
for me true for me

Sort of Very true
true for me for me

11. You and your mother go to the movies together. When you go into the theater, you see that it is crowded and you can't find two seats together.

Some kids would be sorry they can't sit with their mother

BUT

Other kids would rather sit away from her anyway.

Very true Sort of
for me true for me

Sort of Very true
true for me for me

12. On the way home from school a bully stops you and threatens you. This makes you upset and afraid. When you get home you talk to your mother about it.

Some kids would stay close to their mother and talk about it for a long time

BUT

Other kids would talk to her for a short time and then get over it.

Very true Sort of
for me true for me

Sort of Very true
true for me for me

13. One day you and your mother go to the zoo. Your mother says that because she has not seen you much lately, she would like the two of you to look at the animals together.

Some kids would be willing to look at the animals with their mother

BUT

Other kids would rather look at the animals alone and meet up with their mother later.

Very true Sort of
for me true for me

Sort of Very true
true for me for me

14. One day you have a problem with a friend at school. When you get home, your mother can tell that you are upset and starts talking to you about it.

Some kids would feel comfortable talking to their mother about their feelings and problems

BUT

Other kids would just want their mother to leave them alone.

Very true Sort of

Sort of Very true

for me true for me true for me for me

15. You have to go to the doctor for a check up and you are in the waiting room with your mother. Your mother wants to leave you at the doctor's office while she does some shopping.

Some kids would be upset
and would try to make their
mother stay **BUT** Other kids wouldn't be so
upset and wouldn't try to
make their mother stay.

Very true Sort of Sort of Very true
for me true for me true for me for me

16. Your mother comes home after being away for a week or two.

Some kids would stop what
they are doing and run to
greet her with a hug or a kiss **BUT** Other kids wouldn't stop
what they are doing to greet
her.

Very true Sort of Sort of Very true
for me true for me true for me for me

17. There is an after school sports team that you really want to join, but you realize that you don't know anyone on the team. You ask your mother to go to the tryouts with you. She says she can drive you there but can't stay there with you.

Some kids would go only if
their mother could stay
during the tryouts **BUT** Other kids would go even if
she couldn't stay.

Very true Sort of Sort of Very true
for me true for me true for me for me

18. One day you come home from school upset about something. Your mother asks you what the problem is.

Some kids wouldn't want to
talk to her about it **BUT** Other kids would want to
talk her about it.

Very true Sort of Sort of Very true
for me true for me true for me for me

19. You and your mother are at a busy shopping mall in Miami, and suddenly you can't find your mother. You are upset, but a little later you find each other.

Some kids would soon get
over being upset **BUT** Other kids would stay
worried that they might get

separated again.

Very true Sort of
for me true for me

Sort of Very true
true for me for me

20. One day at school the teacher misunderstands something you did and scolds you for it. You become upset.

Some kids would stay upset until they talked to their mother about it

BUT

Other kids would be able to calm themselves down without talking to their mother.

Very true Sort of
for me true for me

Sort of Very true
true for me for me

OK. Now the rest of these questions are short, but they're still about you and how you feel about your mother.

21. Some kids worry that their mom might not be there when they need her

BUT

Other kids are sure their mom will be there when they need her.

Very true Sort of
for me true for me

Sort of Very true
true for me for me

22. Some kids feel like their mom really understands them

BUT

Other kids feel like their mom does not really understand them.

Very true Sort of
for me true for me

Sort of Very true
true for me for me

23. Some kids feel that their mom doesn't help them enough with their problems

BUT

Other kids think that their mom helps them enough with their problems.

Very true Sort of
for me true for me

Sort of Very true
true for me for me

24. Some kids are sure that their mom would never leave them

BUT

Other kids sometimes wonder if their mom might leave them.

Very true Sort of
for me true for me

Sort of Very true
true for me for me

25. Some kids think their mom

Other kids think their mom

doesn't spend enough time with them.

Very true Sort of
for me true for me

BUT

does spend enough time with them.

Sort of Very true
true for me for me

26. Some kids find it easy to trust their mom

Very true Sort of
for me true for me

BUT

Other kids are not sure if they can trust their mom.

Sort of Very true
true for me for me

27. Some kids worry that their mom does not really love them

Very true Sort of
for me true for me

BUT

Other kids are really sure that their mom loves them.

Sort of Very true
true for me for me

28. Some kids find it easy to count on their mom for help

Very true Sort of
for me true for me

BUT

Other kids think it's hard to count on their mom for help.

Sort of Very true
true for me for me

Key for “What I Am Like With My Mother”

- | | |
|------------------|------------------------|
| 1. Preoccupied | 16. Avoidant |
| 2. Avoidant* | 17. Preoccupied* |
| 3. Avoidant | 18. Avoidant* |
| 4. Avoidant* | 19. Preoccupied |
| 5. Preoccupied | 20. Preoccupied* |
| 6. Preoccupied* | 21. Reliable support |
| 7. Preoccupied* | 22. Reliable support * |
| 8. Avoidant | 23. Reliable support |
| 9. Preoccupied | 24. Reliable support * |
| 10. Avoidant* | 25. Reliable support |
| 11. Avoidant | 26. Reliable support* |
| 12. Preoccupied* | 27. Reliable support |
| 13. Avoidant | 28. Reliable support* |
| 14. Avoidant | |
| 15. Preoccupied* | |

Preoccupied: 1, 5, 6*, 7*, 9, 12*, 15*, 17*, 19, 20*
Avoidant: 2*, 3, 4*, 8, 10*, 11, 13, 14, 16, 18*
Reliable support: 21, 22*, 23, 24*, 25, 26*, 27, 28*

*reverse-scored

Table 1
Means and Standard Deviations of Measures

Time 1 Measures	<u>Boys</u>		<u>Girls</u>		<u>Sex</u>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<u>Differences</u>
Harassment	1.88	.65	1.84	.59	.79
Overprotectiveness	2.41	.68	2.48	.60	2.25
Monitoring	3.15	.63	3.27	.61	3.64
Affectionate contact	3.40	.56	3.55	.56	6.67*
Reliable support	3.21	.60	3.26	.59	.34
Internalizing problem	.21	.16	.19	.13	2.06
Externalizing problem	.25	.18	.20	.17	9.56**
Preoccupied attachment	2.61	.64	2.90	.66	19.30*
Avoidant attachment	1.67	.58	1.46	.48	15.04*
<u>Time 2 Measures</u>					
Harassment	1.93	.62	1.91	.65	.07
Overprotectiveness	2.19	.56	2.25	.58	1.4
Monitoring	3.24	.63	3.46	.58	12.98**
Affectionate contact	3.48	.63	3.53	.57	.46
Reliable support	3.32	.58	3.27	.66	.79
Internalizing problem	.15	.14	.16	.12	.38
Externalizing problem	.22	.18	.19	.18	1.92
Preoccupied attachment	2.34	.65	2.66	.66	24.74**
Avoidant attachment	1.70	.62	1.49	.54	13.27**

Note: *F* values indicate the significance of the sex difference (with cohort and ethnicity controlled)

* $p < .05$

** $p < .01$

Table 2
Correlations Among Measures at Each Time Point

Measures	1	2	3	4	5	6	7	8	9
1. Harassment	--	.22**	-.36**	-.54**	-.51**	.05	.01	-.02	.32**
2. Overprotectiveness	.29**	--	-.11*	-.18**	-.07	.13	.00	.38**	-.14**
3. Monitoring	-.47**	-.08	--	.35**	.39**	-.09	-.07	.10	-.38**
4. Affectionate contact	-.55**	-.16**	.47**	--	.62**	-.11*	-.12*	.20**	-.50**
5. Reliable support	-.58**	-.15**	.50**	.65**	--	-.11*	-.01	.15**	-.49**
6. Internalizing	.07	.11	-.07	-.07	-.12	--	.26**	.07	-.01
7. Externalizing	.08	-.05	-.09	-.10	-.09	.23**	--	.06	.03
8. Preoccupied	-.24**	.34**	.23**	.28**	.18**	.05	-.00	--	-.51**
9. Avoidant	.51**	-.01	-.52**	-.65**	-.57**	.04	.10	-.51**	--

Note: Entries are partial correlations with cohort, sex and ethnicity controlled. Time 1 correlations are above the diagonal; Time 2 correlations are below the diagonal.

* $p < .05$ ** $p < .01$

Table 3
Correlations Between Time-1 Measures and Time-2 Measures

Time 1 Measures	Time 2 Measures								
	1	2	3	4	5	6	7	8	9
1. Harassment	.41**	.28**	-.24**	-.33**	-.31**	.07	.04	-.03	.19***
2. Overprotectiveness	.06	.47**	-.04	.03	.04	.06	-.09	.25**	-.06
3. Monitoring	-.24**	-.06	.51**	.29**	.30**	-.10	-.01	.08	-.24**
4. Affectionate contact	-.33**	-.19	.30**	.43**	.38**	-.10*	-.12*	.13	-.29**
5. Reliable support	-.31**	-.12*	.31**	.38**	.41**	-.11*	-.07	.07	-.26**
6. Internalizing	.07	.13*	-.06	-.07	-.10*	.59**	.00	.09	.01
7. Externalizing	.07	-.01	-.12*	-.15**	-.08	.18**	.51**	.03	.08
8. Preoccupied	-.12*	.21**	.18**	.16**	.14**	.02	-.07	.51**	-.28**
9. Avoidant	.26**	.02	-.35**	-.38**	-.31**	-.02	.06	-.27**	.45**

Note: Entries are partial correlations with cohort, sex and ethnicity controlled.

* $p < .05$ ** $p < .01$

Table 4
Simple Effects of Perceived Parenting and Behavior Problems Predicting Attachment Styles

Perceived Parenting (T1)	Attachment Style (T2)	
	Preoccupied	Avoidant
Harassment	-.01	.05
Harassment x Sex	.10	-.06
Overprotectiveness	.06	.00
Overprotectiveness x Sex	-.06	.01
Monitoring	.03	-.08
Monitoring x Sex	-.08	-.02
Affectionate contact	.03	-.09
Affectionate contact x Sex	-.05	-.05
Reliable support	-.01	-.05
Reliable support x Sex	-.05	-.05
Behavior Problem (T1)		
Internalizing	.05	.01
Internalizing x Sex	-.03	-.04
Externalizing	.00	.08
Externalizing x Sex	-.04	.04

Note: Table entries are standardized betas for the total sample with sex, cohort, ethnicity and Time 1 criterion controlled.

Table 5
Interactive Effects of Perceived Parenting and Behavior Problems Predicting Attachment Styles

Perceived Parenting x Behavior Problems (T1)	Attachment Style (T2)	
	Preoccupied	Avoidant
Harassment x Internalizing	.10*	-.04
Harassment x Internalizing x Sex	.05	-.01
Overprotectiveness x Internalizing	.04	-.01
Overprotectiveness x Internalizing x Sex	.03	-.07
Monitoring x Internalizing	-.03	.03
Monitoring x Internalizing x Sex	-.02	.07
Affectionate contact x Internalizing	.00	-.04
Affectionate contact x Internalizing x Sex	-.06	.10
Reliable support x Internalizing	-.06	-.01
Reliable support x Internalizing x Sex	-.11	.10
Harassment x Externalizing	.03	.02
Harassment x Externalizing x Sex	-.01	.05
Overprotectiveness x Externalizing	-.05	.10*
Overprotectiveness x Externalizing x Sex	-.00	.00
Monitoring x Externalizing	-.04	.07
Monitoring x Externalizing x Sex	-.07	.06
Affectionate contact x Externalizing	-.00	-.07
Affectionate contact x Externalizing x Sex	-.05	.07
Reliable support x Externalizing	-.01	-.00
Reliable support x Externalizing x Sex	.03	-.04

Note: Table entries are standardized betas for the total sample with sex, cohort, ethnicity and Time 1 criterion controlled.

* $p < .05$

Table 6
Simple Effects of Attachment Styles and Behavior Problems Predicting Perceived Parenting

Attachment Style (T1)	<u>Perceived Parenting (T2)</u>				
	Harassment	Overprotectiveness	Monitoring	Affectionate contact	Reliable support
Preoccupied	-.12*	.04	.13**	.08	.08
Preoccupied x Sex	-.03	-.09	-.05	-.05	-.04
Avoidant	.15**	.08	-.19**	-.23**	-.14**
Avoidant x Sex	.06	.06	-.02	.07	.03
<hr/>					
Behavior Problem (T1)					
Internalizing	.05	.07	-.02	-.02	-.06
Internalizing x Sex	-.07	-.07	-.01	-.01	.04
Externalizing	.08	-.02	-.09	-.11*	-.08
Externalizing x Sex	.05	-.02	.00	-.07	-.04

Note: Table entries are standardized betas for the total sample with sex, cohort, ethnicity and Time 1 criterion controlled.

* $p < .05$ ** $p < .01$

Table 7

Interaction Effects of Attachment Styles and Behavior Problems Predicting Perceived Parenting

Attachment x Behavior Problem (T1)	<u>Perceived Parenting (T2)</u>				
	Harassment	Overprotective	Monitoring	Aff. contact	Reliable support
Preoccupied x Internalizing	.03	.02	.09*	.02	.04
Preoccupied x Internalizing x Sex	.11	.03	-.05	-.05	.05
Avoidant x Internalizing	-.03	.09*	-.03	-.02	-.07
Avoidant x Internalizing x Sex	-.02	-.06	-.03	.04	.02
Preoccupied x Externalizing	.01	.02	-.03	.03	.01
Preoccupied x Externalizing x Sex	.10	.08	-.13*	-.10	-.09
Avoidant x Externalizing	.01	.06	-.01	-.08	-.04
Avoidant x Externalizing x Sex	-.05	-.06	.03	.02	.09

Note: Table entries are standardized betas for the total sample with sex, cohort, ethnicity and Time 1 criterion controlled.

* $p < .05$