ABSTRACT

Title of dissertation: MATERNAL AND PATERNAL PARENTING AND GIRLS' AND BOYS' ATTACHMENT SECURITY IN MIDDLE CHILDHOOD

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Current attachment security is presumed to reflect both early experiences and current relationships with attachment figures. However, few researchers have examined the parenting behaviors that are linked with attachment during middle childhood. The overall purpose of the present study was to investigate the relations among maternal and paternal parenting behaviors (sensitivity, encouragement of autonomy) and girls' and boys' attachment security with respect to their mothers and fathers.

It has been suggested that fathering becomes more important as children grow older and form relationships outside the family. In addition, the type of sensitivity that promotes attachment security with mother may differ from the type of sensitivity that promotes attachment security with father. A perspective on attachment that encompasses security in both attachment and exploration suggests that parents must both respond sensitively to child distress and support autonomy. It was hypothesized that mothers are more likely to act as a safe haven and respond to child distress, whereas fathers are more likely to act as a secure base for exploration.

Data from the *NICHD Study of Early Child Care and Youth Development* (*NICHD SECCYD*) were analyzed. Participants were restricted to "traditional nuclear" families. Data relevant to the current study were collected at laboratory and home visits when children were in Grades 3, 4, and 5. Parental sensitivity and respect for autonomy were observed in child-parent interactions in Grades 3 and 5. Parent-reported encouragement of autonomy was assessed at Grades 3 and 4. Child-reported felt security with respect to each parent, observed dyadic felt security, and parent-reported child attachment behaviors were assessed in Grades 3 and 5.

Structural equation modeling was used to test the study hypotheses. The model that emerged contained significant correlations between maternal and paternal sensitivity and between child-mother and child-father attachment at both Grades 3 and 5, stability of both sensitivity and attachment, and predictive relations only within Grade 5. Taken as a whole, the results point to the need to take a developmental pathways perspective and to examine the reciprocal relations between children and parents in middle childhood.

MATERNAL AND PATERNAL PARENTING AND GIRLS' AND BOYS'

ATTACHMENT SECURITY IN MIDDLE CHILDHOOD

by

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CHAPTER 1

SPECIFIC AIMS

There is strong evidence to suggest that differences in the home experience, particularly in the parent-child relationship, influence children's feelings of self-worth, their competence with peers, and aspects of their friendship relationships (Harter, 1998; Rubin, Bukowski, & Parker, 1998; Schneider, Atkinson, & Tardif, 2001). Attachment theory and research suggest that children's experiences with their caregivers during infancy influence the ways they come to think and feel about themselves and others (Bowlby, 1973; 1982). Yet, children and parents also continue to be part of ongoing, developing relationships with one another, and representations of relationships, although tending to be stable, remain flexible (Bowlby, 1973). Thus, to address differences in social competence or even self-worth at the level of the individual is to ignore a significant component of the child's immediate environment and to miss an important opportunity for lasting change.

Attachment security, or confidence in the availability and responsiveness of a caregiver in times of distress, grows out of the particular relationship history between the child and caregiver (Ainsworth, Blehar, Waters, & Wall, 1978; Bowlby, 1982). A securely attached infant has theoretically experienced consistently accessible and responsive caregiving from an attachment figure, whereas an insecurely attached infant has experienced non-responsive or inconsistently responsive caregiving (Ainsworth, Blehar, Waters, & Wall, 1978). Variations in attachment security are evident by the second year of life and, according to attachment theory, become increasingly stable over time, as relationship patterns are repeated and attachment-related thoughts and feelings

become automatic and subconscious (Bowlby, 1973). However, discontinuity is possible, and even expected, when there are major changes in the attachment relationship (Belsky & Cassidy, 1994; Bowlby, 1973). Although increasing attention has been given to attachment beyond infancy in recent years, few researchers have investigated the links between caregiving and attachment security in older children and young adolescents. Thus, the *overall purpose* of the present study was to investigate the relations between maternal and paternal caregiving and school-aged girls' and boys' attachment security.

Given the prominence of the hypothesis that responsive and available caregiving leads to secure attachment, it is not surprising that a great deal of research has been conducted to examine the links between maternal sensitivity and infant attachment, with results revealing a moderate link between the two (De Wolff & van IJzendoorn, 1997). Far less research has been conducted to examine the links between fathers' sensitivity and infant-father attachment. Results of this research have revealed weaker links between paternal sensitivity and infant-father attachment than between maternal sensitivity and infant-mother attachment (van IJzendoorn & De Wolff, 1997). Suggested explanations for this difference include the following: First, it may not be appropriate to measure paternal sensitivity with measures developed to measure maternal sensitivity (Lewis & Lamb, 2003). Second, the link between paternal sensitivity and infant-father attachment may be more susceptible to the influence of contextual factors (not least of which is the quality of the mother-child relationship) than is the link between maternal sensitivity and infant-mother attachment (e.g., Lamb, 2002). Third, fathers may be more influential later in development, particularly as children form relationships outside the family (Lewis & Lamb, 2003). Thus, it seems important to examine fathering and school-aged children's

attachment to their fathers, with consideration of the measurement of paternal sensitivity and in the context of mothering and children's-attachment to their mothers.

Initial research has revealed links between parenting behaviors and attitudes and school-aged children's attachment security (Kerns, Klepac, & Cole, 1996; Kerns, Tomich, Aspelmeier, & Contreras, 2000). However, these studies have assessed sensitivity in an identical fashion across mothers and fathers, without consideration of the possibility that paternal sensitivity may differ qualitatively from maternal sensitivity (Lewis & Lamb, 2003). Thus, the *first specific aim* of the present study was to examine similarities and differences in maternal and paternal parenting and their relations to attachment in middle childhood. In addition, links between paternal behavior and child-father attachment have been examined separately from maternal behavior and child-mother attachment. Thus, little is known about the direct vs. indirect and overlapping vs. unique effects of maternal and paternal behavior on children's attachment to mothers and fathers (Parke, 2002). The *second specific aim* of the present study was to examine child-mother and child-father attachment within the context of the family as a system (that is, to examine child-father attachment in the context of child-mother attachment, and vice versa). Finally, the initial research into the links between parenting and attachment in middle childhood has not examined the potential influence of characteristics of the child on these constructs and the manner in which these constructs are related. Therefore, the *third specific aim* of the present study was to examine (a) gender differences in attachment security with mothers and fathers, (b) levels of maternal and paternal responsiveness and encouragement of autonomy with respect to girls and boys, and (c) the manner in which these constructs are related for girls and boys.

CHAPTER 2

BACKGROUND AND SIGNIFICANCE

Attachment and Caregiving in Infancy

Attachment theory. Attachment theory was originally articulated to explain "the child's tie to his mother" (Bowlby, 1982). This bond – of the child to the caregiver – is an "affectional" bond, similar to the bond a parent may feel toward a child or two friends may feel for one another. Yet, the attachment bond differs from other bonds in that it is characterized by one individual seeking comfort and safety with another individual, as well as using that person as a secure base from which to explore new environments and situations. The specific individual who is sought out to provide this safe haven is the stronger, wiser attachment figure (Ainsworth, 1985). Bowlby (1973; 1982) posited a biological basis for attachment behavior, as well as a cognitive/affective component that serves to shape later personality.

Bowlby (1982) explained the attachment bond in evolutionary terms. He proposed an evolutionarily adaptive attachment behavioral system, which functions to protect the individual from predators. The attachment behavioral system comprises attachment behaviors, or the set of behaviors that have the predictable outcome of increasing or maintaining proximity with a specified individual who is primarily responsible for the infant's care, usually the child's mother. For the infant, attachment behaviors include such behaviors as crying, following, and grasping. These behaviors are organized within the individual as a behavioral system. As a behavioral system, the attachment system is activated by particular cues, in this case cues of potential danger. It is deactivated when the individual no longer feels threatened, usually the result of having achieved proximity

with the attachment figure (Bowlby, 1982; Hinde, 1997). Bowlby (1982) also described

other behavioral systems with which the attachment system interacts, such as the

exploratory and fear systems. Indeed, Ainsworth (1985) described "security" as a balance

between attachment and exploration.

Infant behavioral systems, including the attachment behavioral system, are

thought to be first organized around the caregiver (Sroufe & Fleeson, 1986). Through

repeated interactions, the infant forms a mental representation, or "internal working

model," of the caregiver and their relationship (Bowlby, 1973, 1982). For example, the

infant learns whether the caregiver is available and responsive to his or her needs. Later,

reflecting in large part the model of the caregiver, the infant forms an internal working

model of the self (Bowlby, 1973; Sroufe & Fleeson, 1986). Thus, the infant learns

whether she is worthy of care and love. According to Bowlby (1973), these mental

representations are built slowly over the years of childhood and adolescence.

From the beginning, however, internal working models provide the rules that

guide the organization of attachment-related information (Main, Kaplan, & Cassidy,

1985). Expectations regarding attachment relationships develop from these mental

representations. Children attend to and have memory for information that is consistent

with their expectations, and they seek out experiences and situations that correspond with

their representations. Thus, internal working models serve to allow or limit access to

particular information and guide future attachment-related behavior, thoughts, and

feelings (Main et al., 1985).

Individual differences in attachment security refer to the degree of confidence in

the availability and responsiveness of the attachment figure, should s/he be needed. This

confidence, or lack thereof, is based on expectations built on repeated interactions with the attachment figure. Hence, attachment and caregiving are inextricably linked, and one of the main hypotheses derived from attachment theory is that maternal responsiveness early in infancy is related to the quality of the attachment bond later in infancy. In other words, "what infants expect is what has happened before" (Weinfield, Sroufe, Egeland, & Carlson, 1999).

For example, the securely attached child has purportedly found her caregiver to be physically and emotionally available and responsive to her needs in times of distress. Thus, by the end of the first year of life, she will have developed a mental representation of the caregiver as available and responsive. She will also have formed a representation of herself as worthy of this care. She is thought to be confident that, should the need arise, her caregiver will be responsive to her needs. When distressed, she seeks proximity with the caregiver and is easily soothed once proximity is achieved.

The insecurely attached child, on the other hand, is presumed to be less confident in the availability and responsiveness of the caregiver in times of distress. In times of need, such as when the child is frightened, ill, or injured, her caregiver has purportedly either been unresponsive and rejecting or else inconsistently responsive. The infant may seek proximity with the caregiver in times of distress, but she may be ineffective or else inconsolable when proximity is achieved; other infants may fail to seek proximity at all.

Internal working models are also hypothesized to guide behavior, thoughts, and feelings regarding the self and others in close relationships beyond the mother-child relationship (Bowlby, 1973; Main et al., 1985; Sroufe & Fleeson, 1986). Based on experiences within the family, children come to have varying expectations regarding

close relationships, to seek out situations that match these expectations, and to elicit behavior from others that conforms with their notions of relationships (Sroufe & Fleeson, 1986). In addition, based on early experiences and the concomitant representations of these experiences, children vary in their ability to identify trustworthy and caring attachment figures, as well as in their ability to form partnerships, or attachment relationships, with these individuals once identified (Bowlby, 1979, 1980). Indeed, a number of researchers have shown relations between early attachment, particularly child-mother attachment, and children's social competence, peer relationships, and friendships (see Berlin & Cassidy, 1999; Rubin, Dwyer, Booth-LaForce, Kim, Burgess, & Rose-Krasnor, 2004; Schneider, et al., 2001 for relevant reviews).

Parental sensitivity. Given the prominence of the hypotheses that maternal sensitivity promotes secure attachment and that secure attachment promotes good adjustment outcomes, it is not surprising that a great number of studies have examined the predictors of attachment. A set of meta-analyses including over 60 studies of maternal sensitivity and attachment security revealed a significant, yet moderate, relation between maternal sensitivity and attachment security (De Wolff & van IJzendoorn, 1997). The strongest effect was found for studies measuring sensitivity in a similar manner to Ainsworth and colleagues' (1978) pioneering Baltimore study. Interestingly, this conceptualization of sensitivity is rather broad, when considered next to the notion that what may be most important for the development of secure attachments is maternal sensitivity to infant distress (Goldberg, Grusec, & Jenkins, 1999; Thompson, 1997).

Other researchers have suggested that maternal sensitivity and infant attachment may best be studied from an ecological systems perspective, considering direct and

indirect effects, as well as possible moderating influences (e.g., Cowan, 1997). For example, it has been found that characteristics of the child, such as gender, infant emotionality and emotion regulation, and "susceptibility to rearing influence" may moderate the link between sensitivity and attachment (e.g., Belsky, 1997; Braungart-Rieker, Courtney, & Garwood, 1999). Aspects of the home environment, such as maternal (or primary caregiver) employment and the quality of the marital/partner relationship, may also moderate the relation between maternal sensitivity and attachment (Belsky, 1997; Belsky & Rovine, 1988; Braungart-Rieker et al., 1999; Chase-Landsdale & Owen, 1987; Volling & Belsky, 1992).

Although Bowlby (1982) proposed that infants form attachments with their fathers, albeit somewhat later than with their mothers, far fewer studies have addressed paternal sensitivity and infant-father attachment than have examined maternal sensitivity and infant-mother attachment. Meta-analysis of eight studies revealed a weak effect, and the relation between paternal sensitivity and infant-father attachment was significantly weaker than the relation between maternal sensitivity and infant-mother attachment (van IJzendoorn & De Wolff, 1997). Findings since the publication of the meta-analysis have also been mixed (e.g., Braungart-Rieker, Garwood, Powers, & Wang, 2001; Volling, McElwain, Notaro, & Herrera, 2002).

Several explanations have been posited regarding the weak association between paternal sensitivity and infant-father attachment. First, it is possible that measures of maternal sensitivity are not appropriate to measure the sensitive responding of fathers (Lewis & Lamb, 2003). It may be that fathers' sensitive responding differs qualitatively, rather than quantitatively, from mothers' sensitive responding. Although it has been

firmly established that infants form attachments with their fathers, it may be that behaviors other than response to distress promote feelings of security with fathers. For example, in a longitudinal study of traditional, middle-class, two-parent families, Grossmann, Grossmann, Fremmer-Bombik, Kindler, Scheuerer-Englisch, and Zimmermann (2002) have found that fathers' sensitive and challenging play during toddlerhood predicts children's attachment representations at ages 10 and 16 years. In taking a "wider view of attachment and exploration," the Grossmanns and their colleagues have considered the importance of the attachment-exploration balance, the ability to use an attachment figure as a secure base from which to explore, and the notion of "security of exploration" as an important part of security of attachment (Grossmann, Grossmann, & Zimmermann, 1999; Grossmann et al., 2002). A sensitive parent in this regard responds to child distress not only when the child's attachment system is activated but also when the child's exploratory system is activated. Distress during exploration may include frustration or wariness, and importantly, it threatens discontinuation of the exploration. Parents are considered to be sensitive in the context of exploration when they assist the child in emotion regulation without being intrusive and, thus, disrupting the task or play (Grossmann et al., 1999). Thus, these researchers (Grossmann et al., 2002) have suggested that paternal sensitivity is best examined in the context of child exploration, rather than in situations that activate the child's attachment system, and they have found initial support for their proposition that fathers engender security through sensitive and challenging support as a companion in play.

The weak association between paternal sensitivity and infant-father attachment may also be due to the moderating effects of a number of contextual factors. The quality

of the marital relationship seems to affect fathers' parenting to a greater extent than mothers' parenting, perhaps because of the "gatekeeping" role that mothers often play in families (Lewis & Lamb, 2003; Parke, 2002). Having experience in caregiving also leads to more sensitive parenting, so fathers who work full-time have less of an opportunity to practice their skills (Lewis & Lamb, 2003). In addition, as with attachment to mothers, attachment to fathers seems to be influenced in complex ways by maternal employment. Living in a dual-earner family may stress the marital relationship, which then influences the ability of fathers to parent sensitively (Lamb, 2002). Moreover, if working mothers are still responsible for the majority of caregiving tasks, fathers in dual-earner families may simply have less time to spend with their infants (Lamb, 2002). Indeed, infant boys whose mothers work full time have been found, across several studies, to be insecurely attached to their fathers (e.g., Belsky & Rovine, 1988; Braungart-Rieker et al., 1999; Chase-Landsdale & Owen, 1987; Volling & Belsky, 1992).

Finally, it may be that fathers are more influential later in development, particularly as children form relationships outside the family (Lewis & Lamb, 2003). In the Grossmann et al. (2002) study, not only did fathers' sensitive and challenging play predict attachment representations into adolescence, but it did so when neither attachment to father nor attachment to mother in infancy were found to be significant predictors. Several theoretical perspectives suggest that fathers play a prominent role in connecting the child to the world outside the family (see Marsiglio, Amato, Day, & Lamb, 2000). From an ecological systems perspective, the father, especially if he is the primary breadwinner for the family, is a link to his workplace and the people with whom he

interacts outside the home, building social capital that he can provide to his child as she

or he gets older and is ready to form new relationships.

Thus, the *overall purpose* of the present study was to examine the link between

parental sensitivity and children's attachment in middle-to-late childhood, with special

consideration of the definition and measurement of paternal sensitivity and the contexts

of the father-child relationship.

Attachment and Caregiving in Middle and Late Childhood

Conceptualization of attachment beyond infancy. Attachment behavior does not

remain unchanged beyond infancy. For example, a major transformation occurs with the

development of the capacity for what Bowlby (1982) termed a "goal-corrected

partnership" with the attachment figure. With the advances in cognitive ability that take

place during the preschool years, children are better able to understand that caregivers

have their own goals, motivations, and feelings and can consider these factors when

formulating plans to achieve their own attachment-related goals. In addition,

developments taking place in adolescence, including the acquisition of formal operational

thinking, decreases in egocentrism, and opportunities for objective examination of parent-

child relationships, may allow for the emergence of general representations of

relationships (Allen & Land, 1999; Bowlby, 1973). Finally, there are reasons to believe

that transformations in the attachment system may take place across middle and late

childhood, although perhaps to less drastic degrees than in early childhood or

adolescence. Until recent years, however, attachment during middle-to-late childhood has

received relatively little attention, due to a somewhat less clear theoretical exposition of

processes and thorny measurement issues (Kerns, Schlegelmilch, Morgan, & Abraham, 2004; Mayseless, 2004; Thompson & Raikes, 2003).

Throughout the years of childhood, cognitive abilities improve, and knowledge bases increase (Collins, Madsen, & Susman-Stillman, 2002). As a result, social-cognitive abilities also improve. Children become more skilled in perspective-taking and have access to greater numbers of increasingly sophisticated strategies for dealing with social situations (Selman, 1980). Thus, children's attachment relationships become increasingly complex, as they become more adept at understanding others' points of view and adjusting their goals and strategies accordingly (Bowlby, 1982). Furthermore, actual presence or absence of an attachment figure is decreasingly influential, whereas expectations regarding the responsiveness and availability of an attachment figure are thought to be increasingly influential, throughout the years of childhood (Bowlby, 1973).

Also during middle childhood, children's self-concepts and their conceptions of others become more comprehensive, such that they increasingly focus on inner traits and encompass generalities across behaviors (Harter, 1998). With a more solid sense of self, children are increasingly able to regulate their own behaviors. Consequently, the attachment behavioral system is activated less frequently (Bowlby, 1982). In addition, more autonomy is gradually granted and expected by parents (Collins et al., 2002), and children begin to spend more time away from parents and in the company of peers and unrelated adults, allowing for opportunities to compare relationships with one another. Thus, representations of relationships are likely to become more sophisticated, abstract, and general across the years of childhood. Yet, children at this stage are still likely to think about themselves and others in terms of opposites (e.g., nice or mean) and to fail to

detect inconsistencies across representations (Harter, 1998). Thus, although the rudiments of a general state of mind with respect to attachment may be in place, an overarching attachment organization will not be formed until contrasting representations of the self and relationships with multiple attachment figures can be integrated with one another.

Given these developments, then, what is the meaning of attachment behavior in middle childhood? Throughout life, the purpose of attachment behavior is the deactivation of the attachment system, a behavioral system activated in times of distress (e.g., fear, separation). More specifically, the purpose of attachment behavior is the promotion of proximity or communication with a specific figure in the service of feeling secure and, thus, deactivating the attachment system (Hinde, 1997). During the later years of childhood, communication with the attachment figure, rather than physical proximity, may become the more frequent outcome of attachment behavior (Bowlby, 1982). Accordingly, it may be that communication with the attachment figure deactivates the attachment system and allows for the activation of other important behavioral systems, such as the exploratory system.

The behaviors that comprise the attachment behavioral system also change as children become more skilled at communicating their attachment needs through speech. However, it is important to note that, although speech may supplement emotional expression and behavior, "emotion-mediated communication" remains an important component of intimate relationships throughout life (Bowlby, 1988). Thus, children in the later years of childhood may communicate their attachment needs to attachment figures by not only talking about but also openly expressing their distress.

In terms of individual differences, secure attachment is defined here in terms of the skillful use of a caregiver as a secure base and confidence in that caregiver's availability and responsiveness should he or she be needed (Waters & Cummings, 2000). Secure attachment would manifest itself beyond infancy as free communication between the caregiver and the child, particularly in times of distress, and the child's use of the caregiver as a "secure base" for exploration during times of non-distress. The securely attached child would also have a mental model of the caregiver as responsive and available and a corresponding model of the self as worthy of care. Although there may be variations in representational models (or "internal working models") across relationships, the securely attached child will have begun to see him/herself as a person who is worthy of love in general. Finally, discourse regarding attachment-related situations should reveal not only secure behavior and representations but also easy access to all aspects of internal working models of the caregiver and the self (indicating the absence of "defensive exclusion," or selective exclusion from processing of painful attachment-related thoughts and feelings).

Measurement of attachment beyond infancy. In terms of measuring attachment, normative developments beyond infancy, including children's increasing ability to develop and execute complex plans to achieve their goals (e.g., proximity to and/or communication with an attachment figure), make behavioral assessments much more difficult. Indeed, few researchers have attempted to observe attachment behavior beyond early childhood. Rather, following Main, Kaplan, and Cassidy's (1985, p.67) reconceptualization of "individual differences in attachment classifications as individual differences in the representation of the self in relation to attachment," several researchers

have examined attachment-related representations revealed through discourse analysis. In addition, a number of researchers have utilized self-report questionnaires to assess various components of attachment, including both behavior and representations.

Attachment-related discourse analysis and self-report questionnaires represent two contrasting approaches to the study of attachment security, each with its own set of assumptions. On the one hand, the interview-based measures assume that an individual's "state of mind with respect to attachment" may be inferred from the content and quality of narratives elicited through interviews regarding relationships with their parents (Crowell, Fraley, & Shaver, 1999). On the other hand, the self-report measures assume that an individual can accurately describe his or her own thoughts, feelings, and behaviors relevant to attachment (Crowell et al., 1999).

Is it possible for individuals to report on their own thoughts, feelings, and behaviors relevant to attachment? To be sure, there are theoretical reasons to be cautious regarding self-reports. According to Bowlby (1980), the rules that guide the processing of attachment-relevant thoughts and feelings become so "overlearned" during childhood and adolescence that they often operate outside of conscious awareness and are applied automatically. Therefore, what may have once been healthy to exclude from awareness because it would be too painful to manage, may later (through overlearning and automatic processing) become an unhealthy "defensive exclusion" (Bowlby, 1980). For example, avoidant six-year-olds have been reported to insist that they are perfect in every way (Cassidy, 1988), and adults classified as avoidant, based on analysis of their attachment-related discourse, tend to dismiss the importance of attachment processes yet idealize their formative experiences with caregivers (e.g., "my mother was a saint;"

Cassidy & Kobak, 1988). Indeed, Ainsworth (1985) explicitly cautioned: "do not take at its face value a person's self reports of security, high self-esteem, high sense of competence or freedom from stress and anxiety, even though more credence may be given to self-reports of insecurity, low self-esteem, feelings of incompetence and stress" (p. 798).

Cassidy and Kobak (1988), however, emphasize the importance of examining attachment behavior and representations in relation to their context and organization, rather than simply focusing on their frequency or content. As well, the authors suggest that carefully worded self-report items may be able to tap avoidance and other defensive processes. For example, avoidant individuals may admit to distancing themselves from important others, but they may not admit that stressful situations activate their attachment systems or have emotional meaning for them (Cassidy & Kobak, 1988). Thus, self-report of attachment security may be possible, but researchers must ensure that they are not simply relying on the child's report to assess thought and emotional processes that may take place without conscious awareness.

In the present study, children's attachment behaviors and representations with respect to mothers and fathers were assessed with multiple measures in the third and fifth grade. First, the present study utilized observational data. Specifically, children were observed interacting with each parent at each time point, and the degree of dyadic mutuality/ felt security was assessed. Second, children reported on their own psychological proximity seeking (e.g., "I wish my mother knew me better") in the third and fifth grade and on their own attachment security in the fifth grade. Attachment security was assessed with items tapping confidence in the responsiveness and

availability of the attachment figure (e.g., "It's easy to trust my mom"), use of the attachment figure as a safe haven (e.g., "I go to my mom when I'm upset"), and open communication with the attachment figure (e.g., "I do not really like telling my mom what I'm thinking or feeling" – reversed). Third, at each time point, mothers and fathers reported on the degree of closeness and conflict with the child. However, these items also seemed to assess the child's communication with the parent (e.g., "It is easy to be in tune with what my child is feeling") and use of the parent as a safe haven (e.g., "If upset, my child will seek comfort from me"). Thus, although the present study did not assess attachment security with a "gold standard" measure (there isn't one for this age range), I attempted to capitalize on multiple informants by using the observational, child self-report, and parent-reported measures as "indicators" of an underlying attachment quality.

Parental sensitivity. In the later years of childhood, individual differences in attachment are influenced by early experiences, as well as the ongoing relationship between the child and his or her attachment figures (Weinfield et al., 1999). Espousing a developmental pathways perspective, Bowlby (1973) claimed that internal working models remain relatively flexible, or environmentally sensitive, across the years of immaturity, although they are increasingly stable over time. Family environments tend toward stability, and individuals seek and interpret experiences to match their representational models (Bowlby, 1973). Yet, changes in relationships are possible, and internal working models may be adjusted to reflect these changes. Thus, it is important to understand the caregiving behaviors that are linked with variations in attachment not only in infancy and early childhood but also in the later years of childhood and adolescence.

Across two studies of attachment in third-, fifth-, and sixth-graders, Kerns and her colleagues (1996; 2000) have examined links between parental availability and responsiveness (observed and reported) and children's reported felt security and coping styles and their attachment-related thoughts and feelings. It is important to note that the samples examined in these studies were largely white and lower-middle- to middle-class, comparable to the sample examined in the present study. In the one study involving fathers, "father" was defined as resident father. Nearly two-thirds of the children lived in intact two-parent families, whereas twelve percent lived in blended two-parent families (mostly mother-stepfather). A quarter of the children lived in single-parent (mostly single-mother) households; the non-resident parent (usually the father) was not recruited for participation. Thus, examination of fathering and child-father attachment was largely limited to traditional two-parent families, as it was in the present study, as well.

In terms of children's reports of felt security, Kerns and her colleagues (2000) examined links between observed parental responsiveness, particularly paternal responsiveness, and felt security, as measured with the Security Scale (Kerns et al., 1996). The Security Scale (Kerns et al., 1996) is a self-report questionnaire designed for use with children during the period of middle childhood. It assesses children's perceptions of security in specific parent-child relationships during middle childhood. The scale provides a continuous measure of security, with items tapping the child's belief in the responsiveness and availability of the attachment figure, the child's use of the attachment figure as a safe haven, and the child's report of open communication with the attachment figure. Child-parent interactions were observed across four five- to ten-minute discussion tasks, and parent responsiveness to child concerns was coded with the Family

Interaction Q-set (Gjerde, 1986). Fathers of third-graders (but not sixth-graders) who were observed to be more responsive to their children's needs, opinions, and feelings during semi-structured dyadic interactions had children who reported higher levels of felt security with their fathers, whereas felt security with mother was uncorrelated with maternal responsiveness for both age groups.

Although not directly assessing caregiving behavior, Kerns and her colleagues (1996; 2000) have also examined the relation between felt security, as measured with the Security Scale, and parent reports of acceptance of and "willingness to serve as an attachment figure" for their children. This parenting attitude was operationalized as responses to selected items from Block's (1965) Q-sort, including items assessing the degree to which parents communicate acceptance, appreciation, and willingness to serve as a safe haven and secure base. Mothers who reported greater acceptance of and willingness to serve as a secure base for their children had children who reported more security in the mother-child relationship (Kerns et al., 1996). In a separate study, third-graders who reported greater security in their father-child relationships had fathers who were more willing to serve as a secure base for their children. In contrast, sixth-graders' level of security was unrelated to their parents' willingness to serve as an attachment figure (Kerns et al., 2000).

Links were also found between parent accessibility and responsiveness and children's coping strategies (Kerns et al., 2000), as assessed with the Coping Strategies Questionnaire (Finnegan, Hodges, & Perry, 1996). The Coping Strategies Questionnaire is a self-report questionnaire designed to assess children's styles of coping within specific parent-child relationships during middle childhood. Separate scales measure the degree to

which children report the use of preoccupied (vs. nonpreoccupied) and avoidant (vs. nonavoidant) coping strategies with their attachment figure when faced with everyday stressors requiring emotion regulation. Children who receive high scores on the preoccupied coping scale "report experiencing a strong need for the mother in novel and stressful situations, trouble separating from the mother, excessive concern over the mother's whereabouts, prolonged upset following reunion, and trouble exploring or meeting challenges owing to excessive need for the mother." On the other hand, children who receive high scores on the avoidant coping scale "report denial of distress and affection concerning the mother, failure to seek the mother when upset, avoidance of the mother during exploration and reunion, and refusal to use the mother as a task-relevant source" (Finnegan et al., 1996, p. 1321).

Results revealed that third-graders who reported high levels of avoidant coping with respect to their mothers had mothers who were significantly more reluctant to serve as an attachment figure and observed to be somewhat less responsive than other mothers. These relations were even stronger for fathers. In the sixth grade, maternal willingness to serve as an attachment figure and observed maternal responsiveness were unrelated to children's avoidant coping, although children who reported high levels of avoidant coping with respect to their fathers had fathers who were significantly more reluctant to serve as an attachment figure. In terms of preoccupied coping, third-graders' preoccupied coping was found to be unrelated to maternal or paternal willingness to serve as an attachment figure or observed parental responsiveness, although mothers of sixth-graders reporting high levels of preoccupied coping were observed to be somewhat less responsive.

Finally, Kerns and her colleagues (2000) also examined the relations between parent reports of responsiveness and accessibility and children's attachment-related representations, using a version of the Separation Anxiety Test. The Separation Anxiety Test (SAT) is a projective measure that assesses children's thoughts and feelings with respect to attachment. The measure was originally developed for adolescents (Hansburg, 1972) and later modified for children aged four to seven years (Klagsbrun & Bowlby, 1976). It is a semi-structured, projective interview in which children are presented with a series of photographs and vignettes depicting a child experiencing a separation, three of which are considered to be mild (e.g., mother putting child in bed), and three of which are considered to be severe (e.g., parents going away for a two-week vacation). For each vignette, the child is then asked how the child in the photograph feels, why she or he feels that way, and what the child in the photograph will do next. In some variations of the interview, children are also asked how they themselves would feel in similar separation experiences (Slough & Greenberg, 1990; Stevenson-Hinde & Verschueren, 2002).

Interview responses have been coded using a number of different procedures. The system described by Main and colleagues (1985) involves coding the emotional openness and constructiveness of the coping responses. Kaplan's (1987) system classifies children, based on these two ratings, as "resourceful," "inactive," "ambivalent," or "fearful." Resnick (1993) has also developed a version of the Separation Anxiety Test specifically for use with 11- to 14-year-olds. The interview procedures are based on Kaplan's version of the SAT, as well as on Hansburg's original version. The separation scenarios are more severe that in Kaplan's version (as would be appropriate for older children and young adolescents), although there is still a range in degree of severity. As well, the age-

appropriate coding system draws from both Kaplan's system and the procedures used to code AAI transcripts.

Children's responses to open- and closed-ended questions regarding the feelings of each pictured teenager are transcribed and scored according to the following categories: (1) "emotional openness and vulnerability"; (2) "dismissing/devaluing of attachment relationships"; (3) "self-blame"; (4) "resistance/withholding"; (5) "preoccupied anger"; (6) "displacement of feelings"; (7) "anxiety (optimism/pessimism)"; and (8) "coherence of transcript". Constructiveness of the proposed solution is also scored. These nine variables are then used to classify children as "secure/freely valuing of attachment relationships", "dismissing of attachment/avoidant", or "enmeshed/preoccupied/ambivalent". Secure children have high scores on emotional openness, coherence, and optimism; dismissing/avoidant children have high scores on the dismissing, resistance, and displacement scales and low scores on emotional openness, coherence, and optimism; and preoccupied children have high scores on the self-blame and preoccupying anger scales and low scores on the emotional openness, coherence, optimism, and constructive solution scales.

Using a two-category classification system (i.e., secure vs. insecure), Kerns and her colleagues (2000) did not find differences between secure and insecure children in terms of their parents' willingness to serve as attachment figures. However, children scoring high on the emotional openness scale had fathers who were significantly more willing to serve as attachment figures. Likewise, children scoring high on coherence of discourse had fathers who were somewhat more willing to serve as attachment figures.

No relations were found between mothers' willingness to serve as attachment figures and the SAT scores.

Overall, these studies have revealed links between parenting behaviors and attitudes and school-aged children's attachment security, although there are inconsistencies in the findings. Somewhat surprisingly, and in contrast to the research on parental sensitivity and attachment in infancy, these studies have revealed stronger links between fathers' parenting and children's attachment than between mothers' parenting and children's attachment. Kerns and colleagues (2000) suggested that correlations may have been attenuated due to the non-stressful nature of the interactions and the overall low risk of the sample. Yet, the non-threatening nature of the interactions may, in fact, be the reason why more consistent relations were found for fathers than for mothers. If, as the Grossmanns and their colleagues (1999; 2002) have suggested, children's representations of their relationships with their fathers are best predicted by paternal support of exploration, or "sensitive and challenging play," then it is understandable that examining the relations between parental responsiveness in non-stressful situations and children's attachment security would reveal stronger links for fathers.

A limitation of this research, however, is that parental sensitivity was measured in an identical fashion for mothers and fathers. That is, both maternal and paternal sensitivity were operationalized as observed "responsiveness to child concerns" and self-reported "willingness to serve as an attachment figure." Yet, it may be that the paternal behaviors that promote attachment security with fathers are not the same as the maternal behaviors that promote attachment security with mothers (Lewis & Lamb, 2003). Thus, the *first goal* of the present study was to more closely examine similarities and

differences in maternal and paternal parenting and their relations to attachment. Given the potential importance of support of exploration, or "sensitive and challenging play" (Grossmann et al., 1999; 2002), the present study included assessments not only of sensitive responding to child distress but also of encouragement and support of autonomy. These measures of responsiveness and respect for autonomy were gleaned from observations of mother-child and father-child interactions in the third and fifth grade. Importantly, these interactions were observed across two contexts (e.g., discussion tasks, problem-solving activities) for each parent-child dyad, thus providing opportunities for mothers and fathers to exhibit both types of parenting behaviors (see also Cox, Owen Henderson, & Margand, 1992). These observational data from the third- and fifth-grade years of data collection were also augmented by maternal and paternal self-reports of beliefs regarding child autonomy in the third- and fourth-grade years of data collection. It should be noted that the fourth-grade assessment of encouragement of autonomy was the only measure included from that time point (all other data in the present study were collected in Grade 3 and Grade 5). However, it was included in order to obtain as much information as possible regarding parental encouragement of autonomy. It is important to note that hypotheses regarding encouragement of autonomy were based on attachment theory. As such, it was expected that, at least in two-parent families, fathers would more often act as a "secure base" for exploration while mothers would more often act as a "safe haven."

The research on parenting and attachment in middle childhood also highlights a gap in our understanding of family relationships overall. First, because research on mothering and mother-child relationships has tended to be conducted separately from the

research on fathering and father-child relationships, little is known about the indirect effects of mothering and fathering on children's attachment with each parent. Similarly, very little is known about the overlapping and unique effects of mother-child and father-child relationships (Parke, 2002). Therefore, a *second goal* of the present study was to examine child-mother and child-father attachment within the context of the family as a system (that is, to examine child-father attachment in the context of child-mother attachment, and vice versa). As such, the present study included assessments of both maternal and paternal parenting (although these may differ from one another) and both child-mother and child-father attachment in a single model.

Child Gender, Attachment, and Parental Sensitivity

From an ecological systems perspective (Bronfenbrenner, 1989; Bronfenbrenner & Morris, 1998), the development of attachment is best understood by examining the set of processes through which properties of the child (e.g., age, gender, temperament) and his or her family environment (e.g., parent-child interactions, parent-child relationships, characteristics and competencies of parents, qualities of the marital relationship, family cohesion) interact to produce constancy and change in the security of attachment over his or her life course. As noted above, the present study included an examination of each parent-child relationship in the context of the other parent-child relationship. In addition, child gender was examined as an individual characteristic that may moderate the relations among maternal and paternal caregiving and children's attachment with mothers and fathers.

In general, the research on attachment in infancy has not revealed significant gender differences in attachment security, at least among the largely white, middle-class

samples with which this research has been conducted (Leaper, 2002). However, when considering attachment security in the context of other moderating influences, infant boys seem to be less likely to be securely attached to their fathers when their mothers work full-time (Belsky & Rovine, 1988; Braungart-Rieker et al., 1999; Chase-Landsdale & Owen, 1987). In conjunction with the finding that infant boys are more likely than infant girls to be negatively emotional, this finding suggests to some researchers that boys may be more vulnerable to psychosocial stress during infancy and toddlerhood (e.g., Chase-Landsdale & Owen, 1987).

There is little theoretical reason to expect that boys and girls vary in their attachment security with their parents in middle childhood. That is, there is little reason to expect that boys or girls, on the whole, feel more or less confident regarding the availability and responsiveness of their caregivers. However, as children are socialized within their culture as to what is appropriate and inappropriate to express, the manner in which attachment needs are communicated may come to vary across genders. In addition, expectations of autonomy and independence for older boys and girls may influence both the activation and deactivation of the attachment behavioral system. Indeed, there is some evidence that gender differences exist in reported felt security and in classification using narrative measures. For example, Granot and Mayseless (2001) found that boys were more often categorized as avoidant and disorganized, whereas girls were more often categorized as secure or ambivalent. In addition, Verschueren and Marcoen (2004) have recently found that girls reported feeling more secure with their mothers (but not their fathers) on the Security Scale than did boys. These findings intimate that current attachment measures for use in middle childhood may not fully capture boys' expressions

of attachment security. In the present study, I aimed to explore gender differences in observed, parent-reported, and child self-reported attachment.

It is also possible that the predictors of attachment in middle childhood vary according to child gender. Parents may treat girls and boys differently or provide different types of opportunities to girls and boys (Leaper, 2002). For example, researchers have shown that parents are more involved in caretaking activities with girls than with boys, spend more time exchanging information with girls than with boys, and are more dominant/assertive with boys than with girls (Russell & Russell, 1987). Evidence across studies has revealed that parents, especially fathers, encourage gender-stereotyped activities (Lytton & Romney, 1991; Siegal, 1987), although there is not strong evidence that parents differentially encourage either dependency in girls or independence in boys (Lytton & Romney, 1991). Findings are mixed regarding the interaction of parent sex and child sex (Russell & Saebel, 1997). At least one study of school-age children (i.e., fourth- and fifth-graders) has shown that fathers are more involved with boys than with girls (e.g., Crouter, McHale, & Bartko, 1993). There is some evidence that mothers and daughters have particularly close relationships (Holmbeck, Paikoff, & Brooks-Gunn, 1995), but this has generally been found for adolescent, rather than school-aged, girls and their mothers. The present study examined the possibility that mothers are more likely to encourage connectedness to family members for their daughters, and the possibility that fathers are more likely to encourage autonomy from the family for their sons.

Finally, different parenting practices and styles may differentially influence girls and boys (Leaper, 2002). Unfortunately, the findings reported in the literature to date

regarding this issue are difficult to interpret. For children in late childhood to early adolescence, parental acceptance has been shown to be more strongly related to girls' self-esteem than to boys' self-esteem (Holmbeck & Hill, 1986), as well as more strongly related to boys' self-esteem than to girls' self-esteem (Kawash, Kerr, & Clewes, 1985). In separating mothers from fathers and daughters from sons, researchers have found that girls' and boys' self-perceptions are more strongly related to acceptance of the same-sex parent than to acceptance of the opposite-sex parent (Kawash, Kerr, & Clewes, 1985; Leaper, 2002; Ohannessian, Lerner, Lerner, & von Eye, 1998). Crouter, McHale, and their colleagues have shown that fourth- and fifth-graders, both boys and girls, who had the most favorable psychosocial outcomes perceived their mothers and fathers as high in warmth. However, the best adjusted girls had mothers who were the least involved in dyadic activities with them, whereas the best adjusted boys had mothers who were the most involved (Crouter, et al., 1993). These results seem to be contrary to the popular notion that boys are socialized to be more independent than are girls. Yet, Kawash and colleagues (1985) have also shown that fifth- and sixth-grade girls (but not boys) who perceive both parents as granting higher psychological autonomy have higher self-esteem. In all, little is clear about the manner in which different parenting practices and styles may differentially influence girls and boys. The present study explored whether maternal/paternal responsiveness or encouragement of autonomy was more predictive of girls' or boys' attachment security.

Thus, a *third goal* of the present study was to examine (a) gender differences in attachment security with mothers and fathers, (b) levels of maternal and paternal

responsiveness and encouragement of autonomy with respect to girls and boys, and (c) the manner in which these constructs are related for girls and boys.

The Present Study

The present study utilized data from Phase III of the *NICHD Study of Early Child Care and Youth Development (SECCYD)* to examine the links between parental sensitivity and children's attachment in middle-to-late childhood. The original sample of *SECCYD* families was recruited when children were one month old. Phase III covers data collection that took place when the children were in the second through sixth grade. Participants were restricted to "traditional nuclear" families (i.e., child living with married biological parents), as including single-parent, blended, and nontraditional families would introduce a number of confounding variables (e.g., residence status, multiple mother/father figures). More precisely, then, the present study examined the links in two-parent families between parental sensitivity and children's attachment in middle-to-late childhood.

Data relevant to the current study were collected at laboratory and home visits when children were in the third, fourth, and fifth grade. Indicators of maternal and paternal parenting were assessed in the third, fourth, and fifth grade. Parental sensitivity, or "supportive presence," and respect for autonomy were observed in child-parent interactions in the third and fifth grade. Parent-reported disciplinary strategies (which may be indicative of encouragement of autonomy) were assessed at the third-grade home visit only. Parents also reported on their beliefs regarding child autonomy when children were in the fourth grade. Multiple indicators of child-parent attachment were assessed in the third and fifth grade. These included child-reported felt security with respect to each

parent, observed dyadic felt security, and parent-reported child attachment behaviors. Note that the assessment of both parenting and attachment at grades three and five allowed for the testing of two hypotheses: first, that parenting predicts attachment, and second, that attachment predicts parenting.

I hypothesized the following:

(1) Fathers would encourage autonomy more than mothers would. It was also explored whether fathers would encourage more autonomy in their sons than in their daughters.

(2) Attachment to mother would be predicted by maternal sensitivity (in the sense of responsiveness) and maternal encouragement of autonomy, and attachment to father would be predicted by paternal sensitivity and paternal encouragement of autonomy. The link between paternal encouragement of autonomy and child-father attachment would be stronger than the link between maternal encouragement of autonomy and child-mother attachment. Child gender differences were explored, but no hypotheses were offered.

(3) Paternal parenting would have unique effects on child-father attachment, over and above any effect of maternal parenting. Likewise, maternal parenting would have unique effects on child-mother attachment, over and above any effect of paternal parenting.

(4) Maternal and paternal parenting at Grade 3 will predict attachment to mother and father at Grade 5 more strongly than attachment to mother and father at Grade 3 will predict maternal and paternal parenting at Grade 5.

CHAPTER 3

METHOD

Selection of Dataset

To achieve the goals of the study, I utilized data from Phase III of the *NICHD Study of Early Child Care and Youth Development (SECCYD)*, a comprehensive longitudinal study conducted by the NICHD Child Care Research Network. The *SECCYD* is a cooperative agreement undertaken under a grant from the National Institute of Child Health and Human Development. The original sample of 1,364 *SECCYD* families was recruited when children were one month old. After 12 years of study, 79% of the original sample remained in the study. The subset of families used in the present study included those families in which the child's mother and father were married and living with the child through the Grade 5 data collection year and who took part in the study in Grades 3, 4, and 5.

Phase III of the *SECCYD* covers data collection that took place when the children were in the second through sixth grade. A table of all measures administered in Phase III, downloaded from the *SECCYD* website (http://secc.rti.org/Phase3InstrumentChart.pdf), is included in Appendix A. The data set comprises multiple measures of relevant constructs (e.g., parental sensitivity, child attachment in middle childhood), multiple informants (e.g., mothers, fathers, and their children) reporting on these constructs, and measures administered repeatedly over time. The process of measure selection is described in Appendix B.

Participants

The original sample of *SECCYD* families was recruited during the first 11 months of 1991. At each of 10 sites across the U.S., approximately 120 infants and their families were recruited via a three-stage procedure: hospital screening/recruitment at birth, two-week recruitment phone call, and one-month interview and questionnaires. All mothers who gave birth at selected hospitals during selected 24-hour intervals were interviewed, with the following exclusionary criteria: mother under 18 years of age; multiple births; lack of English fluency; medical exclusions (mother or baby); adoption plans; and families who lived or planned to move outside the area or lived in an unsafe neighborhood. Following initial screening, a final sample ($N = 1,364$) was selected that adequately included families of varying SES, family structure, and race.

The subset of families described in the present study ($N = 611$; 305 girls) included those families in which the child's mother and father were married and living with the child through Grade 5 and who took part in the study at Grades 3, 4, and 5. Families in which the child's parents lived together but were not married ($N = 9$) were excluded, as the NICHD Early Child Care Research Network (2004) had previously determined that these families differed in "important ways" from the traditional nuclear families. As reported by mothers at the one-month interview, 90.8% of these children were European-American, 4.7% were African-American, 1% were Asian/Pacific Islander, less than 1% were American Indian/Eskimo/Aleut, and 3.3% were of another ethnicity. Twenty seven children were of Hispanic origin. As compared to the remainder of the original sample of 1,364 participants, who either dropped out of the study or were excluded based on household type, African American and Hispanic participants were underrepresented.

For the selected subsample, total family income at the time of the Grade 5 data collection ranged from $12,500 to $500,001, with a median total family income of $85,000. Twenty-eight families did not report their income. As compared to the remainder of the original sample of 1,364 participants, the participants in the present subsample had a higher median total family income at the Grade 5 data collection ($85,000 for the subsample, vs. $42,500 for the remainder). The mean income-to-needs ratio for participants in the present subsample (5.52) was significantly higher than the mean income-to-needs ratio for the remainder (3.15) of the original 1,364 families, t (976.40) = -9.82, $p < .001$.

In terms of education at the time of the child's birth, 2.3% of mothers had less than a high school education, 15.9% had a high school degree or equivalent, 29.6% had had some college, received an associate's degree, or had vocational training beyond high school, 30.4% had a bachelor's degree, and 21.8% had had some graduate school or higher. Mothers in the present subsample tended to have more years of education (Mean = 15.14), as compared to the remainder of the original sample (Mean = 13.5; t (1361) = -12.72, $p < .001$). For fathers in the present subsample, 3.5% had less than a high school education, 16.2% had a high school degree or equivalent, 27.1% had had some college, received an associate's degree, or had vocational training beyond high school, 28.8% had a bachelor's degree, and 23.8% had had some graduate school or higher. Information regarding father education was missing for three families. As with mothers, fathers in the present subsample tended to have more years of education (Mean = 15.26) than those in the remainder of the original sample (Mean = 13.75; t (1248) = -10.34, $p < .001$)).

Procedures

   Overview of procedures. The relevant procedures took place in Grades 3, 4, and 5 (see Table 1). In *Grade 3*, each parent was observed in two semi-structured interactions with the study child during a home visit. Both parents completed the Raising Children Questionnaire and the Child-Parent Relationship Scale. Children completed the Relatedness Questionnaire. In *Grade 4*, mothers and fathers completed the Parental Modernity Scale of Child Rearing and Educational Beliefs. In *Grade 5*, mother-child interactions were observed during a lab visit, whereas father-child interactions were observed during a home visit. Both parents again completed the Child-Parent Relationship Scale (but not the Raising Children Questionnaire). Children again completed the Relatedness Questionnaire and also a variation of the Security Scale. See Appendix C for the complete manuals, measures, and coding schemes.

   Parent-child interactions. As noted above, parents and children were observed in semi-structured interactions in Grades 3 and 5. In Grade 3, both mother-child and father-child interactions took place at a home visit. Mother-child interactions involved a discussion of family rules and a problem-solving task that involved mapping the most efficient way to run a number of errands. Father-child interactions at the third-grade visit involved a discussion of family rules and a problem-solving task that involved sorting and sequencing cards to tell three stories. Note that the discussion tasks were identical and the problem-solving tasks were similar across mother-child and father-child interactions.

   In Grade 5, mother-child interactions took place at a lab visit, whereas father-child interactions took place at a home visit. Mother-child interactions involved a

discussion of family issues (areas of disagreement) and a problem solving task that involved creating a bungee jump for a raw egg. Father-child interactions involved a discussion of family issues and a problem solving task that involved building a tower with toothpicks and clay. As at Grade 3, the discussion tasks were identical and the problem-solving tasks were similar across mother-child and father-child interactions. It is of note that the variation in context at the Grade 5 time of measurement had the potential to confound findings regarding the differential effects of mothers' and fathers' parenting on child-mother and child-father relationships (Collins & Russell, 1991). However, the potentially confounding effect of the variation in context was attenuated by several factors. First, the tasks were structured in both settings. They were identical across child-mother interactions and child-father interactions in the discussion tasks and designed to be similar across child-mother interactions and child-father interactions in the problem-solving tasks. In addition, all interactions – those that took place in the lab with mothers and those that took place in the home with fathers – were videotaped. Thus, concern regarding being evaluated should have been equalized across the two settings. Indeed, the selection of the setting for each of the parents was fitting, especially given Baumrind's (as cited in Collins & Russell, 1991) observation that fathers tend to be more directive and mothers more responsive in laboratory settings (i.e., the contexts were reversed in the present study), and the finding across several studies that fathers seem to be more reactive to research procedures such as being observed (i.e., fathers may have felt more comfortable being observed at home than in the lab; Collins & Russell, 1991). Finally, maternal sensitivity has been shown, with the *SECCYD* sample, to be fairly stable over time (at 6, 15, 24, and 36 months) and across contexts (observed in the home at 6 and 15

months and observed in the lab at 24 and 36 months), with correlations ranging from .39 (6 and 15 months) to .48 (24 and 36 months; NICHD Early Child Care Research Network, 1999). Note that the correlations across context are similar to those within context.

Measures

Demographic variables. Gender and ethnicity of child was reported at a home visit at the time of recruitment (i.e., when the child was one month old). Mother and father education were also assessed at the time of recruitment and updated via phone interviews. Household composition and family income were assessed via phone interview each data collection year of Phase III.

Observational coding. Maternal, paternal, child, and dyadic behavior was coded by trained observers using the Parent-Child Interaction Scales: Middle Childhood coding scheme (Owen, Klausli, & Murrey, 2000). For each task, coders rated parents, children, and dyads on ten seven-point scales. Parent codes included: supportive presence, respect for autonomy, stimulation of cognitive development, quality of assistance, and hostility. Child codes included: agency, negativity, persistence, and affection to parent. Dyads were coded for felt security/ affective mutuality. The full coding manual may be found in Appendix C.

A single coder would code all ten scales for each observation (i.e., mother-child discussion and problem-solving tasks, father-child discussion and problem-solving tasks). In general, father-child interactions were not coded by the same coder who had coded mother-child interactions for that child. For the Grade 3 observations, a common coder coded mother-child and father-child interactions in only 4.2% of cases. For the Grade 5

observations, a common coder coded mother-child and father-child interactions in 4.7% of cases.

Inter-rater agreement was checked by having two coders independently code the same interactions. For the third-grade year of data collection, 200 of the mother-child and 130 of the father-child observations were coded twice. (Note that the second set of ratings were used simply as a check of inter-rater agreement and was not included in the final dataset.) Given the continuous nature of the observational codes, intraclass correlations between the two sets of ratings were used as reliability estimates. These are reported below for each of the relevant observational codes.

The first observational code relevant to the present study was *supportive presence*. From the coding manual: "A parent scoring high on [the supportive presence] scale expresses positive regard and emotional support to the child. She should show general involvement in the interaction and affirm the child as a person." Each task was coded separately, thus providing the following indicators of parental sensitivity at both the third-grade and fifth-grade observations: maternal supportive presence in discussion task, maternal supportive presence in problem-solving activity, paternal supportive presence in discussion task, and paternal supportive presence in problem-solving activity.

The correlations between the two ratings (i.e., main rating and rating used for check of inter-rater agreement) of maternal supportive presence in the discussion task and maternal supportive presence in the problem-solving activity at Grade 3 were .58 and .70, respectively; the correlations between the two ratings of paternal supportive presence in the discussion task and paternal supportive presence in the problem-solving activity were .58 and .59, respectively. The correlations between the two ratings of maternal supportive

presence in the discussion task and maternal supportive presence in the problem-solving activity at Grade 5 were .65 and .68, respectively; the correlations between the two ratings of paternal supportive presence in the discussion task and paternal supportive presence in the problem-solving activity were .71 and .72, respectively.

The second relevant observational code was *respect for autonomy*. From the coding manual: "[The respect for autonomy] scale reflects the degree to which the parent acted in a way that recognizes and respects the validity of the child's individuality. A parent scoring high on this scale acknowledges the child's perspectives and opinions about the family discussion issues and ideas for the...task." Again, each task was coded separately, thus providing the following indicators of parental encouragement of autonomy at both the third-grade and fifth-grade observations: maternal encouragement of autonomy in discussion task, maternal encouragement of autonomy in problem-solving activity, paternal encouragement of autonomy in discussion task, and paternal encouragement of autonomy in problem-solving activity.

For the third-grade year of data collection, the correlations between the two ratings of maternal encouragement of autonomy in the discussion task and maternal encouragement of autonomy in the problem-solving activity were .45 and .71, respectively; the correlations between the two ratings of paternal encouragement of autonomy in the discussion task and paternal encouragement of autonomy in the problem-solving activity were .55 and .49, respectively. For the fifth-grade year of data collection, the correlations between the two reliability ratings of maternal encouragement of autonomy in the discussion task and maternal encouragement of autonomy in the problem-solving activity were .60 and .67, respectively; the correlations between the two

ratings of paternal encouragement of autonomy in the discussion task and paternal encouragement of autonomy in the problem-solving activity were .67 and .68, respectively.

The third relevant observational code was a dyadic code: *felt security/ affective mutuality*. From the coding manual: "This scale assesses the level of emotion exchanged and reciprocated between parent and child." There is an emphasis on open and free communication, availability of affect, intimacy, and shared pleasant emotion. Each task was coded separately, thus providing the following indicators of felt security at both the third-grade and fifth-grade observations: felt security in discussion task with mother, felt security in problem-solving activity with mother, felt security in discussion task with father, and felt security in problem-solving activity with father.

For the third-grade year of data collection, the correlations between the two ratings of felt security in the discussion task with mother and felt security in the problem-solving activity with mother were .62 and .60, respectively; the correlations between the two ratings of paternal supportive presence in the discussion task and paternal supportive presence in the problem-solving activity were .58 and .59, respectively. For the fifth-grade year of data collection, the correlations between the two ratings of felt security in the discussion task with mother and felt security in the problem-solving activity with mother were .56 and .54, respectively; the correlations between the two ratings of paternal supportive presence in the discussion task and paternal supportive presence in the problem-solving activity were .61 and .68, respectively.

Parent-reported child attachment behavior. At both the third- and fifth-grade years of data collection, mothers and fathers completed the *Child-Parent Relationship*

Scale. This questionnaire is an adaptation of the Student-Teacher Relationship Scale
(Pianta, 1993), designed to assess teachers' perceptions of their relationship with a study
child. The items on the scale were derived from attachment theory, the attachment Q-set
(Waters & Dean, 1985), and a review of the literature on teacher-child interactions. Items
from the questionnaire form subscales of closeness ("degree of warmth, positive
emotions, and open communications") and conflict ("degree of negative emotions and
interactions involving the respondent and child"), as well as an overall score of total
positive relationship. The closeness subscale was used in the proposed study as a measure
of child attachment behavior. For mothers, scale scores were computed for only those
cases with complete data. For fathers, however, because the scale was highly reliable
(Cronbach's alpha > .75), prorated scale scores were computed for all cases with at least
80% of the relevant items. Cronbach's alphas for third-grade maternal and paternal
closeness were .65 and .80, respectively; alphas for the selected subsample used in the
present study were .59 and .76, respectively. Alphas for fifth-grade maternal and paternal
closeness were .73 and .80, respectively; alphas for the selected subsample were .68 and
.78, respectively.

   Self-reported parental encouragement of autonomy. At the third-grade year of
data collection, mothers and fathers completed the *Raising Children Questionnaire*
(Shumov, Vandell, & Posner, 1998). This questionnaire, a revision of the Raising
Children Checklist (Greenberger & Goldberg, 1989), assesses parental disciplinary
strategies. Subscales derived from factor analyses include harsh, firm, and lax control.
However, several items also seem to tap variation in encouragement of autonomy. Four
items were selected to form a new composite variable based on the wording of the item,

results of factor analysis, and reliability analysis. These items were: "Do you expect your child to obey you without any questions asked?" (reversed); "Do you want your child to question rules that seem unfair?"; "Do you allow your child to express any angry feeling your child has toward you freely?"; and "Do you expect your child to be quiet and respectful when adults are around?". A total score was formed by summing the four items. For the selected subsample, Cronbach's alphas for maternal and paternal encouragement of autonomy were .63 and .56.

At the fourth-grade year of data collection, mothers and fathers completed the *Parental Modernity Scale of Child Rearing and Educational Beliefs* (Shaefer & Edgerton, 1985). The questionnaire was designed to assess traditional and progressive attitudes and beliefs regarding raising young children. Traditional attitudes reflect beliefs that child behavior should follow adult directives (e.g., "Children should always obey their parents"), whereas progressive attitudes reflect beliefs favoring self-directed child behavior (e.g., "It's all right for a child to disagree with his/her parents). A total score is formed by reversing the progressive beliefs items and summing all items. Higher total scores reflect more traditional attitudes, or adult-centered beliefs, about raising children. The total score is used in the present study as a measure of parental encouragement of autonomy (the sign of any relevant regression or correlation coefficients was simply reversed in the structural modeling portion of the analyses). Because the scales for mothers and fathers were both highly reliable, prorated total scores were computed for all cases with at least 80% of the data. Cronbach's alphas for maternal and paternal beliefs about raising children were .89 and .88, respectively; alphas for the selected subsample were .87 and .88.

Self-reported child felt security. The *Relatedness Questionnaire* (Lynch &

Cicchetti, 1997) was administered to children at home visits in the third-grade year of

data collection and at lab visits in the fifth-grade year of data collection. Items from the

Relatedness Questionnaire form subscales of psychological proximity seeking and

perceived emotional quality. The first six items of the questionnaire form the

psychological proximity seeking subscale (e.g., "I wish my mother knew me better"; "I

wish my mother knew more about how I feel"). These items are followed by 11 items,

tapping perceived emotional quality, which were not used in the present study. The

psychological proximity seeking scale was used in the present study as a measure of felt

security. (Although the scale actually reflects insecurity, the sign of any relevant

regression or correlation coefficients was simply reversed in the structural modeling

portion of the analyses.) Because the scale was highly reliable, prorated scale scores were

computed for all cases with at least 80% of the data. Cronbach's alphas for third-grade

psychological proximity seeking with respect to mother and father were .78 and .82,

respectively; alphas for the selected subsample were .79 and .84, respectively. Alphas for

fifth-grade psychological proximity seeking with respect to mother and father were .81

and .86, respectively; alphas for the selected subsample were .80 and .87, respectively.

In the fifth-grade, 11 reworded items from the *Kerns Security Scale* (Kerns et al.,

1996) were inserted between the section of the Relatedness Questionnaire that assesses

psychological proximity seeking and the section that assesses perceived emotional

quality. As described in Chapter 2, items on the Security Scale assess the child's belief in

the responsiveness and availability of the attachment figure, the child's use of the

attachment figure as a safe haven, and the child's report of open communication with the

attachment figure. Four items were dropped from the original scale. The Security Scale

items were also reworded to use a different response scale. The "some kids/other kids"

format was changed to a four-point Likert scale, ranging from "not at all true" to "very

true." Both the security-with-mother and security-with-father scales were highly reliable;

thus, prorated scale scores were computed for all cases with at least 80% of the data.

Cronbach's alphas for the fifth-grade security scale with respect to mother and father

were .77 and .81, respectively; alphas for the selected subsample were .75 and .79,

respectively.

Analyses

Structural equation modeling procedures were utilized to analyze each of the

above hypotheses. An overall two-step modeling procedure was planned, wherein the

measurement portion of the model would be tested and respecified, followed by the

testing of the structural (causal) paths. However, additional steps were necessary in order

to achieve a model that adequately fit the data. In general, measurement issues and issues

of multicollinearity indicated changes to the measurement model were necessary.

Complete details of these issues and the steps taken to resolve them are provided below.

The initial data analytic plan was as follows: Confirmatory factor analysis was to

be used to evaluate the adequacy of the hypothesized measurement model. Thirty-two

measured variables would serve as indicators of 12 latent factors, and two measured

variables would stand alone in the model (see Figure 1). Circles represent latent

constructs, and rectangles represent measured (or indicator) variables. Arrows from the

latent constructs to the rectangles indicate causal paths. That is, variation in the latent

construct is hypothesized to cause the variation in the indicator variables. Indicators of

each of the latent constructs are also listed in full in Table 2. The small arrows pointing toward the rectangles imply residual variances. All latent constructs and the two stand-alone variables would be allowed to covary at that point. However, the two-headed arrows – correlations – are not depicted in the figure. If the initial hypothesized model did not adequately fit the data, paths would be added judiciously to allow for correlated errors (residuals). Respecification to the measurement model would only be done in such a way as to not influence the underlying correlations among the constructs.

Once an adequate measurement model was achieved, the hypothesized structural model would be tested. The proposed initial structural model is depicted in Figure 2. Only the latent factors and stand-alone variables are shown, in order to highlight the hypothesized causal paths. This initial model contains the major hypothesized paths from maternal sensitivity to child-mother attachment and from paternal encouragement of autonomy to child-father attachment (arrows in bold). It also contains paths depicting stability, paths from maternal encouragement of autonomy to child-mother attachment and paternal sensitivity to child-father attachment, paths from maternal variables to child-father attachment and paths from paternal variables to child-mother attachment, as well as paths from child-parent attachment to parenting variables.

After achieving a structural model that adequately represented the data, the study's hypotheses would then be examined according to the following processes: (1) Latent means analysis would be used to examine the hypothesis that fathers would encourage autonomy more than mothers would. (2) Structural path coefficients would be examined to test the hypothesis that attachment to mother would be predicted by maternal sensitivity and maternal encouragement of autonomy, and attachment to father would be

predicted by paternal sensitivity and paternal encouragement of autonomy. Furthermore, the magnitudes of the relevant paths would be compared to examine the hypothesis that the link between paternal encouragement of autonomy and child-father attachment would be stronger than the link between maternal encouragement of autonomy and child-mother attachment. (3) Structural path coefficients would be examined to determine if paternal parenting had unique effects on child-father attachment, over and above any effect of maternal parenting and if maternal parenting will have unique effects on child-mother attachment, over and above any effect of paternal parenting. Effects would also be decomposed in order to compare the magnitudes of not only the direct but also the indirect effects of maternal and paternal sensitivity and encouragement of autonomy on child-mother and child-father attachment. (4) Finally, the magnitudes of the relevant structural path coefficients would be examined in order to determine whether maternal and paternal parenting at grade three would predict attachment to mother and father at grade five more strongly than attachment to mother and father at grade three would predict maternal and paternal parenting at grade five.

Gender differences would also be explored in the structural model, according to the following processes: (1) Multi-group analysis would be used to examine whether the relations among the constructs vary across girls and boys. (2) As part of the multi-group analysis, latent means analysis would be used to compare attachment security across girls and boys, as well as to compare parental sensitivity and encouragement of autonomy across girls and boys.

CHAPTER 4

RESULTS

Means and standard deviations for all study variables are presented in Table 3.

Correlations among study variables are presented in Table 4. Table 5 presents

correlations of study variables with total family income at Grades 3 and 5 and with years

of education for mothers and fathers. As shown in Table 5, many of the study variables

were significantly correlated with total family income at Grades 3 and 5, although the

magnitude of these correlations was weak. Table 5 also shows that, although parental

behavior and beliefs regarding child rearing varied by level of education, the attachment

variables, on the whole, did not vary systematically by parent education. Therefore, these

two demographic variables were not partialled out of the main analyses.

The final model used to test hypotheses was a variation of the originally proposed

model. Changes were made with respect to both the measured variables that were

included in the model and the construction of the latent factors. Results of the originally

proposed analyses are presented first, followed by results of subsequent analyses that

were suggested by preceding results, concluding with the final model. Additional follow-

up analyses were also conducted to test questions that arose from the final model. These

analyses are presented after the final model. All structural equation modeling was carried

out using EQS 6.1 (Bentler, 2005).

Proposed Analyses

Missing value analysis and imputation. All study variables were evaluated for

missing data. Of the sample of 611 two-parent families, 121 cases were deleted because

they were missing greater than 20% of the data points (i.e., 8 or more of the study

variables). Of the remaining sample of 490 families, 3.23% of the total data points were missing (Little's MCAR test: $\chi^2(1211) = 1322.29$, $p = .014$[1]). Missing data points were imputed using the Expectation-Maximization (EM) algorithm (Dempster, Laird, & Rubin, 1977).

Confirmatory factor analysis model. Following a two-step procedure to structural equation modeling, I first used confirmatory factor analysis (CFA) to evaluate the adequacy of the hypothesized measurement model. The initial CFA model is shown in Figure 1. An initial CFA model was run in which all latent factors and the two stand-alone measured variables were allowed to correlate freely. For identification purposes, one factor loading for each latent factor was fixed to one. Factor variances were freely estimated. Factor loadings for repeatedly measured variables were constrained to be equal, whereas factor loadings for measured variables assessed at only one time point were freely estimated. Non-hypothesized factor loadings were constrained to zero. Because the data were not multivariate normally distributed (Mardia's Coefficient = 130.37), I requested robust statistics in addition to the maximum likelihood fit indices. Robust statistics are presented in parentheses following the maximum likelihood statistics. Judging from both sets of statistics, this initial CFA model did not adequately reflect the data (see Table 6).

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[1] Little's MCAR test tests the stringent assumption that data are missing completely at random (MCAR), or that the probability of missing data on a variable is unrelated to the values of that variable *or* any other variable in an analysis. The significant χ^2 indicates that the data are not MCAR. Examination of the correlations between the study variables and their being missing revealed several weak, yet significant, correlations, with the largest correlation being only .14. A less stringent assumption is that the data are missing at random (MAR), or that the probability of missing data on a variable is unrelated to the values of that variable, although it may be related to values of the variables overall. A test of MAR is not possible.

Based on inspection of selected Lagrange multiplier modification indices, I allowed 48 pairs of measured-variable residuals to freely correlate. These correlated residuals largely reflected the effects of shared methods or respondents (e.g., observational codes within parent, task, and time of measurement; same questionnaire given to mothers and fathers; same questionnaire given to children to answer regarding mothers and fathers). Addition of these correlated residuals resulted in a respecified CFA model that adequately fit the data (see Table 6).

As shown in Table 7, addition of the correlated residuals did not, in general, affect the correlations among the factors. Notable exceptions included the following correlations: Maternal Sensitivity and Encouragement of Autonomy at Grade 3, Maternal Sensitivity and Child-Mother Attachment at Grade 3, Maternal Encouragement of Autonomy and Child-Mother Attachment at Grade 3, Maternal Sensitivity and Encouragement of Autonomy at Grade 5, Maternal Sensitivity and Child-Mother Attachment at Grade 5, Maternal Encouragement of Autonomy and Child-Mother Attachment at Grade 5, Paternal Sensitivity and Encouragement of Autonomy at Grade 5, Paternal Sensitivity and Child-Father Attachment at Grade 5, and Paternal Encouragement of Autonomy and Child-Father Attachment at Grade 5. Importantaly, whereas three of these correlations were greater than one in the initial confirmatory model, none were greater than one in the respecified model. Those that were not greater than one also were reduced in the respecified model. Thus, it appeared that the respecified model not only fit the data better than the initial CFA model but also reduced problems with the model (e.g., problems with multicollinearity; see Jöreskog, 1999). However, it is of note that the parental encouragement of autonomy and sensitivity

factors were still very strongly correlated with one another, for both parents and at both time points.

Factor loadings for the respecified CFA model are not presented because they are largely duplicated in the model containing the structural paths (see Table 8). However, it is also of note that parent- and child-reported attachment variables loaded very weakly-to-not at all on the attachment factors, whereas the observed attachment variables loaded very strongly on the attachment factors. Given that the attachment construct should represent the child's internal working model of attachment, this factor structure is not ideal.

Structural model analyses. Having achieved a measurement model that adequately reflected the data, I then imposed the hypothesized structural model (see Figure 2). Initial problems with model convergence led me to rescale some of the measured variables so that the magnitude of all variances did not differ by greater than 4:1. In order to achieve model convergence, the disturbance terms for two factors (Paternal Sensitivity at Grade 5 and Paternal Encouragement of Autonomy at Grade 5) were fixed to near zero. This is an unsatisfactory solution, yet fixing troublesome parameters can sometimes reveal other problems in the model. Indeed, although this structural model fit the data reasonably well (see Table 6), examination of the solution revealed additional important difficulties, including the problems described above with the factor structure of the attachment factors and the very strong correlations between parental sensitivity and encouragement of autonomy, as well as six standardized coefficients with values greater than one. This last finding suggests that there existed a high degree of multicollinearity in the data (Jöreskog, 1999). Standardized factor

loadings are presented in Table 8, and standardized path coefficients are presented in Table 9. However, with the above-noted problems with the solution, this model was unacceptable for the testing of the study's hypotheses.

In order to find a more appropriate model, I freed the previously fixed disturbance terms and made changes to the structural model. First, all paths to and from Maternal Encouragement of Autonomy at Grade 3 were eliminated; results suggested that the disturbance terms for Paternal Sensitivity at Grade 5 and Paternal Encouragement of Autonomy at Grade 5 needed to be fixed to near zero. Second, with all of the hypothesized paths included in the model, I allowed the disturbance terms for the mother factors and the child-mother attachment factor at Grade 5 to be correlated with the disturbance terms for the father factors and the child-father attachment factor at Grade 5; results also suggested that the disturbance terms for Paternal Sensitivity at Grade 5 and Paternal Encouragement of Autonomy at Grade 5 needed to be fixed to near zero. Third, I tested a model in which only the "*predictors*" (maternal and paternal sensitivity and encouragement of autonomy) were included *at Grade 3* and only the "*outcomes*" (child-mother and child-father attachment) were included *at Grade 5*. Examination of the standardized solution revealed two values greater than one (specifically, the correlations between Maternal Sensitivity at Grade 3 and Maternal Encouragement of Autonomy at Grade 3 and between Paternal Sensitivity at Grade 3 and Paternal Encouragement of Autonomy at Grade 3). Thus, the model, including both the measurement and structural portions, was abandoned.

Model Omitting Observed Attachment Variables

Although it had been my intention to capitalize on multiple informants and multiple measures of attachment, the observed, parent-reported, and child-reported attachment variables were not highly correlated with one another and did not "hang together" as a factor. Based on the previous CFA, and consideration of the notion that observational ratings of the dyad, rather than of the individual child, may not best reflect internal representations of the attachment relationship, I chose to drop the observed attachment variables. Thus, to resolve the issue of the problematic factor structure of the attachment factors, I next tested a model in which all of the observed attachment variables were omitted. That is, the attachment factors were hypothesized to cause the variation in parent-reported and child-reported attachment only. The observed attachment variables were not included in the model at all. The portion of the measurement model reflecting parental sensitivity and encouragement of autonomy was not changed. The structural model also was identical to the originally hypothesized structural model.

Missing value analysis and imputation. Because these analyses utilized a different set of variables from the original analyses, and the EM algorithm imputes values based on the relations among the variables, the variables were reevaluated for missing data. For these analyses, of the sample of 611 two-parent families, 101 cases were deleted because they were missing greater than 20% of the data points (i.e., 6 or more of the study variables). Of the remaining sample of 510 families, 3.69% of the total data points were missing (Little's MCAR test: χ^2 (1121) = 1243.33, p = .006). Missing data points were imputed using the EM algorithm.

Confirmatory factor analysis model. As with the original model, an initial CFA model was run in which all latent factors and the two stand-alone measured variables were allowed to correlate freely. For identification purposes, one factor loading for each latent factor was fixed to one. Factor variances were freely estimated. Factor loadings for repeatedly measured variables were constrained to be equal, whereas factor loadings for measured variables assessed at only one time point were freely estimated. Non-hypothesized factor loadings were constrained to zero. Variables were rescaled in the same manner as in the original model. This initial CFA model did not adequately reflect the data (χ^2 (322) = 2372.77, *p* = .000 (Satorra-Bentler Scaled χ^2 (322) = 2200.07, *p* = .000), CFI = .744 (.737), SRMR = .087, RMSEA = .112 (.107), RMSEA 90% confidence interval: .108, .116 (.103, .111)).

Based on inspection of selected Lagrange multiplier modification indices, I allowed 11 pairs of measured-variable residuals to freely correlate. This is far fewer than the number of correlated residuals needed to obtain a reasonable fit for the original model. However, the respecified CFA model would not converge without fixing one of the *factor* variances to near zero. The factor that was constrained at its lower bound was Child-Mother Attachment at Grade 3. Inspection of the factor loadings also revealed that, without the observed attachment variables, the attachment factors, especially the child-mother attachment factor at Grade 3, no longer held together as a factor.

Model Omitting Child-Reported Psychological Proximity Seeking

I next tested a model in which child-reported psychological proximity seeking, an indicator of child-parent attachment, was omitted. Although child report ought to be a decent indicator of the child's own internal working models of attachment, this measure

was chosen to drop because, at least at Grade 5, an additional child report (child-reported felt security, as measured with the Security Scale) was already included. The dropped variables included psychological proximity seeking with respect to mother at Grade 3, psychological proximity seeking with respect to father at Grade 3, and the same two variables at Grade 5. Thus, the attachment factors at Grade 3 were hypothesized to cause the variation in parent-reported and observed attachment, and the attachment factors at Grade 5 were hypothesized to cause the variation in parent-reported attachment, observed attachment, and child-reported felt security. The portion of the measurement model reflecting parental sensitivity and encouragement of autonomy was not changed. The structural model also was identical to the originally hypothesized structural model.

Missing value analysis and imputation. The new set of variables was reevaluated for missing data. For these analyses, 131 cases were deleted because they were missing greater than 20% of the data points (i.e., 7 or more of the study variables). Of the remaining sample of 480 families, 3.16% of the total data points were missing (Little's MCAR test: χ^2 (901) = 984.70, p = .027). Missing data points were imputed using the EM algorithm.

Confirmatory factor analysis model. As with the original model, an initial CFA model was run in which all latent factors and the two stand-alone measured variables were allowed to correlate freely. For identification purposes, one factor loading for each latent factor was fixed to one. Factor variances were freely estimated. Factor loadings for repeatedly measured variables were constrained to be equal, whereas factor loadings for measured variables assessed at only one time point were freely estimated. Non-hypothesized factor loadings were constrained to zero. Variables were rescaled in the

same manner as in the original model. This initial CFA model did not adequately reflect

the data (χ^2 (446) = 3032.09, p = .000 (Satorra-Bentler Scaled χ^2 (446) = 2810.51, p =

.000), CFI = .722 (.694), SRMR = .074, RMSEA = .105 (.105), RMSEA 90% confidence

interval: .106, .114 (.101, .109)).

Based on inspection of selected Lagrange multiplier modification indices, I

allowed 13 pairs of measured-variable residuals to freely correlate. Addition of these

correlated residuals resulted in a respecified CFA model that fit the data reasonably well

(χ^2 (417) = 902.44, p = .000 (Satorra-Bentler Scaled χ^2 (417) = 861.71, p = .000), CFI =

.948 (.942), SRMR = .067, RMSEA = .049 (.047), RMSEA 90% confidence interval:

.045, .054 (.043, .052)).

Structural model analyses. Having achieved a measurement model that

adequately reflected the data, I then imposed the hypothesized structural model. The

model did not converge. The disturbance terms for two factors (Paternal Sensitivity at

Grade 5 and Paternal Encouragement of Autonomy at Grade 5) were constrained at their

lower bounds. Given that this also occurred in the original model, I concluded that

convergence problems were not resolved by dropping child-reported psychological

proximity seeking.

Model Omitting All Observed and Parent-Reported Attachment Variables

The pattern of factor loadings in the original model suggested that dropping

parent-reported attachment (CPRS closeness scale) would not result in attachment factors

with more ideal factor structures than those in the original model. Thus, a choice needed

to be made among the three informants of child attachment (i.e., child self-report, parent-

report, observation), and it made the most theoretical sense to focus on child perceptions

of attachment. A model was then tested in which child reported attachment variables were the only indicators of attachment. All observed and parent-reported attachment variables were omitted from the model. In this revised model, child-reported psychological proximity seeking with respect to mother and father were stand-alone measured variables at Grade 3. For the Grade 5 time of measurement, the two attachment factors were hypothesized to cause the variation in child-reported psychological proximity seeking and felt security. The portion of the measurement model reflecting parental sensitivity and encouragement of autonomy was not changed. The structural model also was identical to the originally hypothesized structural model.

Missing value analysis and imputation. The new set of variables was reevaluated for missing data. For these analyses, 105 cases were deleted because they were missing greater than 20% of the data points (i.e., more than 5 of the study variables). Of the remaining sample of 506 families, 3.72% of the total data points were missing (Little's MCAR test: χ^2 (645) = 668.34, p = .254). Note that this value is non-significant, indicating that the missing data are MCAR. Missing data points were imputed using the EM algorithm.

Confirmatory factor analysis model. In this initial CFA model, the 10 remaining latent factors and the four stand-alone measured variables were allowed to correlate freely. For identification purposes, one factor loading for each latent factor was fixed to one. Factor variances were freely estimated. Factor loadings for repeatedly measured variables were constrained to be equal, whereas factor loadings for measured variables assessed at only one time point were freely estimated. Non-hypothesized factor loadings were constrained to zero. Variables were rescaled in the same manner as in the original

model. This initial CFA model did not adequately reflect the data (χ^2 (216) = 1538.92, p = .000 (Satorra-Bentler Scaled χ^2 (216) = 1457.99, p = .000), CFI = .815 (.807), SRMR = .066, RMSEA = .110 (.107), RMSEA 90% confidence interval: .105, .115 (.101, .112)).

Based on inspection of selected Lagrange multiplier modification indices, I allowed 11 pairs of measured-variable residuals to freely correlate. Addition of these correlated residuals resulted in a respecified CFA model that fit the data well (χ^2 (205) = 483.26, p = .000 (Satorra-Bentler Scaled χ^2 (205) = 469.91, p = .000), CFI = .961 (.959), SRMR = .051, RMSEA = .052 (.051), RMSEA 90% confidence interval: .046, .058 (.045, .057)).

Structural model analyses. Having achieved a measurement model that adequately reflected the data, I then imposed the hypothesized structural model. However, the model did not converge, even after fixing one of the disturbance terms (Child-Mother Attachment at Grade 5) to near zero.

Confirmatory factor analysis model – sensitivity and encouragement of autonomy combined. Although the problems with the attachment factors seemed to be resolved, multicollinearity in the model still remained problematic. The inter-factor correlations between parental sensitivity and encouragement of autonomy, for both mothers and fathers and at both Grade 3 and Grade 5, were extremely high across all of the various permutations of the original model. At this point, it was determined that the two factors were not separate at all and that the indices of sensitivity and encouragement of autonomy were, in fact, indices of the same factor. Thus, in the next model, Maternal Sensitivity at Grade 3 was hypothesized to cause the variation in not only observed maternal supportive presence but also observed maternal respect for autonomy in the two

tasks, as well as the mother-reported items regarding encouragement of autonomy (scale formed from Raising Children items). Likewise, Paternal Sensitivity at Grade 3 was hypothesized to cause the variation in observed paternal supportive presence and respect for autonomy and the father-reported items. The Grade 5 maternal and paternal sensitivity factors were similarly hypothesized, such that maternal and paternal sensitivity were hypothesized to cause the variation in observed maternal and paternal supportive presence and respect for autonomy in the two tasks. As in the previous model, psychological proximity seeking with respect to mother and father at Grade 3 were stand-alone variables, and the two remaining attachment factors (Child-Mother Attachment at Grade 5 and Child-Father Attachment at Grade 5) were hypothesized to cause the variation in the child-reported psychological proximity seeking and felt security at Grade 5. Maternal and paternal child-centered beliefs at Grade 4 remained stand-alone variables.

The remaining six latent factors (Maternal Sensitivity at Grade 3, Paternal Sensitivity at Grade 3, Maternal Sensitivity at Grade 5, Paternal Sensitivity at Grade 5, Child-Mother Attachment at Grade 5, Child-Father Attachment at Grade 5) and the four stand-alone measured variables (Child Psychological Proximity Seeking with Respect to Mother at Grade 3, Child Psychological Proximity Seeking with Respect to Father at Grade 3, Maternal Child-Centered Beliefs at Grade 4, Paternal Child-Centered Beliefs at Grade 4) were allowed to correlate freely. For identification purposes, one factor loading for each latent factor was fixed to one. Factor variances were freely estimated. Note that factor loadings for repeatedly measured variables were not initially constrained to be equal, although follow-up analyses were conducted regarding these constraints. Non-

hypothesized factor loadings were constrained to zero. Variables were rescaled in the same manner as in the original model. This initial CFA model did not adequately reflect the data (see Table 10).

Based on inspection of selected Lagrange multiplier modification indices, I allowed 13 pairs of measured-variable residuals to freely correlate. Addition of these correlated residuals resulted in a respecified CFA model that fit the data reasonably well (see Table 10) and significantly better than did the initial CFA model ($\Delta\chi^2$ (13) = 856.47, $p < .05$ (Satorra-Bentler Scaled $\Delta\chi^2$ (13) = 783.95, $p < .05$).

Structural model analyses – sensitivity and encouragement of autonomy combined. Having achieved a measurement model that adequately reflected the data, I then imposed the hypothesized structural model. This model was based on the originally hypothesized model, taking into account the combination of the sensitivity and encouragement of autonomy factors (see Figure 4). The model converged, although the fit to the data was somewhat less than ideal (see Table 10), and imposing the structural model resulted in a significant decrement in fit ($\Delta\chi^2$ (17) = 187.96, $p < .05$ (Satorra-Bentler Scaled $\Delta\chi^2$(17) = 175.83, $p < .05$). The measurement portion of the model is shown in Figure 3, although factor loadings and residuals are presented in Table 11. The standardized structural path coefficients, correlations among independent factors, and correlations among disturbance terms are shown in Figure 4.

Respecifications to structural model – sensitivity and encouragement of autonomy combined. Following the recommendations of Cliff (1983) and others (Breckler, 1990; Raykov & Widaman; 1995), I randomly selected half of the sample ($N = 253$) for use in further exploratory analyses (e.g., examining non-hypothesized paths), whereas the other

half of the sample was saved for cross-validation purposes, or testing of a respecified

structural model. First, all nonsignificant paths were removed from the model. Next,

additional paths were added as suggested by selected Lagrange multiplier modification

indices. This reduced and respecified model (shown in Figure 5) fit the data reasonably

well (χ^2 (278) = 531.63, p = .000 (Satorra-Bentler Scaled χ^2 (278) = 523.63, p = .000),

CFI = .932 (.926), SRMR = .066, RMSEA = .060 (.059), RMSEA 90% confidence

interval: .052, .068 (.051, .067)). Of note, however, are the paths linking Maternal

Sensitivity at Grade 3 with both Maternal and Paternal Child-Centered Beliefs at Grade 4,

as well as the path linking Paternal Child-Centered Beliefs at Grade 4 with Paternal

Sensitivity at Grade 5. Of particular concern was the extremely strong relation between

Maternal Sensitivity at Grade 3 and Maternal Child-Centered Beliefs at Grade 4, which

likely indicated additional issues with multicollinearity. Although these Grade 4

measures were included to provide as much information as possible regarding maternal

and paternal encouragement of autonomy, it did not appear that they added much unique

information or contributed to the prediction of child-parent attachment. Given that

Maternal and Paternal Child-Centered Beliefs were the only variables measured at Grade

4, it made sense to drop these measures and to focus exclusively on the Grade 3 and

Grade 5 relations. Thus, a decision was made to drop the Grade 4 variables from the

model.

A new model, which was based on both the respecified structural model and

theory, was tested. This new model (shown in Figure 6) fit the data well (χ^2 (227) =

357.95, p = .000 (Satorra-Bentler Scaled χ^2 (227) = 352.20, p = .000), CFI = .962 (.958),

SRMR = .057, RMSEA = .048 (.047), RMSEA 90% confidence interval: .038, .057

(.037, .056)). Nonsignificant paths were removed, and one additional path was added as suggested by Lagrange multiplier modification indices. This new reduced and respecified model (shown in Figure 7) also fit the data well (χ^2 (234) = 370.13, p = .000 (Satorra-Bentler Scaled χ^2 (234) = 362.65, p = .000), CFI = .961 (.957), SRMR = .072, RMSEA = .048 (.047), RMSEA 90% confidence interval: .038, .057 (.037, .056)). The *negative* relation in both models between Paternal Sensitivity at Grade 5 and Child-Father Attachment at Grade 5 is of note, however.

Merely because this model fit the data well does not mean that other models might not fit the data just as well. A model was next tested in which there was a path from Grade 5 Maternal Sensitivity to Child-Mother Attachment *instead of* the path from Grade 5 Paternal Sensitivity to Child-Father Attachment. This model also fit the data well (χ^2 (234) = 368.54, p = .000 (Satorra-Bentler Scaled χ^2 (234) = 362.80, p = .000), CFI = .961 (.957), SRMR = .060, RMSEA = .048 (.047), RMSEA 90% confidence interval: .038, .057 (.037, .056)). Finally, a model was tested in which there were paths from *both* Grade 5 Maternal Sensitivity to Child-Mother Attachment and Grade 5 Paternal Sensitivity to Child-Father Attachment. This model also fit the data well (χ^2 (233) = 364.37, p = .000 (Satorra-Bentler Scaled χ^2 (233) = 358.17, p = .000), CFI = .962 (.957), SRMR = .065, RMSEA = .047 (.047), RMSEA 90% confidence interval: .038, .056 (.037, .056)).

Cross-validation of final structural model – sensitivity and encouragement of autonomy combined. This final model was tested on the half of the sample that was not used in the exploratory analyses. The model (shown in Figures 8 and 9) fit the data well (χ^2 (233) = 394.29, p = .000 (Satorra-Bentler Scaled χ^2 (233) = 361.97, p = .000), CFI =

.949 (.956), SRMR = .062, RMSEA = .052 (.047), RMSEA 90% confidence interval:

.043, .061 (.037, .056)). The model was also tested for invariance across samples, a

stringent test of cross-validation. All freely estimated factor loadings, structural paths,

and covariances were constrained to be equal. The multi-group model fit the data well (χ^2

(493) = 800.17, p = .000 (Satorra-Bentler Scaled χ^2(493) = 754.32, p = .000), CFI = .954

(.956), SRMR = .070, RMSEA = .035 (.032), RMSEA 90% confidence interval: .031,

.039 (.028, .037)). However, three equality constraints were problematic: the path from

Paternal Sensitivity at Grade 3 to Paternal Sensitivity at Grade 5, the path from Child-

Father Attachment at Grade 3 to Child-Father Attachment at Grade 5, and the path from

Paternal Sensitivity at Grade 5 to Child-Father Attachment at Grade 5. Releasing the

equality constraints on these three parameters resulted in a very small, yet significant,

improvement in model fit ($\Delta\chi^2$ (3) = 23.85, p < .05 (Satorra-Bentler Scaled $\Delta\chi^2$ (3) =

21.10, p < .05).

Cross-time equality constraints imposed on final structural model. As indicated

above, factor loadings for repeatedly measured variables were not initially constrained to

be equal in the models with sensitivity and encouragement of autonomy combined.

Instead, follow-up analyses were conducted examining the effect of imposing these cross-

time equality constraints. The entire sample (N = 506) was used for this analysis. The

model tested is depicted in Figures 8 and 9. Factor loadings for all repeatedly measured

variables were constrained to be equal. Only one equality constraint was somewhat

problematic: the factor loading path from the factor Maternal Sensitivity to the indicator

variable Maternal Supportive Presence in the Problem-Solving Task. Removing this

constraint resulted in a very small, yet significant, improvement in model fit ($\Delta\chi^2$ (1) =

6.78, $p < .05$ (Satorra-Bentler Scaled $\Delta\chi^2$ (1) = 6.99, $p < .05$).

Examination of Study Hypotheses

Having achieved a final structural model, I was then able to examine the study

hypotheses. However, combining the sensitivity and encouragement of autonomy factors,

which was made necessary by their extremely strong inter-correlation, precluded

examination of some of the hypotheses in the manner in which it was originally

proposed.

The first hypothesis was that fathers would encourage autonomy to a greater

extent than would mothers (and possibly to a greater extent with their sons than with their

daughters). The second hypothesis was that paternal encouragement of autonomy would

be a better predictor of child-father attachment than would paternal sensitivity

(responsiveness), whereas maternal sensitivity would be a better predictor of child-

mother attachment than would maternal encouragement of autonomy. In other words, the

sensitive parenting of fathers is different from the sensitive parenting of mothers, and the

different types of sensitivity predict attachment security better or worse depending on the

parent exhibiting the behavior. Given the final model above, another way to address these

issues was to examine whether the model fit significantly worse when the factor loadings

for maternal and paternal sensitivity were constrained to be equal across mothers and

fathers. The final model, described above, was adjusted such that all freely estimated

paths from Maternal Sensitivity at Grade 3 to its indicator variables were constrained to

be equal to the paths from Paternal Sensitivity at Grade 3 to its indicator variables, and

the paths from Maternal Sensitivity at Grade 5 to its indicator variables were constrained

to be equal to the paths from Paternal Sensitivity at Grade 5 to its indicator variables. The model was tested using the entire sample (i.e., including both the "model-building" and "model-testing" subsamples). Fit indices for the model with and without the equality constraints are presented in Table 12. Imposing the equality constraints resulted in a very small but significant decrement in model fit ($\Delta\chi^2$ (7) = 26.07, $p < .005$ (Satorra-Bentler Scaled $\Delta\chi^2$ (7) = 24.18, $p < .005$). Thus, it appears that the factor structure of sensitivity is partially invariant across mothers and fathers.

Another way to examine the hypothesis that fathers' sensitivity differs from mothers' would be to examine mean differences on the individual indicator variables for mothers and fathers. Tables 13, 14, and 15 show the results of simple paired t-tests, pairing mother and father parenting variables, for the entire sample (Table 13) and separately for girls (Table 14) and boys (Table 15). At Grade 3, differences in maternal and paternal sensitivity and encouragement of autonomy varied by the context of the interaction. For both boys and girls, mothers were observed to be significantly more sensitive and encouraging of autonomy than fathers in the discussion task, whereas fathers were observed to be significantly more sensitive and encouraging of autonomy than mothers in the problem-solving task. There were no differences in mothers' and fathers' reported encouragement of autonomy on the Raising Children Questionnaire. Differences in maternal and paternal sensitivity and encouragement of autonomy at Grade 5 varied by gender of the child. For girls only, mothers were both significantly more sensitive and encouraging of autonomy than fathers in the discussion task, as well as significantly more encouraging of autonomy than fathers in the problem-solving task. For boys, the only difference between mothers' and fathers' sensitivity and

encouragement of autonomy was that mothers were significantly more sensitive than fathers in the problem-solving task. Thus, it appears that mothers and fathers do interact differently with their children, to a greater extent in Grade 3 than in Grade 5, and to a greater extent for girls than for boys in Grade 5. However, the results do not seem to show a clear pattern of fathers encouraging autonomy, in their daughters or their sons, to a greater extent than mothers.

The third major hypothesis was that fathering would have unique effects on child-father attachment, over and above any effect of mothering, and mothering would have unique effects on child-mother attachment, over and above any effect of fathering. To address this hypothesis, the total effects of each of the parenting factors on child-mother and child-father attachment at Grade 5 are decomposed in Table 16. Values were derived from the final structural model (see Figure 10). In terms of predicting Child-Mother Attachment at Grade 5, Maternal Sensitivity at Grade 3 had a significant indirect effect on Child-Mother Attachment at Grade 5, through its effect on Maternal Sensitivity at Grade 5, which in turn, had a significant direct effect on Child-Mother Attachment at Grade 5. Neither Paternal Sensitivity at Grade 3 nor Paternal Sensitivity at Grade 5 had a direct or indirect effect on Child-Mother Attachment at Grade 5. In terms of predicting Child-Father Attachment at Grade 5, Maternal Sensitivity at Grade 3 had a non-significant indirect effect on Child-Father Attachment at Grade 5 through its effect on Maternal Sensitivity at Grade 5, which had a non-significant indirect effect on Child-Father Attachment at Grade 5 through its effect on Paternal Sensitivity at Grade 5. Paternal Sensitivity at Grade 3 also had a non-significant indirect effect on Child-Father Attachment at Grade 5, through its effect on Paternal Sensitivity at Grade 5. Thus, the

only direct effect in terms of maternal and paternal sensitivity and child-father attachment was the non-significant direct effect of Paternal Sensitivity at Grade 5 on Child-Father Attachment at Grade 5.

The fourth major hypothesis was that mothering and fathering at Grade 3 would predict attachment to mother and father at Grade 5 more strongly than attachment to mother and father at Grade 3 would predict mothering and fathering at Grade 5. Although there was little support for the hypothesis that parenting at Grade 3 would predict attachment at Grade 5 (only the significant indirect effect of Maternal Sensitivity at Grade 3 on Child-Mother Attachment at Grade 5), examination of Figure 10 reveals that there was no support for the alternative hypothesis, that attachment at Grade 3 would predict parental sensitivity at Grade 5. There were neither direct nor indirect paths linking child-parent attachment at Grade 3 with parental sensitivity at Grade 5.

Next, I attempted to address the question of whether the model fit equally well for boys and girls. It is customary, when conducting multi-group analyses, to establish baseline models separately for the two groups (Byrne, 1994). Therefore, these analyses began with the initial CFA model with sensitivity and encouragement of autonomy combined.

The six latent factors (Maternal Sensitivity at Grade 3, Paternal Sensitivity at Grade 3, Maternal Sensitivity at Grade 5, Paternal Sensitivity at Grade 5, Child-Mother Attachment at Grade 5, Child-Father Attachment at Grade 5) and two stand-alone measured variables (Child Psychological Proximity Seeking with Respect to Mother at Grade 3, Child Psychological Proximity Seeking with Respect to Father at Grade 3) were allowed to correlate freely. For identification purposes, one factor loading for each latent

factor was fixed to one. Factor variances were freely estimated. Factor loadings for repeatedly measured variables were not initially constrained to be equal. Non-hypothesized factor loadings were constrained to zero.

The model was first examined for boys only. The initial CFA model did not adequately reflect the data (χ^2 (258) = 1022.73, p = .000 (Satorra-Bentler Scaled χ^2(258) = 975.65, p = .000), CFI = .798 (.793), SRMR = .083, RMSEA = .107 (.103), RMSEA 90% confidence interval: .100, .113 (.096, .110)). Based on inspection of selected Lagrange multiplier modification indices, I allowed four pairs of measured-variable residuals to freely correlate. However, the respecified CFA model would not converge without fixing one of the *factor* variances and an error variance to near zero. The factor that was constrained at its lower bound was Child-Mother Attachment at Grade 5. It was determined that modeling the relations among maternal and paternal sensitivity and child-mother and child-father attachment for boys could not proceed.

The model was then examined for girls only. The initial CFA model did not adequately reflect the data (χ^2 (258) = 834.64, p = .000 (Satorra-Bentler Scaled χ^2(258) = 768.07, p = .000), CFI = .825 (.831), SRMR = .076, RMSEA = .096 (.090), RMSEA 90% confidence interval: .088, .103 (.083, .097)). Based on inspection of selected Lagrange multiplier modification indices, I allowed eight pairs of measured-variable residuals to freely correlate. Addition of these correlated residuals resulted in a respecified CFA model that fit the data reasonably well (χ^2 (250) = 494.19, p = .000 (Satorra-Bentler Scaled χ^2 (250) = 459.01, p = .000), CFI = .926 (.931), SRMR = .061, RMSEA = .063 (.059), RMSEA 90% confidence interval: .055, .071 (.050, .067)) and significantly better

than did the initial CFA model ($\Delta\chi^2$ (8) = 375.63, $p < .05$ (Satorra-Bentler Scaled $\Delta\chi^2$ (8) = 309.06, $p < .05$).

Having achieved a measurement model that adequately reflected the data, I then imposed the hypothesized structural model. The model converged, although the fit to the data was less than ideal (χ^2 (267) = 582.91, $p = .000$ (Satorra-Bentler Scaled χ^2 (267) = 538.96, $p = .000$), CFI = .904 (.910), SRMR = .075, RMSEA = .070 (.065), RMSEA 90% confidence interval: .062, .077 (.057, .072)), and imposing the structural model resulted in a significant decrement in fit ($\Delta\chi^2$ (17) = 88.72, $p < .05$ (Satorra-Bentler Scaled $\Delta\chi^2$ (17) = 79.95, $p < .05$). Non-significant paths were removed. The reduced model had only paths indicating stability over time (i.e., Maternal Sensitivity at Grade 3 to Maternal Sensitivity at Grade 5, Child-Mother Attachment at Grade 3 to Child-Mother Attachment at Grade 5, Paternal Sensitivity at Grade 3 to Paternal Sensitivity at Grade 5, Child-Father Attachment at Grade 3 to Child-Father Attachment at Grade 5). However, without a model for boys, it was impossible to determine whether the relations among the constructs varied by gender.

Finally, I examined gender differences in parental sensitivity (supportive presence and encouragement of autonomy) and attachment security. In terms of attachment, although I had planned to examine this question using latent variables that reflected observed and parent-reported attachment behaviors and child-reported felt security, the only remaining indicators of attachment in the final model were measures of child-reported felt security (Child Psychological Proximity Seeking with Respect to Mother and Father at Grades 3 and 5, Child Security Scale with Respect to Mother and Father at Grade 5). Means and simple *t*-tests are presented in Table 17. Girls and boys did not

differ in their reported felt security with respect to mother or father at Grade 3. At Grade 5, there were no gender differences in terms of felt security with respect to mother. However, in terms of felt security with father, boys scored significantly lower than girls on the psychological proximity seeking scale (indicating greater security) and significantly higher on the Security Scale. Although these differences were significant, in both cases the lower bound of the 95% confidence interval around the mean difference was very close to zero (.01 for psychological proximity seeking, .02 for the Security Scale). Thus, there does not seem to be strong evidence that girls and boys vary systematically in their reports of felt security with either parent.

In terms of parental sensitivity and encouragement of autonomy, Table 17 also shows that mothers and fathers interact differently with daughters and sons. At Grade 3, both mothers and fathers were observed to be more sensitive and encouraging of autonomy with girls than with boys. Parent reports did not reveal similar differences. At Grade 5, the differences were in the same direction (being more sensitive and encouraging of autonomy with girls) but less robust for mothers. On the other hand, girls and boys did not significantly differ in their observed interactions with their fathers.

CHAPTER 5

DISCUSSION

In the present study, I attempted to elucidate the relations among maternal and paternal parenting behaviors (sensitivity, encouragement of autonomy) and girls' and boys' attachment security with respect to their mothers and fathers. Toward these ends, data from the *NICHD Study of Early Child Care and Youth Development* (*NICHD SECCYD*) were analyzed. Relations among these constructs were examined across the time period beginning when children were in Grade 3 and ending when they were in Grade 5. The study had a number of strengths. First, assessment of parental sensitivity was broadened to include encouragement of autonomy, which allowed for the testing of hypotheses regarding types of sensitivity and child-parent attachment. Second, because of the large size of the dataset, child-mother and child-father relationships could be explored within the same sets of analyses. Thus, the overlapping and unique effects of mothers and fathers could be distinguished from one another. Third, and also because of the large size of the dataset, child gender could be included as a potential moderating influence on the relations among maternal and paternal sensitivity and child-mother and child-father attachment. Finally, the dataset was large enough to uncover small effects. Overall, the results of this study did not support the main hypotheses. Each of the main goals of the study is discussed below, with an exploration of both the specified hypotheses and additional findings from the study. I conclude by suggesting areas for future research, both with the *NICHD SECCYD* and in general.

Maternal and Paternal Parenting and Their Relations to Attachment

The first goal of the present study was to examine similarities and differences in maternal and paternal parenting and their relations to attachment. Two main hypotheses were offered. The first hypothesis concerned differences between mothers and fathers in their levels of encouragement of autonomy. The second concerned the prediction of attachment security from maternal and paternal sensitivity and encouragement of autonomy. Gender differences were also explored with respect to these two hypotheses.

Maternal and paternal encouragement of autonomy. The first main hypothesis of the present study was that fathers would encourage autonomy to a greater extent than would mothers. This hypothesis was derived from Grossmann and Grossmann's (1999) "wider view of attachment," which includes not only security in attachment but also security in exploration, and their complementary view of sensitive parenting, which encompasses not only being available and responsive to child distress but also supportive of exploration and autonomy. It has also been suggested outside of the attachment literature that fathers and mothers play complementary roles in supporting "separateness" and "connectedness" (Parke & Buriel, 1998) and that fathers play an important role in linking children to the world outside the family (Marsiglio et al., 2000). In short, it was postulated that, in two-parent families, mothers act as a "safe haven" while fathers act as a "secure base" for exploration, although both parents likely play both roles to varying degrees in different contexts.

Results of the present study were inconclusive regarding the issue of relative level of encouragement of autonomy across mothers and fathers. In latent variable analyses, encouragement of autonomy could not be clearly distinguished from sensitivity, as

measured by observed supportive presence. In order to arrive at a structural model that reasonably represented the data, the two factors were merged. Thus, measurement of "sensitivity" was expanded to include not only sensitivity as responsiveness but also as encouragement of autonomy. In an examination of the structure of this factor, sensitivity appeared to be similar, although not identical, across mothers and fathers. The differences, however, did *not* suggest that the sensitivity of fathers is better defined in terms of encouragement of autonomy.

Mothers and fathers did vary in their observed (but not self-reported) encouragement of autonomy. Again, though, the differences did not suggest that fathers encourage autonomy, across the board, to a greater extent than do mothers. Rather, fathers encouraged autonomy to a greater extent than did mothers only in the problem-solving task at Grade 3. Mothers and fathers did not differ in encouragement of autonomy in the problem-solving task at Grade 5. On the other hand, it was mothers who encouraged autonomy to a greater extent than did fathers when the tasks involved discussion of family issues, at both time points for girls but only at Grade 3 for boys.

The ambiguity of these findings is likely the result of the unclear distinction between observed sensitivity and observed encouragement of autonomy. Recall that the observational code for sensitivity was "supportive presence." Examples of behaviors that a parent scoring high on this scale would exhibit included paying attention to the child, being engaged and positive in the interaction, *affirming the child as a person*, giving criticism in a constructive manner, and enhancing the child's self-esteem (Owen et al., 2000). The observational code for encouragement of autonomy was "respect for autonomy." The behaviors that exemplify this scale do not vary greatly from those that

describe observed supportive presence: asking the child's opinion, negotiating a rule with the child, acknowledging the child's perspective, and *validating the child's individual identity* (Owen et al., 2000). The codes clearly overlap, and a moderate correlation was not unexpected. However, it was not thought that the observations would correlate to such a degree that they would essentially measure the same construct. Given the nature of the sample (i.e., two-parent families who had participated in a longitudinal study for 11 years), it may be that participants were better adjusted, which may have restricted the variability at the low end of the scales, where there seems to be less overlap between the scales. A parent scoring low on the "supportive presence" scale would appear to be unavailable or hostile to the child, whereas a parent scoring low on the "respect for autonomy" scale would be very intrusive with the child (Owen et al., 2000).

It does appear that coding problem-solving interactions, in addition to interactions involving discussion, allowed for the opportunity to observe paternal behavior that would not otherwise have been observed, especially at Grade 3. Future researchers should continue to examine mother-child and father-child interactions across varied contexts (Collins & Russell, 1991; Cox et al., 1992). Researchers may also wish to focus on behaviors such as facilitative communication, which has been shown to vary across mothers and fathers in laboratory problem-solving tasks (Collins & Russell, 1991) and may be indicative of encouragement of autonomy without overlapping completely with parental sensitivity.

Child gender differences in parental sensitivity and encouragement of autonomy. A secondary goal of the present study was to examine gender differences in levels of the constructs of interest and the relations among these constructs. Child gender was

identified as a potential moderator of the relation between parental sensitivity and child-parent attachment. Parents may interact differently with their children depending on whether they are girls or boys, and girls and boys may react differently to the same parent behavior (Leaper, 2002). Based on the sparse and sometimes contradictory findings in the literature, however, few hypotheses regarding child gender were offered.

The first question to be addressed regarding gender differences concerned whether parents of boys or parents of girls are more or less sensitive or encourage more or less autonomy in their children. Although a number of studies have examined whether parents, especially fathers, encourage dependency in girls and autonomy in boys, consistent evidence has not been found to support this notion (Lytton & Romney, 1991). Interestingly, in the present study, both mothers and fathers of *girls* were observed to encourage autonomy to a greater extent than did mothers and fathers of boys. These results were statistically significant for both mothers and fathers at Grade 3 but only for mothers at Grade 5 (and the magnitude of this difference was smaller than at Grade 3). It should be noted, however, that similar differences were revealed in terms of observed sensitivity: Mothers and fathers of girls were also observed to be more sensitive, although the magnitude of the difference was smaller and, for fathers, not statistically significant at Grade 5. Recall, as well, that the observational codes were highly correlated with one another. Given this, it seems the present findings do not lend themselves well to the question of whether parents of boys or parents of girls encourage more or less autonomy in their children.

Interestingly, it appears that mothers improved at responding sensitively to their sons during problem-solving tasks between Grade 3 and Grade 5, whereas fathers became

less able to respond sensitively to their daughters during discussions of family issues over this time period. These findings, of course, are based on group means, rather than on an examination of individual differences in continuity and change. Studies with at least three times of measurement – with measures of both sensitivity and child perceptions of parent-child relationships – will be necessary to determine whether fathers and daughters do, in fact, become more emotionally distant over the period of late childhood.

Child gender differences in felt security with mother and father. A second question to be addressed regarding gender differences concerned differences between boys and girls in their felt security with their mothers and fathers. Based on attachment theory, though, there was little reason to hypothesize gender differences. In the present study, gender differences were not found for self-reported felt security, with respect to mother or father, at Grade 3. At Grade 5, gender differences were not found for felt security with respect to mother, although gender differences were found for both measures assessing child-father attachment (Proximity Seeking Scale and Security Scale). Girls scored higher (indicating *less* security) than boys on the psychological proximity seeking scale, and boys scored higher than girls on the Security Scale. These unexpected findings are in contrast with those recently reported by Verschueren and Marcoen (2004), who found that girls reported feeling more secure with their mothers than did boys but that there were no gender differences in feelings of security with respect to fathers. However, although the differences found in the present study were statistically significant, they were not robust. Together, these results suggest that boys and girls do not vary systematically in terms of their reported felt security with either parent. It is recommended, however, that researchers continue to examine gender differences in their

studies of attachment in middle childhood in order to ensure that selected measures assess the full breadth of the manifestations of the construct of interest, whether it is felt security, secure-base behavior, or attachment representations.

Parental sensitivity and child-parent attachment. The study's second main hypothesis concerned the links between parental sensitivity and child-parent attachment. It was thought that, in two-parent families, mothers generally act as the "safe haven" whereas fathers generally act as the "secure base." Different types of security are required for these two roles. To act as a "safe haven," one would be available, emotionally if not physically, and responsive in times of distress, and also remain open to communication. To act as a "secure base," one would assist in the regulation of such emotions as frustration and wariness *without being intrusive* during times of exploration (Grossmann et al., 1999). Thus, it was postulated that paternal sensitivity in the context of exploration would foster the ability to use the father as a secure base for exploration and that more secure children would have fathers who supported their autonomy. As mentioned above, however, both parents likely play both roles to varying degrees. Thus, paternal responsiveness would also be related to child-father attachment, and maternal sensitivity (both in the sense of being responsive and in the sense of supporting autonomy) would be related to child-mother attachment. It was expected that the link between encouragement of autonomy and attachment would be stronger for fathers than for mothers. However, because the measures of sensitivity and encouragement of autonomy were highly correlated, inclusion of encouragement of autonomy as a separate construct did not add any additional information to the explanation of child-parent attachment. With the factors merged into one, a clear test of the original hypothesis was not possible. Rather, links

between sensitivity, broadly defined as being both responsive and supportive of autonomy, and child-parent attachment were examined for mothers and fathers.

As shown in Figure 10 and Table 16, maternal sensitivity at Grade 5 had a significant direct effect on child-mother attachment at Grade 5, and maternal sensitivity at Grade 3 influenced child-mother attachment at Grade 5 through its impact on maternal sensitivity at Grade 5. In this final model, paternal sensitivity at neither grade had a significant direct or indirect effect on child-father attachment. It should be noted, however, that in the model-building, exploratory phase of the analyses, paternal sensitivity at Grade 5 appeared to have a significant *negative* effect on child-father attachment. That is, greater paternal sensitivity was linked with children's feeling less secure with their fathers. One possible explanation for this counterintuitive finding is that the direction of effects was reversed. Perhaps children who are less secure with their fathers – who are less confident that their fathers will act as a secure base or safe haven for them – actually elicit the behaviors characterized here as "sensitive." Although this counterintuitive relation did not emerge in the final structural model, it does highlight the fact that direction of effects is not clear when relations are found only within one time of measurement. This finding also serves as a reminder that children bring their own characteristics to their relationships with their parents; they may react to parental behavior differently, and may also elicit different behavior from their parents (Bronfenbrenner, 1989).

Why was stronger evidence for the impact of maternal and paternal sensitivity on child-mother and child-father attachment not found? There are several possible explanations, both methodological and theoretical. First, in terms of methodology, several

of the variables, most importantly the child-parent attachment variables, were rather restricted in their range. Specifically, few participants scored on the low end of the security measures. Regarding the Security Scale, the restricted range may have resulted from the change in response format from the original "some kids/other kids" format to a Likert format, as few children may have been willing to endorse the low end of the scale. In addition, the selected nature of the sample may have restricted the range in not only the parenting but also attachment variables.

A second possible methodological explanation for the lack of strong links between sensitivity and attachment concerns the measurement of sensitivity. As mentioned above, it will be important in future research to more clearly distinguish between sensitivity and encouragement of autonomy. In addition to the issues with the measurement of encouragement of autonomy described above, there are also issues with regard to the measurement of sensitivity. As with the one other study examining observed parenting and attachment in middle childhood (Kerns et al., 2000), the present study examined observed parental sensitivity in the context of relatively non-stressful situations. Whereas observation of encouragement of autonomy is appropriate in non-stressful contexts, the type of sensitivity that reflects parental "safe haven" behavior may be best observed in situations that are distressing to the child. In most cases, discussions of family issues, whether at a laboratory or home visit, are probably not so threatening as to activate children's attachment systems. Just as it has been suggested that older children's attachment behaviors may be best observed in stressful contexts (Laible, 2005), so too might parental sensitivity. Indeed, it has been argued that observation of sensitivity in stressful contexts is largely missing in the infant attachment literature

(Goldberg et al., 1999; Thompson, 1997). Observations of sensitivity in stressful contexts, such as support-oriented discussions (Weinfield, 2005), may prove useful in future research investigating the roles of mothers and fathers in fostering security in middle childhood.

There is also a theoretical explanation for the lack of strong links between sensitivity and attachment. Bowlby (1973) took a developmental pathways perspective regarding continuity and change in attachment. Whereas infants are capable of taking any number of different paths, it becomes increasingly difficult over time to change course. In terms of internal working models of attachment, strategies for processing attachment-related information become "overlearned" and operate beneath consciousness. Children seek and interpret experiences to match their representational models, and interactions with attachment figures are repeatedly enacted. Thus, internal working models were theorized to be increasingly stable over time (Bowlby, 1973). However, Bowlby (1973) also allowed that there was still room for flexibility across the years of immaturity. Thus, one of the main premises of the present study was that internal working models in middle-to-late childhood reflect both early experiences with parents and the ongoing parent-child relationships (Weinfield et al., 1999). The lack of strong, significant relations between parental sensitivity and attachment (in conjunction with the evidence for modest stability in both parenting and attachment, discussed below) in the present study suggests that, under normal circumstances, feelings of security in attachment relationships are not easily influenced by current parenting. One can imagine that it is difficult to respond sensitively to a child who does not offer opportunities for sensitive response – one who is not open to intimate communication or asking for help. Similarly,

it must be difficult to respond sensitively to a child who simply cannot be comforted. In fact, one of the main hypotheses of the present study concerned the direction of effects.

Direction of causality. Because parental sensitivity and child-parent attachment were both measured at each time point, it was possible to assess whether maternal and paternal sensitivity at Grade 3 predicted attachment to mother and father at Grade 5 more strongly than attachment to mother and father at Grade 3 predicted maternal and paternal sensitivity at Grade 5. However, no significant over-time relations between parenting and attachment emerged. On the one hand, there was no evidence that attachment predicted parental sensitivity, but on the other hand, the only evidence that sensitivity predicted attachment involved relations that were revealed within a single time of measurement. Thus, one can conclude neither that parental sensitivity *causes* attachment security in middle childhood nor that a child-effects model best represents the relation between sensitivity and attachment, either. Rather, it may be that the relation is best described as reciprocal.

Finally, it may be that parental sensitivity has more of a causal effect on children's feelings of security when children can be, from a developmental pathways perspective, thrown off-course. For example, the divorce of one's parents or other significant changes to family circumstances have the potential to shake one's feelings of security, and parental sensitivity may be particularly important during times such as these.

Direct versus indirect and unique versus overlapping effects. Another of the study's main hypotheses concerned the unique vs. overlapping effects of maternal and paternal parenting on child-mother and child-father attachment. Although overlapping

and indirect effects were expected, it was hypothesized that maternal and paternal sensitivity would have unique, direct effects on child-mother and child-father attachment, respectively. That is, the roles of mothers and fathers are not identical in two-parent families, and each parent contributes directly to the child's perception of the specific relationship.

There was partial support for this hypothesis in the present study. As described above, maternal sensitivity at Grade 5 had a significant direct effect on child-mother attachment at Grade 5, and maternal sensitivity at Grade 3 influenced child-mother attachment at Grade 5 through its impact on maternal sensitivity at Grade 5. However, in this final model, paternal sensitivity at neither grade had a significant direct or indirect effect on child-father attachment.

It is also of note that a significant, albeit modest relation between maternal and paternal sensitivity at Grade 5 emerged in the final model. Although this relation was modeled as maternal sensitivity predicting paternal sensitivity, the direction of effects is unclear. As modeled, however, an indirect effect of maternal sensitivity on child-father attachment was not revealed, as paternal sensitivity (the potential mediator) was not significantly related to child-father attachment.

Gender differences in relations among constructs. In the present study, I also examined whether parental sensitivity and encouragement of autonomy are linked with child-parent attachment in similar ways for girls and boys. Recall that, after a final model representing the relations between sensitivity (broadly defined) and attachment was achieved for the entire sample, I attempted to model these relations separately for boys and girls. For boys, I was unable to proceed past the measurement of the constructs, as

child-mother attachment at Grade 5 did not vary substantially across the sample of boys. For girls, I was able to model the relations among the constructs, but paths from sensitivity to attachment, either within or across times of measurement, were not revealed. Thus, it seems that both boys and girls are needed in order to have enough variation in attachment security and to reveal any relations between parental sensitivity and attachment. Focusing on an "at-risk" population may help resolve the issue of variation in attachment, and thus, prove useful in modeling relations between parental sensitivity and child-parent attachment.

Additional Findings

Stability of parenting and attachment. The design of the present study allowed for the examination of additional questions that were not the primary focus of the study, yet are relevant to the issue of the links between parental sensitivity and child-parent attachment. One such question concerned the stability of parental sensitivity, and another concerned the stability of child-parent attachment.

In terms of stability of *parenting*, results of the present study are consistent with those of previous studies examining stability of parenting in the later years of childhood (Forehand & Jones, 2002; Holden & Miller, 1999; Loeber, Drinkwater, Yin, Anderson, Schmidt, & Crawford, 2000), as well as with a previous examination of the same variables with the *NICHD SECCYD* sample from 4-1/2 to 6 years (Dallaire & Weinraub, 2005). The present study also adds to these studies in its examination of fathers. Both maternal and paternal sensitivity were significantly stable over the period from Grade 3 to Grade 5. Paternal sensitivity was less stable than maternal sensitivity, however. The parenting that is considered sensitive seems to change to a greater degree for fathers than

for mothers over the later school years. The cause of this lesser stability is not clear from the present study, although it may be that the role of fathers changes during this time, and the fathers who were considered sensitive at Grade 3 were not necessarily the same fathers who were considered sensitive at Grade 5.

In terms of stability of *attachment*, only two studies have included a longitudinal examination of attachment to mother and father in middle childhood. In the first, Kerns and her colleagues (2000) found child-father attachment, as measured with the Security Scale, to be significantly, moderately stable over the period from Grade 3 to Grade 5, whereas child-mother attachment was not significantly stable over time. On the other hand, in a recent study, Verschueren and Marcoen (2004) examined a larger sample of children over the time period from ages 8 to 11 years and found significant, modest stability in Security Scale scores regarding both mothers and fathers. Consistent with the previous findings, however, the magnitude of the stability coefficient for security with respect to father was stronger than the stability coefficient for security with respect to mother.

In the present study, examination of the final structural model (see Figure 10) revealed that both child-mother and child-father attachment were significantly, moderately stable from Grade 3 to Grade 5. In this sample, the magnitude of the stability coefficient for child-mother attachment was stronger than the magnitude of the stability coefficient for child-father attachment. In contrast to the previous two studies (Kerns et al., 2000; Verschueren & Marcoen, 2004), the present study assessed attachment in terms of the Relationship Questionnaire's psychological proximity seeking scale at Grade 3 and in terms of both the Relationship Questionnaire and a variation of the Security Scale at

Grade 5. Thus, the present study adds information regarding the stability of the construct, in addition to stability of the measure.

Finally, with only two times of measurement it was not possible to examine whether stability (or change) in sensitivity was related to stability (or change) in child-parent attachment. Addition of at least one more time of measurement is certainly a possibility for future research. With at least three times of measurement, one could also begin to examine developmental processes, including both the differentiation and integration of internal working models of multiple attachment relationships (see Verschueren & Marcoen, 2004).

Links between maternal and paternal sensitivity in middle childhood. A second question that was addressed in the present study concerned the links between maternal and paternal sensitivity in middle childhood. Surprisingly few studies address this issue. Differences in maternal and paternal sensitivity have been examined among parents of infants, with results showing that fathers are generally just as sensitive and responsive as mothers (Lewis & Lamb, 2003). Russell and Russell (1987) found that the interaction styles of mothers and fathers of six- to seven-year-olds were similar. It has, however, been shown that mothers spend more time with their children in caregiving, and fathers spend more time with their children in play (Collins & Russell, 1991). Other studies have focused on the differential socialization (or lack thereof) of girls and boys by their mothers and fathers (Lytton & Romney, 1991). Yet studies concerning parental sensitivity during the developmental period examined in the present study (i.e., the later years of elementary school) are apparently scarce.

It was hypothesized in the present study that mothers and fathers play complementary roles, with fathers acting as the "secure base" and mothers acting as the "safe haven," and that different types of sensitivity are needed to play these roles. As such, it was expected that maternal and paternal sensitivity would differ, although it was by no means expected that they would be uncorrelated. It was hypothesized that fathers would encourage autonomy to a greater extent than would mothers, but differences in sensitivity, or supportive presence, were not expected.

Findings in the present study were not completely straightforward. At both time points, maternal and paternal sensitivity were significantly and moderately correlated with one another, with the correlation at Grade 3 being stronger than the correlation at Grade 5. However, indicators of "sensitivity" included not only observed supportive presence but also observed respect for autonomy and self-reported encouragement of autonomy. Moreover, the structure of these factors was only partially invariant across mothers and fathers.

Links between child-mother and child-father attachment. The design of the present study also provided the opportunity to examine the links between child-mother and child-father attachment. Corresponding with developments of the self (see Harter, 1998), internal working models of attachment relationships and the self within those relationships are expected to become more general and abstract over the years of middle childhood. Yet, it is not expected that a general model of attachment, one that encompasses and supersedes specific relationships, emerges until the acquisition of formal operations that occurs in adolescence (Allen & Land, 1999). On the other hand, relationship-specific internal working models are also expected to become more

sophisticated and complex over the years of middle childhood. In a recent study, Verschueren and Marcoen (2004) examined correlations between children's reports of attachment with respect to their mothers (using the Security Scale) and their reports of attachment with respect to their fathers at age 8 and again at age 11. On the basis of their finding that the correlation was weaker at age 11, these researchers concluded that children become better at distinguishing between their relationships with their mothers and fathers. They also concluded that there was no evidence of a unified, general representation of attachment at either time. However, given the manner in which attachment was assessed (i.e., with the relationship-specific Security Scale, rather than a projective or interview measure that specifically taps overall representations), it is not clear that such evidence could have been found.

The findings of Verschueren and Marcoen (2004) were partially replicated in the present study. At Grade 3, children's attachment was assessed with the Relationship Questionnaire's psychological proximity seeking scale, separately with respect to mother and father. As shown in Figure 10, these two stand-alone, measured variables were correlated very strongly ($r = .83$, $p < .001$) with one another. At Grade 5, children's attachment with respect to each parent was assessed with both the Relationship Questionnaire and a variation of the Security Scale. Because these factors were endogenous (i.e., dependent variables), correlations between them could not be specified in the structural model. Removing the structural paths and allowing all factors and stand-alone variables to correlate, however, provided the correlations between the child-mother attachment and child-father attachment factors at Grade 5. These two factors were also strongly correlated ($\varphi = .82$, $p < .001$). In the structural model, however, it is clear that

the disturbance terms - the portion of the variance in each of the factors that is not attributable to the variance in the specified predictor variables - were also strongly correlated with one another, suggesting that the strong correlation between the factors was at least partially due to shared error variance (e.g., shared method).

Thus, evidence was not found for increasing differentiation between relationships with mothers and fathers. Rather, the strong correlation was consistent over the period of Grade 3 to Grade 5. This correlation may represent a lack of differentiation across relationships. On the other hand, the strong correlation may reflect shared method variance. Moreover, it may also be that children report similar relationships with each of their parents because they, in fact, have similar relationships with their parents.

Conclusions and Directions for Future Research

Taken as a whole, the results of the present study point to the need to take a developmental pathways perspective and to examine the reciprocal relations between children and their parents in middle childhood. By middle-to-late childhood, children and parents both clearly contribute to their distinctive relationship patterns, and causality is not easily discerned. Moreover, these patterns – and children's representations of them – are increasingly stable, as they become more practiced over time. A significant change in family circumstances may be needed in order to break these patterns, and it may be that it is during these times that variations in parental sensitivity and encouragement of autonomy are particularly salient.

Several additional studies that could be conducted with the *SECCYD* data would add to our current understanding of the relations between parenting and attachment in middle childhood. First, given that children's representations of attachment relationships

may be more susceptible to change when families are in transition, it seems promising to examine the relations among maternal and paternal parenting and children's attachment across family transitions, such as parental divorce and remarriage, or even a drastic change in marital quality. Second, a focus on an "at-risk" sample may result in more variation in attachment security and help reveal relations between parenting and attachment.

Other promising directions could be taken by studies using new data. First, it will be important in the future to examine representations of attachment via interview or projective methods. In the present study, the three potential assessments of attachment (observational rating, parent report, child self-report) were not strongly related to one another, which led to the use of only child self-report. Relying on only child self-report restricts our understanding to conscious perceptions of the attachment relationship, and while these are extremely important, they are only part of the picture. Second, it seems important to examine both attachment and parental sensitivity in situations that are stressful for the child – situations that are likely to activate the attachment system, and thus, the caregiving system of the parent. Finally, it will be essential to observe mothers, fathers, and children in interactions together, rather than as separate dyads. Whereas mothers and fathers may have distinct roles in the family (e.g., safe haven and secure base), these roles are not acted out in a vacuum. Examination of triadic interactions could help reveal the more subtle ways that parents, especially fathers, contribute to their children's attachment, as well as highlight the ways that children influence these interactions.

Table 1

Overview of Procedures

	Grade 3	Grade 4	Grade 5
Home / Lab Visit	Parent-Child Interactions		Parent-Child Interactions
Parent Questionnaires	Raising Children Questionnaire	Parental Modernity Scale of Child	Child-Parent Relationship Scale
	Child-Parent Relationship Scale	Rearing and Educational	
		Beliefs	
Child Questionnaires	Relatedness Questionnaire		Relatedness Questionnaire
			Security Scale

Table 2

Indicators of Latent Constructs: Proposed Analyses

Latent Construct	Indicator
Maternal Sensitivity G3	
	Observed maternal sensitivity in discussion task
	Observed maternal sensitivity in problem-solving task
Maternal Encouragement of Autonomy G3	
	Observed maternal respect for autonomy in discussion task
	Observed maternal respect for autonomy in problem-solving task
	Four-item scale created from mother's Raising Children Questionnaire
Child-Mother Attachment G3	
	Mother-reported Child-Parent Relationship Scale – Closeness subscale
	Observed mother-child dyad felt security / affective mutuality in discussion task
	Observed mother-child dyad felt security / affective mutuality in problem-solving task
	Child-reported Relationship Questionnaire – Psychological Proximity Seeking subscale, with respect to mother
Paternal Sensitivity G3	
	Observed paternal sensitivity in discussion task
	Observed paternal sensitivity in problem-solving task
Paternal Encouragement of Autonomy G3	
	Observed paternal respect for autonomy in discussion task
	Observed paternal respect for autonomy in problem-solving task
	Four-item scale created from father's Raising Children Questionnaire
Child-Father Attachment G3	
	Father-reported Child-Parent Relationship Scale – Closeness subscale
	Observed father-child dyad felt security / affective mutuality in discussion task
	Observed father-child dyad felt security / affective mutuality in problem-solving task
	Child-reported Relationship Questionnaire – Psychological Proximity Seeking subscale, with respect to father

Latent Construct	Indicator
Maternal Sensitivity G5	
	Observed maternal sensitivity in discussion task
	Observed maternal sensitivity in problem-solving task
Maternal Encouragement of Autonomy G5	
	Observed maternal respect for autonomy in discussion task
	Observed maternal respect for autonomy in problem-solving task
Child-Mother Attachment G5	
	Mother-reported Child-Parent Relationship Scale – Closeness subscale
	Observed mother-child dyad felt security / affective mutuality in discussion task
	Observed mother-child dyad felt security / affective mutuality in problem-solving task
	Child-reported Relationship Questionnaire – Psychological Proximity Seeking subscale, with respect to mother
	Child-reported Security Scale, with respect to mother
Paternal Sensitivity G5	
	Observed paternal sensitivity in discussion task
	Observed paternal sensitivity in problem-solving task
Paternal Encouragement of Autonomy G5	
	Observed paternal respect for autonomy in discussion task
	Observed paternal respect for autonomy in problem-solving task
Child-Father Attachment G5	
	Father-reported Child-Parent Relationship Scale – Closeness subscale
	Observed father-child dyad felt security / affective mutuality in discussion task
	Observed father-child dyad felt security / affective mutuality in problem-solving task
	Child-reported Relationship Questionnaire – Psychological Proximity Seeking subscale, with respect to father
	Child-reported Security Scale, with respect to father

Table 3

Descriptive Statistics for All Study Variables

	N	Mean	SD
Grade 3 Measures			
Obs. Maternal Supportive Presence in Discussion Task	561	5.51	0.92
Obs. Maternal Respect for Autonomy in Discussion Task	561	5.63	0.90
Obs. Child-Mother Felt Security in Discussion Task	561	5.52	1.03
Obs. Maternal Supportive Presence in Problem-Solving Task	560	4.78	1.19
Obs. Maternal Respect for Autonomy in Problem-Solving Task	560	4.79	1.25
Obs. Child-Mother Felt Security in Problem-Solving Task	560	5.25	1.00
Obs. Paternal Supportive Presence in Discussion Task	496	5.27	1.05
Obs. Paternal Respect for Autonomy in Discussion Task	496	5.39	0.97
Obs. Child-Father Felt Security in Discussion Task	496	5.33	1.04
Obs. Paternal Supportive Presence in Problem-Solving Task	494	5.40	1.14
Obs. Paternal Respect for Autonomy in Problem-Solving Task	494	5.50	0.99
Obs. Child-Father Felt Security in Problem-Solving Task	494	5.35	0.96
Mother Raising Children Encourage Autonomy Items	591	10.36	1.90
Father Raising Children Encourage Autonomy Items	537	10.22	1.81
Psychological Proximity Seeking with Respect to Mother	587	2.06	0.75
Psychological Proximity Seeking with Respect to Father	578	2.16	0.81
Mother CPRS Closeness Scale	590	37.39	2.52
Father CPRS Closeness Scale	537	35.58	3.54

	N	*Mean*	*SD*
Grade 4 Measures			
Maternal Beliefs About Raising Children	589	69.59	15.51
Paternal Beliefs About Raising Children	504	74.75	15.98
Grade 5 Measures			
Obs. Maternal Supportive Presence in Discussion Task	557	5.27	0.98
Obs. Maternal Respect for Autonomy in Discussion Task	557	5.34	1.00
Obs. Child-Mother Felt Security in Discussion Task	557	4.97	0.96
Obs. Maternal Supportive Presence in Problem-Solving Task	550	5.34	0.82
Obs. Maternal Respect for Autonomy in Problem-Solving Task	550	5.24	0.96
Obs. Child-Mother Felt Security in Problem-Solving Task	550	5.41	0.84
Obs. Paternal Supportive Presence in Discussion Task	523	5.14	1.08
Obs. Paternal Respect for Autonomy in Discussion Task	523	5.15	1.05
Obs. Child-Father Felt Security in Discussion Task	523	4.96	1.05
Obs. Paternal Supportive Presence in Problem-Solving Task	520	5.13	1.02
Obs. Paternal Respect for Autonomy in Problem-Solving Task	520	5.16	0.99
Obs. Child-Father Felt Security in Problem-Solving Task	520	5.23	0.85
Psychological Proximity Seeking with Respect to Mother	593	1.77	0.64
Psychological Proximity Seeking with Respect to Father	593	1.84	0.74
Security in Relationship with Respect to Mother	593	3.55	0.38
Security in Relationship with Respect to Father	593	3.50	0.43
Mother CPRS Closeness Scale	600	36.82	2.92
Father CPRS Closeness Scale	546	34.51	3.91

Table 4

Correlations Among All Study Variables (Number of Participants Varies According to Analysis)

		1	2	3	4	5	6	7	8	9	10	11
Grade 3 Mother-Child Interactions												
1.	Supportive Presence in Discussion Task											
2.	Respect for Autonomy in Discussion Task	.66***										
3.	Dyadic Felt Security in Discussion Task	.62***	.53***									
4.	Supportive Presence in Prob-Solv Task	.50***	.45***	.33***								
5.	Respect for Autonomy in Prob-Solv Task	.35***	.40***	.27***	.80***							
6.	Dyadic Felt Security in Prob-Solv Task	.44***	.37***	.65***	.57***	.51***						
Grade 3 Father-Child Interactions												
7.	Supportive Presence in Discussion Task	.21***	.24***	.20***	.23***	.17***	.21***					
8.	Respect for Autonomy in Discussion Task	.27***	.30***	.21***	.25***	.20***	.25***	.70***				
9.	Dyadic Felt Security in Discussion Task	.20***	.24***	.28***	.18***	.14**	.24***	.72***	.64***			
10.	Supportive Presence in Prob-Solv Task	.19***	.22***	.11*	.17***	.14**	.14**	.69***	.52***	.53***		
11.	Respect for Autonomy in Prob-Solv Task	.20***	.22***	.11*	.24***	.20***	.19***	.49***	.60***	.43***	.55***	
12.	Dyadic Felt Security in Prob-Solv Task	.27***	.20***	.26***	.15**	.10*	.23***	.64***	.50***	.71***	.68***	.50***
Grade 3 Parent Questionnaires												
13.	Mother Raising Children Encourage Auton	.15***	.14**	.10**	.18***	.16***	.07	.11*	.18***	.10*	.10*	.11*
14.	Father Raising Children Encourage Auton	.07	.13**	.02	.06	.07	.03	.13**	.18***	.08	.15**	.13**
15.	Mother CPRS Closeness	.12**	.11*	.25***	.07	.06	.19***	.01	.01	.04	-.03	-.02
16.	Father CPRS Closeness	.12**	.18***	.16***	.13**	.15***	.19***	.20***	.25***	.24***	.17***	.15**
Grade 3 Child Questionnaires												
17.	Psychological Proximity Seeking - Mother	-.08	-.02	-.11*	-.08	-.09*	-.08	-.03	-.03	-.06	-.04	-.13**
18.	Psychological Proximity Seeking - Father	-.07	-.02	-.06	-.05	-.06	-.02	.01	-.02	-.08	.01	-.07
Grade 4 Parent Questionnaires												
19.	Mother Beliefs About Raising Children	-.30***	-.34***	-.23***	-.34***	-.31***	-.21***	-.13**	-.22***	-.10*	-.14**	-.22***
20.	Father Beliefs About Raising Children	-.13**	-.15**	-.06	-.21***	-.20***	-.11*	-.22***	-.25***	-.13**	-.24***	-.27***

	1	2	3	4	5	6	7	8	9	10	11
Grade 5 Mother-Child Interactions											
21. Supportive Presence in Discussion Task	.28***	.33***	.29***	.26***	.24***	.27***	.24***	.27***	.26***	.23***	.24***
22. Respect for Autonomy in Discussion Task	.22***	.28***	.20***	.27***	.24***	.24***	.24***	.24***	.26***	.21***	.19***
23. Dyadic Felt Security in Discussion Task	.28***	.32***	.36***	.23***	.20***	.31***	.23***	.24***	.24***	.16***	.20***
24. Supportive Presence in Prob-Solv Task	.26***	.31***	.20***	.33***	.30***	.21***	.23***	.23***	.22***	.17***	.18***
25. Respect for Autonomy in Prob-Solv Task	.17***	.23***	.12**	.31***	.31***	.22***	.16**	.20***	.17***	.14**	.17***
26. Dyadic Felt Security in Prob-Solv Task	.21***	.24***	.29***	.25***	.23***	.29***	.18***	.23***	.17***	.14**	.17***
Grade 5 Father-Child Interactions											
27. Supportive Presence in Discussion Task	.23***	.27***	.21***	.24***	.18***	.23***	.33***	.31***	.28***	.31***	.23***
28. Respect for Autonomy in Discussion Task	.21***	.25***	.18***	.22***	.16***	.20***	.28***	.31***	.23***	.24***	.27***
29. Dyadic Felt Security in Discussion Task	.21***	.25***	.30***	.21***	.15**	.25***	.32***	.32***	.34***	.26***	.24***
30. Supportive Presence in Prob-Solv Task	.23***	.23***	.20***	.26***	.20***	.21***	.33***	.31***	.23***	.33***	.29***
31. Respect for Autonomy in Prob-Solv Task	.15**	.18***	.14**	.21***	.15**	.17***	.30***	.29***	.17***	.27***	.29***
32. Dyadic Felt Security in Prob-Solv Task	.20***	.20***	.24***	.25***	.16***	.25***	.30***	.28***	.27***	.26***	.22***
Grade 5 Parent Questionnaires											
33. Mother CPRS Closeness	.10*	.12**	.23***	.04	-.01	.14**	.07	.07	.08	.04	.05
34. Father CPRS Closeness	.09*	.15**	.18***	.12**	.11	.15**	.16**	.23***	.24***	.15**	.12*
Grade 5 Child Questionnaires											
35. Psychological Proximity Seeking - Mother	-.09*	-.07	-.08	-.09*	-.11	-.06	-.04	-.08	.01	-.06	-.14**
36. Psychological Proximity Seeking - Father	-.04	-.03	-.06	-.03	-.06	-.06	-.03	-.04	-.04	-.05	-.10*
37. Security in Relationship - Mother	.07	.09*	.16***	.08	.08	.13**	.11*	.14**	.07	.07	.21***
38. Security in Relationship - Father	.07	.09*	.10*	.04	.07	.09*	.12**	.10*	.06	.11*	.20***

		12	13	14	15	16	17	18	19	20	21	22
Grade 3 Parent Questionnaires												
13.	Mother Raising Children Encourage Auton	.04										
14.	Father Raising Children Encourage Auton	.08	.34***									
15.	Mother CPRS Closeness	.01	.04	-.03								
16.	Father CPRS Closeness	.16**	.04	.13**	.17***							
Grade 3 Child Questionnaires												
17.	Psychological Proximity Seeking - Mother	-.07	.00	-.05	-.06	-.04						
18.	Psychological Proximity Seeking - Father	-.03	-.04	-.09	-.02	.00	.82***					
Grade 4 Parent Questionnaires												
19.	Mother Beliefs About Raising Children	-.10*	-.50***	-.34***	-.06	-.09*	.10*	.13**				
20.	Father Beliefs About Raising Children	-.13**	-.25***	-.49***	.03	-.14**	.10*	.12**	.47***			
Grade 5 Mother-Child Interactions												
21.	Supportive Presence in Discussion Task	.23***	.13**	.16***	.18***	.10*	-.09*	-.09*	-.21***	-.26***		
22.	Respect for Autonomy in Discussion Task	.21***	.13**	.13**	.12**	.08	-.08	-.08	-.22***	-.25***	.78***	
23.	Dyadic Felt Security in Discussion Task	.22***	.11*	.11*	.18***	.12**	-.09*	-.08	-.21***	-.26***	.69***	.65***
24.	Supportive Presence in Prob-Solv Task	.15**	.15***	.11*	.04	.10*	-.06	-.04	-.27***	-.25***	.56***	.53***
25.	Respect for Autonomy in Prob-Solv Task	.12*	.13**	.12**	-.03	.09*	-.11*	-.11**	-.26***	-.24***	.41***	.51***
26.	Dyadic Felt Security in Prob-Solv Task	.11*	.13**	.07	.15**	.14**	-.06	-.02	-.23***	-.25***	.48***	.45***
Grade 5 Father-Child Interactions												
27.	Supportive Presence in Discussion Task	.25***	.12**	.12**	.06	.15**	-.08	-.05	-.22***	-.25***	.34***	.28***
28.	Respect for Autonomy in Discussion Task	.19***	.12**	.11*	.06	.11*	-.05	-.01	-.22***	-.23***	.27***	.23***
29.	Dyadic Felt Security in Discussion Task	.31***	.06	.09*	.12**	.19***	-.07	-.02	-.18***	-.18***	.33***	.27***
30.	Supportive Presence in Prob-Solv Task	.24***	.12**	.12**	.03	.10*	-.10*	-.05	-.17***	-.26***	.23***	.21***
31.	Respect for Autonomy in Prob-Solv Task	.20***	.10*	.10*	.00	.07	-.10*	-.02	-.16***	-.21***	.15**	.14**
32.	Dyadic Felt Security in Prob-Solv Task	.28***	.05	.08	.05	.11*	-.12**	-.08	-.16***	-.17***	.17***	.18***
Grade 5 Parent Questionnaires												
33.	Mother CPRS Closeness	.06	-.02	-.04	.60***	.24***	-.03	.00	-.06	.00	.22***	.14**
34.	Father CPRS Closeness	.14**	.01	.15**	.17***	.64***	-.12**	-.09*	-.07	-.14**	.22***	.21***
Grade 5 Child Questionnaires												
35.	Psychological Proximity Seeking - Mother	-.03	-.06	-.17***	-.15***	-.09*	.43***	.37***	.14**	.19***	-.14**	-.10*
36.	Psychological Proximity Seeking - Father	-.03	-.03	-.14**	-.08	-.05	.42***	.42***	.09*	.13**	-.09*	-.05
37.	Security in Relationship - Mother	.10*	-.03	.02	.21***	.12**	-.34***	-.27***	-.08*	-.12**	.14**	.12**
38.	Security in Relationship - Father	.09*	.02	.09*	.17***	.11*	-.37***	-.36***	-.11**	-.13**	.14**	.11*

	23	24	25	26	27	28	29	30	31	32	33
24. Supportive Presence in Prob-Solv Task	.49***										
25. Respect for Autonomy in Prob-Solv Task	.36***	.69***									
26. Dyadic Felt Security in Prob-Solv Task	.66***	.63***	.45***								
Grade 5 Father-Child Interactions											
27. Supportive Presence in Discussion Task	.26***	.20***	.16***	.23***							
28. Respect for Autonomy in Discussion Task	.24***	.19***	.12*	.23***	.84***						
29. Dyadic Felt Security in Discussion Task	.30***	.21***	.15**	.25***	.77***	.70***					
30. Supportive Presence in Prob-Solv Task	.20***	.20***	.16***	.17***	.67***	.61***	.54***				
31. Respect for Autonomy in Prob-Solv Task	.13**	.12**	.09	.13**	.55***	.57***	.43***	.77***			
32. Dyadic Felt Security in Prob-Solv Task	.20***	.19***	.17***	.22***	.56***	.47***	.65***	.68***	.60***		
Grade 5 Parent Questionnaires											
33. Mother CPRS Closeness	.27***	.11**	.03	.22***	.11**	.11*	.16***	.07	.02	.02	
34. Father CPRS Closeness	.21***	.10*	.10*	.16***	.15***	.06	.17***	.07	.02	.09*	.29***
Grade 5 Child Questionnaires											
35. Psychological Proximity Seeking - Mother	-.15***	-.12**	-.13**	-.09*	-.12**	-.14**	-.13**	-.13**	-.11*	-.14**	-.12**
36. Psychological Proximity Seeking - Father	-.13**	-.07	-.10*	-.07	-.09*	-.09*	-.10*	-.07	-.03	-.09	-.06
37. Security in Relationship - Mother	.21***	.10*	.05	.18***	.08	.07	.12**	.05	.06	.12**	.21***
38. Security in Relationship - Father	.21***	.07	.05	.12*	.11*	.08	.14**	.06	.06	.12**	.13**

	34	35	36	37
Grade 5 Child Questionnaires				
35. Psychological Proximity Seeking - Mother	-.15***			
36. Psychological Proximity Seeking - Father	-.15***	.78***		
37. Security in Relationship - Mother	.20***	-.60***	-.48***	
38. Security in Relationship - Father	.18***	-.55***	-.64***	.66***

*p < .05, **p < .01, ***p <.001

Table 5

Correlations of Study Variables with Income-to-Needs Ratio and Parent Years of Education (Number of Participants Varies According to Analysis)

	Income-to-Needs Ratio @ 1 mo.	Income-to-Needs Ratio @ G3	Income-to-Needs Ratio @ G5	Mother's Education @ 1 mo.	Father's Education @ 1 mo.
Grade 3 Mother-Child Interactions					
Supportive Presence in Discussion Task	.17***	.20***	.22***	.23***	.22***
Respect for Autonomy in Discussion Task	.22***	.24***	.26***	.25***	.24***
Dyadic Felt Security in Discussion Task	.12**	.12**	.14**	.05	.06
Supportive Presence in Prob-Solving Task	.20***	.25***	.24***	.34***	.29***
Respect for Autonomy in Prob-Solving Task	.20***	.24***	.24***	.30***	.24***
Dyadic Felt Security in Prob-Solving Task	.12**	.15***	.15***	.12**	.08
Grade 3 Father-Child Interactions					
Supportive Presence in Discussion Task	.09	.10*	.11*	.16***	.22***
Respect for Autonomy in Discussion Task	.16***	.15**	.14**	.17***	.22***
Dyadic Felt Security in Discussion Task	.07	.10*	.10*	.14**	.15**
Supportive Presence in Prob-Solving Task	.15**	.17***	.16**	.16***	.26***
Respect for Autonomy in Prob-Solving Task	.17***	.18***	.19***	.22***	.20***
Dyadic Felt Security in Prob-Solving Task	.06	.07	.08	.12**	.14**
Grade 3 Parent Questionnaires					
Mother Raising Children Enc. Autonomy	.18***	.16***	.14**	.26***	.15***
Father Raising Children Enc. Autonomy	.24***	.16***	.15***	.23***	.25***
Mother CPRS Closeness	.02	.02	-.01	.01	.03
Father CPRS Closeness	.01	.07	.06	.09*	.06
Grade 3 Child Questionnaires					
Psychological Proximity Seeking - Mother	-.10*	-.16***	-.15***	-.16***	-.12**
Psychological Proximity Seeking - Father	-.13**	-.19***	-.20***	-.14**	-.12**
Grade 4 Parent Questionnaires					
Mother Beliefs About Raising Children	-.28***	-.28***	-.30***	-.42***	-.33***
Father Beliefs About Raising Children	-.28***	-.22***	-.24***	-.35***	-.39***
Grade 5 Mother-Child Interactions					
Supportive Presence in Discussion Task	.13**	.18***	.18***	.20***	.17***
Respect for Autonomy in Discussion Task	.15***	.23***	.23***	.27***	.21***
Dyadic Felt Security in Discussion Task	.10*	.16***	.17***	.20***	.13**
Supportive Presence in Prob-Solving Task	.18***	.22***	.24***	.26***	.21***
Respect for Autonomy in Prob-Solving Task	.19***	.24***	.25***	.26***	.21***
Dyadic Felt Security in Prob-Solving Task	.12***	.17***	.17***	.15***	.14**
Grade 5 Father-Child Interactions					
Supportive Presence in Discussion Task	.09*	.10*	.09*	.23***	.21***
Respect for Autonomy in Discussion Task	.06	.10*	.09	.25***	.20***
Dyadic Felt Security in Discussion Task	.04	.10*	.07	.17***	.14**
Supportive Presence in Prob-Solving Task	.07	.12*	.10*	.27***	.24***
Respect for Autonomy in Prob-Solving Task	.05	.08	.06	.18***	.21***
Dyadic Felt Security in Prob-Solving Task	.10*	.10*	.10*	.21***	.24***

	Income-to-Needs Ratio @ 1 mo.	Income-to-Needs Ratio @ G3	Income-to-Needs Ratio @ G5	Mother's Education @ 1 mo.	Father's Education @ 1 mo.
Grade 5 Parent Questionnaires					
Mother CPRS Closeness	-.02	.04	.03	.00	.02
Father CPRS Closeness	.02	.08	.08	.09*	.06
Grade 5 Child Questionnaires					
Psychological Proximity Seeking - Mother	-.16***	-.11***	-.14**	-.18***	-.11**
Psychological Proximity Seeking - Father	-.13**	-.08	-.13**	-.12**	-.05
Security in Relationship - Mother	.09*	.04	.07	.06	.07
Security in Relationship - Father	.13**	.08*	.11**	.11**	.11**

*p < .05, **p < .01, ***p <.001

Table 6

Summary of Maximum Likelihood (and Robust) Model-Fit Statistics: Proposed Analyses

Model	χ^2	df	*p*-value	CFI	SRMR	RMSEA	90% Confidence Interval RMSEA
Initial CFA	4777.30 (4454.33)	586	.000	.621 (.590)	.105	.121 (.116)	.118, .124 (.113, .119)
Final CFA	1063.86 (1016.75)	538	.000	.952 (.949)	.066	.045 (.043)	.041, .049 (.039, .043)
Structural Model	1580.18 (1511.14)	592	.000	.911 (.903)	.074	.058 (.056)	.055, .062 (.053, .060)

Table 7

Correlations Among Independent Variables and Factors Before (and After) Adding Correlated Residuals to Measurement Model: Proposed Analyses

	1	2	3	4	5	6	7	8	9	10	11	12	13
Grade 3													
1. Maternal Sensitivity													
2. Maternal Encouragement of Autonomy	1.25												
	(.86)												
3. Child-Mother Attachment	.85	.76											
	(.60)	(.57)											
4. Paternal Sensitivity	.36	.39	.23										
	(.36)	(.41)	(.23)										
5. Paternal Encouragement of Autonomy	.47	.54	.27	.86									
	(.50)	(.60)	(.28)	(.79)									
6. Child-Father Attachment	.36	.36	.37	.88	.79								
	(.36)	(.37)	(.37)	(.84)	(.70)								
Grade 4													
7. Mother Child-Rearing Beliefs	-.41	-.63	-.25	-.17	-.30	-.12							
	(-.46)	(-.72)	(-.28)	(-.17)	(-.30)	(-.12)							
8. Father Child-Rearing Beliefs	-.20	-.31	-.07	-.27	-.35	-.18	.47						
	(-.20)	(-.30)	(-.07)	(-.28)	(-.36)	(-.17)	(.47)						
Grade 5													
9. Maternal Sensitivity	.50	.63	.37	.36	.41	.36	-.31	-.31					
	(.48)	(.64)	(.35)	(.36)	(.40)	(.34)	(-.31)	(-.30)					
10. Maternal Encouragement of Autonomy	.42	.58	.30	.34	.36	.35	-.31	-.32	1.15				
	(.40)	(.57)	(.28)	(.34)	(.35)	(.33)	(-.31)	(-.30)	(.86)				
11. Child-Mother Attachment	.42	.50	.49	.28	.34	.29	-.27	-.29	.94	.86			
	(.42)	(.53)	(.48)	(.27)	(.34)	(.29)	(-.27)	(-.29)	(.80)	(.73)			
12. Paternal Sensitivity	.36	.42	.28	.45	.45	.36	-.22	-.29	.39	.36	.34		
	(.37)	(.44)	(.27)	(.46)	(.46)	(.35)	(-.22)	(-.30)	(.36)	(.35)	(.33)		
13. Paternal Encouragement of Autonomy	.33	.38	.26	.42	.49	.32	-.24	-.29	.33	.30	.32	1.09	
	(.35)	(.40)	(.27)	(.43)	(.54)	(.32)	(-.24)	(-.30)	(.33)	(.30)	(.32)	(.92)	
14. Child-Father Attachment	.36	.38	.39	.42	.44	.47	-.20	-.25	.40	.38	.39	.95	.87
	(.36)	(.37)	(.39)	(.42)	(.45)	(.45)	(-.19)	(-.25)	(.38)	(.36)	(.37)	(.83)	(.72)

Table 8

Standardized Factor Loadings and Error Paths: Proposed Analyses

	Factor Loading	Error Path
Maternal Sensitivity G3		
Obs in Disc	.53***	.84
Obs in Prob-Solv	.43***	.90
Maternal Encouragement of Autonomy G3		
Obs in Disc	.60***	.80
Obs in Prob-Solv	.42***	.91
Raising Children	.33***	.94
Child-Mother Attachment G3		
Parent CPRS	.23***	.97
Obs in Disc	.82***	.58
Obs in Prob-Solv	.72***	.69
Child Relat Q	-.08***	1.00
Paternal Sensitivity G3		
Obs in Disc	.83***	.55
Obs in Prob-Solv	.71***	.71
Paternal Encouragement of Autonomy G3		
Obs in Disc	.72***	.70
Obs in Prob-Solv	.61***	.79
Raising Children	.24***	.97
Child-Father Attachment G3		
Parent CPRS	.15***	1.00
Obs in Disc	.86***	.50
Obs in Prob-Solv	.80***	.61
Child Relat Q	-.01	1.00
Maternal Sensitivity G5		
Obs in Disc	.62***	.78
Obs in Prob-Solv	.70***	.71
Maternal Encouragement of Autonomy G5		
Obs in Disc	.64***	.78
Obs in Prob-Solv	.62***	.79
Child-Mother Attachment G5		
Parent CPRS	.18***	.98
Obs in Disc	.78***	.62
Obs in Prob-Solv	.78***	.63
Child Relat Q	-.09***	1.00
Child Sec Q	.16***	.99
Paternal Sensitivity G5		
Obs in Disc	.76***	.65
Obs in Prob-Solv	.76***	.65
Paternal Encouragement of Autonomy G5		
Obs in Disc	.75***	.66
Obs in Prob-Solv	.67***	.74
Child-Father Attachment G5		
Parent CPRS	.12***	.99
Obs in Disc	.78***	.63
Obs in Prob-Solv	.78***	.62
Child Relat Q	-.01	1.00
Child Sec Q	.10*	1.00

*p < .05, **p < .01, ***p < .001

Table 9

Standardized Regression Coefficients: Proposed Analyses

Dependent Variable/Factor	γ / β	Independent Variable/Factor
Maternal Child-Centered Beliefs G4	.55***	Maternal Encouragement of Autonomy G3
	.83	Error term
Paternal Child-Centered Beliefs G4	.39***	Paternal Encouragement of Autonomy G3
	.92	Error term
Maternal Sensitivity G5	1.07***	Maternal Sensitivity G3
	-.23*	Child-Mother Attachment G3
	.36	Disturbance term
Maternal Encouragement of Autonomy G5	.96***	Maternal Encouragement of Autonomy G3
	.07	Maternal Child-Centered Beliefs G4
	.05	Child-Mother Attachment G3
	.45	Disturbance term
Child-Mother Attachment G5	.92	Maternal Sensitivity G3
	.11*	Maternal Child-Centered Beliefs G4
	.09	Maternal Encouragement of Autonomy G3
	.09	Child-Mother Attachment G3
	-.21	Paternal Sensitivity G3
	.14	Paternal Encouragement of Autonomy G3
	.57	Disturbance term
Paternal Sensitivity G5	3.74***	Paternal Sensitivity G3
	-3.24***	Child-Father Attachment G3
	.13	Disturbance term
Paternal Encouragement of Autonomy G5	1.6***	Paternal Encouragement of Autonomy G3
	.07*	Paternal Child-Centered Beliefs G4
	-.93***	Child-Father Attachment G3
	.14	Disturbance term
Child-Father Attachment G5	.75*	Maternal Sensitivity G3
	-.63*	Maternal Encouragement of Autonomy G3
	3.52***	Paternal Sensitivity G3
	.00	Paternal Child-Centered Beliefs G4
	-.39	Paternal Encouragement of Autonomy G3
	-2.74***	Child-Father Attachment G3
	.52	Disturbance term

*p < .05, **p < .01, ***p < .001

Table 10

Summary of Maximum Likelihood (and Robust) Model-Fit Statistics: Analyses with Sensitivity and Encouragement of Autonomy Combined

Model	χ^2	df	*p*-value	CFI	SRMR	RMSEA	90% Confidence Interval RMSEA
Initial CFA	1551.56 (1445.28)	258	.000	.819 (.816)	.071	.100 (.095)	.095, .104 (.091, .100)
Final CFA	695.09 (661.33)	245	.000	.937 (.935)	.049	.060 (.058)	.055, .066 (.053, .063)
Structural Model	883.05 (837.16)	262	.000	.913 (.911)	.064	.069 (.066)	.063, .073 (.061, .071)

Table 11

Standardized Factor Loadings and Error Paths: Analyses with Sensitivity and Encouragement of Autonomy Combined

	Factor Loading	Error Path
Maternal Sensitivity G3		
Obs Supportive Presence in Disc	.56	.83
Obs Supportive Presence in Prob-Solv	.64	.77
Obs Respect for Autonomy in Disc	.62	.78
Obs Respect for Autonomy in Prob-Solv	.56	.83
Raising Children	.38	.93
Paternal Sensitivity G3		
Obs Supportive Presence in Disc	.80	.61
Obs Supportive Presence in Prob-Solv	.78	.63
Obs Respect for Autonomy in Disc	.74	.67
Obs Respect for Autonomy in Prob-Solv	.70	.72
Raising Children	.26	.97
Maternal Sensitivity G5		
Obs Supportive Presence in Disc	.72	.70
Obs Supportive Presence in Prob-Solv	.76	.65
Obs Respect for Autonomy in Disc	.70	.72
Obs Respect for Autonomy in Prob-Solv	.62	.78
Paternal Sensitivity G5		
Obs Supportive Presence in Disc	.80	.61
Obs Supportive Presence in Prob-Solv	.76	.65
Obs Respect for Autonomy in Disc	.74	.67
Obs Respect for Autonomy in Prob-Solv	.62	.78
Child-Mother Attachment G5		
Psychological Proximity Seeking (Relat Q)	.86	.52
Security in Relationship (Sec Q)	-.68	.74
Child-Father Attachment G5		
Psychological Proximity Seeking (Relat Q)	.82	.56
Security in Relationship (Sec Q)	-.77	.64

Note. All factor loadings are significant, *p* < .001.

Table 12

Summary of Maximum Likelihood (and Robust) Model-Fit Statistics: Final Structural Model with and without Maternal and Paternal Sensitivity Factor Loading Equality Constraints

Model	χ^2	df	*p*-value	CFI	SRMR	RMSEA	90% Confidence Interval RMSEA
Final Structural Model	510.27 (480.21)	233	.000	.958 (.958)	.054	.049 (.046)	.043, .054 (.040, .052)
Model with Constraints	536.34 (504.39)	240	.000	.955 (.955)	.060	.049 (.047)	.044, .055 (.041, .052)

Table 13

Comparison of Means, Across Mothers and Fathers, of All Measured, Rescaled Parenting Variables in Final Model (N = 506)

	Mothers - Mean	Fathers - Mean	t(505)
Parental Sensitivity at Grade 3			
Obs. Supportive Presence in Discussion Task	5.55	5.29	4.90***
Obs. Supportive Presence in Problem-Solving Task	4.81	5.40	-9.12***
Parental Encouragement of Autonomy at Grade 3			
Obs. Respect for Autonomy in Discussion Task	5.66	5.40	5.50***
Obs. Respect for Autonomy in Problem-Solving Task	4.82	5.50	-11.10***
Raising Children Encourage Autonomy Items	5.19	5.10	1.80
Parental Sensitivity at Grade 5			
Obs. Supportive Presence in Discussion Task	5.27	5.17	2.08*
Obs. Supportive Presence in Problem-Solving Task	5.34	5.15	3.90***
Parental Encouragement of Autonomy at Grade 5			
Obs. Respect for Autonomy in Discussion Task	5.35	5.17	3.36**
Obs. Respect for Autonomy in Problem-Solving Task	5.24	5.17	1.14

*$p < .05$, **$p < .01$, ***$p < .001$

Table 14

Comparison of Means, Across Mothers and Fathers, of All Measured, Rescaled Parenting Variables in Final Model – Girls Only (N = 244)

	Mothers - Mean	Fathers - Mean	$t(243)$
Parental Sensitivity at Grade 3			
Obs. Supportive Presence in Discussion Task	5.69	5.46	3.14**
Obs. Supportive Presence in Problem-Solving Task	4.99	5.55	-6.14***
Parental Encouragement of Autonomy at Grade 3			
Obs. Respect for Autonomy in Discussion Task	5.84	5.56	3.96***
Obs. Respect for Autonomy in Problem-Solving Task	4.99	5.66	-7.63***
Raising Children Encourage Autonomy Items	5.20	5.10	1.40
Parental Sensitivity at Grade 5			
Obs. Supportive Presence in Discussion Task	5.40	5.21	2.74**
Obs. Supportive Presence in Problem-Solving Task	5.45	5.22	3.21**
Parental Encouragement of Autonomy at Grade 5			
Obs. Respect for Autonomy in Discussion Task	5.47	5.22	3.27**
Obs. Respect for Autonomy in Problem-Solving Task	5.34	5.22	1.47

*$p < .05$, **$p < .01$, ***$p < .001$

Table 15

Comparison of Means, Across Mothers and Fathers, of All Measured, Rescaled Parenting Variables in Final Model – Boys Only (N = 262)

	Mothers - Mean	Fathers - Mean	t(261)
Parental Sensitivity at Grade 3			
Obs. Supportive Presence in Discussion Task	5.41	5.13	3.77***
Obs. Supportive Presence in Problem-Solving Task	4.64	5.26	-6.74***
Parental Encouragement of Autonomy at Grade 3			
Obs. Respect for Autonomy in Discussion Task	5.49	5.24	3.81***
Obs. Respect for Autonomy in Problem-Solving Task	4.66	5.36	-8.04***
Raising Children Encourage Autonomy Items	5.17	5.10	1.15
Parental Sensitivity at Grade 5			
Obs. Supportive Presence in Discussion Task	5.15	5.13	0.31
Obs. Supportive Presence in Problem-Solving Task	5.24	5.08	2.32*
Parental Encouragement of Autonomy at Grade 5			
Obs. Respect for Autonomy in Discussion Task	5.24	5.13	1.54
Obs. Respect for Autonomy in Problem-Solving Task	5.14	5.13	0.19

*p < .05, **p < .01, ***p < .001

Table 16

Effects of maternal and paternal parenting on child-parent attachment: Decomposition of effects in the final model, tested on the whole sample.

Factor Pair	Direct Effects	Indirect Effects	Total Effects
Child-Mother Attachment at Grade 5			
Maternal Sensitivity at Grade 3		.075**	.075
Maternal Sensitivity at Grade 5	.123**		.123
Paternal Sensitivity at Grade 3			
Paternal Sensitivity at Grade 5			
Child-Father Attachment at Grade 5			
Maternal Sensitivity at Grade 3		.004	.004
Maternal Sensitivity at Grade 5		.006	.006
Paternal Sensitivity at Grade 3		.010	.010
Paternal Sensitivity at Grade 5	.023		

**$p < .01$

Table 17

Comparison of Means, Across Girls (N = 244) and Boys (N = 262), of All Measured, Rescaled Variables in Final Model

	Girls - Mean	Boys- Mean	t	df
Maternal Sensitivity at Grade 3				
Obs. Supportive Presence in Discussion Task	5.69	5.41	3.69[***]	493.82
Obs. Supportive Presence in Problem-Solving Task	4.99	4.64	3.37[**]	503.82
Paternal Sensitivity at Grade 3				
Obs. Supportive Presence in Discussion Task	5.46	5.13	3.62[***]	504
Obs. Supportive Presence in Problem-Solving Task	5.55	5.26	2.92[**]	504
Maternal Encouragement of Autonomy at Grade 3				
Obs. Respect for Autonomy in Discussion Task	5.84	5.49	4.60[***]	502.48
Obs. Respect for Autonomy in Problem-Solving Task	4.99	4.66	3.04[**]	504
Raising Children Encourage Autonomy Items	5.20	5.17	0.31	504
Paternal Encouragement of Autonomy at Grade 3				
Obs. Respect for Autonomy in Discussion Task	5.56	5.24	3.84[***]	504
Obs. Respect for Autonomy in Problem-Solving Task	5.66	5.36	3.61[***]	504
Raising Children Encourage Autonomy Items	5.10	5.10	0.08	504
Child-Mother Attachment at Grade 3				
Relationship Questionnaire Psych Proximity Seeking	2.09	2.08	0.15	504
Child-Father Attachment at Grade 3				
Relationship Questionnaire Psych Proximity Seeking	2.19	2.17	0.24	504

	Girls - Mean	Boys- Mean	t	df
Maternal Sensitivity at Grade 5				
Obs. Supportive Presence in Discussion Task	5.40	5.15	3.02**	504
Obs. Supportive Presence in Problem-Solving Task	5.45	5.24	3.10**	504
Paternal Sensitivity at Grade 5				
Obs. Supportive Presence in Discussion Task	5.21	5.13	0.86	504
Obs. Supportive Presence in Problem-Solving Task	5.22	5.08	1.69	504
Maternal Encouragement of Autonomy at Grade 5				
Obs. Respect for Autonomy in Discussion Task	5.47	5.24	2.57*	504
Obs. Respect for Autonomy in Problem-Solving Task	5.34	5.14	2.39*	504
Paternal Encouragement of Autonomy at Grade 5				
Obs. Respect for Autonomy in Discussion Task	5.22	5.13	1.02	504
Obs. Respect for Autonomy in Problem-Solving Task	5.22	5.13	1.17	504
Child-Mother Attachment at Grade 5				
Relationship Questionnaire Psych Proximity Seeking	1.81	1.73	1.44	504
Security Scale	7.16	7.07	1.25	504
Child-Father Attachment at Grade 5				
Relationship Questionnaire Psych Proximity Seeking	1.93	1.78	2.18*	485.36
Security Scale	6.93	7.09	-2.22*	504

*$p < .05$, **$p < .01$, ***$p < .001$
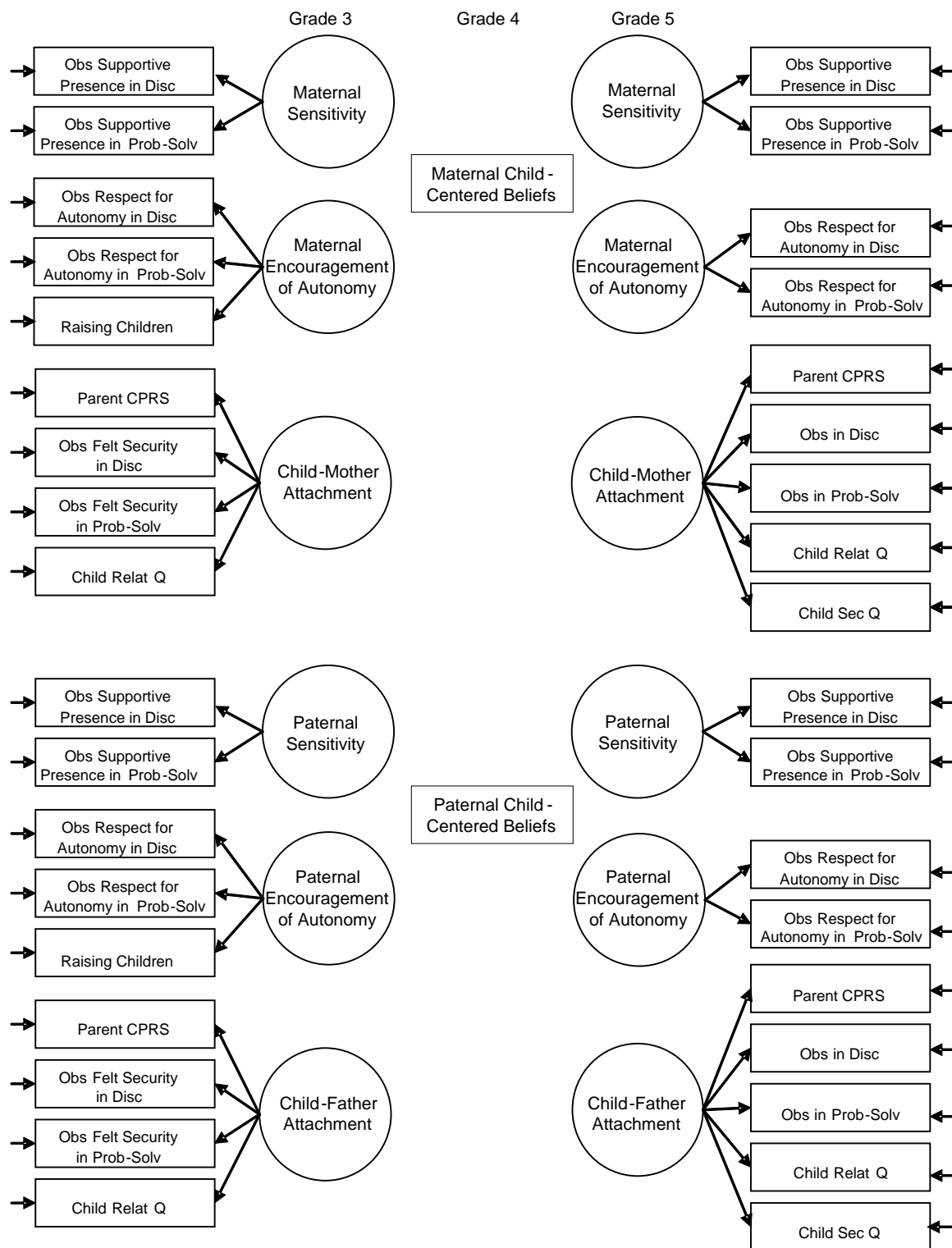
Figure 1. Initial measurement model: Proposed analyses.
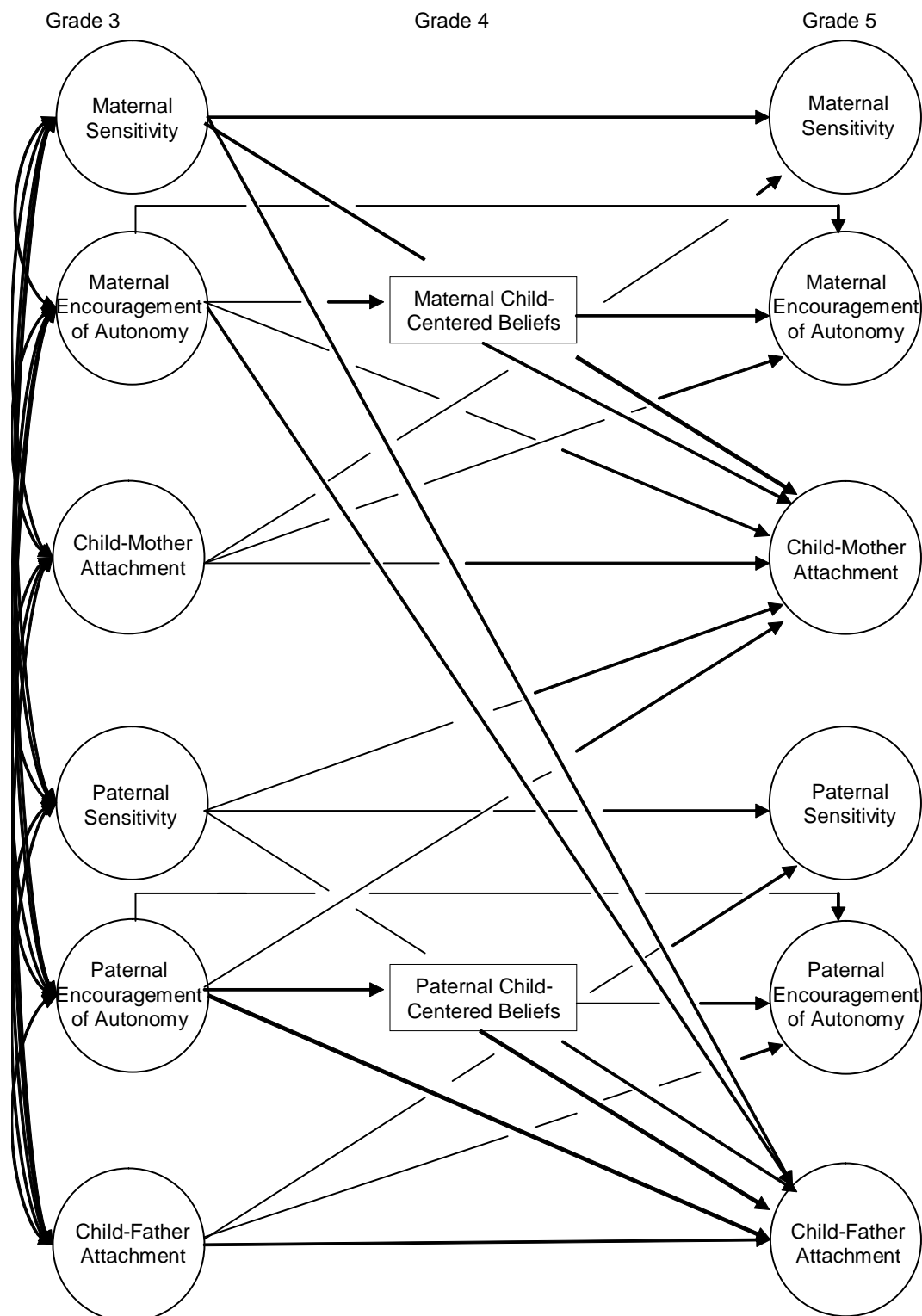
Figure 2. Initial structural model: Proposed analyses.

Grade 3   Grade 4   Grade 5
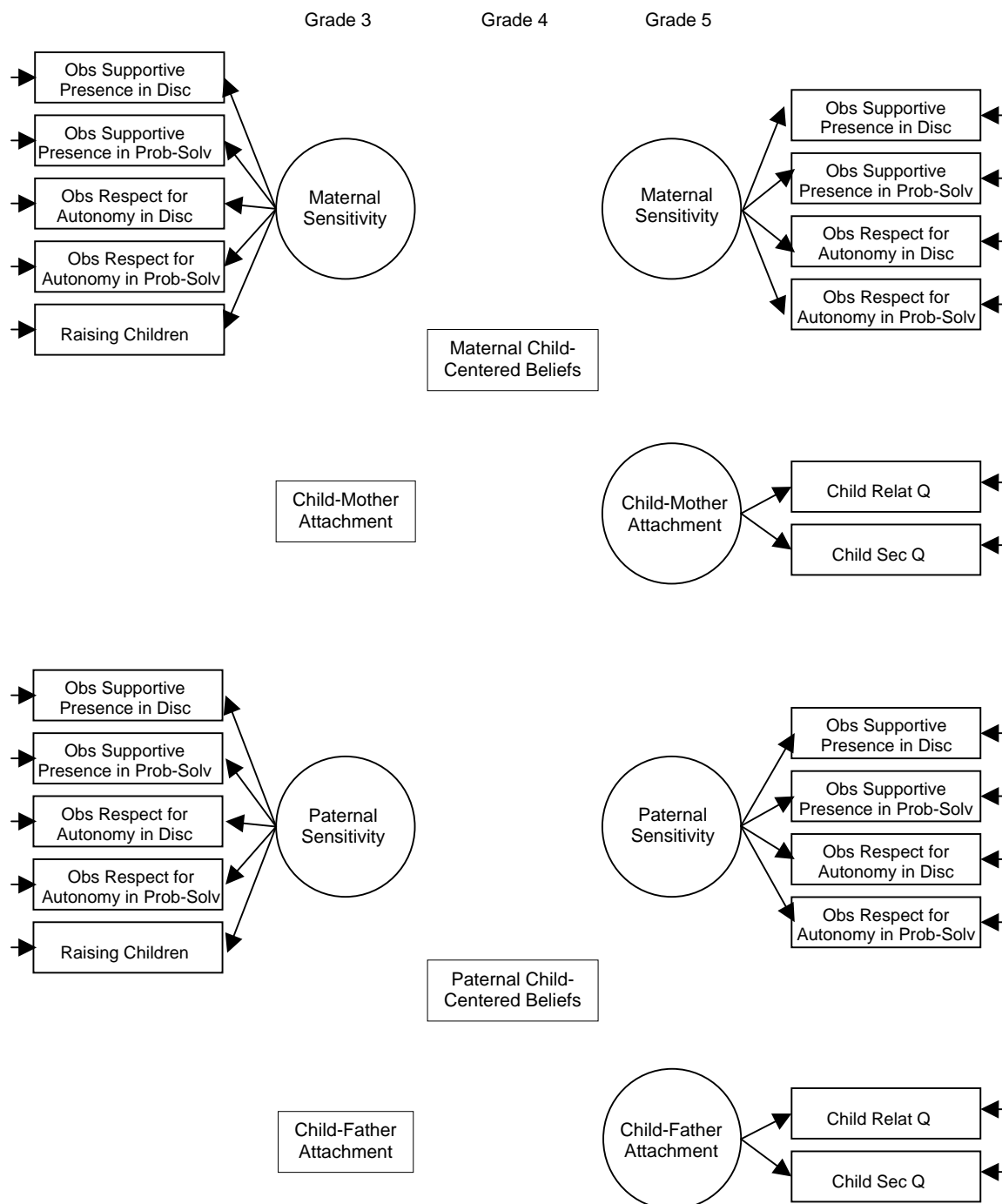
Figure 3. Measurement portion of model for analyses with sensitivity and encouragement of autonomy combined.
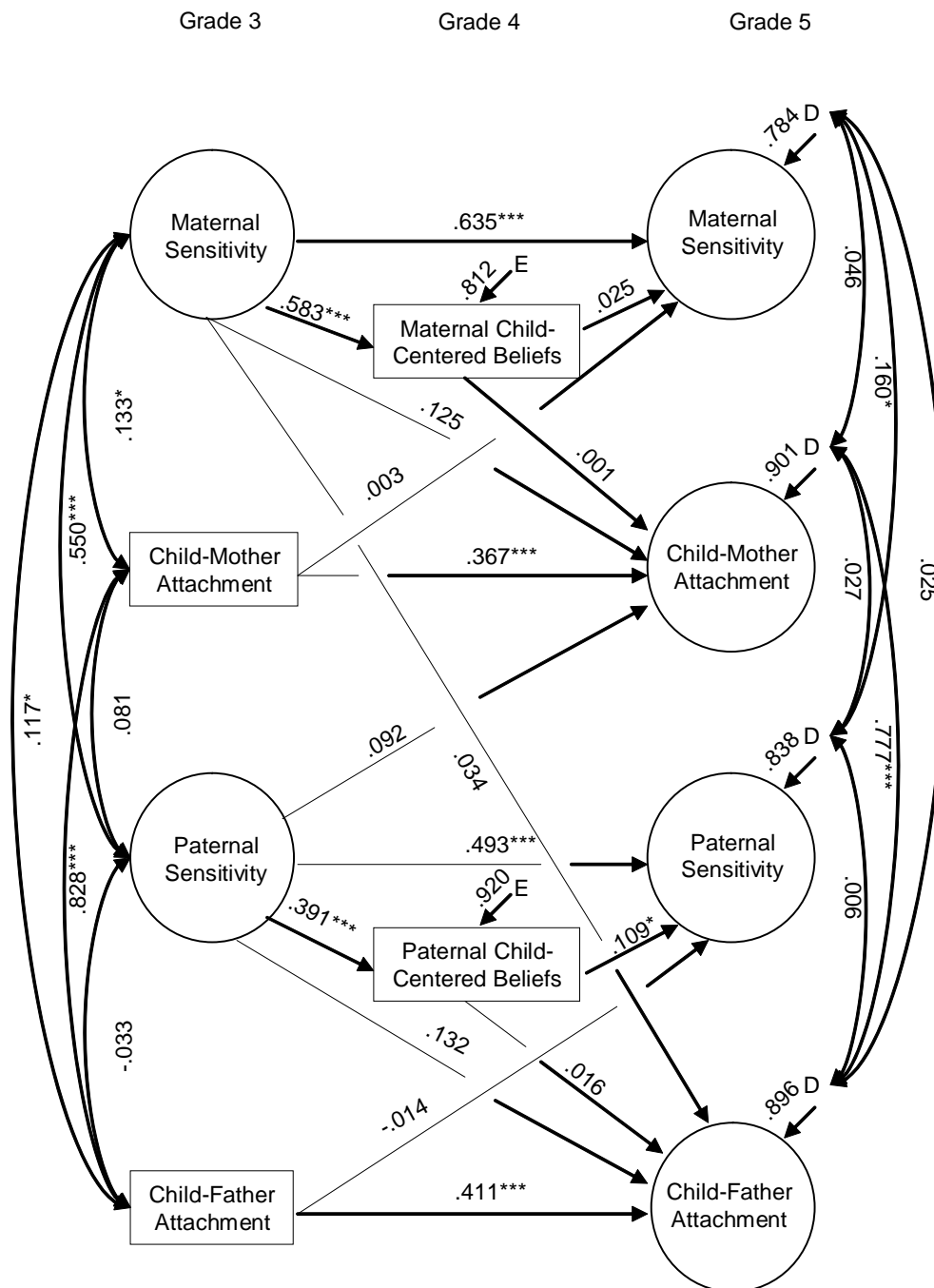
Figure 4. Structural portion of model for analyses with sensitivity and encouragement of autonomy combined. *p < .05, ***p < .001.
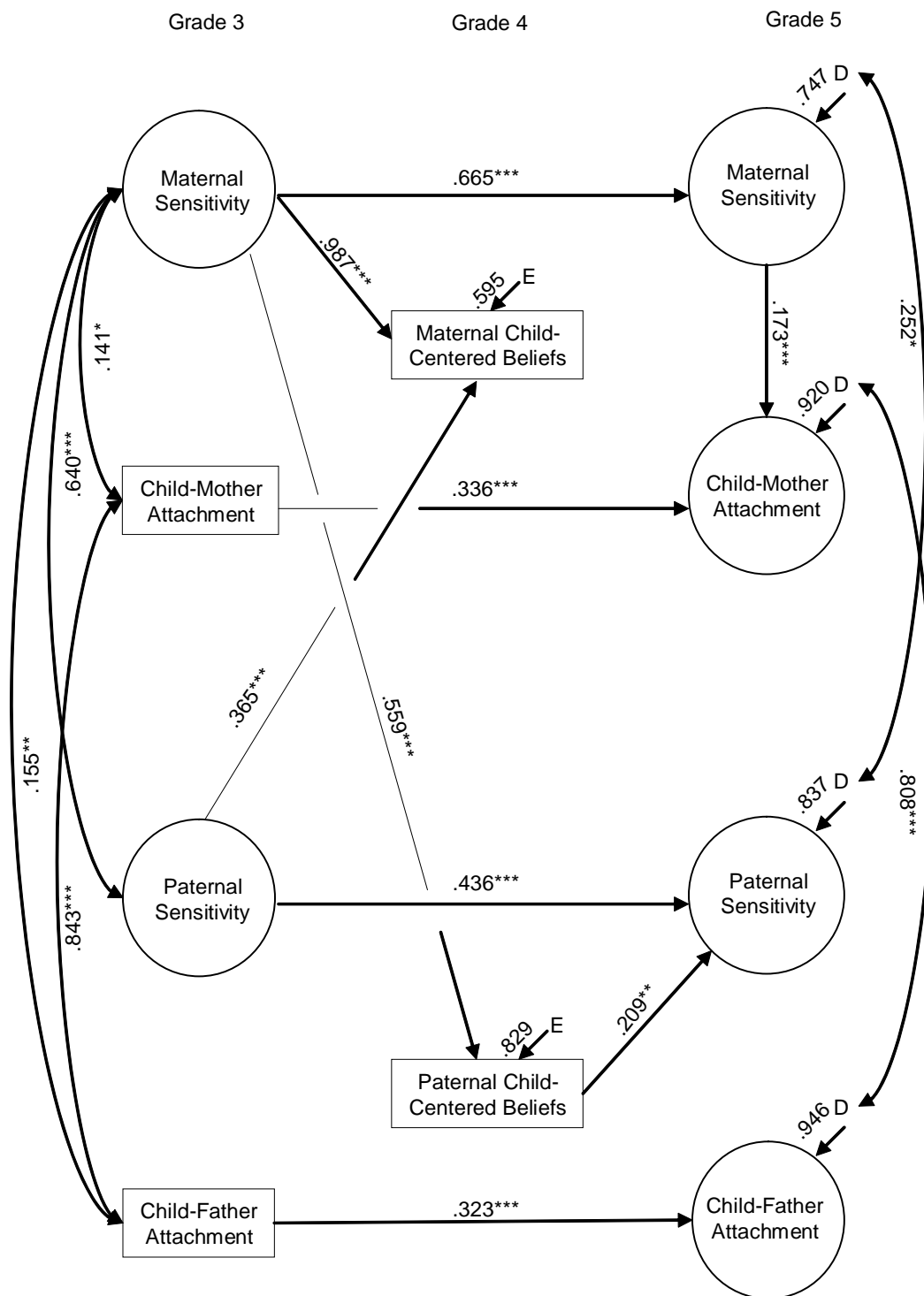
Figure 5. Reduced and respecified structural model for analyses with sensitivity and encouragement of autonomy combined. **p* < .05, ***p* < .01,****p* < .001.

Grade 3   Grade 5
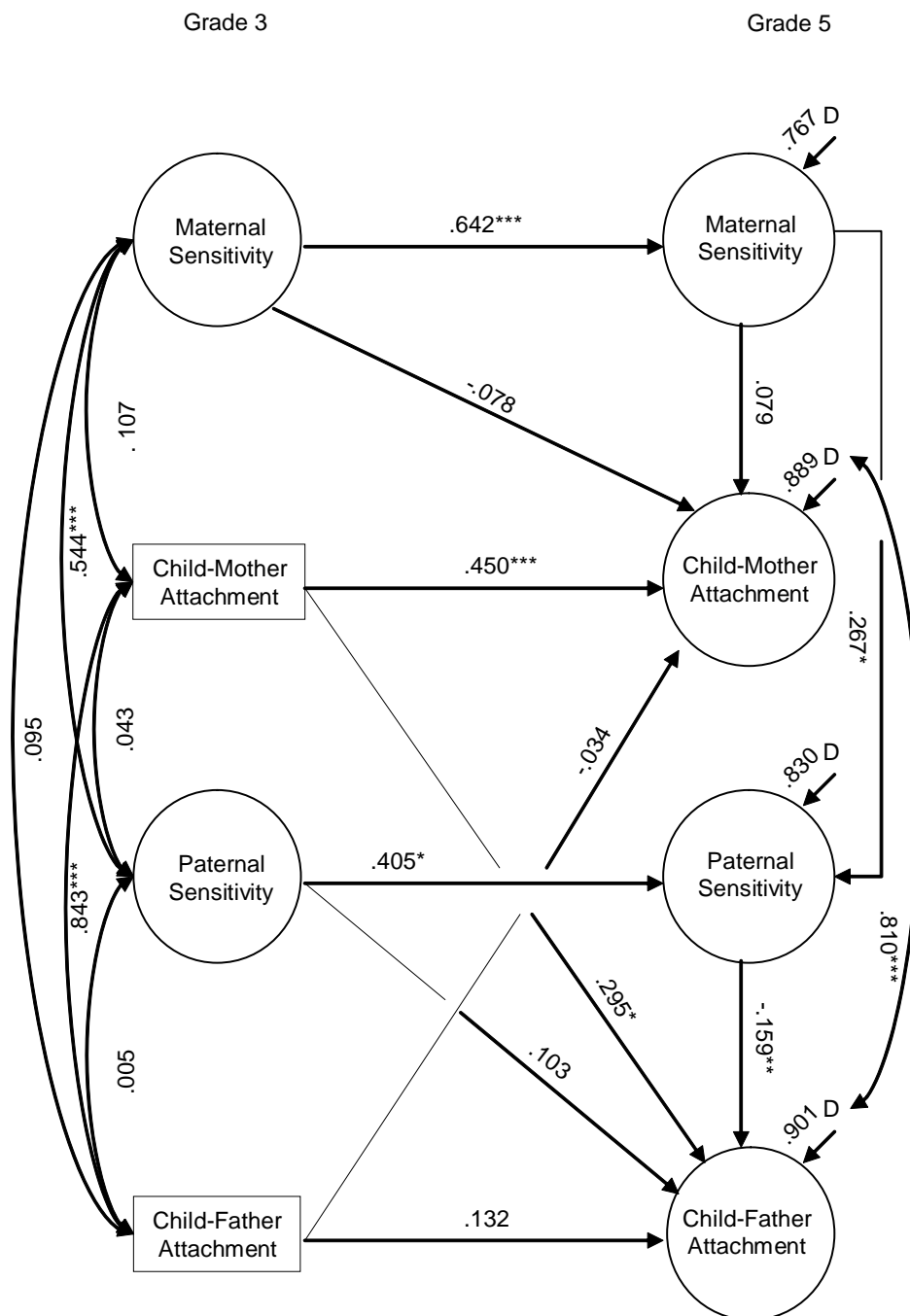
Figure 6. Structural model for analyses with sensitivity and encouragement of autonomy combined and Grade 4 variables omitted. *p* < .05, **p* < .01,***p* < .001.
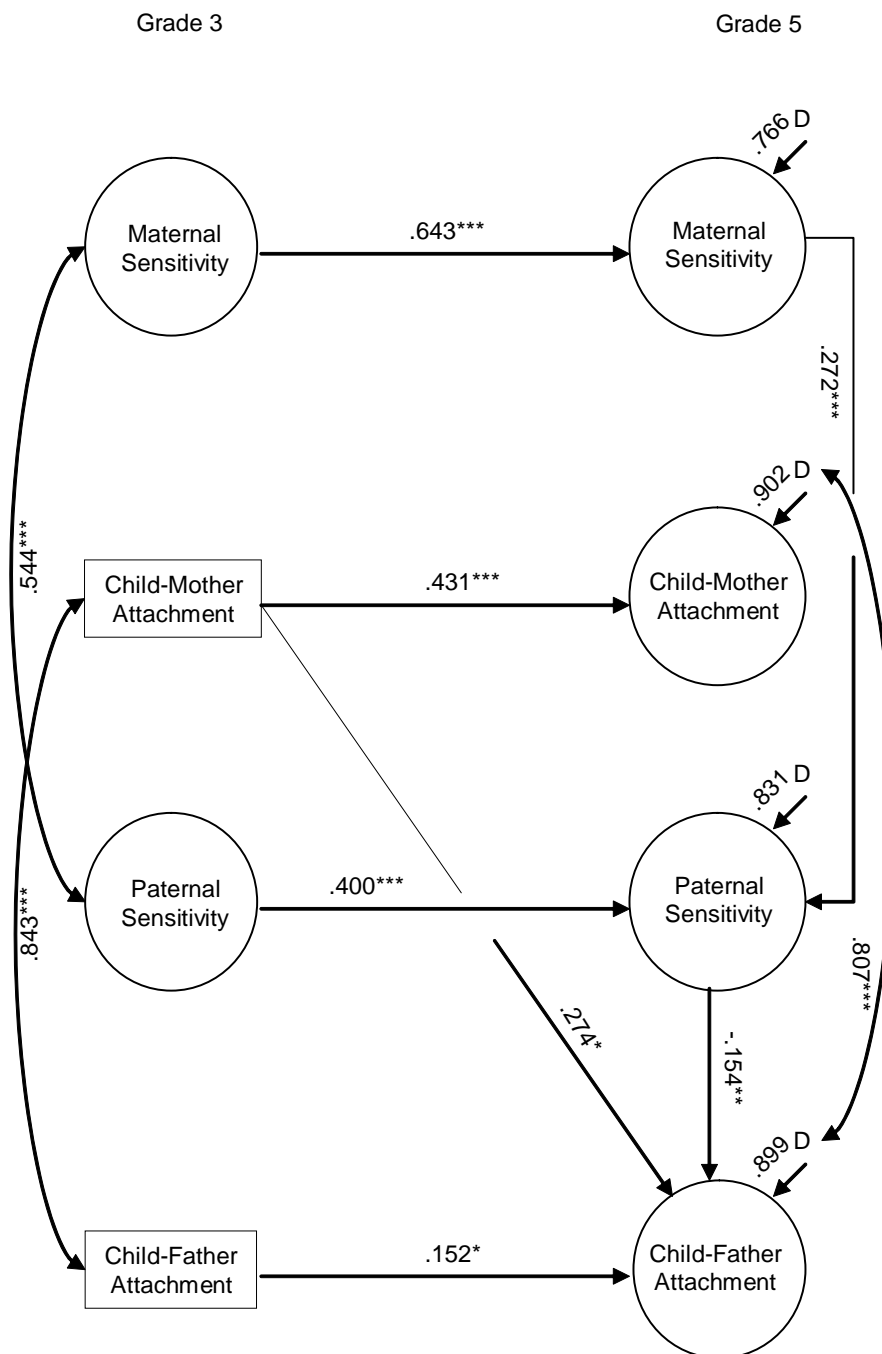
Figure 7. Reduced and respecified structural model for analyses with sensitivity and encouragement of autonomy combined and Grade 4 variables omitted. *p < .05, **p < .01,***p < .001.

Grade 3   Grade 5
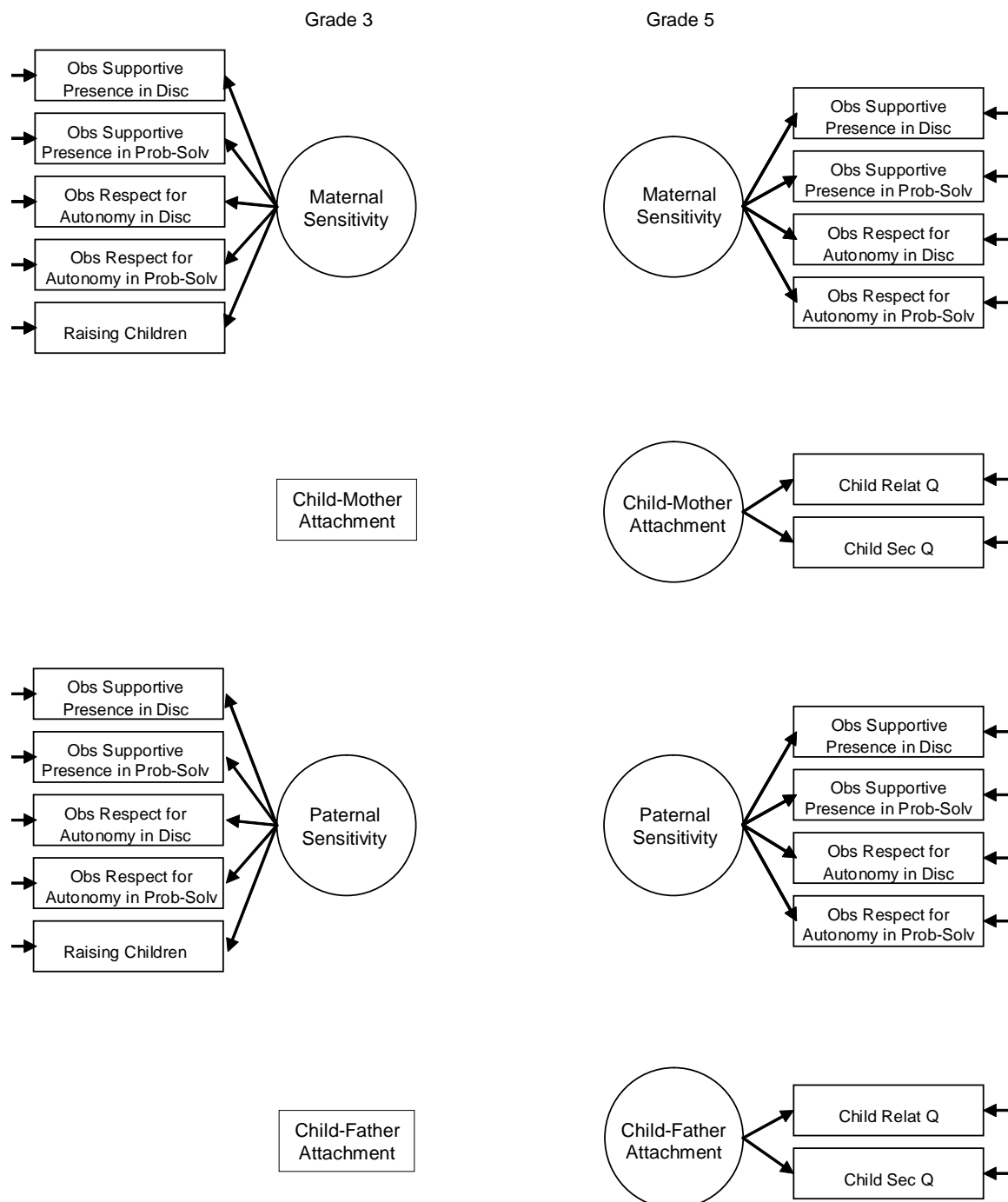
Figure 8. Cross-validation of measurement portion of model: Analyses with sensitivity and encouragement of autonomy combined and Grade 4 variables omitted.
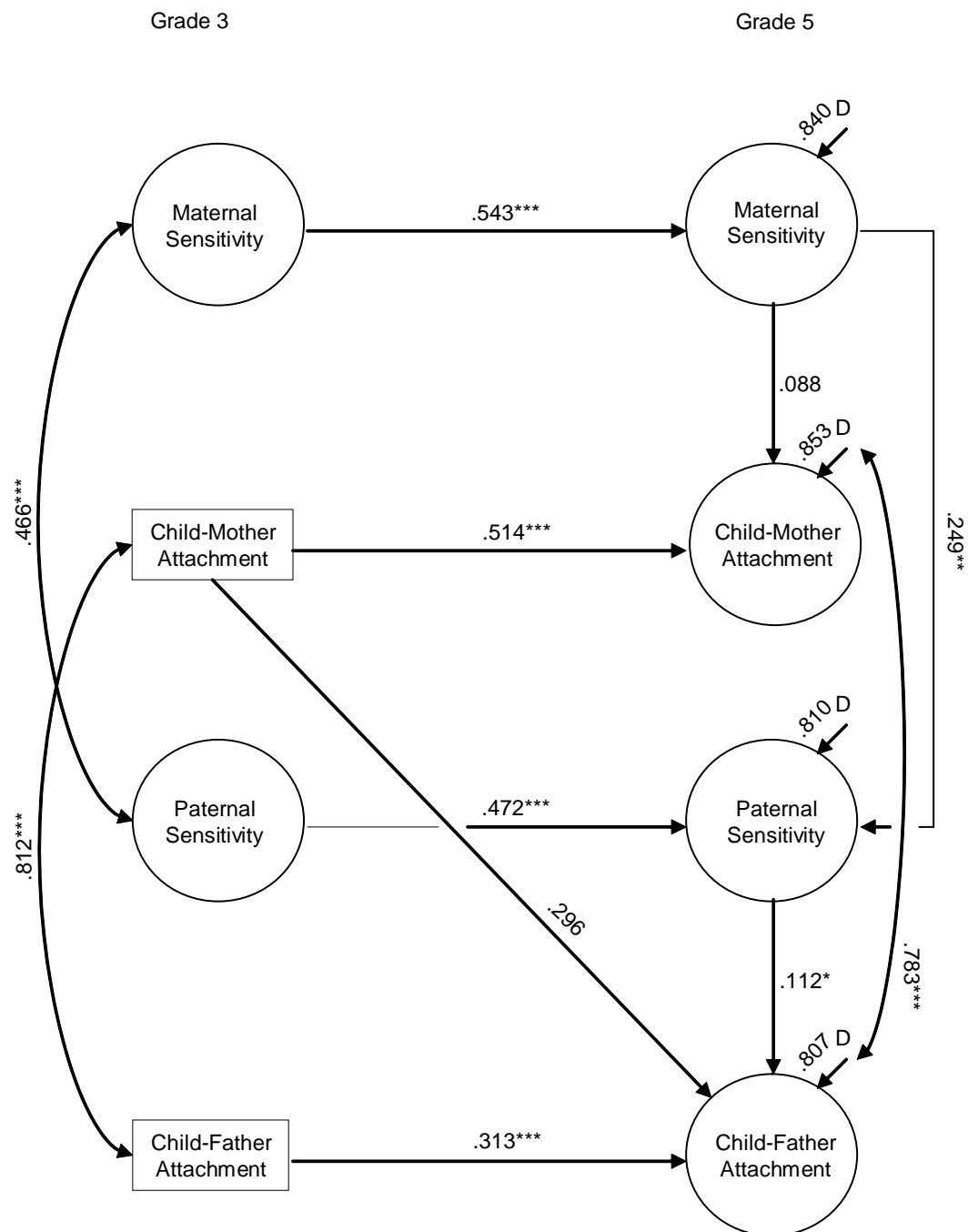
Figure 9. Cross-validation of structural model: Analyses with sensitivity and encouragement of autonomy combined and Grade 4 variables omitted. *p < .05, **p < .01,***p < .001.
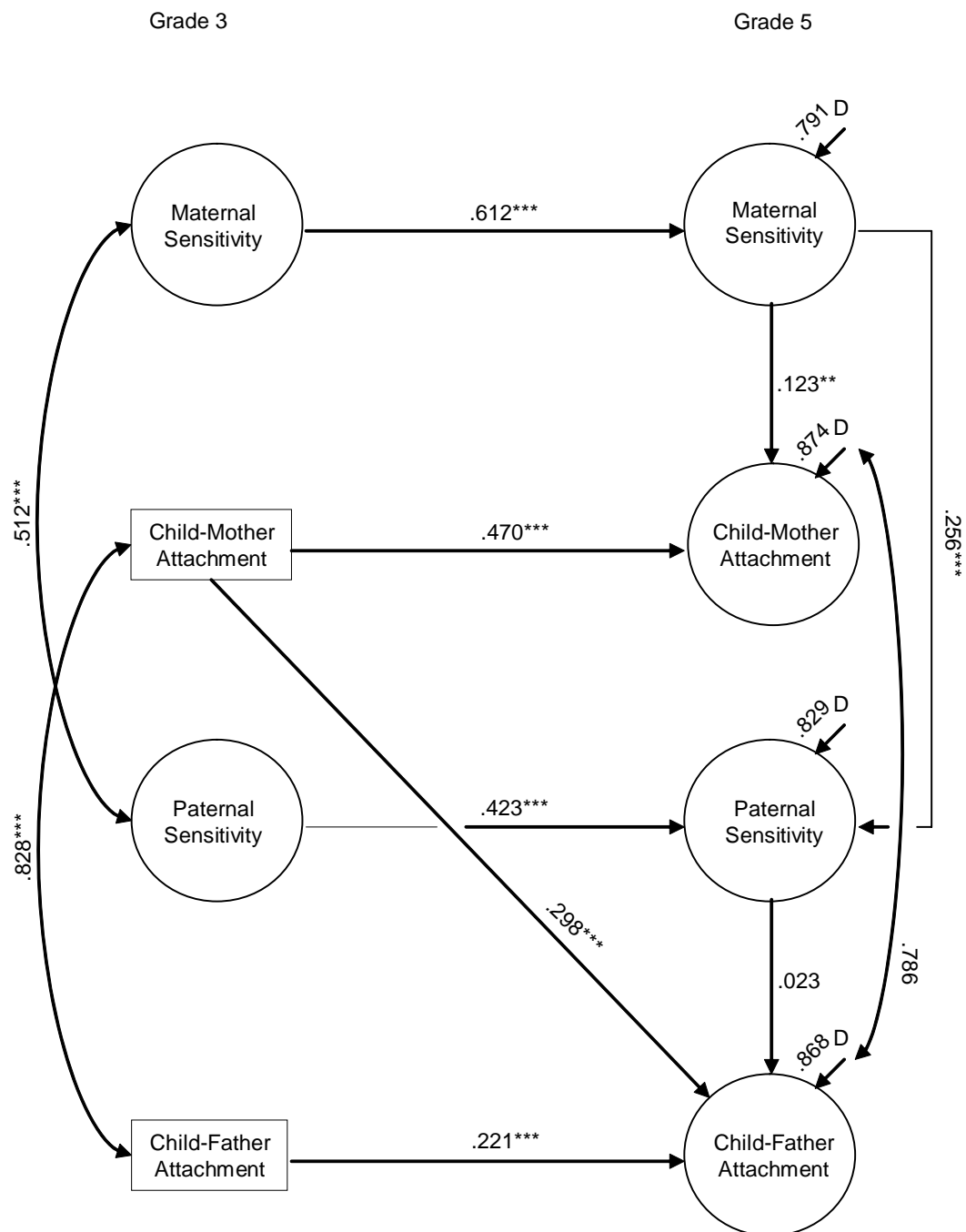
Figure 10. Final structural model: Analyses with sensitivity and encouragement of autonomy combined and Grade 4 variables omitted, tested on entire sample. *p < .05, **p < .01,***p < .001.

APPENDIX A

TABLE OF NICHD SECCYD PHASE III MEASURES

| Phase III SECC Instrument Name	Actual Instrument or Construct Name	Phase III Data Collection				
		2nd Grade	3rd Grade	4th Grade	5th Grade	6th Grade
Academic Skills	Academic Skills Rating Scale from the Early Childhood Longitudinal Study	Teacher	Teacher	Teacher	Teacher	Teacher
How I Do In School	Achievement Motivation, Efficacy, & Educational Aspirations					Child & Friend at Lab
Adult Friendship	Adult Friendship Quality Questionnaire		Mom at Lab	Mom & Father/Other at Lab	Mother at Lab & Father/Other at Home	
After School Arrangements and Structured Activities	After School Arrangements and Structured Activities – Mother Interview		Mother Interview – 3 times this year	Mother Interview – 3 times this year	Mother Interview – 2 times this year	
After School	After School Caregiver Questionnaire		After School Caregiver	After School Caregiver	After School Caregiver	
After School Time Use - Child Interview	After School Time Use Child Interview		Child Interview – 3 times this year	Child Interview – 3 times this year	Child Interview – 1 time	
Teacher Year End Questionnaire	Attendance, Referrals and Retention Information	Teacher	Teacher	Teacher	Teacher	Teacher
Making Decisions	Autonomy (child)					Child & Friend at Lab
My Life	Cantril's Life Satisfaction Ladder		Child at Home		Child at Home	
My Feelings I	Center for Epidemiological Studies Depression Scale CES-D		Mother & Father/Other at Home		Mother & Father at Home	Mother & Father/Other at Lab
Daily Life at Our House	CHAOS Scale (Confusion, Hubbub, & Disorder)		Mother & Father/Other at Home			
Child Behavior Checklist (CBCL)	Child Behavior Checklist (CBCL)		Mother & Father at Lab & After-School Caregiver	Mother, Father/Other & Friend's Mother about their child & After-School Caregiver	Mother & Father/Other at Home & After School Caregiver	Mother, Father/Other, & Friend's Mother at Lab

Phase III Measures Chart   10/20/2004

Phase III SECC Instrument Name	Actual Instrument or Construct Name	Phase III Data Collection				
		2nd Grade	3rd Grade	4th Grade	5th Grade	6th Grade
My Child's Behavior with Other Children (mother)/Relationships With Peers (after-school caregiver)/Relationships With Peers: Part E (teacher)	Child Behavior With Peers		Mother at Lab & After-School Caregiver & Teacher	Mother, Father/Other at Home & Friend's Mother & Afterschool Caregiver & Teachers	Mother at Lab & Afterschool Caregiver & Teacher	Mother at Lab & Teachers
My Health Questionnaire	Child Health Questionnaire (Child report)				Child at Home	
My Child's Health	Child Health Questionnaire (Mother report)		Mother at Lab		Mother at Lab	
My Eating Habits and the Way I Look	Child's Eating Habits and Body Self Image					Child at Lab
My Child's School Ability	Child's School Preference and Ability		Mother at Lab			
Child-Caregiver Relationship Scale	Child-Caregiver Relationship Scale		After School Caregiver	After School Caregiver	After School Caregiver	
Child-Parent Relationship Scale	Child-Parent Relationship Scale: Short Form		Mother & Father/Other at Home	Mother, Father/Other, & Friend's mother (for their own child)	Mother & Father/Other at Home	Mother & Father/Other at Home & Friend's Mother
How I Sometimes Feel	Children's Depression Inventory (CDI)				Child at Home	Child & Friend at Lab
Observation Ratings of the Third & Fifth Grade Classroom (COS-3 and COS-5)	Classroom Observation System (COS-3 and COS-5)		Observed at School		Observed at School	
Contacts with Friends (Mother)/Relationships With Peers: Part B (Teacher)	Contacts with Friends		Mother at Lab & Teacher	Mother & Father/Other at Home & Teacher & Friend's Teacher	Mother at Lab & Teacher	Mother at Lab & Teacher & Friend's Teacher
Continuous Performance Task (CPT)	Continuous Performance Task (CPT)			Child at Lab		

Phase III Measures Chart   10/20/2004

Phase III SECC Instrument Name	Actual Instrument or Construct Name	Phase III Data Collection				
		2nd Grade	3rd Grade	4th Grade	5th Grade	6th Grade
CSA Activity Monitor Data Form	CSA Activity Monitor Data Form		Research Assistant (RA)		RA	RA
My Child's Behavior/Child Behavior Rating Scale	Disruptive Behavior Disorders Rating Scale (DBD)		Mother & Father/Other at Home & Teacher	Mother & Father/Other at Home & Teachers	Mother & Father/Other at Home & Teacher	Mother & Father/Other at Lab & Teachers
Parent Report of Children's Reactions	Emotion Regulation (Parent Report)		Mother & Father/Other at Home	Mother, Father/Other & Friend's Mother	Mother, & Father/Other at Home	Mother, Father/Other & Friend's Mother
Teacher Report of Children's Reactions	Emotion Regulation (Teacher Report)			Teacher & Friend's Teacher	Teacher	Teacher & Friend's Teacher
End of School Visit Ratings	End of Visit Ratings – Classroom		RA at School		RA at School	
Ethnic Preference and Identity Measure (EPI)	Ethnic Preference and Identity (EPI)		Child at Lab			
Family Education & Income	Family Education & Income		Mother at Home	Mother at Lab	Mother at Lab	Mother at Lab
Family Emotional Expressiveness	Family Emotional Expressiveness		Mother & Father/Other at Home	Mother & Father/Other at Home	Mother & Father/Other at Home	
My Family's Cultural Background	Family Ethnicity & Cultural Background			Mother & Friend's Mother		Friend's Mother
Family Ties	Family Ties					Child at Lab
About My Family	Friend's Family Demographics			Friend's Mother		Friend's Mother
About This Classroom	Friend's School Information			Friend's Teacher		Friend's Teacher
Friendship Interactions	Friendship Interaction Coding			Child & Friend at Lab		Child & Friend at Lab
Friendship Interview	Friendship Interview		Child at Lab		Child at Lab	
Friendship Quality Questionnaire/ My Best Friend & Me	Friendship Quality Questionnaire		Child at Lab	Child & Friend at Lab	Child at Lab	Child & Friend at Lab

Phase III Measures Chart   10/20/2004

Phase III SECC Instrument Name	Actual Instrument or Construct Name	Phase III Data Collection				
		2nd Grade	3rd Grade	4th Grade	5th Grade	6th Grade
H.O.M.E. Inventory	H.O.M.E. Inventory		Child & Family at Home		Child & Family at Home	
Height and Weight (Growth Measure)	Height and Weight		Child at Lab	Child at HPDA	Child at Lab & HPDA	Child at Lab & HPDA
Watching TV, Reading, & Computers at Home	Home Literacy Environment Questionnaire		Mother at Lab		Mother & Child at Home	Child at Lab
Home Visit Report Form	Home Visit Report Form		Research Assistant (RA) at Home		RA at Home	
Home-School Questionnaire	Home-Schooling Questionnaire	Mother at Home	Mother at Home	Mother at Home	Mother at Home	Mother at Home
HPDA Visit Report	HPDA Office/Home Visit Report			Clinician	Clinician	Clinician
Why Kids Do Things	Intent Attributions and Feelings of Distress		Child in Lab	Child & Friend in Lab	Child in Lab	
On My Job/My Paid Employment	Job Role Quality Scale		Mother at Lab & Father/Other at Home?		Mother at Lab & Father/Other at Home	
Lab Visit Monitoring Form	Lab Visit Monitoring Form		Research Assistant (RA) at Lab	RA at Lab	RA at Lab	RA at Lab
Events in My Life	Life Experiences Survey		Mother at Lab		Mother at Lab	
What I Expect	Life Orientation Test					Child & Friend at Lab
Linking Friendship Reports	Linking Friendship Reports				Research Assistant (RA) at Lab	RA at Lab
Activities and Feelings	Loneliness and Social Dissatisfaction Questionnaire		Child at Home		Child at Home	
Millionaire Point Accrual Recording Form	Millionaire Point Accrual Recording Form					Child & Friend at Lab
Child Evaluation	Mock Report Card	Teacher	Teacher	Teacher & Friend's Teacher	Teacher	Teacher & Friend's Teacher

Phase III Measures Chart   10/20/2004

Phase III SECC Instrument Name	Actual Instrument or Construct Name	Phase III Data Collection				
		2nd Grade	3rd Grade	4th Grade	5th Grade	6th Grade
Mother-Child Interaction & Father-Child Interaction	Mother-Child Interaction & Father-Child Interaction		Child/Mother at Home & Father/Child at Home		Child/Father at Home & Child/Mother at Lab	
Multidimensional Inventory of Black Identity (MIBI) for African American children	Multidimensional Inventory of Black Identity (MIBI) for African American children				African-American Child at Lab	
Multi Ethnic Identity Measure (MEIM)	Multi-Ethnic Identity Measure (MEIM)				Child at Lab	
My Child's Sleep Habits	My Child's Sleep Habits		Mother			Mother
My Sleep Habits	My Sleep Habits (Child)					Child at Lab
Narrative Elicitation Task - "Frog, where are you?"	Narrative Language Fluency		Child at Home		Child at Home	
Writing a Story	Narrative Writing Fluency				Child at Lab	
Neighborhood Questionnaire	Neighborhood Satisfaction and Involvement		Mother, & Father/Other at Home		Mother & Father/Other at Home	
Some of My Favorite People/Love is in the Air	Network of Relationships Inventory (NRI)					Child & Friend at Lab
Things I Do After School or on Weekends	Out of School Context					Child at Lab
Parent Interview of Child Physical Activity	Parent Interview of Child Physical Activity		Mother		Mother	Mother
My Time Spent as a Parent	Parental Involvement and Division of Labor				Mother at Lab & Father/Other at Home	
How Things Work at Our House/Parental Monitoring/Keeping Tabs	Parental Involvement and Monitoring			Mother & Father	Mother at Lab	Mother, Child, Friend, & Friend's Mother

Phase III Measures Chart   10/20/2004

Phase III SECC Instrument Name	Actual Instrument or Construct Name	Phase III Data Collection				
		2nd Grade	3rd Grade	4th Grade	5th Grade	6th Grade
Ideas About Raising Children	Parental Modernity Scale of Childrearing and Educational Beliefs		After School Caregiver	Mother, Father/Other, Friend's Mother & After School Caregiver	After School Caregiver	Friend's Mother
Getting Along with My Parent	Parental Warmth, Support, & Hostility					Child & Friend at Lab
Parent and Teacher Involvement	Parent-Teacher Involvement	Teacher	Mother at Lab & Teacher	Teacher	Mother at Lab & Teacher	
Partner Relationship	Partnership Conflict and Resolution				Mother at Lab & Father/Other at Home	Mother & Father/Other at Lab
Peabody Picture Vocabulary Test III-- for friend	Peabody Picture Vocabulary Test III-- for friend			Friend at Lab		Friend at Lab
Kids with My Kids (mother)/Relationships With Peers: Part D (teacher)	Peer Network Characteristics		Mom at Lab & Teacher	Teacher – SC & Friend	Mother at Lab & Teacher	Mother at Lab & Teacher – SC & Friend
Observation During Lunch	Peer Observation During School Lunch		School		School	
Peer Pressure	Peer Pressure					Child & Friend at Lab
Kids in My Class at School/Kids at School	Peer social support, bullying, & victimization		Child at Lab		Child at Lab	Child & Friend at Lab
Class Time	Perception of Teaching Style (Child)					Child at Lab
Love and Relationships	Personal Assessment of Intimacy in Relationships (PAIR)		Mother & Father/Other at Home		Mother & Father/Other at Home	Mother & Father/Other at Lab
Physical Activity Booklet	Physical Activity Booklet		Mother & Child at Home		Mother & Child at Home	
Physical Activity Monitoring (PAM)	Physical Activity Monitoring (PAM, CSA Monitor)		Child		Child	Child

Phase III Measures Chart   10/20/2004

Phase III SECC Instrument Name	Actual Instrument or Construct Name	Phase III Data Collection				
		2nd Grade	3rd Grade	4th Grade	5th Grade	6th Grade
Physical Activity Record of Classes (PARC)	Physical Activity Record of Classes (PARC)		Teacher	Teacher	Teacher	Teacher
Friends or Foes?/Relationships With Peers: Part A	Popularity	Teacher	Teacher	Teacher – SC & Friend	Teacher	Teacher – SC & Friend
Principal Questionnaire	Principal Questionnaire		School Principal		School Principal	
Health and Physical Development Assessment (HPDA)	Pubertal Development Exam			Clinic by Health Professional	Clinic by Health Professional	Clinic by Health Professional
Mother Questionnaire: Boys' & Girls' Pubertal Development Scale	Pubertal Development Scale			Mother	Mother	Mother
Mother Questionnaire: Puberty History and Expectations	Puberty History and Expectations			Mother	Mother	Mother
Quality of Child's Friendship(mother)/Relationships With Peers: Part C (teacher)	Quality of Child's Friendship		Mother at Lab & Teacher	Teacher – SC & Friend	Mother at Lab & Teacher	Teacher – SC & Friend
Raising Children	Raising Children Checklist		Mother & Father/Other at Home			
My Family and Teacher (Well Being Protocol	Relatedness Questionnaire & Security Questionnaire		Child at Home		Child at Lab	
Religion in My Life	Religion in My Life					Child & Friend at Lab
Things My Friends Do & Things I Do/Things Your Child May Do (Risky Behavior Protocol)	Risky Behavior Protocol				Child at Lab & Mother at Lab	Child & Friend at Lab & Mother & Friend's Mother
What I Think About School	School Commitment				Child at Home	
What My School is Like	School Engagement and Environment					Child & Friend at Lab
Teacher Questionnaire	School Teacher Survey – Schools and Staffing Survey	Teacher	Teacher	Teacher	Teacher	Teacher
Selection of Friend	Selection of Friend			Mother & Research Assistant (RA)		Mother & RA

Phase III Measures Chart   10/20/2004

Phase III SECC Instrument Name	Actual Instrument or Construct Name	Phase III Data Collection				
		2nd Grade	3rd Grade	4th Grade	5th Grade	6th Grade
Self-Administered Physical Activity Checklist (SAPAC)	Self-Administered Physical Activity Checklist (SAPAC)				Child at Home	Child at Lab
My Neighborhood	Self-care Checklist - Child		Child at Home			
My Child in Our Neighborhood	Self-Care Checklist-Parent (Perception of Child Safety After School)		Mother at Lab		Mother & Father/Other at Lab	
Social Age Interview	Social Age Interview - Computer Assisted Telephone Interview (CATI)	Fall & Spring	Mother - Fall	Mother - Spring	Mother - Fall	Mother - Spring
School Stories	Social Information Processing		Child at Home		Child at Home	
Kids I Know/What My Friends are Like	Social Network			Child & Friend at Lab	Child at Lab	Child & Friend at Lab
Social Skills	Social Skills Rating System (SSRS) – Parent and Teacher	Teacher	Mother & Father/Other at Home, Teacher & After-School Caregiver	Mother, Father/Other, Teacher, After-School Caregiver & Friend's Teacher	Mother & Father at Home, Teacher & After-School Caregiver	Mother, Father/Other, Teacher, Friend's Mother & Friend's Teacher
Relationships with Other People	Social Support		Mother & Father/Other at Home		Mother & Father/Other at Home	
Sociometric Status	Sociometric Status	Teacher				
My Feelings II	State-Trait Anger & Anxiety Scales		Mother & Father/Other at Home		Mother & Father at Home	Mother & Father/Other at Lab
Student-Teacher Relationship Scale (STRS)	Student-Teacher Relationship Scale (STRS)	Teacher	Teacher	Teacher & Friend's Teacher	Teacher	Teacher & Friend's Teacher
Summer Activities Questionnaire	Summer Activities Questionnaire			Mother	Mother	Mother
SOFIT (System for Observing Fitness Instruction Time)	System for Observing Fitness Instruction Time (SOFIT)		Observed at School		Observed at School	

Phase III Measures Chart   10/20/2004

Phase III SECC Instrument Name	Actual Instrument or Construct Name	Phase III Data Collection				
		2nd Grade	3rd Grade	4th Grade	5th Grade	6th Grade
Girls' & Boys' Tanner Drawings	Tanner Staging (Mother Report)			Mother	Mother	Mother
Teacher Self-Efficacy Scale	Teacher Self-Efficacy Scale		Teacher	Teacher	Teacher	Teacher
Teacher Report Form	Teacher's Report Form (Achenbach)	Teacher	Teacher	Teacher & Friend's Teacher	Teacher	Teacher & Friend's Teacher
Book Naming Activity	Title Recognition Test				Child at Home	
Tower Activity	Tower of Hanoi		Child at Lab		Child at Lab	
Wechsler Abbreviated Scale of Intelligence (WASI)	Wechsler Abbreviated Scale of Intelligence (WASI)			Child & Friend at Lab		
Whole-Family Interaction	Whole-Family Interaction				Child, Mother, & Father & Other Family at Home	
Woodcock-Johnson Tests of Achievement and Cognitive Ability	Woodcock-Johnson Psycho-Educational Battery -Revised (WJ-R)		Child at Lab		Child at Lab	
Combining Work (Employment) & Family	Work & Family Conflict Scale			Mother at Lab	Mother at Lab & Father/Other at Home	

Phase III Measures Chart   10/20/2004

APPENDIX B

SELECTION OF MEASURES

The *NICHD SECCYD* data set is attractive to one addressing the relation between

parental sensitivity and child attachment in middle childhood for a number of reasons.

First, the dataset is unique in its inclusion of fathers. Examination of "fathering" rarely

goes beyond measures of quantity (e.g., the amount of time spent with the child).

Questionnaires that assess fathers' attitudes and beliefs, as well as observations of fathers

with their children, allow one to address much more complex questions regarding

fathering and father-child relationships. Second, the dataset has multiple potential

measures of child-parent attachment. To begin, the dataset includes measures of the

child's self-reported thoughts and feelings regarding attachment. At Grade 5, children

completed the Security Scale (Kerns, Klepac, & Cole, 1996), described above, and

earlier, in Grade 3, they had also completed the Relationship Questionnaire (Lynch &

Cicchetti, 1997), another measure based on attachment theory. The dataset also has

observations, at both Grade 3 and Grade 5, of mother-child and father-child "felt security/

affective mutuality." This observational code is based on attachment theory, and although

the measure assesses the quality of the dyadic interactions, the behaviors observed may

be indicative of the child's internal working models of the relationship. In addition,

parents reported on their child's attachment behavior on the Child-Parent Relationship

Scale (Pianta, 1993) at both the Grade 3 and Grade 5 times of measurement. A third

attractive feature of the dataset is its inclusion of observations of parent-child interactions

at Grades 3 and 5. Observational data, although not perfect, allow the researcher to

examine a construct without its being confounded by other common constructs, such as social desirability or attitudes regarding the construct. Finally, the sheer size of the sample makes the dataset attractive. Constrained by time and expense, observational studies tend to have relatively small samples and, thus, may not have enough power to uncover any but the strongest of effects.

The main challenge in utilizing the data set to address the questions posed in the present study was to locate appropriate measures of parenting. In order to test the study's main hypotheses, it was necessary to find measures of both sensitivity and encouragement of autonomy. Sensitivity, or "supportive presence," and "respect for autonomy" were coded for the mother-child and father-child interactions observed at Grades 3 and 5. Data documentation revealed that these observational codes, however, were quite strongly correlated with one another, suggesting that the measures were not clearly distinct from one another. In addition, it was potentially problematic that indicators of both the predictors and the outcomes were gleaned from observations of the same interactions. Moreover, the potential for problems with shared method variance was compounded by the fact that the same coder would provide ratings for all of the observational codes for each interaction. Although correlated "errors" may be modeled using structural equation modeling, as they were in the present study, it was of particular importance to include additional indicators of the latent constructs.

As mentioned above, one of the attractive features of the dataset was its inclusion of multiple potential measures of attachment. In terms of parenting, whereas observations are perhaps the most accurate way to measure sensitivity, parents and/or children ought to be able to provide additional insight regarding parental encouragement (or

discouragement) of child autonomy. All measures administered in Phase III were examined. It was determined that several items on the Raising Children Questionnaire (Shumov, Vandell, & Posner, 1998), a measure of parental disciplinary strategies administered to parents at the Grade 3 time of measurement, may tap encouragement of autonomy. In addition, the Parental Modernity Scale of Child Rearing and Educational Beliefs (Shaefer & Edgerton, 1985), a measure of traditional (adult-centered) and progressive (child-centered) beliefs administered at the Grade 4 time of measurement, may also tap encouragement of autonomy. No parent- or child-report measures of encouragement of autonomy were administered at the Grade 5 time of measurement. Thus, only the observational indicators of encouragement of autonomy were employed at that point.

It was my goal to model the relations among the latent constructs using multiple indicators of each of the constructs. As the modeling progressed, however, it became necessary to adjust the measurement model, or the portion of the model describing the relations among the indicator variables and the latent constructs. The potential problem of shared method variance was an important factor in the decision making processes.

APPENDIX C:

MANUALS, MEASURES, AND CODING SCHEMES

CHAPTER 51

SECTION 5

PROCEDURES FOR ADMINISTERING
THE FOURTH SCHOOL YEAR PARENT-CHILD INTERACTION TASKS

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CHAPTER 51

SECTION 5

PROCEDURES FOR ADMINISTERING
THE THIRD GRADE PARENT-CHILD INTERACTION TASKS

I.   **OVERVIEW**

The parent-child (mother-child and father-child or other adult-child) interaction tasks in the fourth school year will be videotaped during the home visit. The tasks are designed to assess the quality of parent-child interaction in a discussion task and during a shared problem-solving activity. The same discussion task, but with different discussion topics, and different problem-solving activities will be used in the mother-child and father-child interactions. [Note that the father-child interaction activities may be conducted with mother's partner or another adult household member when the child's father is not living in the household.] Order of administration of the mother-child and father-child activities is to be counterbalanced, unless the predetermined order cannot take place because one parent is not available during part of the visit. Order of administration should be noted on the Home Visit Report form. With each parent the discussion task will occur first, followed by the problem-solving activity.

The rating scales to be used with these videotaped interactions will assess qualities of parenting such as supportive presence, respect for autonomy, quality of assistance, cognitive stimulation, hostility, and confidence. In addition, the rating scales will address several aspects of the child's emotional regulation in the context of the parent-child dyad such as agency, persistence, and negativity. Features of the dyad such as goal-directed partnership and felt security will also be assessed.

The interaction procedure is comprised of two activities. The first activity—RULES DISCUSSION—involves parent and child in a discussion task, the topics of which will be selected from three different piles of colored cards printed with statements to be discussed. The three piles roughly correspond to "kid rules," "parent rules," and "difficult decisions." The second activity—PROBLEM-SOLVING ACTIVITY—is an errand-planning task for the mother-child interaction and a card sorting and sequencing task for the father-child interaction.

II.   MATERIALS

Materials and ordering information for the materials to be purchased for this procedure are detailed below.

A.   Rules Discussion Task

A round spinner with a red, blue, and green section, each equally sized wedges.

Colored, laminated cards, 3" x 5", should be made, with each card containing a statement to be discussed by parent and child. The statements to be used in the mother-child and the father-child discussion tasks are listed below, along with their color of card. (Not all statements will be discussed; cards will be randomly selected from these).

Blue cards, mother-child:

Kids should be responsible for their own belongings.

Kids should be able to wear whatever they want.

Kids should be able to eat only what they like.

Blue cards, father-child:

Kids should not be asked to do household chores.

Kids should always obey their teachers.

Kids should be able to decide their own bedtime.

Red cards, mother-child:

Parents should let their children decide their own punishment.

Parents should set limits on what television their children can watch.

Parents should decide who their children can be friends with.

Red cards, father-child:

Parents should make sure their children turn their homework in on time.

Parents should always know what their children are doing when the children are playing outside.

Parents shouldn't give children money every time they ask for it.

Green cards, mother-child:

It's OK for kids not to tell their parents when they get into trouble at school.

Sometimes it's OK to tattle.

Sometimes it's OK to give your friend the right answer on a test.

Green cards, father-child:

It's OK to do something wrong if all of your friends are doing it.

Kids shouldn't fight with their friends.

It's OK for kids to have messy rooms.

B. Errand Planning Task

Errand Planning Task Instruction Sheet with list of "Things to Do" (See Appendix A.)

Town Map Board

Match-box car that can be "driven" in the town

8 ½" x 11" copy of Town Map

A colored pen that can be used to number the buildings on the photocopy of the town to indicate the plan developed for completing the errands.

C. **Card Sorting and Sequencing Task**

The materials for this activity need to be ordered from Developmental Learning Materials (DLM), 1-800-575-9495. Order Sequential picture cards Level 2, Set 2 ISBN #0026866935, $22.50

Three sets of six cards will be used: those representing (1) a trip to the beach (#R00000008), (2) a birthday party (#R00000012), and (3) a hair cut (#R00000006). These 18 cards should be put together like a deck of cards in a shuffled order.

III. **PROCEDURE**

A. **General Information And Guidelines**

The order of administering the father-child and mother-child interaction tasks is to be counterbalanced at each site. Instructions for each activity are to be given just before that interaction activity is conducted (see below for details). Interruptions in the activities should be avoided but may occur if the father, mother, or child requests terminating the taping or if the participants are significantly interrupted for some reason. The parent who is not participating in the videotaped interaction activities or someone else present should be asked to handle any interruptions such as siblings, phone calls, visitors etc. so that the videotaping of the parent and child can be uninterrupted. If a break must occur during one of the activities, the activity should be resumed if possible.

The videotaped activities should take place in an area of the house that is comfortable for parent and child and provides a flat surface. The kitchen table or a coffee table may be a good

spot. The discussion task and problem-solving activities may be conducted in different places if that is best for the family.

Throughout the taping, the cameraperson should be capturing both the parent and the child on videotape. Technical details for videotaping are provided below. The cameraperson should act in a detached manner during the taping to avoid appearing as an avid observer or participant. This can be accomplished most easily by avoiding, for the most part, eye contact with those being observed. At this age it may work well for the cameraperson to leave the room during the interaction after placing the videocamera in a position that will capture the dyad's interaction. Do this if at all possible, and remain within earshot so you can monitor the interaction in case there are any difficulties that need your attention. If you anticipate that there may be difficulties (e.g. a rowdy dog that could knock over the camera, a child who is not sitting still during the instructions), stay with the camera.

B. Location of Activity

The activities for the parent-child interactions are well suited for a table and chairs (both tasks), comfortable chairs (issue discussion task), and/or the floor (both tasks). Enlist the parent's help to locate a place in the house that meets the following requirements: a) comfortable and allows room for parent and child to sit together and talk and to engage in the card sorting activity, (b) has good lighting, (c) is not near interfering background noise (e.g., radio, T.V., air conditioner, dishwasher) and (d) will allow the parent and child to be relatively alone and uninterrupted. Use a unidirectional external microphone placed between the father and child or clip-on microphones for each participant to provide the best possible audio recording. Details about selection of location and camera placement are presented in Section IV: Technical Considerations.

C.   Instructions

Activity 1: Rules Discussion Task. Prepare for taping the interaction activities. If a television, radio, dishwasher or other interfering noise is on, politely ask the parent to turn them off for the duration of the interaction (a window unit air conditioner should be turned to low). Ask the other parent to take care of any phone calls or visitors during this time and to help to keep other children (if present) elsewhere until the videotaped activities are completed.

The order of taping child with parent 1 and parent 2 is counterbalanced. It should work best to have parent 2 filling out questionnaires or otherwise occupied in a separate part of the house while videotaping the interaction activities with parent 1, and similarly to conduct the interaction activities with parent 2 and child out of the presence of parent 1. (Father is used generally to mean Partner/Other Adult in the scripts.) Initiate instructions for the first activity as follows:

"As we've done in the past, we want to videotape some activities that you [CHILD] can do together with your mother and father. First we want to begin with activities you'll do with **[PARENT 1]**. *You'll be doing some similar and some different activities with your* **[PARENT 2]** *later in our visit. The first activity involves the two of you talking together about different rules that families might have. The rules are on the backs of each of these cards. You'll use the spinner to choose which pile of rules to draw from. The blue pile contains rules for kids, the red pile contains rules for parents, and the green pile contains rules about right and wrong behavior. You should take turns spinning for a rule card. For example, if you spin red, take the first red card, read its rule, and discuss together what you think about the rule. Now there aren't any right and wrong answers here, we just want the two of you to*

discuss these rules. Don't worry about getting through all the cards. We want you to take your time discussing each one.

I'll leave the room while you do this activity and come back in when the time has ended, in 7 minutes. If you have selected all of one color's cards and spin that color again, spin again until you get a color of a card remaining. I'll come back when 7 minutes are up. Do either of you have any questions before you begin?

Leave the room, first making certain that the camera's position clearly captures both of them.

Activity 2 (mother-child): Errand-Planning Task. [Be sure to speak to both the mother and child, not just the mother]. *For the second activity with your mother, we would like the two of you to plan together how you would take care of 11 errands in a trip around this town.* [Show town map board.] *You start and finish here where it says, "Home." What we want you to do is to find the best route through town for getting this list of "things to do" done in one trip. You are to use the streets shown here and backtrack over the same streets as little as possible. You're in a car* [place car on board], *so you must use the streets to get to the different places in town. Try to take care of these different errands in one trip, starting here, going to the different places, and going back to the same street as little as possible. Here where it says "medical clinic" is where you go for the doctor's appointment, which is on your list.*

Here is a copy of the town on this piece of paper. I'd like you to number each place you go on your route through the town on this *map in the order that you went there 1 through 11. For example, put a "1" on the ball park and a "2" on the post office if those are the first and second places you decide you'll go.*

I'll come back in about 8 minutes, but if you finish sooner, just let me know. Do either of you have any questions before you begin?

Activity 1, father-child, or parent 2: Rules Discussion. [In delivering the instructions for the Rules Discussion to the second parent, acknowledge that the child has already participated in this activity with parent one. Tell the parent and child that the rules on the cards are different for this second time of discussion.] Say, "*This first activity involves the two of you talking together about different rules that families might have. [CHILD] has done this activity earlier with MOTHER. However, the rules on the cards are different this time for your discussion.* See the instructions for Activity 1: Rules Discussion Task for the remainder of the script.

Activity 2 (father-child): Card Sorting and Sequencing. Place stack of cards to be sorted face up on the table or floor between parent and child. Make sure all 18 cards are shuffled together. Say, *For this activity you [CHILD] will be working with these cards to tell stories [Spread cards out briefly]. These cards tell three different stories, but the cards for the different stories are all mixed together right now. Your first task is to find the cards that go together for each story. So, sort the cards into their different stories. You'll need to figure out how many cards go with each story. Next, take each group of cards and lay them out in an order that tells a story from its beginning to its end; then, tell the story to your dad and explain the order. We want you to try to do this yourself, with [FATHER/OTHER ADULT] giving whatever help he/she thinks you need. We have 8 minutes for this activity. I'll come back to tell you when the time is up or you can let me know if you finish sooner. Do either of you have any questions before you begin?*

IV.   TECHNICAL CONSIDERATIONS

A.   Location of Activity

As mentioned above, it is important to select an area for taping this activity that is comfortable, well lit, free from background noise and somewhat isolated from other activity in the house. The following recommendations will help guide your selection of the location:

1.   Lighting

a.   Choose an area that does not place the parent or child directly in front of a window.

b.   To avoid backlighting, turn off any lights or lamps that are in back of or beside the father and child.

c.   Choose an area that is well lit with overhead lights and/or lights behind or beside the camera, shining toward the parent and child. If the room is dim, ask if there are lights that you can turn on.

d.   Use a camera light if necessary.

e.   Before you begin filming, check the picture through the view finder. If it looks too dark there, it will probably be too dark on the videotape also.

2.   Background Noise

a.   If window unit air conditioners are in the house, choose an area that is not directly adjacent to one of the units. Ask the parent if it is possible to turn the unit to a low setting for the duration of the activity.

b.   Avoid areas that are near potential noise sources such as a telephone, a dishwasher and/or conversations of other family members.

c.   Ask the parent to turn off any unnecessary background noise such as a T.V., radio or dishwasher.

d.   If a window or door is open and outside noise is evident, ask if you can close it for the duration of the activity.

e.   Use the unidirectional external microphone, rather than the internal camera microphone. Place the microphone between the parent and child in a way that will not obstruct their activity area and within two feet of parent and child. Prior to the visit, tape the on/off button in the on position. This will help prevent the microphone from accidentally being turned off. Check that the microphone is turned on once you have finished giving instructions. Some videocameras have an external mike on/off switch. Make certain that this is "on." When using an external microphone, if it is not switched "on", the resulting videotape will be without audio and not codeable. Ensuring proper functioning of the microphone is essential.

3.   **Interruptions**

a.   Avoid potential 'traffic areas' such as near a front door or telephone.

b.   Be sure that the other adult understands that other children need to be kept occupied away from the activity area until the parent and child are finished playing.

B.   **What the View Finder Should Show**

Use the tripod of the camera to get a relatively straight angle view of the parent and child wherever they position themselves. Keep both the parent and child in view. Zoom in the camera close enough (visually) to be able to see facial expressions, but not so close that you miss

gestures, body position changes, etc. Try to get both participants' facial expressions simultaneously; this is best achieved in silhouette positions. The parent and child should fill the screen so that the coders of the tape can be as "close" as possible to their interaction. Clarity of the interaction is improved by "tight filming" of the interaction.

Make certain that parent and child are in focus. Use auto-focus if you can be certain that nothing will come in between the camera and the parent and child, throwing your focus onto something extraneous. If you use manual focus obtain a sharp focus by making adjustments with the zoom up close. Zoom back out to the proper distance after focusing.

Once you have the appropriate camera location, zoom distance, and focus, make further adjustments only if necessary. Don't tinker with the zoom and focus over the course of the observation unless you absolutely need to. Make sure that the camera is turned on so that the interaction is filmed from the moment the parent and child begin.

C. Filming Identifying Information on the Tape

As part of the set-up procedures, film a sign on which you have written, (1) Subject ID #, (2) Fourth School Year Home Visit, (3) Parent-Child Interaction, (4) Date.

The sign should appear before the videotaped interaction.

Do not set the date/time clock on the camera so that this will also be recorded on the tape during the interaction.

D. Labeling the Outside of the Tape

The identification information should be on the tape and on the box of each original and copy videotape. The DCC will provide each site with labels for this purpose. The date of the visit and the VC ID# should be written on the space provided on the label. The labels should be placed on the outside of the tape and on the tape box. Number the ID#'s in the order in which

the interactions appear on the tape. Do not place any other identifying information on the box or tape. Use the center label to note any unusual circumstances. Double-check that the subject is correct and matches ID filmed prior to the interaction procedure. Each tape must be checked before mailing for coding. For efficient use of tapes, copy 4 interactions on each tape.

E.   Where to Send the Tapes

The copy should be kept at the site and the original mailed to:

Regular Mail:	Express Mail:
Dr. Margaret Tresch Owen	Dr. Margaret Tresch Owen
University of Texas at Dallas	University of Texas at Dallas
Box 830688	Psychology Department
GR41	2601 N. Floyd Road
Richardson, TX, 75083-0688	Richardson, TX, 75080

V.   PROBLEM SOLVING

Any number of circumstances can arise which could potentially hinder the successful implementation and completion of the videotaping of the parent-child interactions in the home. Listed below are several possible problems that might be encountered and recommended solutions. It is impossible to anticipate all possible problems; the data collector should thus maintain an attitude that permits "thinking on his/her feet" in order to successfully confront challenges that might arise. Foremost to keep in mind are the needs of the child and family and our desire to obtain high quality data.

Try hard to avoid situations and/or solutions which seriously discomfort families and breed resentment which could undermine further participation in the project. At the same time, however, the data collector must be prepared to work hard to find a solution that will enable him/her to obtain the data that is needed.

A.   Video Malfunction

The video camera should be tested before the initiation of taping and at the presumed end of taping. If the video malfunctions at the outset and cannot be fixed, proceed to the next phase of data collection.

Do not spend an inordinate amount of time trying to fix a problem as this could unduly lengthen the visit and/or interfere with collection of any remaining data. If a problem is identified at the end of taping, determine how early it started. If at least 5 minutes of each activity has been taped (with audio), there is no need to make alternate arrangements. If less than 5 minutes of each activity has been collected we will not be able to code the interaction. Apologize to the parent and child and let them know that you would like to reschedule at a later time, if possible, to tape the activities that could not be taped in this visit. Proceed to the next phase of data collection and at the end of the home visit, try to schedule a return visit for a repeat of the interaction activity.

B.   Unexpected Interruptions That Take the Parent Away

If the other parent is present in the home, s/he should try to deal with all potential interruptions that occur during the taping of the activities; for example, by answering the phone or the door and by keeping others away from the taping of the activity. Try to discourage an unnecessary interruption of the taped interaction unless there appears to be an emergency situation.

If the interrupter won't be put off, consult with the parent about what s/he wants to do and act in accord with his/her wishes. If the interruption lasts less than 30 seconds, just keep filming. If, however, the interruption lasts longer, or if the parent must leave the room, stop the camera, and resume taping when the parent can return.

C.   Parent-initiated Interruptions

If the parent requests or demands to stop for any reason, tell the parent how much time remains for the activity and seek the parent's approval to continue. Limit each activity to 5 minutes if this helps. If parent continues to want to stop the taping, terminate taping and try to restart, if possible, when and if the parent will do so.

D.   Parent Refusal

Remember, all parents have been informed that they can refuse any part of the study that they want to, so persuasion to complete any part of the visit has to be "soft." If a parent refuses such efforts, respect the sentiments and be sure to point out that not only is it okay, but that we promised at the beginning when they signed the informed consent that they retained the right to refuse to participate in any activity.

E.   Child Makes Taping Impossible

It will not be possible to complete a parent-child interaction procedure if the child refuses to stay in the room, will not leave the camera alone, or becomes ill during the visit. These scenarios are unlikely now that the child is older, but should they occur, the solutions below are recommended.

If there are physical reasons (i.e. the child is ill or very tired) that would interfere with conducting the interaction activities, do not begin the interaction procedure and attempt to schedule another visit for the videotaping. Proceed with other parts, as appropriate, of the home visit.

If the child appears restless, overly interested in the camera or unwilling to stay in the room, go ahead and start the videotaping procedure. Often, these difficulties resolve themselves once the interaction begins. If, after 5 minutes, the problem is still present, then terminate the

interaction by saying something like, *this looks like it is not working out well for [CHILD] right now. Why don't we stop and see if it works better a little while later.* Suggest that the child might need a break for a drink or a snack and then proceed with other parts of the visit and attempt the parent-child interaction again once other portions of the visit have been completed. If the child responds similarly in the second attempt, terminate again. Discuss with the parent if s/he thinks another day might work better and decide if it is worthwhile to reschedule. If the procedure cannot be completed, this should be reported on the Home Visit Report Form.

F. Unwanted Observers

If the second parent or any other person wants to observe, explain to them in the most courteous manner that we would rather not have any observers because all we are taping are parents and children together in activities without others present. Allowing an observer to be present for some families will upset the consistency we are trying to achieve. If this fails, simply request that the observer sit as far away from the taping as possible and not become involved in any part of the taping. Should the individual seek to become involved, remind him/her of importance of not interrupting the parent and child. If this fails after several reminders or if the observer becomes hostile or angry, you will have to determine whether to continue taping. We do not want to alienate families, therefore just continue taping in most situations. Such unusual situations should always be reported on the Videotaping Report Form.

G. When the Father Is Not Living in the Mother and Child's Home

In most situations, if the father is not living in the home with the mother and the child, we will not include him in the taping. If the mother's partner lives in the home and is present, even if he or she is not the child's parent, we will tape this person with the child. Be sure to

administer all the procedures with the mother's partner as you would to the father. Detailed instructions for determining whom to videotape are contained in the Scheduling Call script.

H.   When There Is No Father and No Mother's Partner Living in the Home

If there is no father and no mother's partner living in the child's home, we will administer the interaction activity with an "other" adult if another adult lives in the home and regularly cares for the child (as specified in the Fourth School Year home visit scheduling call instructions).

When scheduling, it will be explained that we think that this person is an important person in the child's life, and we would like to include this person in the study. Administer all procedures to this person that you would have administered if there were a father present in the home.

If there is no father or mother's partner and there is more than one other adult living in the home the mother will have been asked who the child is either closest to or spends the most time with. The mother will have chosen who this person will be. Administer all activities to this person, including the informed consent, the interaction activities and the questionnaires.

VI.   RESPONDING TO PARENTS' QUESTIONS

If the parent asks the RA a question regarding a task, the RA should be careful to respond in a way that remains neutral and does not have any undue influence on how the parent behaves during the interaction. If the parent's question is regarding some aspect of the task instructions already given, the RA should simply repeat or re-phrase that part of the instructions which pertain to the question. If the parent's question is regarding how he or she should approach a certain aspect of the task, the RA should respond with a more generic phrase, such as "You can

handle it however you want," or "There is really no right or wrong way to do this, so it's up to you."

VII.   TRAINING AND CERTIFICATION

A.   Training

The goal in training staff to administer and videotape the parent-child interaction activities is to insure that the tapes document parent-child interaction in such a way that enables independent scorers to rate qualities of the interaction. Picture quality and sound must be excellent. Instructions must be delivered appropriately.

B.   Certification

Each RA should make two videotapes of the parent-child interaction for certification of the procedure. Using the monitoring form, review the tape for correct procedure before mailing it to Margaret Tresch Owen's lab at the University of Texas at Dallas (see address above). Send certification tapes that meet the criteria listed on the monitoring form (see Appendix B).

APPENDIX A: ERRAND PLANNING TASK

Your Task:

1.   Use the list of "Things to Do" below to plan your trip around town.

2.   Begin and finish at your "Home".

3.   Try to find the shortest trip that uses each street the least number of times.

4.   Finally, on the smaller map, number each place in the order you went there on your trip through town.

Things to Do:

❑   Get cat to the vet (it gets carsick)
❑   Take laundry to Laundromat
❑   Return books to library
❑   Take cake to school bake sale
❑   Leave film at Photo Shop
❑   Pick up Mike at ballpark by 5:00
❑   Doctor's appointment at Medical Clinic at 3:30
❑   Pick up medicine from Drug Store
❑   Buy hamburger and ice cream (don't let it melt) at grocery store
❑   Drop off gift at Mrs. Bergen's house
❑   Mail package to Ann
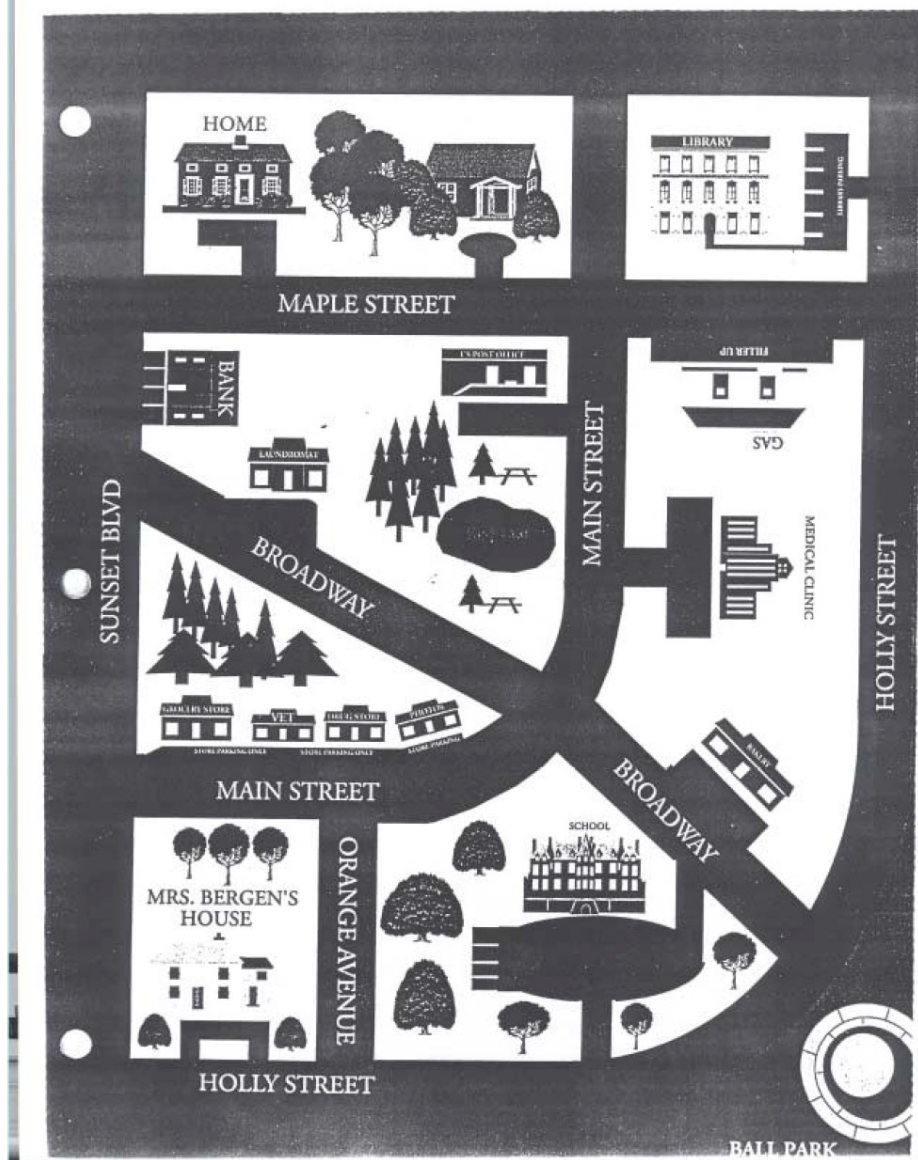
APPENDIX B: SELF MONITORING FORM
Third Grade Home Visit
First Parent-Child Interaction
Self Monitoring Form

Site_____   Subject #_____

VC#_____   Date ____/____/____

	YES	NO	N/A
The tape has been viewed	____	____	____
Sufficient lighting	____	____	____
Both parent's and child's verbal interactions are clearly audible	____	____	____
Sharp picture	____	____	____
Image of parent and child fill screen (close-up images)	____	____	____
Containers are not blocking view	____	____	____
Procedure instructions are given with minimal use of notes	____	____	____
Discussion task instructions properly given	____	____	____
Errand Planning task instructions properly given	____	____	____
Sequencing card game instructions properly given	____	____	____
Questions solicited and answered	____	____	____
Parent seems to understand instructions to both tasks	____	____	____
Interruptions or interferences are handled appropriately	____	____	____

COMMENTS/PROBLEMS

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_____

_____

_____

NICHD STUDY OF CHILD CARE AND YOUTH DEVELOPMENT
Third Grade Home Visit
Second Parent-Child Interaction
Self Monitoring Form

Site_____   Subject #_____

VC#_____   Date ___/___/___

	YES	NO	N/A
The tape has been viewed	_____	_____	_____
Sufficient lighting	_____	_____	_____
Both parent's and child's verbal interactions are clearly audible	_____	_____	_____
Sharp picture	_____	_____	_____
Image of parent and child fill screen (close-up images)	_____	_____	_____
Procedure instructions are given with minimal use of notes	_____	_____	_____
Discussion task instructions properly given (VC acknowledges that instructions have been previously given)	_____	_____	_____
Errand Planning task instructions properly given	_____	_____	_____
Sequencing card game instructions properly given	_____	_____	_____
Questions solicited and answered	_____	_____	_____
Parent seems to understand instructions to both tasks	_____	_____	_____
Interruptions or interferences are handled appropriately	_____	_____	_____

COMMENTS/PROBLEMS

_____

_____

_____

APPENDIX C: Coding Manual
4th School Year Parent-Child Structural Interaction
Qualitative Rating Scales
NICHD Study of Early Child Care and Youth Development

I. Parent Rating Scales
     A. Supportive Presence
     B. Respect for Child's Autonomy
     C. Stimulation of Cognitive Development
     D. Quality of Assistance
     E. Hostility

II. Child Rating Scales
     A. Self-Reliance
     B. Negativity
     C. Persistence
     D. Affection Towards Parent

III. Dyadic Scales
     A. Affective Mutuality/Felt Security

Egeland, B. & Hiester, M. (1993). Teaching task rating scales. Institute of Child Development. University of Minnesota.

Pianta, R.C. (1994) Rating Scales for parent-child interaction in preschoolers. University of Virginia.

Adapted by Margaret Tresh Owen and Anne M. Ware, University of Texas at Dallas, for the NICHD Study of Early Child Care, 1/96.

(revised 5/2/00)

<u>Supportive Presence:</u>

A parent scoring high on this scale expresses positive regard and emotional support to the child. This may occur by acknowledging the child's accomplishments on the task or unrelated tasks the child is doing, encouraging the child with positive emotional regard, (e.g.. "Great idea", "You are so clever") listening and validating their child's ideas and opinions even if they disagree ("You make good decisions") and various other ways of letting the child know that he/she has his/her support and confidence to do well in the setting. If the child appears challenged by the task, the parent is reassuring and calm, providing an effectively positive "secure base" for the child, perhaps leaning closer to the child to give a physical sense of support. A parent scoring low on this scale fails to provide supportive cues: he/she might be passive, uninvolved, aloof, or otherwise unavailable to the child. Such a parent also might give observers the impression that he/she is more concerned about his/her own adequacy and task performance rather than concerned about the child's emotional needs. A potential difficulty in scoring this scale is the need to discount messages of parents that seemingly are supportive in verbal content but are contradicted by other aspects of the communication, e.g., the parent seems to be performing a supportive role for the camera and not really engaged in what the child is doing or feeling. Signs of such questionable support are improper timing of support, mismatch of verbal and bodily cues, and failure to have the child's attention in delivering the message. These types of supportive messages would not be weighted highly because such features suggest that supportive presence is not a well-practiced aspect of their interaction outside the observational situation. Conversely, parent may seem more supportive than he/she has appears in this situation because he/she has approached this task as a test of the child's achievement and has not used as much support as he/she otherwise might have. Yet, the qualitative features of his/her support would merit a high score.

1.   <u>Very Low.</u> Parent completely fails to be supportive to the child, either being aloof and unavailable or being hostile toward the child when the child shows need of some support.

2.   <u>Low.</u> Parent provides very little emotional support to the child. Whatever supportive presence he/she does display is minimal and not timed well, either being given when the child does not really need it, or only after the child has become upset.

3.   <u>Moderately Low.</u> Parent gives some support but it is sporadic and poorly timed to the child's needs. The consistency of this support is uneven so as to make the parent unreliable as a supportive presence.

4.   <u>Moderate.</u> This parent does a respectable job of being available when his/her child needs support, but he or she also has moments of inconsistency. He/she may lean closer and praise the child's efforts to show that he/she is available and supportive, but inconsistency in this style make his/her support unavailable during the session.

5.   <u>Moderately High.</u> Parent provides good support, reassurance and confidence in the child's ability, but he/she falters in this at times when the child especially could use more support. Or, parent is universally supportive but rarely gives evidence of modulation of to the child's needs.

6.   High. Parent establishes him/herself as supportive and encouraging toward the child and continues to provide support when the child needs it. If the child experiences more difficulty, his/her support increases in commensurate fashion. He/she has some lapses, however, in which the child's involvement in the activity wavers for lack of support. Yet, he/she then attempts to return the child to a level of involvement that is more optimal.

7.   Very High. Parent skillfully provides support throughout the session. He/she sets up the situation from the beginning as one in which he/she is confident of the child's efforts. He/she may redirect the child when appropriate in a way that does not reduce his/her support and confidence in the child's ability to modify his or her behavior. If the child is having difficulty he/she finds ways to reward some sort of success by the child and encourage whatever solution the child can make. Parents not only emotionally supportive but also continuously reinforces the child's success.

Parent Respect for Child's Autonomy:

This scale reflects the degree to which the parent acted in a way that recognizes and respects the validity of the child's individuality, motives, and perspectives in the session.

A parent scoring low in this scale would be very intrusive in his/her interventions with the child exerting his/her expectations on the child in a way that makes the child a satellite or servant of the parent rather than a partner in a mutually negotiated relationship; or the parent might implicitly define his/her interactions in terms of a win-lose power struggle in which compliance by the child makes the parent the winner and the child submissive. Parents may intrude either harshly or with affection; in either case, his/her actions do not acknowledge the child's intentions as real or valid and communicate that it is better and safer to depend on him/her for direction than to attempt individuality.

In contrast, a parent scoring high on this scale acknowledges the child's perspectives and opinions about the different family rules and ideas for the errand planning task as a valid part of the child's individual identity. A parent scoring very high does this explicitly by negotiating rules with the child, verbalizing his/her acknowledgment of the child's intentions and ideas, does not deny the child's right to those desires, and models his/her individuality, too. Note: Parent can get a low score just by denying the child's individuality strongly (e.g. interrupting the child, doing things before the child can on his/her own, not allowing child to express his/her own opinion) even though it is not interrupting the child's behavior.

1. Very Low. Parent completely denies the child's individuality in the techniques he/she uses. Parent is very intrusive, physical and forceful in controlling the child.

2. Low. Parent strongly denies the child's individuality, but there are a few opportunities for the child to experience autonomy, whether by variation in parent's approach, or simply by occasional absence of maternal controls over the child. Mostly, however, this parent's style denies the child's autonomy.

3. Moderately Low. Parent does not completely deny the child's individuality, but he/she effectively communicates that the child's intentions and opinions do not have validity compared to his/her own intentions and opinions for the child. He/she also intrudes strongly on the child's behavior, giving him/her little chance to do anything on his/her own.

4. Moderate. Parent shows moderate respect for child's autonomy; he/she is moderately intrusive. Although parent does not deny the child's separate identity, he/she does very little to support the validity of the child's individuality. He/she might communicate doubt to the child about the appropriateness of having his/her own intentions and opinions, or intrude abruptly on the child several times.

5. Moderately High. Parent does allow the child some autonomy of intentions and opinions, but he/she does not actively support and reinforce this perspective in the child. He/she may reflect the child's intentions and ideas by engaging the child, but he/she also exerts his/her will at times over the child in a way that shifts the child's perspective.

6.   <u>High.</u> Parent respects child's autonomy. He/she is not intrusive over the child; instead, he/she acknowledges the child's intentions and opinions, communicates trust in the child's individuality, and allows a mutually negotiated interaction.

7.   <u>Very High.</u> Parent very clearly interacts with the child in a way that acknowledges the validity of the child's perspective, encourages the child to acknowledge his/her intentions and opinions, and to negotiate the course of interactions in the session. This parent also models his/her individuality to the child in these negotiated interactions and may insist on the importance of his/her interventions being followed, but he/she does so while acknowledging the reality and validity of the child's differing perspective and never in an intrusive manner.

* Note: If a parent's respect for autonomy *during the discussion task* is rated as 5 or below, his or her *overall* respect for autonomy cannot be rated higher than a 5.

Stimulation of Cognitive Development

This scale measures the degree to which the parent tries to foster his/her child's cognitive and mental development. A stimulating parent may take advantage of any activity to stimulate development. He/she will instruct the child and/or engage the child in a variety of explicit activities with the intent to facilitate learning, development and achievement.

The focus of this scale is on the parents effortful teaching that may ultimately enhance perceptual, cognitive, and socio-emotional development.

Behaviors characterizing **age-appropriate stimulation** for third grade children include: (a) explaining the basic reasoning for certain rules they discuss (e.g., "It wouldn't be okay to do what your friends were doing if it was dangerous or hurtful to others"), (b) providing a simple model of planfulness and consequential thinking (e.g., "If we go to the grocery first, the ice cream may melt before we get home, so be better save that for later"), (c) instructing on age-appropriate social skills (e.g., "Your friends may not appreciate it if you always tattle on others") (d) asking or talking about aspects or characteristics of the interaction materials (e.g., "What kind of chair is that in the picture"), and (e) asking the child to explain what he or she is doing or thinking (e.g., "Why did you put that card before that one?" or "Why would you disagree with that rule?").

Highly stimulating parents use analogies, explain concepts, encourage autonomous problem-solving, and expand on or use the context to teach certain concepts and to illustrate ideas. Behaviors include: (a) suggesting or encouraging more sophisticated problem-solving strategies (e.g., "What aspects of the errand list will influence the order in which we take care of the errands?") (b) pointing out or asking the child about exceptions to the more obvious "black-and-white" approaches to certain rules or issues (e.g., "So you think it's never okay to tattle, but I wonder if there are any situations in which it *would* be okay."), (c) encouraging high-level planfulness or consequential thinking in the child, and (d) encouraging the child to generate more than one effective solution to problems (e.g., "You put that card at the end of the sequence. Do you think it could go anywhere else?" or "What would be another route we could take and still get these three errands done?"), (e) teaching or encouraging perspective-taking skills or other sophisticated social skills (e.g., "What do you think that would be like for me if you got into trouble at school and I didn't know about it?"), and (f) applying the tasks or materials to concepts that the child may be currently learning at school (e.g., "So there are three stories and six cards per story; how would you figure out how many cards there are without simply counting each one?" or "You're learning about communities in school right? Well, what other buildings might you find on a town map that aren't included on this one?")

Parents who simply focus or encourage child should not be given the highest scores. Highly stimulating parents (a) help their children acquire or master new skills, (b) illustrate or teach concepts, (c) ask questions that encourage problem-solving, etc.

If a topic or mode of conversation is poorly matched to the child's developmental level then the parent's behavior is not seen as stimulating development, because it is unlikely to affect the child's cognitive development. For example, asking the child to plan the entire errand trip around town when he or she is uninterested or confused about the task is not cognitively stimulating because the child is not likely to understand the concept. Asking simple questions like "How many?" or "What color?" is also not cognitively stimulating because the child is likely to already understand those concepts.

At this age, it is appropriate for parents to allow the child to work on the activities on his/her own with few teaching comments than are evident at younger ages. Therefore the scales

are rated with greater consideration given to the quality of cognitive stimulation than to the quantity. Parent activity which clearly seeks to stimulate a higher level of mastery, understanding or sophistication should be weighted heavily in this score. At the highest level, it is clear that the parent is making this activity a learning experience for the child.

1.   Very Low. Parent provides no cognitive stimulation. The parent makes no attempt to stimulate or teach the child anything. He/she either is totally uninvolved or fails to provide any information about the activities or situation.

2.   Low. Parent occasionally provides weak stimulation, or, any stimulation he/she provides is very poorly matched to the child's developmental level or interest.

3.   Moderately Low. Parent provides moderate stimulation in a few instances, but most of the interaction is not characterized by cognitive stimulation

4.   Moderate. Parent provides age appropriate cognitive stimulations during the session, but not which clearly seeks to stimulate a higher level of mastery or sophistication in the child.

5.   Moderately High. Parent provides one instance of stimulation which clearly seeks to stimulate a higher level of mastery or sophistication and other instances of age appropriate stimulation without the features of the higher scores.

6.   High. Parent provides more than one instance of cognitive stimulation that clearly seeks to stimulate a higher level of mastery, understanding or sophistication.

7.   Very High. Parent provides cognitive stimulation that clearly seeks to stimulate a higher level of mastery, understanding, or sophistication and does so several times, indicating that he or she is taking advantage of this activity as a learning experience for the child.

Quality of Assistance

The important features of this rating are how well the parent structures the situations so that the child knows what the task objectives are and receives hints or corrections while solving the problems that are; (a) timely to his/her current focus, (b) paced at a rate that allows comprehension and use of each hint, (c) graded in logical steps that the child can understand, and (d) stated clearly without unnecessary digressions to unrelated phenomena or aspects of the task that might only confuse the child. The parent's approach suggests that he/she has some sort of a plan for how his/her guidance will help the child. Yet, he/she is also flexible in his/her approach and uses alternative strategies or rephrases suggestions when a particular cue is not working. The parent also approaches the task as a collaboration when appropriate and reinforces the problem solving nature of the interaction. A poor rating would indicate a parent who is completely uninvolved in the process or one who dominated the activity to such a degree that the child becomes uninvolved.

1. Very Low. The parent's guidance is of uniformly poor quality. He/she is either totally uninvolved or fails to provide needed structure. He/she gives clues that are of no help to the child's efforts and appear to embody no effective plan of teaching.

2. Low. Parent occasionally gives effective guidance. He/she may be able to structure the activity so that the child understands the goals and gives a few helpful hints to the child, but these are minimal compared to the ineffectiveness of most of his/her attempts or lack of attempts.

3. Moderately Low. Parent adequately structures some portions of the activity and provides some guidance, but his/her assistance is inadequate for much of the session.

4. Moderate. Parent provides effective structure and guidance for the child to work on the tasks during much of the session, but overall his/her assistance is lacking at several points during the session.

5. Moderately High. Parent generally provides guidance that is sufficient and appropriate, but there are some periods when it is inadequate in amount or quality. Alternatively, the parent may approach the task in a way that is very structured but requires the child to attend primarily to his/her directives and allows little opportunity for the child to engage in the task directly.

6. High. Parents demonstrate most of the desirable features for this rating and in general the parent appears to provide good help throughout the session.

7. Very High. Parent demonstrates almost all of the characteristics of effective instruction consistently throughout the session. The task is sufficiently structured so that the child understands the objectives and can attempt to solve the problems directly. Parent's assistance is coordinated to the activity and the child's needs for guidance.

Parent Hostility:

This scale reflects the parent's expression of anger, discounting or rejecting of the child. A parent scoring high on this scale would clearly and <u>overtly</u> reject the child, <u>blame him or her</u> for mistakes, and otherwise make explicit the message that he/she does not support the child emotionally. A parent scoring low on this scale may be supportive or cold, but he/she does not blame or reject the child. A rejecting parent may also show some Supportive Presence (and the inconsistency of his/her behavior would be revealed by these two scores). Given the low frequency and the clinical relevance of rejecting one's child during a videotaped session, any events which are clearly hostile should be weighted strongly on this score.

1. <u>Very Low.</u> Parent shows no sign of rejection. He/she may or may not be supportive, but he/she does not try to put down the child or avoid the child in rejecting ways. Passive or emotionally uninvolved parents would be included in this scale point if the parent does not reject the child or communicate hostility towards the child.

2. <u>Low.</u> The parent conveys a little hostility once or twice. The messages are not overt but muted forms of hostility (e.g., pulling away, pulling something away from the child with a jerk, brief displays of exasperation, looking at the child coldly for a brief time, teasing with a negative content but with accompanying humor or warmth, parroting or mimicking the child). Or, the parent shows a diffuse level of discontent, discomfort, or boredom, but it is not directed at the child..

3. <u>Moderately Low.</u> Signs of hostility again are very fleeting, but they occurred on several occasions during the session, and at least one sign could be identified as clear and overt or an accumulating sense of unexpressed anger and <u>avoidance</u> toward the child was seen in the parent's behavior.

4. <u>Moderate.</u> Several instances of hostile or rejecting behaviors. Two or more of these events are reliably clear to observers, but expressions are brief and do not set the tone of the parent's interactions immediately following the episodes.

5. <u>Moderately High.</u> Parent is overly rejecting or hostile several times. Behaviors include overt and clearly communicated rejections of child and expressions of hostility or anger which appear intermittently through substantial periods of the session. This parent's behavior is more rejecting than not, either by the frequency of hostile behavior or by the potency by which rejection is communicated several times in the session.

6. <u>High.</u> This parent has frequent expression of rejections and hostility directed toward the child. There is little or no effort to show warmth during substantial portions of the session, especially after the parent becomes irritated with the child (e.g., parent may initially be warm and then rejects the child strongly). Parent is frankly and directly rejecting and hostile (e.g., telling the child he/she will leave him/her behind if he/she does not do the task, using negative performance feedback but little positive feedback, blaming the child for incompetence on the tasks, and overtly refusing to recognize the child's success, e.g., "You couldn't have done it without me showing you!"). Any

warmth seems superficial related to the parent's distancing from the child, rejection is used as a control technique against the child.

7.   <u>Very High.</u> This parent shows characteristics of the previous scale, but expressions of anger toward the child are also accompanied by strong, barely controlled emotions, suggesting the possibility of physical abuse and neglect of the child in some situations.

*Note: If a parent's hostility *during the discussion task* is rated as a 2, his or her *overall* hostility cannot be rated as a 1. Similarly, if a parent's hostility *during the discussion task*, is rated as a 3, his or her *overall* hostility cannot be rated lower than a 3.

Child Agency

Throughout the interactive tasks, the child acts with vigor, confidence and eagerness to complete the tasks. Child takes an active interest in participating along with the parent, invests sincere effort and energy, and appreciates accomplishments both as an individual and a team member. Agency includes a sense of coordination between affect and behavior. The child appears well integrated and comfortable directing his/her energy appropriately when interacting with the parent, and when working alone. The child should perform without conflicting motivations against the parent, or reveal repressed feelings. Agency must be scored for goal-oriented behavior when interacting or discussing task objectives with the parent (insofar as parent defines goals relevant to the task or situation), and also when engaging in individual tasks. Other goals or expressions or unnecessary levels of excitement may be in service of distracting the parent, winning approval, etc, and would not represent agency here.

1. Very Low. Child displays no agency in discussion activities or interactive/individual task performance. Child seems hesitant to engage in problem solving efforts, answering or asking questions, and shows no initiative in planning strategies alongside the parent. The child shows extreme lack of confidence or assertiveness as a team player, and appears uninterested in achieving individual activities, such as in the card-sorting task.

2. Low. Child generally does not display agency. Child does show some interest in interacting with the parent on the discussion or planning tasks. The child may appear engaged in the activity of errand planning or card sorting, but is mostly restrained, or hesitant in becoming too involved.

3. Moderately Low. Child shows occasional moments of agency and active, enthusiastic participation, but primarily he or she does not engage the situation in this way. The child appears more apt to show interest, but hesitated when engaging in parental discussions, task planning, and/or individual challenges. The child may appear to show a spark of interest when transitioning between tasks, but this is superficial in that a slow decline in agency soon becomes evident.

4. Moderate. Child shows a mixture of enthusiasm and restraint or superficially of effort. This may occur because the child is very slow in "warming up" to the potential of the situation or because his/her enthusiasm waxes and wanes and he or she is not reliably invested in the activities.

5. Moderately High. The child displays agency for much of the session and is basically interested in and enthused about the activities. There are occasions when the child appears genuine and enthusiastic about successfully completing tasks and/or time when there is a sense of harmony between affect and behavior. However, he or she has moments in which this is not the case.

6. High. Child demonstrates agency, enthusiasm and coordinated affect. Behavior for the most part of the session is positive when interacting with the parent, or alone. The child demonstrates high levels of self-motivation and approves of his/her contributions as a team member. Only minor periods may occur when this is not the case. Overall, the

child is genuinely eager to complete the tasks successfully. Positive affect should be seen throughout all of the tasks, especially while working alone, i.e. card-sorting task.

7.   <u>Very High.</u> Child shows high agency and consistent enthusiasm throughout the interactive session. Child approaches problem solving and parental interactions positively, revealing goal directed intent. Challenges and difficulties do not appear frustrating for the child rather, the child continues to persist using effective internal strategies. The child has great confidence that the situation will turn out well and that he/she can trust in her/himself and the support of her/his parent without fear of rejection. Overall the child is eager and wants to be involved showing a harmonious progression throughout the session.

Child Negativity

Child negativity is the degree to which the child shows anger, dislike or hostility toward the parent. At the high end, the child is repeatedly and overtly angry with the parent, e.g., forcefully rejecting his/her ideas, showing angry and resistant expression, pouting, or being unreasonably demanding, critical, or disrespectful of him/her. For the lowest rating, there are neither overt nor covert signs of such anger. Expressions are essentially positive toward the parent whether or not the child is compliant or much involved with him/her. Low ratings may include brief instances of frustration or rejections of parent's help. Failure to answer parent's questions without signs of deliberate ignoring is not to be considered negativity.

1. Very Low. Child shows no signs of negativism. She/he shows through consistently positive interactions toward the parent that s/he has a truly positive relationship toward him/her and feels no abiding anger toward him/her.

2. Low. Child shows no clear indication of negativism, but the tone of some interactions is less positive than one would desire in an ideal relationship toward the parent.

3. Moderately Low. Child is negativistic only briefly in any overt fashion, but these suggest some noticeable anger and resistance in the child's interactions with parent.

4. Moderate. Child shows clear negativism toward the parent on several occasions or one significant occasion, but these are rather isolated episodes.

5. Moderately High. Child is frequently negatavistic or a few instances of strong and intense negativism, but these are not predominant in the interaction.

6. High. Child's anger is a predominant aspect of their interactions, but it is shown in more sporadic and generally subtler ways than in #7.

7. Very High. Child is repeatedly and overtly angry or resistant toward the parent. The degree of anger here seems so strong that the child cannot disguise it in subtler ways for long, but it repeatedly appears in her/his interactions with him/her

* Note: If a child's negativity *during the discussion task* is rated as a 2, his or her *overall* negativity cannot be rated as a 1. Similarly, if a child's negativity *during the discussion task* is rated as a 3, his or her *overall* negativity cannot be rated lover than a 3.

Child Persistence

This is a measure of the extent to which the child actually was involved in the discussion and the card sorting or errand planning task in the session. At the low extreme, the child shows no involvement in the discussion and the card sorting or errand planning task, refuses to become involved and either flees or spends his/her time in off-task activities, or is involved only to the extent that parent enforces his/her attention to his/her directions and responds to his/her questions about the task. At the high end, the child is actively engaged with the tasks and works persistently either directly on his/her own or through the parent's mediating suggestions (regardless of how good the child or parent's skills really are). The child may be either sober or playful; persistence does not necessarily include enthusiasm. The child may be responsive or not to the parent's directions as long as s/he shows motivation toward engagement with the tasks. Although the child's degree of attention to the tasks may depend greatly on the parent's efforts to keep the child interested, the observer should consider this rating to reflect the child's involvement in the discussion and card sorting or errand planning task regardless of the degree to which parent was instrumental in creating the persistence.

1. Very Low. Child displays no involvement in the discussion and card sorting or errand planning task. S/he seems to want no part in the activities.

2. Low. Child is engaged in the discussion and the card sorting/errand planning task but always superficially and never with effort or concentration.

3. Moderately Low. Child engages in tasks with some persistence or concentration but s/he has no long periods of concentration.

4. Moderate. Child sustains some long periods of involvement in the tasks, but clearly loses interest for some periods of time.

5. Moderately High. Child devotes relatively large periods of attention to the discussion and the card sorting/errand planning tasks and engages in the tasks with regularity. S/he gives sustained attention for periods of time with clear involvement. His/her persistence occasionally wanes.

6. High. Child persists in activities across most of the session. S/he loses interest or concentration only briefly within and overall pattern of involvement with the tasks.

7. Very High. Child is persistent throughout the session.

Note: A child who engages much of the time because of constant efforts by the parent to return the child to the task should not get a 6 or 7 score, even though the child was engaged with all the materials.

Child Affection Towards Parent:

This scale reflects whether there was a substantial period of positive regard and sharing of happy feelings of the child toward the parent. Although the child also might become angry or avoid the parent elsewhere in the session, a high rating still could be given if some portions of the session met the criteria of the scale. The criteria of this scale are evidences that the child approached and attempted to share positive affects with the parent. In addition, affection toward the parent includes the ability of the child to elicit positive expression from the parent such that a continued reciprocal interaction can be maintained. At the lower end of the scale, the child may direct a few positive expressions to the parent and may elicit a positive expression in return. However, he or she does not sustain a "bout" of shared expressions with the parent. At the high end of the scale, the child is able to not only initiate positive expression toward the parent but is also able to maintain such a "bout". The intensity of expression is not particularly relevant to this rating, but rather the frequency with which the child shares positive affect with parent-looking at parent, making eye contact and smiling, sharing successes and other "approach" behavior affectively.

1. Very Low. Child clearly does not attempt to share experiences with parent. Signs such as failure to make eye contact with parent when expressing happiness, directing expression of success to the experimenter but not to the parent, and similar clues can be used as evidence that the child attempts little sharing of feelings with parent.

2. Low. Child has very minor incidents which seemed expressive of positive regard toward parent and from which one might infer some positive feelings are expressed toward her/him. Yet, child largely shows no positive regard toward her/him.

3. Moderately Low. Child shows some positive regard but it is brief or mixed in quality. Possibly, child seems ambivalent in such expressions.

4. Moderate. Child shares some of his/her happy expressions with parent but, again, these are only minor elements of interaction and are not sustained by the child for more than a moment at a time. Thus, the behaviors are expressed repeatedly and/or clearly, but do not reflect a "bout" of the child closely sharing his or her affect with the parent.

5. Moderately High. The child has one or more periods in which he or she sustains in expressing positive regard and sharing happy expression with the parent. The child seems to maintain the positive regard toward the parent sufficiently to allow short "bouts" of sharing positive expressions with the parent. During such bouts, the child also does not seem to shy away from having an emotional bond with the parent (although this may happen at another time in the session).

6. High. The existence of a "bout" of sustained positive expression and sharing these feelings with the parent is quite clear in terms of: (a) the duration of such interaction is long enough for several exchanges of positive expression to occur, and (b) the lack of ambivalence in the child's expression of feelings toward the parent. Clearly this child was expressive, warm and engaging of the parent for at least one sustainable period of the session.

7. Very High. The child demonstrates a <u>very</u> positive, engaging and sharing relationship toward the parent for a substantial period of the session. More than one long "bout" of sharing positive expression with the parent is observed during the 15 minute interaction. The parent and child may have problems at times during the interaction but the child's relationship with the parent seems very warm and positive for a major portion of the session.

Affective mutuality/felt security

   This scale assesses availability and mutuality of emotion between the child and parent and how secure the child feels with the parent. There is an emphasis on the child having a sense that the parent has his/her own best interests in mind. There is also an emphasis on verbal and non-verbal communication, what the parent and child communicate and how they do it. Open and free communication will be marked by emotion exchanged and a sense of personal involvement and engagement. The child appears free to express positive or negative emotions or feelings. Availability of affect is also marked by the parent's tone of voice communicating warmth and regard for the child. At the low end, closed communication or lack of mutuality will be reflected in interaction that is stifled or non-reciprocal. At the low end there may be a veneer of intimacy or mutuality covering an impoverished experience; emotional experience of the parent may be quite different from the experience of the child. The rater must be alert to exchange of emotion and the subtle cues that reflect this. Essentially we are interested in behaviors which reflect on intimacy in the dyad.. Dyads high on this scale almost always have a moment of shared emotion that is pleasurable. At the low end we see stifling of emotion, dampening behaviors which avoid or negate expression of emotion, or lots of conflict between the parent and the child. The rater will need to distinguish between affect that is muted because of parent's focus on task (but which still regards child's feelings) and that which has as its purpose to stifle expression.

7.   Very High. There is a sense that experiences (both positive and negative) are shared, that the parent shows a response to the child's emotion and vice versa. Smiling back and forth takes place. Eye contact occurs when the child or parent seeks it. There may be personal exchanges such that the child uses "I" statement to talk about feelings. First person pronouns are used. There may also be physical proximity seeking behaviors, help seeking, or some reflection on the experience with the activities (e.g., "this is hard" or "this is silly"), that are responded to in a fashion that supports the mutuality observed in the dyad. There are almost no "dampening" behaviors by either partner, so that emotion and communication flows freely. There is at least one sustained bout of reciprocally communicated, positive emotion shared by the partners.

6.   High. Very similar to number 7 though a somewhat less active and overt exchange of emotions is noted. There may be a few 'dampening' behaviors when the child shows negative affect (parent looks away or diverts attention) or when parent focuses heavily on instruction, but generally the child feels understood. The dyad interacts in a relaxed fashion even if there is not a lot of eye contact, etc. There is an underlying warmth and appreciation between the two that is expressed even without lots of overt signs.

5.   Moderately High. Brief periods of conflict or avoidance may be noted in an otherwise relaxed interaction, or parent and child may have one or two interchanges in which their emotional experiences differ (e.g., angry child, happy parent), but there is an attempt to reconcile the experience.

4.   Moderate. These dyads show a mixture of warmth and more restrictive or tense behaviors. There may be moments of tension and disengagement. Parent may seem a bit threatened if the child expresses frustration or anger and there may be an effort to

"accentuate the positive" despite the child's needs to have feelings expressed. Dampening messages may be given, usually in a covert manner. Despite bouts of tension, however, there is a sense the dyad also likes each other, but that they are struggling a bit to figure it out.

3. Moderately Low. There are no bouts of sustained emotion shared between the two, instead there is an increased emphasis on avoidance of emotion, negative emotion, and especially, non-mutual emotion. The parent may ignore or discourage the child's expression of emotion. The child's experience begins to take on an anxious quality, perhaps unsure that s/he can count on parent for assistance. The child rarely initiates bids for security or parent affect. There are also moments of warmth but these are fleeting and occur under minimal stress.

2. Low. These dyads may seem cold or emotionless (like 1) but with some expressiveness and warmth at limited times or, they may be conflicted. Parents may be threatened by child's emotion and there are signs of disengagement or conflict when child needs the parent. Parent may show signs of being annoyed or upset with the child (angry look).

1. Very Low. There are three possibilities.(1) the dyad appears disengaged or can only engage around positive experiences and there is an almost staged like quality to those; (2) there is underlying conflict or ambivalence apparent (parent may make it clear he or she would rather be somewhere else); or (3) parent and child have very little coordinated emotion and appear emotionally disconnected with each other. Parent or child may express a positive emotion that is not coordinated with behavior and the other one responds. There may be underlying tension in the interaction. Parent may be threatened by any negative emotion. Dampening statements may not even be common since this dyad may essentially be disengaged around emotion. There is very little attention to each other in terms of warmth or personal involvement. One may also see a parent giving derogatory glances at the child, directly or indirectly communicating displeasure with the child and/or his/her performance. There is often a veneer of intimacy or a staged-like interaction masking an impoverished experience for the parent and child.

Third Grade Mother/Child Interaction Task
Coding Form

CHILD ID # _____   TAPE # _____

CODER # _____   DATE TAPE RECEIVED_____

1 = Very Low	5 = Moderately High
2 = Low	6 = High
3 = Moderately Low	7 = Very High
4 = Moderate	9 = Uncodeable/missing

TASK # 1

Mother Ratings

1. Supportive Presence	1	2	3	4	5	6	7	9
2. Respect for Child Autonomy	1	2	3	4	5	6	7	9
3. Stimulation of Cognitive Development	1	2	3	4	5	6	7	9
4. Quality of Assistance	Was not coded for Task 1							
5. Mother Hostility	1	2	3	4	5	6	7	9

Child Ratings

6. Child Agency	1	2	3	4	5	6	7	9
7. Child Negativity	1	2	3	4	5	6	7	9
8. Child Persistence	1	2	3	4	5	6	7	9
9. Affection to Mother	1	2	3	4	5	6	7	9

Dyadic Rating

10. Felt Security	1	2	3	4	5	6	7	9

TASK # 2

Mother Ratings

1. Supportive Presence	1	2	3	4	5	6	7	9
2. Respect for Child Autonomy	1	2	3	4	5	6	7	9
3. Stimulation of Cognitive Development	1	2	3	4	5	6	7	9
4. Quality of Assistance	1	2	3	4	5	6	7	9

5. Mother Hostility	1	2	3	4	5	6	7	9

Child Ratings

6. Child Agency	1	2	3	4	5	6	7	9
7. Child Negativity	1	2	3	4	5	6	7	9
8. Child Persistence	1	2	3	4	5	6	7	9
9. Affection to Mother	1	2	3	4	5	6	7	9

Dyadic Rating

10. Felt Security	1	2	3	4	5	6	7	9

OVERALL RATINGS

Mother Ratings

1. Supportive Presence	1	2	3	4	5	6	7	9
2. Respect for Child Autonomy	1	2	3	4	5	6	7	9
3. Stimulation of Cognitive Development	1	2	3	4	5	6	7	9
4. Quality of Assistance	1	2	3	4	5	6	7	9
5. Mother Hostility	1	2	3	4	5	6	7	9

Child Ratings

6. Child Agency	1	2	3	4	5	6	7	9
7. Child Negativity	1	2	3	4	5	6	7	9
8. Child Persistence	1	2	3	4	5	6	7	9
9. Affection to Mother	1	2	3	4	5	6	7	9

Dyadic Rating

10. Felt Security	1	2	3	4	5	6	7	9

Third Grade Father/Child Interaction Task Coding Form

CHILD ID # _____   TAPE # _____

CODER # _____

1 = Very Low		5 = Moderately High		
2 = Low		6 = High		
3 = Moderately Low		7 = Very High		
4 = Moderate		9 = Uncodeable/missing		

TASK # 1

Father Ratings

1. Supportive Presence	1	2	3	4	5	6	7	9
2. Respect for Child Autonomy	1	2	3	4	5	6	7	9
3. Stimulation of Cognitive Development	1	2	3	4	5	6	7	9
4. Quality of Assistance	Was not coded for Task 1							
5. Father Hostility	1	2	3	4	5	6	7	9

Child Ratings

6. Agency	1	2	3	4	5	6	7	9
7. Negativity	1	2	3	4	5	6	7	9
8. Persistence	1	2	3	4	5	6	7	9
9. Affection to Father	1	2	3	4	5	6	7	9

Dyadic Rating

10. Felt Security	1	2	3	4	5	6	7	9

TASK # 2

Father Ratings

1. Supportive Presence	1	2	3	4	5	6	7	9
2. Respect for Child Autonomy	1	2	3	4	5	6	7	9
3. Stimulation of Cognitive Development	1	2	3	4	5	6	7	9
4. Quality of Assistance	1	2	3	4	5	6	7	9

5. Father Hostility	1	2	3	4	5	6	7	9

Child Ratings

6. Agency	1	2	3	4	5	6	7	9
7. Negativity	1	2	3	4	5	6	7	9
8. Persistence	1	2	3	4	5	6	7	9
9. Affection to Father	1	2	3	4	5	6	7	9

Dyadic Rating

10. Felt Security	1	2	3	4	5	6	7	9

OVERALL RATINGS

Father Ratings

1. Supportive Presence	1	2	3	4	5	6	7	9
2. Respect for Child Autonomy	1	2	3	4	5	6	7	9
3. Stimulation of Cognitive Development	1	2	3	4	5	6	7	9
4. Quality of Assistance	1	2	3	4	5	6	7	9
5. Father Hostility	1	2	3	4	5	6	7	9

Child Ratings

6. Agency	1	2	3	4	5	6	7	9
7. Negativity	1	2	3	4	5	6	7	9
8. Persistence	1	2	3	4	5	6	7	9
9. Affection to Father	1	2	3	4	5	6	7	9

Dyadic Rating

10. Felt Security	1	2	3	4	5	6	7	9

CHAPTER 69

SECTION 6

PROCEDURES FOR ADMINISTERING THE SIXTH SCHOOL YEAR

FATHER/OTHER ADULT-CHILD INTERACTION TASKS

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CHAPTER 69

SECTION 6

PROCEDURES FOR ADMINISTERING THE SIXTH SCHOOL YEAR

FATHER/OTHER ADULT-CHILD INTERACTION TASKS

I.   OVERVIEW

The father/other adult-child interaction tasks in fifth grade will be videotaped during the home visit. The tasks are designed to assess the quality of parent-child interaction during a discussion task and a shared problem-solving activity. Order of administration should be noted in a record of the visit's administration. The rating scales to be used with these videotaped interactions will assess qualities of parenting such as supportive presence, respect for autonomy, hostility, and quality of assistance. In addition, the rating scales will address several aspects of the child's emotional regulation in the context of the parent-child dyad such as agency, persistence, and negativity. Features of the dyad such as goal-directed partnership and felt security will also be assessed.

The interaction procedure is comprised of two activities. The first activity—FAMILY ISSUES—involves father and child in a discussion task. The second activity—TOWER OF TOOTHPICKS—is a problem solving activity that involves the construction of a tower using toothpicks and clay.

II.   GENERAL INFORMATION AND GUIDELINES

Instructions for each activity are to be given just before that interaction activity is conducted (see below for details). Interruptions in the activities should be avoided but may occur

if the father or child requests terminating the taping or if the participants are significantly interrupted for some reason. The parent who is not participating in the videotaped interaction activities or someone else present should be asked to handle any interruptions such as siblings, phone calls, visitors etc. so that the videotaping of the parent and child can be uninterrupted. If a break must occur during one of the activities, the activity should be resumed if possible.

The videotaped activities should take place in an area of the house that is comfortable for parent and child and provides a flat surface for sorting the cards and constructing the tower. The kitchen table may be a good spot. The discussion task and building activity may be conducted in different places if that is best for the family.

Throughout the taping, the cameraperson should be capturing both the parent and the child on videotape, moving the camera if necessary to do so. Technical details for videotaping are provided below. The cameraperson should act in a detached manner during the taping to avoid appearing as an avid observer or participant. This can be accomplished most easily by avoiding, for the most part, eye contact with those being observed.

III.   MATERIALS

Information for the materials to be purchased for these procedures is detailed below. Each site is responsible for purchasing its own materials.

A. Family Issues Discussion Task

One set of *Family Issues* cards is needed. Colored, laminated, 3"x5" cards should be made with a single "family issue" statement on each card. The following topics should be written on the cards (22 in the set):

- Bedtime
- Playing computer or video games
- Television
- Swearing
- Privacy
- Pets
- After-school activities
- Honesty or lying
- Eating habits
- Manners
- Respect for others
- Chores
- Money
- Music
- Sports
- Taking responsibility
- School, homework
- Clean room
- Personal appearance
- Fighting with sisters or brothers
- Friends
- Problems with other kids

The set of cards should be shuffled between each father-child dyad to prevent any set order of presentation of the cards.

B. Tower of Toothpicks Activity

Each dyad should be given approximately 1 oz of Model Magic, 100 toothpicks, 4 tongue depressors, 4 rubber bands and 1 12" ruler. The toothpicks can be placed in a small zip-lock bag together with the other items. Also, a plastic placemat should be provided to build on to avoid staining the table's surface.

IV. LOCATION OF ACTIVITY

The activities for the parent-child interactions are well suited for a table and chairs (both tasks), comfortable chairs or sofa (family issues discussion task), and/or the floor (both tasks). Enlist the parent's help to locate a place in the house that meets the following requirements: a) comfortable and allows room for parent and child to sit together and talk and to engage in the toothpick activity, (b) has good lighting, (c) is not near interfering background noise (e.g. radio, T.V., air conditioner, dishwasher) and (d) will allow the parent and child to be relatively alone and uninterrupted. Use a unidirectional external microphone placed between the father and child or clip-on microphones for each participant to provide the best possible audio recording. Remember that it is necessary to hear clearly the parent and child's discussion during the family issues discussion task. Details about selection of location and camera placement are presented in the filming section below.

V.   INSTRUCTIONS

Activity 1: Family Issues Discussion Task. The VC initiates the parent-child activities with a request for parent and child to sort through the cards. *"As we've done in the past, we want to videotape some activities that you [parent] and [CHILD] can do together. The first activity will involve talking together about some topics you'll choose. The second activity will be a building activity. I'll explain more about the second one later.*

First, we would like you to discuss some topics kids and parents often disagree about. These cards (show the stack to the father and child but do not give the cards to them yet*) contain different issues such as homework, chores, television and the like. Go through the cards and decide together which ones are your top 3 areas of disagreement or difficulties. After you've found your top 3, talk together about each one and try to resolve some of your difficulties. You may not have time to thoroughly discuss all 3 issues, but you will have 7 minutes to try to make some progress. Do you have any questions?* Give stack of cards to child.

Tell parent and child to begin. Make certain that the camera's position clearly captures both of them and leave the room.

Activity 2: Tower of Toothpicks Game. Say, *For the next activity, we have a building project for you to do with [parent]. Your challenge is to create a tower1 foot tall using these toothpicks and any other items in this bag* (indicate the materials*). Work together to figure out how you can do this, then build your tower. After you've finished, try to figure out another way the tower could have been built even stronger and taller.* (Give instruction sheet to the child*). Do you have any questions? You have 7 minutes to complete this activity.*

Tell parent and child to begin. Make certain that the camera's position clearly captures both of them and leave the room.

VI.   TECHNICAL CONSIDERATIONS

A. Location of activity

As mentioned above, it is important to select an area for taping this activity that is comfortable, well lit, free from background noise and somewhat isolated from other activity in the house. The following recommendations will help guide your selection of the location:

1. Lighting

a.) Choose an area that does not place the parent or child directly in front of a window.

b.) To avoid backlighting, turn off any lights or lamps that are in back of or beside the father and child.

c.) Choose an area that is well lit with overhead lights and/or lights behind or beside the camera, shining toward the parent and child. If the room is dim, ask if there are lights that you can turn on.

d.) Use a camera light if necessary.

e.) Before you begin filming, check the picture through the view finder. If it looks too dark there, it will probably be too dark on the videotape.

2. Background Noise

a.) If window unit air conditioners are in the house, choose an area that is not directly adjacent to one of the units. Ask the father if it is possible to turn the unit to a low fan setting for the duration of the activity.

b.) Avoid areas that are near potential noise sources, such as telephones, a dishwasher and/or conversations of other family members.

c.) Ask the father (or mother) to reduce any unnecessary background noise by turning off the T.V., radio, or dishwasher.

d.) If a window or door is open and outside noise is evident, ask if you can close it for the duration of the activity.

e.) Use the unidirectional external microphone, rather than the internal camera microphone. Place the microphone between the parent and child in way that will not obstruct their activity area. Prior to the visit, use tape to secure the on/off button in the <u>on</u> position. This will help prevent the microphone from accidentally being turned off. Check that the microphone is turned on once you have finished giving instructions.

3. Interruptions

a.) Avoid potential 'traffic areas' such as near a front door or telephone.

b.) Be sure that the other adult understands that other children need to be kept occupied away from the activity area until the father and child are finished playing.

B. What the View Finder Should Show

Use the tripod of the camera to get a relatively straight angle view of the parent and child wherever they position themselves. Keep both the parent and child in view. Focus close enough (visually) to be able to see facial expressions, but not so close that you miss gestures, body position changes, etc. Try to get both parent and child facial expressions simultaneously; this is best achieved in silhouette positions.

Make certain that parent and child are in focus. Use auto-focus if you can be certain that nothing will come in between the camera and the parent and child, throwing your focus onto

something extraneous. If you use manual focus obtain a sharp focus by making adjustments with the zoom up close. Zoom back out to the proper distance after focusing.

Once you have the appropriate camera location, zoom distance, and focus, make further adjustments only if necessary. Don't tinker with the zoom and focus over the course of the observation unless you absolutely need to. To make these ratings, coders must be able to observe both father and child on the tape. It is also important that coders are able to view the entire interaction. Make sure that the camera is turned on so that the interaction is filmed from the moment the parent and child begin until the moment they finish the tasks.

C. Filming Identifying Information on the Tape

As part of the set-up procedures, film a sign on which you have written, (1) Subject ID #, (2) Fifth Grade Home Visit, (3) Parent-Child Interaction, (4) Date.

The sign should appear before the videotaped interaction.

Do not set the date/time clock on the camera so that this will also be recorded on the tape during the interaction.

D. Labeling the Outside of the Tape

Tape identification information should be on the tape and on the box of each original and copy videotape. The DCC will provide each site with labels for this purpose. The date of the visit and the VC ID# should be written on the space provided on the label. The labels should be placed on the tape and the tape box. Number the ID#'s in the order in which the interactions appear on the tape. Do not place any other identifying information on the box or tape. Use the center label to note any unusual circumstances. Double-check that the subject ID is correct and

matches ID filmed prior to the interaction procedure. Each tape must be checked before mailing for coding. For efficient use of tapes, copy 4 interactions on each tape.

E. Where to Send the Tapes

The copy should be kept at the site and the original mailed to:

Regular Mail:
Dr. Margaret Tresch Owen
University of Texas at Dallas
Box 830688
Psychology DepartmentGR41
Richardson, TX, 75083-0688

Express Mail:
Dr. Margaret Tresch Owen
University of Texas at Dallas
2601 N. Floyd Road
Richardson, TX, 75080

VIII. PROBLEM SOLVING

Any number of circumstances can arise which could potentially hinder the successful implementation and completion of the videotaping of the parent-child interactions in the home. Listed below are several possible problems that might be encountered and recommended solutions. It is impossible to anticipate all possible problems; the data collector should thus maintain an attitude that permits "thinking on his/her feet" in order to successfully confront challenges that might arise. Foremost to keep in mind are the needs of the child, father, family, and our desire to obtain high quality data.

Try hard to avoid situations and/or solutions that seriously discomfort families and breed resentment that could undermine further participation in the project. At the same time, however, the data collector must be prepared to work hard to find a solution that will enable him/her to obtain the data that is needed.

A. Video Malfunction

The video camera should be tested before the initiation of taping and at the presumed end of taping. If the video malfunctions at the outset and cannot be fixed, proceed to the next phase of data collection.

Do not spend an inordinate amount of time trying to fix a problem as this could unduly lengthen the visit and/or interfere with collection of any remaining data. If a problem is identified at the end of taping, determine how early it started. If at least 5 minutes of each activity has been taped (with audio), there is no need to make alternate arrangements. If less than 5 minutes of each activity has been collected we will not be able to code the interaction. Apologize to the parent and child and let them know that you would like to reschedule at a later time, if possible, to tape the activities that could not be taped in this visit. Proceed to the next phase of data collection and at the end of the home visit, try to schedule a return visit for a repeat of the interaction activity.

B. Unexpected Interruptions that take the parent away

If the other parent is present in the home, s/he should try to deal with all potential interruptions that occur during the taping of the activities; for example, by answering the phone or the door and by keeping others away from the taping of the activity. Try to discourage an unnecessary interruption of the taped interaction unless there appears to be an emergency situation.

If the interrupter won't be put off, consult with the parent about what s/he wants to do and act in accord with his/her wishes. If the interruption lasts less than 30 seconds, keep filming. If,

however, the interruption lasts longer, or if the parent must leave the room, stop the camera, and resume taping when the parent returns.

C. Parent-initiated or Child-initiated Interruptions

If the parent or child requests or demands to stop for any reason, tell the dyad how much time remains for the activity and seek their approval to continue. Limit each activity to 5 minutes if this helps. If the parent or child continues to want to stop the taping, terminate taping and try to restart, if possible, when and if the dyad will do so.

D. Parent or Child Refusal

Remember, all parents and children have been informed that they can refuse any part of the study that they wish, so persuasion to complete any part of the visit must be "soft." If a parent or child refuses such efforts, respect their sentiments. As we promised when they signed the informed consent, they retain the right to any and all refusal.

E. Child Makes Taping Impossible

It will not be possible to complete a parent-child interaction procedure if the child refuses to stay in the room, will not leave the camera alone or becomes ill during the visit. These scenarios are unlikely, but should they occur, the solutions below are recommended.

If there are physical reasons (i.e. the child is ill) that interfere with conducting the interaction activities, do not begin the interaction procedure. Attempt to schedule another visit for the videotaping. As appropriate, proceed with other parts of the home visit.

If the child appears restless, overly interested in the camera, or unwilling to stay in the room, go ahead and start the videotaping procedure. Often, these difficulties resolve themselves once the interaction begins. If, after 5 minutes, the problem is still present, then terminate the

interaction by saying something like *"this looks like it is not working out well for [CHILD] right now. Why don't we stop and see if it works better a little while later."* Proceed with other parts of the visit and attempt the parent-child interaction again once other portions of the visit have been completed. If the child responds similarly in the second attempt, terminate again. If the procedure cannot be completed, this should be reported on the Home Visit Report Form.

F. Unwanted Observers

If the second parent or any other person other than the target parent wants to observe, explain to them in the most courteous manner that we would rather not have any observers because all we are taping all parents and children together in activities without others present. Allowing an observer to be present for some families will upset the consistency we are trying to achieve. If this fails, simply request that the observer sit as far away from the taping as possible and not become involved in any part of the taping. Should the individual seek to become involved, remind him/her of importance of not interrupting the parent and child. If this fails after several reminders or if the observer becomes hostile or angry, you will have to determine whether to continue taping. We do not want to alienate families, therefore continue taping in most situations. Such unusual situations should always be reported on the Videotaping Report Form.

G. When the father is not living in the mother and child's home

In most situations, if the father is not living in the home with the child, we will not include him in the taping. If the mother's partner lives in the home and is present, even if he or she is not the child's parent, we will tape this person with the child. Be sure to administer all the

procedures with the mother's partner in the same way as you would to the father. Detailed instructions for determining whom to videotape are contained in separate instructions.

Sometimes the child's father is not officially living in the family's home but he is present for considerable amounts of time. Under these special circumstances, you may tape the father when he is not living in the home. Instructions for determining who should be taped are given in the section on scheduling the visit.

H. When there is no Father and no Mother's Partner living in the home

If there is no father and no mother's partner living in the child's home, we will administer the interaction activity with an "other" adult if another adult lives in the home and regularly cares for the child (as specified in the fifth grade home visit phone call instructions).

When scheduling, it will be explained that we think that this person is an important person in the child's life, and we would like to include this person in the study. Administer all procedure to this person that you would have administered if there were a father present in the home.

If there is no father or mother's partner and there is more than one other adult living in the home, the mother will have been asked who the child is either closer to or has more responsibility for. The mother will have chosen who this person will be. Administer all activities to this person, including the informed consent, the interaction activities and the questionnaires.

IX.   TRAINING AND CERTIFICATION

The goal in training staff to administer and videotape the parent-child interaction activities is to insure that the tapes document parent-child interaction in such a way that enables independent scorers to rate qualities of the interaction. Picture quality and sound must be excellent. Instructions must be delivered appropriately. Each VC should make two videotapes of the parent-child interaction for certification of the procedure. Using the monitoring form, review the tape for correct procedure before mailing it to Margaret Tresch Owen's lab at the University of Texas at Dallas. Send certification tapes that meet the criteria listed on the monitoring form.

Tower of Toothpicks

Design a tower out of toothpicks. Work as a team to make the tower strong and tall.

Good luck!

- Use the toothpicks and other items you find in the bag.
- Discuss the shape of your tower and how to build a tower that won't fall down.
- Build away! Keep in mind you have 7 minutes to complete this activity!
- Once you have built your tower, discuss how you could make it stronger or higher. Try your new approach if you have time.

APPENDIX B: Fifth Grade Home Visit Father-Child Interaction Self Monitoring Form

Site_____   Subject #_____

VC#_____   Date ___/___/___

	YES	NO	N/A
The tape has been viewed	____	____	____
Sufficient lighting	____	____	____
Both parent's and child's verbal interactions are clearly audible	____	____	____
Sharp picture	____	____	____
Image of parent and child fill screen (close-up images)	____	____	____
Containers are not blocking view	____	____	____
Procedure instructions are given with minimal use of notes	____	____	____
Discussion task instructions properly given	____	____	____
Tower of toothpicks task instructions properly given	____	____	____
Questions solicited and answered	____	____	____
Parent seems to understand instructions to both tasks	____	____	____
Interruptions or interferences are handled appropriately	____	____	____

COMMENTS/PROBLEMS

_____
_____
_____

The NICHD Study of Early Child Care Parent-Child Interaction Scales: Middle Childhood
Margaret Tresch Owen, Julia K. Klausli, & Michelle Murrey
The University of Texas at Dallas
(2000)

5th Grade Parent-Child Interaction
Qualitative Rating Scales for Discussion Task and Building Activity
NICHD Study of Early Child Care and Youth Development

I. Parent Rating Scales:

1.	Supportive Presence	18-19
2.	Respect for Child Autonomy	19-20
3.	Stimulation of Cognitive Development	20-21
4.	Quality of Assistance	22
5.	Hostility	23-24

II. Child's Rating Scales:

1.	Agency	25-26
2.	Negativity	26-27
3.	Persistence	27-28
4.	Affection Toward Parent	28-29

III. Dyadic Scale:

1.	Affective Mutuality/Felt Security	30-31

Adapted from:

Egeland, B. & Hiester, M. (1993). *Teaching task rating scales*. Unpublished manuscript. Institute of
    Child Development, University of Minnesota.
Owen, M.T., Ware, A., Vaughn, A., & Barfoot, B. (1996). *The NICHD Study of Early Child Care parent-
    child interaction scales*. Unpublished Manuscript. The University of Texas at Dallas.
Pianta, R.C. (1994). *Rating scales for parent-child interaction in preschoolers*. Unpublished
    manuscript. University of Virginia.

(Revised 3/00/02)

Supportive Presence

A parent scoring high on this scale expresses positive regard and emotional support to the child. S/he should show general involvement in the interaction and affirm the child as a person. A parent scoring low on this scale fails to provide supportive cues; s/he might be passive, uninvolved, aloof, or otherwise unavailable to the child. Such a parent also might give observers the impression that s/he is more concerned about her/his own adequacy and task performance rather than concerned about the child's emotional needs. A potential difficulty in scoring this scale is the need to discount messages of parents that seemingly are supportive in verbal content but are contradicted by other aspects of the communication, signs of such questionable support are improper timing of support, mismatch of verbal and bodily cues, and failure to have the child's attention in delivering the message.

A parent scoring high on this scale should

- pay attention to the child when the child talks (eye contact, body posture)
- be engaged in the interaction; appear to enjoy interacting with the child
- affirm the child as a person (validating choice of cards/plan to build tower; 'That's a good choice for a card'; "That's a good idea for a tower")
- have a positive tone of voice
- give criticism in a constructive not destructive way
- enhance child's self-esteem ('That's not a problem with you' in the discussion task)

A parent scoring low on this scale might

- show some scolding of the child (esp. during the discussion task)
- criticize the child or show disapproval
- appear distant and removed from the child
- not return child's positive affect or initiation of pro-social behavior
- have a mismatch between positive affect and tone of voice (e.g. cynical remarks)

7. **Very High**. Parent skillfully provides support through the session. S/he sets up the situation from the beginning as one in which s/he is confident of the child as a person and the child's ideas and opinions. S/he may redirect the child when appropriate in a way that does not reduce her/his support and confidence in the child as a person. *The parent clearly seems to enjoy the interaction with the child and clearly affirms the child's ideas and the child as a person.*

6. **High**. Parent establishes her/himself as supportive and affirming toward the child and continues to provide support when the child needs it. When the child seems somewhat insecure or withdrawn the parent's support increases in commensurate fashion. *S/he has some lapses, however, in which the child's involvement in the discussion or activity wavers for lack of support or positive feedback.* Yet, s/he then attempts to return the child to a level of involvement that is more optimal.

5. **Moderately High.** Parent provides good support, reassurance and confidence in the child's ability, *but s/he falters in this at times when the child especially could use more support and affirmation.* For the most part the parent seems to enjoy the interaction with the child but there may be some inconsistency.

4. **Moderate.** This parent does a respectable job of being available when her/his child needs support, but s/he has moments of inconsistency. S/he may affirm the child's ideas and the child as a person at times, *but inconsistency in this style makes her/his support unreliable or unavailable periodically during the session.*

3. **Moderately Low.** Parent gives some support *but it is sporadic and poorly timed to the child's needs.* The consistency of this support is uneven so as to make the parent unreliable as a supportive presence.

2. **Low.** Parent provides very little emotional support to the child. *Whatever supportive presence s/he does display is minimal and not timed well.* For the most part the parent does not appear to enjoy interacting with the child and almost never affirms the child as a person.

1. **Very Low.** Parent *completely fails to be supportive to the child,* either being aloof and unavailable or being hostile toward the child.

Parent's Respect for Child's Autonomy

This scale reflects the degree to which the parent acted in a way that recognizes and respects the validity of the child's individuality. A parent scoring high on this scale acknowledges the child's perspectives and opinions about the family discussion issues and ideas for the tower or bungee jump task.

In contrast, a parent scoring low on this scale would be very intrusive in her/his interventions with the child, exerting her/his expectations on the child in a way that makes the child a satellite or servant of the parent rather than a partner in a mutually negotiated relationship.

A parent who is scoring high on this scale may

- Ask the child's opinion
- Negotiate rule with the child
- Acknowledge the child's perspective
- Validate the child's individual identity

A parent who is scoring low on this scale may

- Use aversive techniques to get her/his way
- Ignore the child's opinion or choice of cards
- Take over the discussion and scold the child
- Lecture for extended period of time
- Make decisions on what cards to pick during discussion or how to do task in tower or bungee jump task
- Intrude harshly or with affection

- Engage in a power struggle with the child in which the child's submission makes her/him the winner
- Interrupt the child several times while s/he is speaking

7. **Very high**. *Parent very clearly interacts with the child in a way that acknowledges the validity of the child's perspective, encourages the child to acknowledge her/his intentions and opinions, and to negotiate the course of interactions in the session.* This parent also models her/his individuality to the child in these negotiated interactions and may insist on the importance of her/his interventions being followed, but s/he does so while acknowledging the reality and validity of the child's differing perspective and never in an intrusive manner.

6. **High**. *For the most part the parent respects the child's autonomy.* S/he is not intrusive over the child; instead s/he acknowledges the child's intentions and opinions. S/he communicates trust in the child's opinions and intentions and ask for the child's opinion. When making suggestions s/he may ask "Do you agree?" and allow for mutually negotiated interaction.

5. **Moderately high**. *Parent does allow the child some autonomy of intentions and opinions, but s/he does not actively support and reinforce this perspective in the child.* S/he may reflect the child's intentions and ideas by engaging the child, but s/he also exerts her/his will at times over the child in a way that shifts the child's perspective.

4. **Moderate**. *Parent shows moderate respect for the child's autonomy; s/he is also moderately intrusive and may spend some time lecturing the child or ignoring the child's opinion.* S/he might do very little to support the validity or the child's opinions and ideas. S/he might communicate doubts to the child about the appropriateness of having her/his own opinions and ideas and intrude abruptly on the child several times.

3. **Moderately low**. *Parent does not completely deny the child's individuality, but s/he effectively communicates that the child's intentions and opinions do not have validity compared to her/his own intentions and opinions for the child.* S/he also intrudes strongly on the child's behavior showing signs of a power struggle and giving the child little chance to do anything on her/his own.

2. **Low.** *Parent denies the child's individuality,* but there are a few opportunities for the child to experience autonomy, whether by variation in parent's approach or simply by occasional absence of parental controls over the child. Mostly, however, this parent's style denies the child's autonomy.

1. **Very low**. *Parent strongly denies the child's individuality in the techniques s/he uses.* Parent is very intrusive, physical and forceful in controlling the child.

Stimulation of Cognitive Development

This scale measures the quality of cognitive stimulation rather than quantity and the degree to which the parent tries to foster her/his child's cognitive and mental development. A stimulating parent may take advantage of any activity to stimulate development. S/he will instruct the child and/or engage the child in a variety of explicit activities with the intent to facilitate learning, development, and achievement. Parents who focus or encourage the child to be involved should not be given a high score. Highly stimulating

parents want to help their child acquire new skills, illustrate or teach concepts, and ask questions that encourage problem-solving.

A parent using high stimulation would include:

- perspective taking and plan development
- finding groups of problems
- problem reduction
- how parent's feel differently

A parent using age-appropriate stimulation would include:

- explaining basic reasoning
- providing a simple model of consequential thinking
- asking about and making a plan to approach the task
- ask reasonable questions

7. **Very High**. Parent provides cognitive stimulation that *clearly seeks to stimulate a higher level of mastery, understanding, or sophistication and does so several times*, indicating that s/he is taking advantage of this activity as a learning experience for the child.

6. **High**. Parent provides *more than one instance of cognitive stimulation that clearly seeks to stimulate a higher level of mastery, understanding, or sophistication.*

5. **Moderately High**. *Parent provides one instance of stimulation* which clearly seeks to stimulate a higher level of mastery or sophistication and other instances of age appropriate stimulation without the features of the higher scores.

4. **Moderate**. Parent provides *age-appropriate cognitive stimulation* during the session, but none which clearly seeks to stimulate a higher level of mastery or sophistication in the child.

3. **Moderately Low**. Parent provides *moderate stimulation in a few instances (3-4)*, but most of the interaction is not characterized by cognitive stimulation.

2. **Low**. *Parent occasionally provides weak stimulation.* Any stimulation s/he provides is very poorly matched to the child's developmental level.

1. **Very Low**. *Parent Provides no cognitive stimulation.* The parent makes no attempt to stimulate or teach anything and is totally uninvolved.

Quality of Assistance

The important features or this rating are how well the parent structures the situations so that the child knows the task objectives and receives hints or corrections while solving the problems. The parent's approach suggests that s/he has some sort of a plan for how her/his guidance will help the child.

A parent scoring high would give:

- timely focus and paced at a rate for comprehension
- parent answers question within a reasonable time
- graded in logical steps that the child can understand and develop a plan together
- stated clearly without unnecessary digressions to unrelated aspects of the task

A parent scoring low would:

- be completely uninvolved
- dominate the task so that the child becomes uninvolved

7. **Very High**. *Parent demonstrates almost all the characteristics of effective instruction consistently throughout the session.* The task is sufficiently structured so that the child understands the objectives and can attempt to solve the problems directly. Parent's assistance is coordinated to the activity and the child's needs for guidance.

6. **High**. *Parent demonstrates most of the desirable features for this rating* and in general the parent appears to provide good help throughout the session.

5. **Moderately High**. *Parent generally provides guidance that is sufficient and appropriate,* but there are some periods when it is inadequate in amount or quality.

4. **Moderate**. Parent provides effective structure and guidance for the child to work on tasks during much of the session, *but overall her/his assistance is lacking at several points during the session.*

3. **Moderately Low**. Parent adequately structures some portions of the activity and provides some guidance, *but her/his assistance is inadequate for much of the session.* Alternatively, the parent may approach the task in a way that is very structured but requires the child to attend primarily to her/his directives and allows little opportunity for the child to engage in the task directly.

2. **Low**. *Parent occasionally gives effective guidance.* S/he may be able to structure the activity so that the child understands the goals and gives a few helpful hints to the child, but these are minimal compared to the ineffectiveness of most of her/his attempts or lack of attempts.

1. **Very Low**. *The parent's guidance is of uniformly poor quality.* S/he is totally uninvolved or fails to provide needed structure. S/he gives clues that are of no help to the child and appear to embody no effective plan of teaching.

<u>Parent Hostility</u>

This scale reflects the parent's expression of anger, discounting or rejecting of the child or the child's ideas. A parent scoring high on this scale would clearly and overtly reject the child, blame her/him for mistakes, and otherwise make explicit the message that s/he does not support the child emotionally. A rejecting parent may also show some supportive presence (and the inconsistency of her/his behavior would be revealed by these two scores). Given the low frequency and the clinical relevance of rejecting one's child during a videotaped session, any events which are clearly hostile should be weighted strongly in this score. A parent scoring low on this scale may or may not be supportive, but s/he does not blame or reject the child.

A parent scoring high would:

- point out child's weaknesses
- put the child down
- use a negative or sarcastic tone of voice
-sigh, shake her/his head, or roll her/his eyes
- give a stern look
-argue with child
- verbally disapprove of child or child's attributes, activities, products, or choices
     * "That's not quite right, sweetie"
     * "Stop that."
     * "Will you stop whining?"
     * "Shut up."
- use antagonistic, aversive, hurtful, or restrictive touch
     * hitting or shaking
     * restraining child's arm while saying, "Stop that!"

A parent scoring low would:

- use constructive criticism
- seem generally accepting of child

7. <u>Very high.</u> This parent shows characteristics of the previous scale point, but expressions of anger toward the child also are accompanied by strong, barely controlled emotions, suggesting the possibility of physical abuse and neglect of the child in some situations.

6. <u>High.</u> This parent has frequent expressions of rejection and hostility directed toward the child. There is little or no effort to show warmth during substantial portions of the session, especially after parent becomes irritated with the child (e.g. parent may initially be warm and then rejects the child strongly). Parent is frankly and directly rejecting and hostile (e.g. telling the child s/he will leave her/him behind if s/he does not do the task, using negative performance feedback, but little positive feedback, blaming the child for incompetence on the tasks, and overtly refusing to recognize the child's success, (e.g. "You couldn't have done it without me showing you!"). Any warmth seems superficial related to the parent's distancing from the child, rejection is used as a control technique against the child.

5. **Moderately high.** Parent is overtly rejecting or hostile several times. Behaviors include overt and clearly communicated rejections of child and expressions of hostility or anger which appear intermittently through substantial periods of the session. This parent's behavior is more rejecting than not, either by the frequency of hostile behavior or by the potency by which rejection is communicated several times in the session.

4. **Moderate.** Several instances of hostile or rejecting behaviors. Two or more of these events are reliably clear to observers, but expressions are brief and do not set the tone of parent's interactions immediately following the episodes.

3. **Moderately low.** Signs of hostility again are very fleeting, but they occurred on several occasions during the session and at least one sign could be identified as clear and overt or an accumulating sense of unexpressed anger and avoidance toward the child was seen in the parent's behavior.

2. **Low.** The parent conveys a little hostility once or twice. The messages are not overt, but muted forms of hostility (e.g. pulling away, pulling something away from child with a jerk, brief displays of exasperation, looking at the child coldly for a brief time, parroting or mimicking the child). The parent may show a diffuse level of discontent, boredom, or discomfort, but it is not directed at the child.

1. **Very low.** Parent shows no signs of rejection. S/he may or may not be supportive, but s/he does not try to put down the child or avoid the child in rejecting ways. Passive or emotionally uninvolved parents would be included in this scale point if the parent did not reject the child or communicate hostility toward the child. The parent may tease the child with a negative content, but with accompanying humor or warmth.

*Note: If a parent's hostility *during the discussion task* is rated as a 2, her/his *overall* hostility cannot be rated as a 1. Similarly, if a parent's hostility *during the discussion task* is rated as a 3, her/his *overall* hostility cannot be rated lower than a 3.

Child Agency

Throughout the interactive tasks, the child acts with vigor, confidence, and eagerness to complete the tasks. Child takes an active interest in participating along with the parent, invests sincere effort and energy, and appreciates accomplishments both as an individual and a team member. Agency includes a sense of coordination between affect and behavior. The child appears well integrated and comfortable directing her/his energy appropriately when interacting with the parent. Agency must be scored for goal-oriented behavior when interacting or discussing task objectives with the parent (insofar as parent defines goals relevant to the task or situation). Other goals or expressions or unnecessary levels of excitement may be in service of distracting the parent, winning approval, etc., and would not represent agency here. A child scoring high:

- enjoys activity
- displays confidence
- participates actively
- shares ideas/offers solutions
- expresses opinion
- displays overall positive affect

A child scoring low on this scale would display:

- disinterested in task
- lack of confidence
- lack of active involvement
- physical/emotional withdrawn
- ignores/doesn't respond to ideas
- flat/negative affect

7. **Very high.** *Child shows high agency and consistent enthusiasm throughout the interactive session.* Child approaches problem solving and parental interactions positively, revealing goal directed intent. Challenges and difficulties do not appear frustrating for the child; rather, the child continues to persist using effective internal strategies. The child has great confidence that the situation will turn out well and that s/he can trust in her/himself and the support of her/his parent without fear of rejection. Overall, the child is eager and wants to be involved showing a harmonious progression throughout the session.

6. **High.** Child demonstrates agency, enthusiasm and coordinated affect. Behavior for the most part of the session is positive when interacting with the parent. The child demonstrates high levels of self-motivation, confidence, and approves of her/his contributions as a team member. *Only minor periods may occur when this is not the case.* Overall, the child is genuinely eager to complete the tasks successfully.

5. **Moderately high.** The child displays agency for much of the session and is basically interested in and enthused about the activities. There are occasions when the child appears genuine and enthusiastic about successfully completing tasks and/or times when there is a sense of harmony between affect and behavior. *However, s/he also has moments in which this is not the case. In other words, the child may be engaged in the task, but display low or flat affect.*

4. **Moderate.** *Child shows a mixture of enthusiasm and restraint or superficiality of effort.* This may occur because the child is very slow in "warming up" to the potential of the situation or because her/his enthusiasm waxes and wanes and s/he is not reliably invested in the activities.

3. **Moderately low.** *Child shows occasional moments of agency and active, participation, but primarily s/he does not engage in the situation in this way.* The child appears more apt to show interest, but hesitates when engaging in parental discussions or task planning. The child may appear to show a spark of interest when transitioning between tasks, but this is superficial in that a slow decline in agency soon becomes evident.

2. **Low.** *Child generally does not display agency.* Child does show some interest in interacting with the parent on discussion or planning tasks. The child may appear engaged in the activity of building the tower of toothpicks or the egg bungee jump, but is mostly restrained, or hesitant in becoming too involved.

1. **Very low.** *Child displays no agency in discussion activities or interactive task performance.* Child seems hesitant to engage in problem solving efforts, answering or asking questions, and shows no initiative in planning strategies alongside the parent. The child shows extreme lack of confidence or assertiveness as a team player and appears disinterested in participating in the task.

Child Negativity

This code assesses the overall level of externalizing negative affect demonstrated by the child. Externalizing negative affect can be anger, hostility, frustration, or oppositional defiance. Specific behaviors that demonstrate this can include: a) repeatedly disagreeing with parent in a disrespectful manner; b) using sarcasm or interrupting parent; c) using annoying tone of voice; d) bossy demands; e) name calling; f) throwing things; g) back-talk; h) goofing around in a noncompliance manner; i) using an angry tone of voice; j) hitting or kicking; k) glowering face; l) showing anger or resistant expression; m) being unreasonably demanding or critical; n) losing his/her temper. The lower end of this scale is characterized by an absence of negative affect behaviors; the child may express internalizing negative affect, positive affect, or little affect at all.

1 - **Not at all characteristic.** *The child expresses virtually no externalizing negative affect.* The child does not express frustration, tension, or anger. The child does not whine or complain.

2 - **Low.** *The child expresses externalizing negativity only briefly in any overt fashion, but these suggest some anger or resistance in the child's interaction with the parent.* The child may roll his/her eyes, once or twice, have a tone of voice that is not as positive as one would expect in this kind of interaction. He/she may make one brief negative statement/comment towards the parent.

3 - <u>Moderately low</u>. *The child expresses small amounts of negative affect.* This may be seen in occasional expressions of frustration, tension, or anger that is mostly mild in intensity. At least two negative comments are directed toward the parent. The child may also be goofing around in a noncompliance manner for less than half of the interaction.

4 - <u>Moderate</u>. *The child expresses some negative affect, including some frustration, tension or anger that is clear and obvious* but that does not set the tone of voice for the rest of the interaction. At least three occasions of negativity are seen one of which is significant.

5 - <u>Moderately high</u>. *The child expresses negativism towards the parent several times during the interaction.* He/she may use an angry tone of voice, show some angry facial expression, sarcasm or talk back to the parent several times during the interaction. There are two strong and intense occasions of negativism but these behaviors are not predominant feature throughout the interaction.

6 - <u>High</u>. *The child's anger or frustration / sarcasm is a predominant aspect of their interactions and sets the tone of voice for most of the interaction.* However, at no time does the negativity get out of control.

7 - <u>Very high.</u> The child expresses frequent negative affect, which is clear, obvious, and of moderate to high intensity. *The child's negativity may appear to be on the verge of being out of control* (e.g. hitting, kicking or throwing things).

<u>Child Persistence</u>

This is a measure of the extent to which the child actually was involved in the discussion and the tower task or egg bungee jump task in the session. At the low extreme, the child shows no involvement in the discussion and the tower task or egg bungee jump, refuses to become involved, and either flees or spends her/his time in off-task activities At the high end, the child is actively engaged with the tasks and works persistently either directly on her/his own or through parent's mediating suggestions (regardless of how good the child or parent's skills really are). The child may be either sober or playful; persistence does not necessarily include enthusiasm. The child may be responsive or not to the parent's directions as long as s/he shows motivation toward engagement with the tasks. The observer should consider this rating to reflect the child's involvement in the discussion and tower task or egg bungee jump task regardless of the degree to which parent was instrumental in creating the persistence.

A child with high persistence displays:
- On task behavior
- Offers ideas, asks questions
- High quality of engagement

A child with a low level of persistence is:
- Easily distracted, inattentive
- Bored
- Fidgety, squirmy
- Inattentive

7. <u>Very high.</u> Child is persistent *throughout the session.*

6. **High.** Child persists in activities across *most of the session*. S/he loses interest or concentration only briefly within an overall pattern of involvement with the tasks. During the course of the interaction, there is only one brief instances when the child displays off-task behaviors.

5. **Moderately high.** Child devotes relatively large periods of attention to and engages in the tasks with regularity. S/he gives sustained attention for periods of time with clear involvement. *Her/his persistence occasionally wanes.* Off-task behaviors may be seen two or three times.

4. **Moderate.** Child sustains some long periods of involvement in the tasks, *but clearly loses interest for some periods of time.*

3. **Moderately low.** Child engages in tasks with some persistence or concentration *but s/he has no long periods of concentration.*

2. **Low.** Child is engaged in the tasks *but always superficially and never with effort* or concentration.

1. **Very low.** Child displays *no involvement* in the discussion and the tower task or egg bungee jump task. S/he seems to want no part in the activities.

*   Note: A child who engages much of the time because of constant efforts by the parent to return the child to the task should not get a 6 or 7, even though the child was engaged with all the materials.

Child's Affection Towards Parent

This scale reflects whether there was a substantial period of positive regard and sharing of happy feelings of the child toward the parent. Although the child also might become angry or avoid the parent elsewhere in the session, a high rating still could be given if some portions of the session met the criteria of this scale. The criteria of this scale are evidences that the child approached and attempted to share positive affects with the parent. In addition, affection toward the parent includes the ability of the child to elicit positive expression from the parent such that a continued reciprocal interaction can be maintained.

At the high end of the scale, the child is able to not only initiate positive expressions toward the parent, but is also able to maintain such a "bout." The intensity of expression is not particularly relevant to this rating, but rather the frequency with which the child shares positive affect with parent—looking at parent, making eye contact and smiling, sharing successes and other "approach" behavior affectively.

At the lower end of the scale, the child may direct a few positive expressions to the parent and may elicit a positive expression in return. However, he or she does not sustain a "bout" of shared expressions with the parent.

High:
-say "I Love You"
- kiss or hug parent
-sits on parent's lap
-gently touch parent
-share a bout (small or long) with parent

Low:
-have poor eye contact
-not return parent's smile
-not join parent in laughter
-do NOT share a bout with the parent

7. **Very high.** the child demonstrates a very positive, engaging, and sharing relationship toward the parent for a substantial period of the session. More than one long "bout" of sharing positive with the parent is observed during the 15 minute interaction. The parent and child may have problems at times during the interaction, but the child's relationship with the parent seems very warm and positive for a major portion of the session.

6. **High.** The existence of a "bout" of sustained positive expression and sharing these feelings with the parent is quite clear in terms of: a). the duration of such interaction is long enough for several exchanges of positive expression to occur, and b). the lack of ambivalence in the child's expression of feelings toward the parent. Clearly this child was expressive, warm, and engaging of the parent for at least one substantial period of the session. Two short bouts or 1 long bout qualify for this rating.

5. **Moderately high.** The child has one or more periods in which s/he sustains in expressing positive regard and sharing happy expressions with the parent. The child seems to maintain the positive regard toward the parent sufficiently to allow short "bouts" of sharing positive expressions with the parent. During such bouts, the child also does not seem to shy away from having an emotional bond with the parent (although this may happen at another time in the session).

4. **Moderate.** Child shares some of her/his happy expressions with parent, but again these are only minor elements of interaction and are not sustained by the child for more than a moment at a time. Thus, the behaviors are expressed repeatedly and/or clearly, but do not reflect a "bout" of the child closely sharing her/his affect with parent. Child displays at least three clear incidents of positive regard.

3. **Moderately low.** Child shares some positive regard, but it is brief. Possibly, child seems ambivalent in such expressions. Child displays one or two clear incidents of positive regard.

2. **Low.** Child has very minor incidents which seemed expressive of positive regard toward parent and from which one might infer some positive feelings are expressed toward her/him. Yet, child largely shows no positive regard toward her/him.

1. **Very low.** Child clearly does not attempt to share experiences with parent. Signs such as failure to make eye contact with parent when expressing happiness, directing expressions of success to the experimenter, but not to the parent, and similar clues can be used as evidence that the child attempts little sharing of feelings with parent.

*Overall score should reflect a quantitative rating of both tasks (e.g. if the score for both tasks is a 5, the overall score would be a 6).

Felt security/Affective mutuality

This scale assesses the level of emotion exchanged and reciprocated between parent and child. There is an emphasis on the child having a sense that the parent has his/her own best interest in mind, while both individuals share a genuine concern and positive regard for one another. There is an emphasis on verbal and non-verbal communication; what the parent or child might communicate and how they do it (i.e. body language, verbalizations). Open and free communication will be marked by a harmonious exchange of emotions revealing a sense of personal involvement and engagement. Availability of affect is marked by the parent's tone of voice communicating warmth, respect and regard for the child. At the high end of the scale dyads almost always have a moment of shared emotion that is pleasurable and intimate. At the low end of the scale, closed communication or lack of mutuality will be reflected during an interactions stifled by, restricted, non-reciprocal and closed behavior. One might also see a veneer of intimacy or superficiality attempting to mask an impoverished interaction. The rater must be alert to the subtle cues that reflect a balance or imbalance of emotions. As an example the coder might witness an individual's (parent or child) display of conflict or discontent that serves to stifle, dampen or negate the emotional expression of the other.

A dyad with a high level of felt security:
- shares/reciprocates emotions
- shows genuine concern about one another
- utilizes verbal and non-verbal communication
- displays warmth, respect
- highest level: at least one moment of shared positive emotional expression

A dyad with a low level of felt security:
- has closed/limited communication
- lacks of mutuality
- expresses restricted, non-reciprocal emotions
- displays superficiality

7. **Very High** It is apparent that this dyad truly enjoys each other's company and a sense that both parent and child share the experience. The dyad consistently displays a genuine concern for each other that may be expressed through smiling, shared laughter, eye-to-eye/face-to-face contact. The dyad may sit in very close proximity to one another and expresses their mutual affection through physical touching or caressing. Emotions and communication flows freely and comfortably. Rarely are dampening behaviors displayed by either partner. *There must be a display of at least one sustained bout of reciprocally communicated, positive emotion of a shared experience; one that merits at least a 6 or above on AFFECTION.*

6. <u>High.</u> This dyad may appear very similar to a 7 though a somewhat less active and overt exchange of emotions is noted. The child appears confident and appreciated by the presence of the parent. Positive regard is expressed through behavior that is warm and relaxed, even if there is little eye or face-to-face contact

5. <u>Moderately high</u>. *In an otherwise relaxed interaction, isolated periods of conflict or avoidance may be apparent to the coder.* Additionally, parent and child may display interchanges in which their emotional experiences differ due to a possible disagreement in opinion, but there is an attempt to reconcile their differences without developing a grudge towards the other.

4. <u>Moderate</u> Dyads begin to reveal a mixture of both warmth and more restrictive, tense behaviors. Moments of aggravation, avoidance and disengagement may become apparent. It is possible that dampening messages are communicated in a covert manner, by parent or child. *However, despite bouts of tension, there is a sense the dyad like each other, but are struggling to figure it out a bit.*

3. <u>Moderately low</u> This dyad display no bouts of sustained emotion; instead there is an increased emphasis on avoidance of emotion, negative emotion and especially non-mutual emotion. *Minimal moments of warmth and positive regard are evident.*

2. <u>Low</u> This dyad appears cold and/or emotionless. The parent or child may appear threatened by the other's behavior and emotion showing signs of disengagement or avoidance. *A consistent level of conflict is more evident for this dyad and both individuals may show signs of being annoyed or upset.*

1. <u>Very low</u> There are three possibilities: 1) the dyad appear completely disengaged or 2) there is apparent underlying conflict or ambivalence (dyad appear as if they would rather be elsewhere) or 3) parent and child have very little coordinated emotion and appear emotionally disconnected. There may be underlying tension and anger, or the parent and child may appear threatened by the other's behavior. *No attention is paid to the other in terms of warmth or personal regard.*

Fifth Grade Father/Child Interaction Task
Coding Form

CHILD ID # _____   TAPE # _____

CODER # _____   DATE TAPE RECEIVED_____

1 = Very Low	5 = Moderately High
2 = Low	6 = High
3 = Moderately Low	7 = Very High
4 = Moderate	9 = Uncodeable/missing

TASK # 1

Father Ratings

1. Supportive Presence	1	2	3	4	5	6	7	9
2. Respect for Child Autonomy	1	2	3	4	5	6	7	9
3. Stimulation of Cognitive Development	1	2	3	4	5	6	7	9
4. Quality of Assistance	Was not coded for Task 1							
5. Father Hostility	1	2	3	4	5	6	7	9

Child Ratings

6. Child Agency	1	2	3	4	5	6	7	9
7. Child Negativity	1	2	3	4	5	6	7	9
8. Child Persistence	1	2	3	4	5	6	7	9
9. Affection Toward Father	1	2	3	4	5	6	7	9

Dyadic Rating

10. Affective Mutuality/Felt Security	1	2	3	4	5	6	7	9

TASK # 2

Father Ratings

1. Supportive Presence	1	2	3	4	5	6	7	9
2. Respect for Child Autonomy	1	2	3	4	5	6	7	9
3. Stimulation of Cognitive Development	1	2	3	4	5	6	7	9
4. Quality of Assistance	1	2	3	4	5	6	7	9

5. Father Hostility	1	2	3	4	5	6	7	9

Child Ratings

6. Child Agency	1	2	3	4	5	6	7	9
7. Child Negativity	1	2	3	4	5	6	7	9
8. Child Persistence	1	2	3	4	5	6	7	9
9. Affection Toward Father	1	2	3	4	5	6	7	9

Dyadic Rating

10. Affective Mutuality/Felt Security	1	2	3	4	5	6	7	9

OVERALL RATINGS

Father Ratings

1. Supportive Presence	1	2	3	4	5	6	7	9
2. Respect for Child Autonomy	1	2	3	4	5	6	7	9
3. Stimulation of Cognitive Development	1	2	3	4	5	6	7	9
4. Quality of Assistance	1	2	3	4	5	6	7	9
5. Father Hostility	1	2	3	4	5	6	7	9

Child Ratings

6. Child Agency	1	2	3	4	5	6	7	9
7. Child Negativity	1	2	3	4	5	6	7	9
8. Child Persistence	1	2	3	4	5	6	7	9
9. Affection Toward Father	1	2	3	4	5	6	7	9

Dyadic Rating

10. Affective Mutuality/Felt Security	1	2	3	4	5	6	7	9

CHAPTER 72

SECTION 15

PROCEDURE FOR ADMINISTERING

MOTHER-CHILD INTERACTION

6th SCHOOL YEAR LAB ASSESSMENT:

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CHAPTER 72

SECTION 15

PROCEDURE FOR ADMINISTERING

MOTHER-CHILD INTERACTION

6th SCHOOL YEAR LAB ASSESSMENT:

I.   **OVERVIEW**

The mother-child interaction tasks in fifth grade will be videotaped during the lab visit. The tasks are designed to assess the quality of the parent-child interaction in a discussion task and during a shared problem-solving activity. The rating scales to be used with these videotaped interactions will assess qualities of parenting such as supportive presence, respect for autonomy, hostility, and quality of assistance. In addition, the rating scales will address several aspects of the child's emotional regulation in the context of the parent-child dyad such as agency, persistence, and negativity. Features of the dyad, such as goal-directed partnership and felt security, will also be assessed.

The interaction procedure is comprised of two activities. The first activity—FAMILY ISSUES—involves mother and child in a discussion task. The second activity—EGG BUNGEE JUMP—is a problem solving activity that involves the construction of a bungee jump for an egg.

II.   **GENERAL INFORMATION AND GUIDELINES**

Instructions for each activity are to be given just before that interaction activity is conducted (see below for details). Interruptions in the activities should be avoided but may occur if the mother or child requests terminating the taping or if the participants are significantly interrupted for some reason. If a break must occur during one of the activities, the activity should be resumed if possible.

Throughout the taping, the cameraperson should be capturing both the parent and the child on videotape, moving the camera if necessary to do so. Technical details for videotaping are provided below.

III.   MATERIALS

Materials and information about the materials to be purchased for this activity are described in detail below. Each site is responsible for purchasing its own materials.

A. Family Issues Discussion Task

One set of *Family Issues* cards is needed. Colored, laminated, 3"x5" cards should be made with a single "family issue" statement on each card. The following topics should be written on the cards (22 in each set):

- Bedtime
- Playing computer or video games
- Television
- Swearing
- Privacy
- Pets
- After-school activities
- Honesty or lying
- Eating habits
- Manners
- Respect for others
- Chores
- Money
- Music
- Sports
- Taking responsibility
- School, homework
- Clean room
- Personal appearance
- Fighting with sisters or brothers
- Friends
- Problems with other kids

The set of cards should be shuffled between each mother-child dyad to prevent any set order of presentation of the cards.

B. Egg Bungee Jump Activity

For this activity, a PVC pipe frame (described below) will be used as a launch site. It will be placed on a low table (coffee table height, approximately 24" high). If the child is too short to easily reach the top of the launch site, place the launch site on the floor. A shallow plastic container lined with newspaper will serve as a landing site and should be placed on the table under the frame, as shown in the figure below. A shower curtain is placed on the floor under the table and/or frame to protect the floor and also to help position the mother and child during filming.

The PVC pipe frame is easy to assemble. At a large hardware store or home improvement warehouse, such as Home Depot or Lowe's, purchase the materials listed below (usually found in the plumbing section). Assistants in the store should cut the PVC pipes into the lengths specified here.

- 3   1"-diameter PVC pipes, 10' in length, cut into the following lengths:
    - 4   35" in length
    - 2   20" in length
    - 1   17 ¼" in length
    - 4   9" in length
- 1   ½"-diameter PVC pipe, 10' in length, cut into the following lengths:
    - 4   15" in length
- 2   Schedule 40 1" tee joints
- 8   Schedule 40 ½" male adapters
- 8   Schedule 40 1" x 1" x ½ " side outlet elbow joints

The PVC pipe frame should be built according to the drawing shown in the Appendix A. If you are unable to obtain the various joints specified, call the assistants at UT-Dallas (972-883-6802) and they will obtain them for you.

The dyad should be given a shoebox containing the following materials:
- A raw egg, contained in a snack-size zip-lock bag
- Nylon panty hose
    (No Nonsense, regular, size B)
- Plastic egg (similar to the size of a real egg)
- 40 pennies (place in zip lock plastic bag)
- 12" ruler
- Scissors
- Paper towels
- Newspaper
- Roll of masking tape
- Rubbermaid Fashion Clears plastic storage box (4.5 gal/17 L) or similar box

Note: A new egg and pair of stockings will likely be needed for each dyad.

IV.   **LOCATION OF ACTIVITY**

The activities for the parent-child interactions should be conducted at a low table, approximately 24" x 36" and 24" high. Chair should be provided for the mother and child for the discussion task and removed for the bungee jump activity. If the child is too short to comfortably reach the top of the launch site when it is placed on the low table, it should be placed on the floor. A shower curtain should be placed on the floor with the table and/or launch site at the front edge of the curtain to allow approximately 34" behind the table and 20" on each side of the table. Ask the parent and child to work on the bungee jump activity from behind the table or launch site staying on the shower curtain so that their backs won't be facing the camera. The location of the camera should be indicated to the parent and child and they should be asked to orient themselves so that they can be seen by the camera. If they move to positions that obscure viewing their expressions, and they remain in those positions, you can interrupt the activity to ask them to reposition themselves.

A clock should be present in the room, visible so that parent and child can check the time if they wish.

If the sound system in your lab is not sensitive, use a unidirectional external microphone placed between the mother and child or clip-on microphones for each participant to provide the best possible audio recording.

V.   INSTRUCTIONS

Activity 1: Family Issues Discussion Task.

Show mom and child where to sit. Shuffle cards. Stand next to child.

As we've done in the past, we want to videotape some activities that you and _____ can do together. In the first activity, I will videotape you while you talk together about some topics you'll choose. The second activity involves solving a problem and building something together. I'll explain more about the second one later, after you've finished the first activity.

First, I would like you to discuss some topics that kids and parents often disagree about. These cards contain different issues such as homework, chores, television and the like.

Show cards but do not give them yet.

Go through the cards and decide together which ones are your top three areas of disagreement or difficulty. After you've found your top three, talk together about each one and try to resolve some of your difficulties. You may not have time to thoroughly discuss all three issues but you will have 7 minutes to try to make some progress. Do you have any questions?
Give cards to child.

I'll come back in when the time for this activity has ended. You can begin.

Leave room.

<u>Activity 2: Egg Bungee Jump</u>.

I'll explain all this stuff once I am set up!

Bring in the equipment – place shower curtain on rug, place table as marked on curtain

_____, *let me check that you can reach the top of this frame. Okay, good!* (*if child cannot reach, slide table aside and put frame on the floor – "there, now you can reach!"*)

I need you to stay on this side of the table and on the shower curtain so I can film you working together.

Let mom and child get situated. Sit on floor with them.

For the next activity, we have a fun science experiment for you to do with your mom. We want you to create a bungee jump for an egg.

For a person, a bungee jump consists of a strong elastic cable that is connected to the person and to a tall platform. When the person jumps off the platform, he bounces up and down without hitting the ground.

Your challenge is to create a bungee jump for a RAW egg so that the egg can fall off this platform and bounce within two inches or less from the table, without actually hitting the table and breaking.

We have a pair of nylons for you to use as the bungee cord, along with some other materials. **Place materials on table/floor between mother and child.**

These instructions may be of some help to you. **Give instruction card to child**.

Do you have any questions?
You have 7 minutes to complete this activity. Have fun!

Tell parent and child to begin and leave the room. Make certain that the camera's position clearly captures both of them. If the dyad breaks the egg within the first 4 minutes, the VC should provide them with a second egg. If the egg hits the table or a leg of the structure, but doesn't smash, a second egg does not need to be provided.

VI. **TECHNICAL CONSIDERATIONS**

A. Location of activity

The lab should be well-lit and with an audio system or microphones that allow the spoken word to be heard clearly from the videotape. If the mother-child interaction is collected in a home visit (as in the case of distant families), follow the instructions contained in the 5th grade father-child interaction manual for setting up the videotaping equipment in the home.

B. What the View Finder Should Show

Use the tripod of the camera to get a relatively straight angle view of the parent and child wherever they position themselves. Keep both the parent and child in view. Film enough in (visually) to be able to see facial expressions, but not so close that you miss gestures, body position changes, etc. Try to get both partners' facial expressions simultaneously; this is best achieved if mother and child are situated at right angles from each other or beside each other and facing the one-way mirrored glass. **You should tell the mother and child where to sit for the discussion task and where to situate for the bungee jump activity so that filming can be optimal. Remind them where the camera is located and that you are trying to capture both of them on film.**

Make certain that parent and child are in focus. Use auto-focus if you can be certain that nothing will come in between the camera and the parent and child, throwing your focus onto

something extraneous. If you use manual focus obtain a sharp focus by making adjustments with the zoom up close. Zoom back out to the proper distance after focusing.

Once you have the appropriate camera location, zoom distance, and focus, make further adjustments only if necessary. Don't tinker with the zoom and focus over the course of the observation unless the mother or child move such that they cannot be clearly seen. To make these ratings, coders must be able to observe both mother and child on the tape. It is also important that coders are able to view the entire interaction. Make sure that the camera is turned on so that the interaction is filmed from the moment the parent and child begin the discussion task. Continue filming while instructions for the bungee jump activity are given.

If parent or child moves into a position with back to the camera or one obscures sight of the other, interrupt the session to ask the mother and child to reposition themselves so that they can be seen on the videotape.

C. Filming Identifying Information on the Tape

As part of the set-up procedures, film a sign on which you have written, (1) Subject ID #, (2) Fifth Grade Lab Visit, (3) Mother-Child Interaction, (4) Date. The sign should appear before the videotaped interaction.

D. Labeling the Outside of the Tape

Tape identification information should be on the tape and on the box of each original and copy videotape. The DCC will provide each site with labels for this purpose. The date of the visit and the VC ID# should be written on the space provided on the label. The labels should be placed on the tape and on the tape box. Number the ID#'s in the order in which the interactions appear on the tape. Do not place any other identifying information on the box or tape. Use the center label to note any unusual circumstances. Double-check that the subject is correct and

matches ID filmed prior to the interaction procedure. Each tape must be checked before mailing for coding. Copy 4 interactions on each tape.

E. Where to Send the Tapes

The copy should be kept at the site and the original mailed to:

Regular Mail:	Express Mail:
Dr. Margaret Tresch Owen	Dr. Margaret Tresch Owen
University of Texas at Dallas	University of Texas at Dallas
Box 830688	Psychology Department
GR41	2601 N. Floyd Road
Richardson, TX, 75083-0688	Richardson, TX, 75080

VII. PROBLEM SOLVING

Any number of circumstances can arise which could potentially hinder the successful implementation and completion of the videotaping of the parent-child interactions. Listed below are several possible problems that might be encountered and recommended solutions. It is impossible to anticipate all possible problems; the data collector should thus maintain an attitude that permits "thinking on his/her feet" in order to successfully confront challenges that might arise. Foremost to keep in mind are the needs of the child and mother and our desire to obtain high quality data.

Try hard to avoid situations and/or solutions that seriously discomfort families and breed resentment that could undermine further participation in the project. At the same time, however, the data collector must be prepared to work hard to find a solution that will enable him/her to obtain the data that is needed.

A. Video malfunction The video camera should be tested before the initiation of taping and at the presumed end of taping. If the video malfunctions at the outset and cannot be fixed, proceed to the next phase of data collection.

Do not spend an inordinate amount of time trying to fix a problem as this could unduly lengthen the visit and/or interfere with collection of any remaining data. If a problem is identified at the end of taping, determine how early it started. If at least 5 minutes of each activity has been taped (with audio), there is no need to make alternate arrangements. If less than 5 minutes of each activity has been collected we may not be able to code the interaction. Apologize to the parent and child and let them know that you would like to reschedule at a later time, if possible, to tape the activities that could not be taped in this visit. Proceed to the next phase of data collection and at the end of the visit, try to schedule a return visit for a repeat of the interaction activity.

B. Parent-initiated or Child-initiated Interruptions If the parent or child requests or demands to stop for any reason, tell the dyad how much time remains for the activity and seek their approval to continue. If it helps, limit each activity to 5 minutes. If parent or child continues to want to stop the taping, terminate taping.

C. Parent or Child Refusal Remember all parents and children have been informed that they can refuse any part of the study they wish, so persuasion to complete any part of the visit must be "soft." If a parent or child refuses such efforts, respect their sentiments. They retain the right to any and all refusal.

If there are physical reasons (i.e. the child is or becomes ill) that would interfere with conducting the interaction activities, do not begin the interaction procedure, and attempt to schedule another visit for the videotaping. As appropriate, proceed with other parts of the visit.

VIII. TRAINING AND CERTIFICATION

The goal in training staff to administer and videotape the parent-child interaction activities is to insure that the tapes document parent-child interaction in such a way that enables

independent scorers to rate qualities of the interaction. Picture quality and sound must be excellent. Instructions must be delivered appropriately. Each VC should make two videotapes of the parent-child interaction for certification of the procedure. Using the monitoring form (see Appendix B), review the tape for correct procedure before mailing it to Margaret Owen's lab at the University of Texas at Dallas. Send certification tapes that meet the criteria listed on the monitoring form.

APPENDIX A: BUNGEE

Bungee 1

Bungee 2

Corner

Cross bar

The NICHD Study of Early Child Care Parent-Child Interaction Scales: Middle Childhood
Margaret Tresch Owen, Julia K. Klausli, & Michelle Murrey
The University of Texas at Dallas
(2000)

5th Grade Parent-Child Interaction
Qualitative Rating Scales for Discussion Task and Building Activity
NICHD Study of Early Child Care and Youth Development

I. Parent Rating Scales:

1.	Supportive Presence ………………………………	14-15
2.	Respect for Child Autonomy ……………………	15-16
3.	Stimulation of Cognitive Development …………	16-17
4.	Quality of Assistance ……………………………	18
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II. Child's Rating Scales:

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III. Dyadic Scale:

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Adapted from:

Egeland, B. & Hiester, M. (1993). *Teaching task rating scales.* Unpublished manuscript. Institute of
    Child Development, University of Minnesota.
Owen, M.T., Ware, A., Vaughn, A., & Barfoot, B. (1996). *The NICHD Study of Early Child Care parent-
    child interaction scales.* Unpublished Manuscript. The University of Texas at Dallas.
Pianta, R.C. (1994). *Rating scales for parent-child interaction in preschoolers.* Unpublished
    manuscript. University of Virginia.

(Revised 3/00/02)

Supportive Presence

A parent scoring high on this scale expresses positive regard and emotional support to the child. S/he should show general involvement in the interaction and affirm the child as a person. A parent scoring low on this scale fails to provide supportive cues; s/he might be passive, uninvolved, aloof, or otherwise unavailable to the child. Such a parent also might give observers the impression that s/he is more concerned about her/his own adequacy and task performance rather than concerned about the child's emotional needs. A potential difficulty in scoring this scale is the need to discount messages of parents that seemingly are supportive in verbal content but are contradicted by other aspects of the communication, signs of such questionable support are improper timing of support, mismatch of verbal and bodily cues, and failure to have the child's attention in delivering the message.

A parent scoring high on this scale should

- pay attention to the child when the child talks (eye contact, body posture)
- be engaged in the interaction; appear to enjoy interacting with the child
- affirm the child as a person (validating choice of cards/plan to build tower; 'That's a good choice for a card'; "That's a good idea for a tower")
- have a positive tone of voice
- give criticism in a constructive not destructive way
- enhance child's self-esteem ('That's not a problem with you' in the discussion task)

A parent scoring low on this scale might

- show some scolding of the child (esp. during the discussion task)
- criticize the child or show disapproval
- appear distant and removed from the child
- not return child's positive affect or initiation of pro-social behavior
- have a mismatch between positive affect and tone of voice (e.g. cynical remarks)

7. **Very High**. Parent skillfully provides support through the session. S/he sets up the situation from the beginning as one in which s/he is confident of the child as a person and the child's ideas and opinions. S/he may redirect the child when appropriate in a way that does not reduce her/his support and confidence in the child as a person. *The parent clearly seems to enjoy the interaction with the child and clearly affirms the child's ideas and the child as a person.*

6. **High**. Parent establishes her/himself as supportive and affirming toward the child and continues to provide support when the child needs it. When the child seems somewhat insecure or withdrawn the parent's support increases in commensurate fashion. *S/he has some lapses, however, in which the child's involvement in the discussion or activity wavers for lack of support or positive feedback.* Yet, s/he then attempts to return the child to a level of involvement that is more optimal.

5. **Moderately High.** Parent provides good support, reassurance and confidence in the child's ability, *but s/he falters in this at times when the child especially could use more support and affirmation.* For the most part the parent seems to enjoy the interaction with the child but there may be some inconsistency.

4. **Moderate.** This parent does a respectable job of being available when her/his child needs support, but s/he has moments of inconsistency. S/he may affirm the child's ideas and the child as a person at times, *but inconsistency in this style makes her/his support unreliable or unavailable periodically during the session.*

3. **Moderately Low.** Parent gives some support *but it is sporadic and poorly timed to the child's needs.* The consistency of this support is uneven so as to make the parent unreliable as a supportive presence.

2. **Low.** Parent provides very little emotional support to the child. *Whatever supportive presence s/he does display is minimal and not timed well.* For the most part the parent does not appear to enjoy interacting with the child and almost never affirms the child as a person.

1. **Very Low.** Parent *completely fails to be supportive to the child,* either being aloof and unavailable or being hostile toward the child.

Parent's Respect for Child's Autonomy

This scale reflects the degree to which the parent acted in a way that recognizes and respects the validity of the child's individuality. A parent scoring high on this scale acknowledges the child's perspectives and opinions about the family discussion issues and ideas for the tower or bungee jump task.

In contrast, a parent scoring low on this scale would be very intrusive in her/his interventions with the child, exerting her/his expectations on the child in a way that makes the child a satellite or servant of the parent rather than a partner in a mutually negotiated relationship.

A parent who is scoring high on this scale may

- Ask the child's opinion
- Negotiate rule with the child
- Acknowledge the child's perspective
- Validate the child's individual identity

A parent who is scoring low on this scale may

- Use aversive techniques to get her/his way
- Ignore the child's opinion or choice of cards
- Take over the discussion and scold the child
- Lecture for extended period of time
- Make decisions on what cards to pick during discussion or how to do task in tower or bungee jump task
- Intrude harshly or with affection

- Engage in a power struggle with the child in which the child's submission makes her/him the winner
- Interrupt the child several times while s/he is speaking

7. **Very high**. *Parent very clearly interacts with the child in a way that acknowledges the validity of the child's perspective, encourages the child to acknowledge her/his intentions and opinions, and to negotiate the course of interactions in the session.* This parent also models her/his individuality to the child in these negotiated interactions and may insist on the importance of her/his interventions being followed, but s/he does so while acknowledging the reality and validity of the child's differing perspective and never in an intrusive manner.

6. **High**. *For the most part the parent respects the child's autonomy.* S/he is not intrusive over the child; instead s/he acknowledges the child's intentions and opinions. S/he communicates trust in the child's opinions and intentions and ask for the child's opinion. When making suggestions s/he may ask "Do you agree?" and allow for mutually negotiated interaction.

5. **Moderately high**. *Parent does allow the child some autonomy of intentions and opinions, but s/he does not actively support and reinforce this perspective in the child.* S/he may reflect the child's intentions and ideas by engaging the child, but s/he also exerts her/his will at times over the child in a way that shifts the child's perspective.

4. **Moderate**. *Parent shows moderate respect for the child's autonomy; s/he is also moderately intrusive and may spend some time lecturing the child or ignoring the child's opinion.* S/he might do very little to support the validity or the child's opinions and ideas. S/he might communicate doubts to the child about the appropriateness of having her/his own opinions and ideas and intrude abruptly on the child several times.

3. **Moderately low**. *Parent does not completely deny the child's individuality, but s/he effectively communicates that the child's intentions and opinions do not have validity compared to her/his own intentions and opinions for the child.* S/he also intrudes strongly on the child's behavior showing signs of a power struggle and giving the child little chance to do anything on her/his own.

2. **Low.** *Parent denies the child's individuality,* but there are a few opportunities for the child to experience autonomy, whether by variation in parent's approach or simply by occasional absence of parental controls over the child. Mostly, however, this parent's style denies the child's autonomy.

1. **Very low**. *Parent strongly denies the child's individuality in the techniques s/he uses.* Parent is very intrusive, physical and forceful in controlling the child.

Stimulation of Cognitive Development

This scale measures the quality of cognitive stimulation rather than quantity and the degree to which the parent tries to foster her/his child's cognitive and mental development. A stimulating parent may take advantage of any activity to stimulate development. S/he will instruct the child and/or engage the child in a variety of explicit activities with the intent to facilitate learning, development, and achievement. Parents who focus or encourage the child to be involved should not be given a high score. Highly stimulating

parents want to help their child acquire new skills, illustrate or teach concepts, and ask questions that encourage problem-solving.

A parent using high stimulation would include:

- perspective taking and plan development
- finding groups of problems
- problem reduction
- how parent's feel differently

A parent using age-appropriate stimulation would include:

- explaining basic reasoning
- providing a simple model of consequential thinking
- asking about and making a plan to approach the task
- ask reasonable questions

7. **Very High**. Parent provides cognitive stimulation that *clearly seeks to stimulate a higher level of mastery, understanding, or sophistication and does so several times*, indicating that s/he is taking advantage of this activity as a learning experience for the child.

6. **High**. Parent provides *more than one instance of cognitive stimulation that clearly seeks to stimulate a higher level of mastery, understanding, or sophistication.*

5. **Moderately High**. *Parent provides one instance of stimulation* which clearly seeks to stimulate a higher level of mastery or sophistication and other instances of age appropriate stimulation without the features of the higher scores.

4. **Moderate**. Parent provides *age-appropriate cognitive stimulation* during the session, but none which clearly seeks to stimulate a higher level of mastery or sophistication in the child.

3. **Moderately Low**. Parent provides *moderate stimulation in a few instances (3-4)*, but most of the interaction is not characterized by cognitive stimulation.

2. **Low**. *Parent occasionally provides weak stimulation.* Any stimulation s/he provides is very poorly matched to the child's developmental level.

1. **Very Low**. *Parent Provides no cognitive stimulation.* The parent makes no attempt to stimulate or teach anything and is totally uninvolved.

Quality of Assistance

The important features or this rating are how well the parent structures the situations so that the child knows the task objectives and receives hints or corrections while solving the problems. The parent's approach suggests that s/he has some sort of a plan for how her/his guidance will help the child.

A parent scoring high would give:

- timely focus and paced at a rate for comprehension
- parent answers question within a reasonable time
- graded in logical steps that the child can understand and develop a plan together
- stated clearly without unnecessary digressions to unrelated aspects of the task

A parent scoring low would:

- be completely uninvolved
- dominate the task so that the child becomes uninvolved

7. **Very High**. *Parent demonstrates almost all the characteristics of effective instruction consistently throughout the session.* The task is sufficiently structured so that the child understands the objectives and can attempt to solve the problems directly. Parent's assistance is coordinated to the activity and the child's needs for guidance.

6. **High**. *Parent demonstrates most of the desirable features for this rating* and in general the parent appears to provide good help throughout the session.

5. **Moderately High**. *Parent generally provides guidance that is sufficient and appropriate,* but there are some periods when it is inadequate in amount or quality.

4. **Moderate**. Parent provides effective structure and guidance for the child to work on tasks during much of the session, *but overall her/his assistance is lacking at several points during the session.*

3. **Moderately Low**. Parent adequately structures some portions of the activity and provides some guidance, *but her/his assistance is inadequate for much of the session.* Alternatively, the parent may approach the task in a way that is very structured but requires the child to attend primarily to her/his directives and allows little opportunity for the child to engage in the task directly.

2. **Low**. *Parent occasionally gives effective guidance.* S/he may be able to structure the activity so that the child understands the goals and gives a few helpful hints to the child, but these are minimal compared to the ineffectiveness of most of her/his attempts or lack of attempts.

1. **Very Low**. *The parent's guidance is of uniformly poor quality.* S/he is totally uninvolved or fails to provide needed structure. S/he gives clues that are of no help to the child and appear to embody no effective plan of teaching.

Parent Hostility

This scale reflects the parent's expression of anger, discounting or rejecting of the child or the child's ideas. A parent scoring high on this scale would clearly and overtly reject the child, blame her/him for mistakes, and otherwise make explicit the message that s/he does not support the child emotionally. A rejecting parent may also show some supportive presence (and the inconsistency of her/his behavior would be revealed by these two scores). Given the low frequency and the clinical relevance of rejecting one's child during a videotaped session, any events which are clearly hostile should be weighted strongly in this score. A parent scoring low on this scale may or may not be supportive, but s/he does not blame or reject the child.

A parent scoring high would:

- point out child's weaknesses
- put the child down
- use a negative or sarcastic tone of voice
- sigh, shake her/his head, or roll her/his eyes
- give a stern look
- argue with child
- verbally disapprove of child or child's attributes, activities, products, or choices
    * "That's not quite right, sweetie"
    * "Stop that."
    * "Will you stop whining?"
    * "Shut up."
- use antagonistic, aversive, hurtful, or restrictive touch
    * hitting or shaking
    * restraining child's arm while saying, "Stop that!"

A parent scoring low would:

- use constructive criticism
- seem generally accepting of child

7. **Very high.** This parent shows characteristics of the previous scale point, but expressions of anger toward the child also are accompanied by strong, barely controlled emotions, suggesting the possibility of physical abuse and neglect of the child in some situations.

6. **High.** This parent has frequent expressions of rejection and hostility directed toward the child. There is little or no effort to show warmth during substantial portions of the session, especially after parent becomes irritated with the child (e.g. parent may initially be warm and then rejects the child strongly). Parent is frankly and directly rejecting and hostile (e.g. telling the child s/he will leave her/him behind if s/he does not do the task, using negative performance feedback, but little positive feedback, blaming the child for incompetence on the tasks, and overtly refusing to recognize the child's success, (e.g. "You couldn't have done it without me showing you!"). Any warmth seems superficial related to the parent's distancing from the child, rejection is used as a control technique against the child.

5. **Moderately high.** Parent is overtly rejecting or hostile several times. Behaviors include overt and clearly communicated rejections of child and expressions of hostility or anger which appear intermittently through substantial periods of the session. This parent's behavior is more rejecting than not, either by the frequency of hostile behavior or by the potency by which rejection is communicated several times in the session.

4. **Moderate.** Several instances of hostile or rejecting behaviors. Two or more of these events are reliably clear to observers, but expressions are brief and do not set the tone of parent's interactions immediately following the episodes.

3. **Moderately low.** Signs of hostility again are very fleeting, but they occurred on several occasions during the session and at least one sign could be identified as clear and overt or an accumulating sense of unexpressed anger and avoidance toward the child was seen in the parent's behavior.

2. **Low.** The parent conveys a little hostility once or twice. The messages are not overt, but muted forms of hostility (e.g. pulling away, pulling something away from child with a jerk, brief displays of exasperation, looking at the child coldly for a brief time, parroting or mimicking the child). The parent may show a diffuse level of discontent, boredom, or discomfort, but it is not directed at the child.

1. **Very low.** Parent shows no signs of rejection. S/he may or may not be supportive, but s/he does not try to put down the child or avoid the child in rejecting ways. Passive or emotionally uninvolved parents would be included in this scale point if the parent did not reject the child or communicate hostility toward the child. The parent may tease the child with a negative content, but with accompanying humor or warmth.

*Note: If a parent's hostility *during the discussion task* is rated as a 2, her/his *overall* hostility cannot be rated as a 1. Similarly, if a parent's hostility *during the discussion task* is rated as a 3, her/his *overall* hostility cannot be rated lower than a 3.

Child Agency

Throughout the interactive tasks, the child acts with vigor, confidence, and eagerness to complete the tasks. Child takes an active interest in participating along with the parent, invests sincere effort and energy, and appreciates accomplishments both as an individual and a team member. Agency includes a sense of coordination between affect and behavior. The child appears well integrated and comfortable directing her/his energy appropriately when interacting with the parent. Agency must be scored for goal-oriented behavior when interacting or discussing task objectives with the parent (insofar as parent defines goals relevant to the task or situation). Other goals or expressions or unnecessary levels of excitement may be in service of distracting the parent, winning approval, etc., and would not represent agency here.

A child scoring high:

- enjoys activity
- displays confidence
- participates actively
- shares ideas/offers solutions
- expresses opinion
- displays overall positive affect

A child scoring low on this scale would display:

- disinterested in task
- lack of confidence
- lack of active involvement
- physical/emotional withdrawn
- ignores/doesn't respond to ideas
- flat/negative affect

7. **Very high.** *Child shows high agency and consistent enthusiasm throughout the interactive session.* Child approaches problem solving and parental interactions positively, revealing goal directed intent. Challenges and difficulties do not appear frustrating for the child; rather, the child continues to persist using effective internal strategies. The child has great confidence that the situation will turn out well and that s/he can trust in her/himself and the support of her/his parent without fear of rejection. Overall, the child is eager and wants to be involved showing a harmonious progression throughout the session.

6. **High.** Child demonstrates agency, enthusiasm and coordinated affect. Behavior for the most part of the session is positive when interacting with the parent. The child demonstrates high levels of self-motivation, confidence, and approves of her/his contributions as a team member. *Only minor periods may occur when this is not the case.* Overall, the child is genuinely eager to complete the tasks successfully.

5. **Moderately high.** The child displays agency for much of the session and is basically interested in and enthused about the activities. There are occasions when the child appears genuine and enthusiastic about successfully completing tasks and/or times when there is a sense of harmony between affect and behavior. *However, s/he also has moments in which this is not the case.* In other words, the child may be engaged in the task, but display low or flat affect.

4. **Moderate.** *Child shows a mixture of enthusiasm and restraint or superficiality of effort.* This may occur because the child is very slow in "warming up" to the potential of the situation or because her/his enthusiasm waxes and wanes and s/he is not reliably invested in the activities.

3. **Moderately low.** *Child shows occasional moments of agency and active, participation, but primarily s/he does not engage in the situation in this way.* The child appears more apt to show interest, but hesitates when engaging in parental discussions or task planning. The child may appear to show a spark of interest when transitioning between tasks, but this is superficial in that a slow decline in agency soon becomes evident.

2. **Low.** *Child generally does not display agency.* Child does show some interest in interacting with the parent on discussion or planning tasks. The child may appear engaged in the activity of building the tower of toothpicks or the egg bungee jump, but is mostly restrained, or hesitant in becoming too involved.

1. **Very low.** *Child displays no agency in discussion activities or interactive task performance.* Child seems hesitant to engage in problem solving efforts, answering or asking questions, and shows no initiative in planning strategies alongside the parent. The child shows extreme lack of confidence or assertiveness as a team player and appears disinterested in participating in the task.

Child Negativity

This code assesses the overall level of externalizing negative affect demonstrated by the child. Externalizing negative affect can be anger, hostility, frustration, or oppositional defiance. Specific behaviors that demonstrate this can include: a) repeatedly disagreeing with parent in a disrespectful manner; b) using sarcasm or interrupting parent; c) using annoying tone of voice; d) bossy demands; e) name calling; f) throwing things; g) back-talk; h) goofing around in a noncompliance manner; i) using an angry tone of voice; j) hitting or kicking; k) glowering face; l) showing anger or resistant expression; m) being unreasonably demanding or critical; n) losing his/her temper. The lower end of this scale is characterized by an absence of negative affect behaviors; the child may express internalizing negative affect, positive affect, or little affect at all.

1 - **Not at all characteristic.** *The child expresses virtually no externalizing negative affect.* The child does not express frustration, tension, or anger. The child does not whine or complain.

2 - **Low.** *The child expresses externalizing negativity only briefly in any overt fashion, but these suggest some anger or resistance in the child's interaction with the parent.* The child may roll his/her eyes, once or twice, have a tone of voice that is not as positive as one would expect in this kind of interaction. He/she may make one brief negative statement/comment towards the parent.

3 - <u>Moderately low</u>. *The child expresses small amounts of negative affect.* This may be seen in occasional expressions of frustration, tension, or anger that is mostly mild in intensity. At least two negative comments are directed toward the parent. The child may also be goofing around in a noncompliance manner for less than half of the interaction.

4 - <u>Moderate</u>. *The child expresses some negative affect, including some frustration, tension or anger that is clear and obvious* but that does not set the tone of voice for the rest of the interaction. At least three occasions of negativity are seen one of which is significant.

5 - <u>Moderately high</u>. *The child expresses negativism towards the parent several times during the interaction.* He/she may use an angry tone of voice, show some angry facial expression, sarcasm or talk back to the parent several times during the interaction. There are two strong and intense occasions of negativism but these behaviors are not predominant feature throughout the interaction.

6 - <u>High</u>. *The child's anger or frustration / sarcasm is a predominant aspect of their interactions and sets the tone of voice for most of the interaction.* However, at no time does the negativity get out of control.

7 - <u>Very high.</u> The child expresses frequent negative affect, which is clear, obvious, and of moderate to high intensity. *The child's negativity may appear to be on the verge of being out of control* (e.g. hitting, kicking or throwing things).

Child Persistence

This is a measure of the extent to which the child actually was involved in the discussion and the tower task or egg bungee jump task in the session. At the low extreme, the child shows no involvement in the discussion and the tower task or egg bungee jump, refuses to become involved, and either flees or spends her/his time in off-task activities At the high end, the child is actively engaged with the tasks and works persistently either directly on her/his own or through parent's mediating suggestions (regardless of how good the child or parent's skills really are). The child may be either sober or playful; persistence does not necessarily include enthusiasm. The child may be responsive or not to the parent's directions as long as s/he shows motivation toward engagement with the tasks. The observer should consider this rating to reflect the child's involvement in the discussion and tower task or egg bungee jump task regardless of the degree to which parent was instrumental in creating the persistence.

A child with high persistence displays:
- On task behavior
- Offers ideas, asks questions
- High quality of engagement

A child with a low level of persistence is:
- Easily distracted, inattentive
- Bored
- Fidgety, squirmy
- Inattentive

7. <u>Very high.</u> Child is persistent *throughout the session.*

6. **High.** Child persists in activities across *most of the session*. S/he loses interest or concentration only briefly within an overall pattern of involvement with the tasks. During the course of the interaction, there is only one brief instances when the child displays off-task behaviors.

5. **Moderately high.** Child devotes relatively large periods of attention to and engages in the tasks with regularity. S/he gives sustained attention for periods of time with clear involvement. *Her/his persistence occasionally wanes.* Off-task behaviors may be seen two or three times.

4. **Moderate.** Child sustains some long periods of involvement in the tasks, *but clearly loses interest for some periods of time.*

3. **Moderately low.** Child engages in tasks with some persistence or concentration *but s/he has no long periods of concentration.*

2. **Low.** Child is engaged in the tasks *but always superficially and never with effort* or concentration.

1. **Very low.** Child displays *no involvement* in the discussion and the tower task or egg bungee jump task. S/he seems to want no part in the activities.

* Note: A child who engages much of the time because of constant efforts by the parent to return the child to the task should <u>not</u> get a 6 or 7, even though the child was engaged with all the materials.

Child's Affection Towards Parent

This scale reflects whether there was a substantial period of positive regard and sharing of happy feelings of the child toward the parent. Although the child also might become angry or avoid the parent elsewhere in the session, a high rating still could be given if some portions of the session met the criteria of this scale. The criteria of this scale are evidences that the child approached and attempted to share positive affects with the parent. In addition, affection toward the parent includes the ability of the child to elicit positive expression from the parent such that a continued reciprocal interaction can be maintained.

At the high end of the scale, the child is able to not only initiate positive expressions toward the parent, but is also able to maintain such a "bout." The intensity of expression is not particularly relevant to this rating, but rather the frequency with which the child shares positive affect with parent—looking at parent, making eye contact and smiling, sharing successes and other "approach" behavior affectively.

At the lower end of the scale, the child may direct a few positive expressions to the parent and may elicit a positive expression in return. However, he or she does not sustain a "bout" of shared expressions with the parent.

High:
-say "I Love You"
- kiss or hug parent
-sits on parent's lap
-gently touch parent
-share a bout (small or long) with parent

Low:
-have poor eye contact
-not return parent's smile
-not join parent in laughter
-do NOT share a bout with the parent

7. **Very high.** the child demonstrates a very positive, engaging, and sharing relationship toward the parent for a substantial period of the session. More than one long "bout" of sharing positive with the parent is observed during the 15 minute interaction. The parent and child may have problems at times during the interaction, but the child's relationship with the parent seems very warm and positive for a major portion of the session.

6. **High.** The existence of a "bout" of sustained positive expression and sharing these feelings with the parent is quite clear in terms of: a). the duration of such interaction is long enough for several exchanges of positive expression to occur, and b). the lack of ambivalence in the child's expression of feelings toward the parent. Clearly this child was expressive, warm, and engaging of the parent for at least one substantial period of the session. Two short bouts or 1 long bout qualify for this rating.

5. **Moderately high.** The child has one or more periods in which s/he sustains in expressing positive regard and sharing happy expressions with the parent. The child seems to maintain the positive regard toward the parent sufficiently to allow short "bouts" of sharing positive expressions with the parent. During such bouts, the child also does not seem to shy away from having an emotional bond with the parent (although this may happen at another time in the session).

4. **Moderate.** Child shares some of her/his happy expressions with parent, but again these are only minor elements of interaction and are not sustained by the child for more than a moment at a time. Thus, the behaviors are expressed repeatedly and/or clearly, but do not reflect a "bout" of the child closely sharing her/his affect with parent. Child displays at least three clear incidents of positive regard.

3. **Moderately low.** Child shares some positive regard, but it is brief. Possibly, child seems ambivalent in such expressions. Child displays one or two clear incidents of positive regard.

2. **Low.** Child has very minor incidents which seemed expressive of positive regard toward parent and from which one might infer some positive feelings are expressed toward her/him. Yet, child largely shows no positive regard toward her/him.

1. **Very low.** Child clearly does not attempt to share experiences with parent. Signs such as failure to make eye contact with parent when expressing happiness, directing expressions of success to the experimenter, but not to the parent, and similar clues can be used as evidence that the child attempts little sharing of feelings with parent.

*Overall score should reflect a quantitative rating of both tasks (e.g. if the score for both tasks is a 5, the overall score would be a 6).

Felt security/Affective mutuality

This scale assesses the level of emotion exchanged and reciprocated between parent and child. There is an emphasis on the child having a sense that the parent has his/her own best interest in mind, while both individuals share a genuine concern and positive regard for one another. There is an emphasis on verbal and non-verbal communication; what the parent or child might communicate and how they do it (i.e. body language, verbalizations). Open and free communication will be marked by a harmonious exchange of emotions revealing a sense of personal involvement and engagement. Availability of affect is marked by the parent's tone of voice communicating warmth, respect and regard for the child. At the high end of the scale dyads almost always have a moment of shared emotion that is pleasurable and intimate. At the low end of the scale, closed communication or lack of mutuality will be reflected during an interactions stifled by, restricted, non-reciprocal and closed behavior. One might also see a veneer of intimacy or superficiality attempting to mask an impoverished interaction. The rater must be alert to the subtle cues that reflect a balance or imbalance of emotions. As an example the coder might witness an individual's (parent or child) display of conflict or discontent that serves to stifle, dampen or negate the emotional expression of the other.

A dyad with a high level of felt security:
- shares/reciprocates emotions
- shows genuine concern about one another
- utilizes verbal and non-verbal communication
- displays warmth, respect
- highest level: at least one moment of shared positive emotional expression

A dyad with a low level of felt security:
- has closed/limited communication
- lacks of mutuality
- expresses restricted, non-reciprocal emotions
- displays superficiality

7. **Very High** It is apparent that this dyad truly enjoys each other's company and a sense that both parent and child share the experience. The dyad consistently displays a genuine concern for each other that may be expressed through smiling, shared laughter, eye-to-eye/face-to-face contact. The dyad may sit in very close proximity to one another and expresses their mutual affection through physical touching or caressing. Emotions and communication flows freely and comfortably. Rarely are dampening behaviors displayed by either partner. *There must be a display of at least one sustained bout of reciprocally communicated, positive emotion of a shared experience; one that merits at least a 6 or above on AFFECTION.*

6. **High.** This dyad may appear very similar to a 7 though a somewhat less active and overt exchange of emotions is noted. The child appears confident and appreciated by the presence of the parent. Positive regard is expressed through behavior that is warm and relaxed, even if there is little eye or face-to-face contact

5. **Moderately high.** *In an otherwise relaxed interaction, isolated periods of conflict or avoidance may be apparent to the coder.* Additionally, parent and child may display interchanges in which their emotional experiences differ due to a possible disagreement in opinion, but there is an attempt to reconcile their differences without developing a grudge towards the other.

4. **Moderate** Dyads begin to reveal a mixture of both warmth and more restrictive, tense behaviors. Moments of aggravation, avoidance and disengagement may become apparent. It is possible that dampening messages are communicated in a covert manner, by parent or child. *However, despite bouts of tension, there is a sense the dyad like each other, but are struggling to figure it out a bit.*

3. **Moderately low** This dyad display no bouts of sustained emotion; instead there is an increased emphasis on avoidance of emotion, negative emotion and especially non-mutual emotion. *Minimal moments of warmth and positive regard are evident.*

2. **Low** This dyad appears cold and/or emotionless. The parent or child may appear threatened by the other's behavior and emotion showing signs of disengagement or avoidance. *A consistent level of conflict is more evident for this dyad and both individuals may show signs of being annoyed or upset.*

1. **Very low** There are three possibilities: 1) the dyad appear completely disengaged or 2) there is apparent underlying conflict or ambivalence (dyad appear as if they would rather be elsewhere) or 3) parent and child have very little coordinated emotion and appear emotionally disconnected. There may be underlying tension and anger, or the parent and child may appear threatened by the other's behavior. *No attention is paid to the other in terms of warmth or personal regard.*

Fifth Grade Mother/Child Interaction Task
Coding Form

CHILD ID # _____   TAPE # _____

CODER # _____   DATE TAPE RECEIVED_____

1 = Very Low	5 = Moderately High
2 = Low	6 = High
3 = Moderately Low	7 = Very High
4 = Moderate	9 = Uncodeable/missing

TASK # 1

Mother Ratings

1. Supportive Presence	1	2	3	4	5	6	7	9
2. Respect for Child Autonomy	1	2	3	4	5	6	7	9
3. Stimulation of Cognitive Development	1	2	3	4	5	6	7	9
4. Quality of Assistance	Was not coded for Task 1							
5. Mother Hostility	1	2	3	4	5	6	7	9

Child Ratings

6. Child Agency	1	2	3	4	5	6	7	9
7. Child Negativity	1	2	3	4	5	6	7	9
8. Child Persistence	1	2	3	4	5	6	7	9
9. Affection Toward Mother	1	2	3	4	5	6	7	9

Dyadic Rating

10. Affective Mutuality/Felt Security	1	2	3	4	5	6	7	9

TASK # 2

Mother Ratings

1. Supportive Presence	1	2	3	4	5	6	7	9
2. Respect for Child Autonomy	1	2	3	4	5	6	7	9
3. Stimulation of Cognitive Development	1	2	3	4	5	6	7	9
4. Quality of Assistance	1	2	3	4	5	6	7	9

| 5. Mother Hostility | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 9 |

Child Ratings

6. Child Agency	1	2	3	4	5	6	7	9
7. Child Negativity	1	2	3	4	5	6	7	9
8. Child Persistence	1	2	3	4	5	6	7	9
9. Affection Toward Mother	1	2	3	4	5	6	7	9

Dyadic Rating

| 10. Affective Mutuality/Felt Security | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 9 |

OVERALL RATINGS

Mother Ratings

1. Supportive Presence	1	2	3	4	5	6	7	9
2. Respect for Child Autonomy	1	2	3	4	5	6	7	9
3. Stimulation of Cognitive Development	1	2	3	4	5	6	7	9
4. Quality of Assistance	1	2	3	4	5	6	7	9
5. Mother Hostility	1	2	3	4	5	6	7	9

Child Ratings

6. Child Agency	1	2	3	4	5	6	7	9
7. Child Negativity	1	2	3	4	5	6	7	9
8. Child Persistence	1	2	3	4	5	6	7	9
9. Affection Toward Mother	1	2	3	4	5	6	7	9

Dyadic Rating

| 10. Affective Mutuality/Felt Security | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 9 |

CHILD-PARENT RELATIONSHIP SCALE: SHORT FORM

Please reflect on the degree to which each of the following statements currently applies to your relationship with your child. Using the scale below, circle the appropriate number for each item.

	Definitely Does Not Apply	Not Really	Neutral, Not Sure	Applies Sometimes	Definitely Applies
1. I share an affectionate, warm relationship with my child.	1	2	3	4	5
2. My child and I always seem to be struggling with each other.	1	2	3	4	5
3. If upset, my child will seek comfort from me.	1	2	3	4	5
4. My child is uncomfortable with physical affection or touch from me.	1	2	3	4	5
5. My child values his/her relationship with me.	1	2	3	4	5
6. When I praise my child, my child beams with pride.	1	2	3	4	5
7. My child spontaneously shares personal information	1	2	3	4	5
8. My child easily becomes angry at me.	1	2	3	4	5
9. It is easy to be in tune with what my child is feeling.	1	2	3	4	5

	Definitely Does Not Apply	Not Really	Neutral, Not Sure	Applies Sometimes	Definitely Applies
10. My child remains angry or is resistant after being disciplined.	1	2	3	4	5
11. Dealing with my child drains my energy.	1	2	3	4	5
12. When my child wakes up in a bad mood, I know we're in for a long and difficult day.	1	2	3	4	5
13. My child's feelings toward me can be unpredictable or can change suddenly.	1	2	3	4	5
14. My child is sneaky or manipulative with me.	1	2	3	4	5
15. My child openly shares his/her feelings and experiences with me.	1	2	3	4	5

RAISING CHILDREN

This set of questions is about raising children. For each one, circle the answer which shows how you feel about it.

	Definitely No	Mostly No	Mostly Yes	Definitely Yes

1. Do you select chores for your child that your child will be able to do without much difficulty? . . . . 1 . . . . . . 2 . . . . . . 3 4

2. Do you say something positive to your child when he or she does something you like? . . . . 1 . . . . . . 2 . . . . . . 3 4

3. Do you make sure your child obeys you the first time you say something? . . . . 1 . . . . . . 2 . . . . . . 3 4

4. Do you give your child a chance to explain your child's side before punishing him/her? . . . . 1 . . . . . . 2 . . . . . . 3 4

5. Do you make rules which take your child's individual needs into consideration? . . . . 1 . . . . . . 2 . . . . . . 3 4

6. Do you make sure you are strict with your child when it comes to punishment? . . . . 1 . . . . . . 2 . . . . . . 3 4

7. Do you let your child decide what your child's daily schedule will be? . . . . 1 . . . . . . 2 . . . . . . 3 4

8. Do you check the ratings before allowing your child to rent or see a movie? . . . . 1 . . . . . . 2 . . . . . . 3 4

9. Do you let your child eat whatever your child feels like eating? . . . . 1 . . . . . . 2 . . . . . . 3 4

10. Do you allow your child to express any angry feeling your child has toward you freely? . . . . 1 . . . . . . 2 . . . . . . 3 4

11. Do you avoid giving your child chores to do? . . . . 1 . . . . . . 2 . . . . . . 3 4

12. Do you think that a good spanking is sometimes needed to make your child understand? . . . . 1 . . . . . . 2 . . . . . . 3 4

13. Do you think that respect for authority is one of the most important things you can teach your child ? . . . . 1 . . . . . . 2 . . . . . . 3 4

14. Do you let your child go to bed whenever your child feels like it? . . . . 1 . . . . . . 2 . . . . . . 3 4

These questions are about raising children. For each one, please circle the answer that best describes how you feel.

	Definitely No	Mostly No	Mostly Yes	Definitely Yes
15. Do you expect your child to do a good many of the chores in the household every day?	1	2	3	4
16. Do you avoid having rules that your child must follow?	1	2	3	4
17. Do you think spoiling your child would be the worst thing you could do as a parent?	1	2	3	4
18. Do you want your child to question rules that seem unfair?	1	2	3	4
19. Do you let your child watch whatever TV shows your child wants to watch?	1	2	3	4
20. Do you show that you understand your child's feelings when you punish your child for misbehaving?	1	2	3	4
21. Do you drop a rule if your child objects to it?	1	2	3	4
22. Do you expect your child to be quiet and respectful when adults are around?	1	2	3	4
23. Do you explain the reasons for the rules you make?	1	2	3	4
24. Do you spank your child when your child has done something really wrong?	1	2	3	4
25. Do you expect your child to obey you without any questions asked?	1	2	3	4
26. Do you think one of the most important things you can teach your child is respect for the rights of others?	1	2	3	4
27. Do you make sure your child shows you respect?	1	2	3	4
28. Do you think your child will grow up just fine if you usually let your child have his/her way?	1	2	3	4
29. Do you try to help your child control their anger when there are arguments?	1	2	3	4
30. Do you allow your child to see any movie your child wants to see?	1	2	3	4

IDEAS ABOUT RAISING CHILDREN

Here are some statements people have made about rearing and educating children. For each one, please circle the answer that best indicates how you feel.

	Strongly Disagree	Mildly Disagree	Not Sure	Mildly Agree	Strongly Agree
1. Since parents lack special training in education, they should not question the teacher's teaching methods.	1	2	3	4	5
2. Children should be treated the same regardless of differences among them.	1	2	3	4	5
3. Children should always obey the teacher	1	2	3	4	5
4. Preparing for the future is more important for a child than enjoying today.	1	2	3	4	5
5. Children will not do the right thing unless they must	1	2	3	4	5
6. Children should be allowed to disagree with their parents if they feel their own ideas are better.	1	2	3	4	5
7. Children should be kept busy with work and study at home and at school.	1	2	3	4	5
8. The major goal of education is to put basic information into the minds of the children.	1	2	3	4	5
9. In order to be fair, a teacher must treat all children alike.	1	2	3	4	5
10. The most important thing to teach children is absolute obedience to whoever is in authority.	1	2	3	4	5
11. Children learn best by doing things themselves rather than listening to others.	1	2	3	4	5

	Strongly Disagree	Mildly Disagree	Not Sure	Mildly Agree	Strongly Agree
12. Children must be carefully trained early in life or their natural impulses will make them unmanageable.	1	2	3	4	5
13. Children have a right to their own point of view and should be allowed to express it.	1	2	3	4	5
14. Children's learning results mainly from being presented basic information again and again.	1	2	3	4	5
15. Children like to teach other children.	1	2	3	4	5
16. The most important thing to teach children is absolute obedience to parents.	1	2	3	4	5
17. The school has the main responsibility for a child's education.	1	2	3	4	5
18. Children generally do not do what they should unless someone sees to it.	1	2	3	4	5
19. Parents should teach their children that they should be doing something useful at all times.	1	2	3	4	5
20. It's all right for a child to disagree with his/her parents.	1	2	3	4	5
21. Children should always obey their parents.	1	2	3	4	5
22. Teachers need not be concerned with what goes on in a child's home.	1	2	3	4	5
23. Parents should go along with the game when their child is pretending something.	1	2	3	4	5
24. Parents should teach their children to have unquestioning loyalty to them.	1	2	3	4	5

	Strongly Disagree	Mildly Disagree	Not Sure	Mildly Agree	Strongly Agree
25. Teachers should discipline all the children the same	1	2	3	4	5
26. Children should not question the authority of their parents.	1	2	3	4	5
27. What parents teach their child at home is very important to his/her school success.	1	2	3	4	5
28. Children will be bad unless they are taught what is right.	1	2	3	4	5
29. A child's ideas should be seriously considered in making family decisions.	1	2	3	4	5
30. A teacher has no right to seek information about a child's home background.	1	2	3	4	5

MY FAMILY QUESTIONNAIRE
(MOTHER VERSION)

Child ID: _____   Date: _____   RA ID: _____

MM/DD/YYYY

	Not at All True	Not Very True	Sort of True	Very True
1. I wish my mother knew me better.	1	2	3	4
2. I wish I could talk about more things with my mother.	1	2	3	4
3. I wish I was closer to my mother.	1	2	3	4
4. I enjoy the time I spend with my mother.	1	2	3	4
5. I wish my mother knew more about how I feel.	1	2	3	4
6. I wish my mother could spend more time with me.	1	2	3	4

	Almost Never	Not Very Often	Some of the Time	Almost Always
7. When I'm with my mother, I feel RELAXED.	1	2	3	4
8. When I'm with my mother, I feel IGNORED.	1	2	3	4
9. When I'm with my mother, I feel HAPPY.	1	2	3	4
10. When I'm with my mother, I feel MAD.	1	2	3	4
11. When I'm with my mother, I feel BORED.	1	2	3	4
12. When I'm with my mother, I feel IMPORTANT.	1	2	3	4
13. When I'm with my mother, I feel UNHAPPY.	1	2	3	4
14. When I'm with my mother, I feel SCARED.	1	2	3	4
15. When I'm with my mother, I feel SAFE.	1	2	3	4
16. When I'm with my mother, I feel SAD.	1	2	3	4
17. When I'm with my mother, I feel LOVED.	1	2	3	4

MY FAMILY QUESTIONNAIRE
(FATHER VERSION)

Child ID: _____   Date: _____   RA ID: _____
MM/DD/YYYY

	Not at All True	Not Very True	Sort of True	Very True
1. I wish my father paid more attention to me.	1	2	3	4
2. I wish my father could spend more time with me.	1	2	3	4
3. I wish my father knew me better.	1	2	3	4
4. I wish my father knew more about how I feel.	1	2	3	4
5. I enjoy the time I spend with my father.	1	2	3	4
6. I wish I was closer to my father.	1	2	3	4
7. I wish I could talk about more things with my father.	1	2	3	4

	Almost Never	Not Very Often	Some of The Time	Almost Always
8. When I'm with my father, I feel RELAXED.	1	2	3	4
9. When I'm with my father, I feel IGNORED.	1	2	3	4
10. When I'm with my father, I feel HAPPY.	1	2	3	4
11. When I'm with my father, I feel MAD.	1	2	3	4
12. When I'm with my father, I feel BORED.	1	2	3	4
13. When I'm with my father, I feel IMPORTANT.	1	2	3	4
14. When I'm with my father, I feel UNHAPPY.	1	2	3	4
15. When I'm with my father, I feel SCARED.	1	2	3	4
16. When I'm with my father, I feel SAFE.	1	2	3	4
17. When I'm with my father, I feel SAD.	1	2	3	4
18. When I'm with my father, I feel LOVED.	1	2	3	4

CHILD ID#._____ DATE: _____ RA #: _____

MY FAMILY QUESTIONNAIRE
(MOTHER VERSION)

The following directions are read to the child: "Now I'd like to talk with you about different people that you know. First, I'm going to ask you some things about you and your mom. Then I'll ask the same types of questions about you and your dad/other adult's name. And finally, I'll ask the same questions about you and your teacher, [Questionnaire Teacher's Name]. When you answer, let me know what you think and how you really feel about them."

Go over the response scale (Green side scale marked: *My Family Questionnaire, Part I* Card A) with the child. Say: *"Before we get started, here's the card you'll use to answer. There are four possible choices: 'Not at All True,' 'Not Very True,' 'Sort of True,' and 'Very True.' Do you have any questions about how to answer?"* Make sure that the child understands the scale. "Okay, let's get started." Ask all the questions for the <u>mother</u> version.

		Not at All True	Not Very True	Sort of True	Very True
1.	I wish my mother paid more attention to me.	1	2	3	4
2.	I wish my mother could spend more time with me.	1	2	3	4
3.	I wish my mother knew me better.	1	2	3	4
4.	I wish my mother knew more about how I feel.	1	2	3	4
5.	I enjoy the time I spend with my mother.	1	2	3	4
6.	I wish I was closer to my mother.	1	2	3	4
7.	I wish I could talk about more things with my mother.	1	2	3	4
8.	It's easy to trust my mom.	1	2	3	4
9.	My mom butts in a lot when I'm trying to do things.	1	2	3	4
10.	It's easy to count on my mom for help.	1	2	3	4
11.	I do not really like telling my mom what I'm thinking or feeling.	1	2	3	4
12.	I don't really need my mom for much.	1	2	3	4
13.	I worry that my mom does not really love me.	1	2	3	4
14.	I sometimes wonder if my mom might leave me.	1	2	3	4
15.	I worry that my mom might not be there when I need her.	1	2	3	4
16.	I think my mom does not listen to me.	1	2	3	4
17.	I go to my mom when I'm upset.	1	2	3	4
18.	I wish my mom would help me more with my problems.	1	2	3	4

CHILD ID#._____ DATE: _____ RA #: _____

MY FAMILY QUESTIONNAIRE

(FATHER VERSION)

"Now we're going to do the same thing, only this time the questions will be about your dad."

		Not at All True	Not Very True	Sort of True	Very True
1.	I wish my father paid more attention to me.	1	2	3	4
2.	I wish my father could spend more time with me.	1	2	3	4
3.	I wish my father knew me better.	1	2	3	4
4.	I wish my father knew more about how I feel.	1	2	3	4
5.	I enjoy the time I spend with my father.	1	2	3	4
6.	I wish I was closer to my father.	1	2	3	4
7.	I wish I could talk about more things with my father.	1	2	3	4
8.	It's easy to trust my dad.	1	2	3	4
9.	My dad butts in a lot when I'm trying to do things.	1	2	3	4
10.	It's easy to count on my dad for help.	1	2	3	4
11.	I do not really like telling my dad what I'm thinking or feeling.	1	2	3	4
12.	I don't really need my dad for much.	1	2	3	4
13.	I worry that my dad does not really love me.	1	2	3	4
14.	I sometimes wonder if my dad might leave me.	1	2	3	4
15.	I worry that my dad might not be there when I need him.	1	2	3	4
16.	I think my dad does not listen to me.	1	2	3	4
17.	I go to my dad when I'm upset.	1	2	3	4
18.	I wish my dad would help me more with my problems.	1	2	3	4

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