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The Social-Cognitive Underpinnings of Effective Caregiving

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The Social-Cognitive Underpinnings of Effective Caregiving

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Dedication

This dissertation is dedicated to my son, Matthew.

Your birth motivated my first effective-parenting study and projected me onto the path of self-discovery I continue to travel today. Surely, I have learned as much from you as I ever taught. I am proud of the man you have become, and I have never been more pleased to see myself in you than when I watch you hold Jillian, Brandon, or Jackson. Keep them close to your heart and watch for your lessons.

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The Social-Cognitive Underpinnings of Effective Caregiving

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The importance of parental social cognitions to childrearing behavior and parent-child relationships has long been recognized. In the past decade or so, several new social cognition constructs have been developed in an effort to understand why some parents are more sensitive and effective caregivers than others. However, little is known about the relations among the different constructs. This dissertation begins to explicate those relations.

Two goals guided this investigation. The first goal was to examine the relations among five social-cognition variables: Concepts of Development, Insight, Secure Adult Attachment, Meta-parenting, and Mindfulness. The second goal was to examine the associations among the social cognition constructs, effective parenting as measured by authoritative parenting and a broader construct of effective childrearing (*AWARE* parenting), and three child-centered assessments (warm parent-child relationships, history of injuries, and aggression).

One hundred and two mothers, most of whom were college educated and European-American, participated in the web-based study. Participants completed 11 self-report measures regarding their parenting and a focal child. Seventy-four friends or family members acted as secondary informants and provided ratings of mothers' Meta-parenting and AWARE parenting.

Results pertaining to the first goal indicated that many of the individual constructs were associated. For example, Concepts of Development and Insight were positively correlated, as were Secure Adult Attachment and Meta-parenting. In addition, results from the exploratory factor analysis revealed that Secure Adult Attachment and Mindfulness were related. In general, Meta-parenting when extracted from the factor analysis, was related to more parenting and child measures than any of the other constructs. Another finding was that all three extracted social cognition factors were significantly related to both parenting measures. Those parents who had higher scores on Childrearing Ideas, Interaction Receptivity, and Meta-parenting also reported more Authoritative and AWARE parenting.

With regard to the child variables, Meta-parenting accounted for a significant portion of the variance for both warm relationships and aggression. Interaction Receptivity was also a significant predictor of aggression scores. Mothers who scored higher on Interaction Receptivity reported lower child aggression scores. Child injury reports were not related to any of the extracted factors. Secondary informants were used in an attempt to provide convergent support for maternal reports. Mothers' and secondary

informants' reports were significantly related for AWARE parenting, but not for Meta-parenting.

This study provides new data on the commonalities among five social cognition constructs. Though preliminary, it reveals promising findings regarding links between mothers' cognitions, parenting, and children's behavior. Limitations, directions for future research, and implications are discussed.

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CHAPTER ONE

INTRODUCTION AND LITERATURE REVIEW

This chapter begins with a description of effective caregiving for children through middle school age. Next, the cognitive underpinnings of good care are presented in two parts: research that investigates the content of caregivers' thoughts and research that examines the awareness levels at which that content is processed.

Effective Caregiving

Parenting researchers vary on the amount of influence they ascribe to parents' actions as determinants of child outcomes (Bretherton, 1992, Collins, Maccoby, Steinberg, Heatherington, & Bornstein, 2000; Scarr & McCartney, 1983). However, the challenge of effectively caring for children is rarely disputed. Research indicates that caregivers are influential in controlling the environments in which their children develop (Parke et al., 2003), and that appropriate practices of care are directly tied to a child's developmental stage (e.g., Furman & Buhrmester, 1992) and to the context within which development occurs (e.g., Furstenberg, Cook, Eccles, Elder, & Sameroff, 1999). Further, the synchronous matching of caretaker actions to child requirements and capabilities is an important element of parenting from infancy through adolescence (e.g., Westerman, 1990). Parenting descriptions associated with positive child outcomes are presented next.

Infants and "Sensitive" Caregiving

According to Attachment theory (Ainsworth & Bowlby, 1991), infants form cognitive representations based on the interactions they have with caregivers. Internal working models are cognitive representation of both the environment in which they live

(e.g., the world is exciting or frightening; caregivers are responsive or not), and their ability to act effectively within the environment. The representations, or schemes, that infants build are primarily determined by interactions with their caregivers.

During infancy, healthy emotional and social development is characterized by appropriate levels of social relatedness, arousal and emotion regulation and curiosity among other things (Sroufe, 2005). During this period, effective behaviors are primarily defined as a *sensitive* caregiver response style. For example, Lamb and Easterbrooks (1981) theorized that when infants' cues (i.e., crying) predictably elicit contingent responses, infants develop two key rudimentary expectations. First, they learn to expect that their needs will be met and that they have agency within their environment. They also develop the expectation that their caregiver will continue to respond in a sensitive manner (see also Ainsworth, Blehar, Waters, & Wall, 1978).

Sensitive caregiving behaviors (Thompson, 1998) have been associated with secure infant attachment and the related benefits of healthy emotional and social development that continue through infancy into adulthood (Sroufe, 2005; Thompson, 1999). In particular, secure attachment allows infants and toddlers to use the caregiver as a "secure base" from which they freely explore their environment gaining additional learning opportunities, and to which they return when distress occurs (Ainsworth & Bowlby, 1991).

Children and "Effective" Caregiving

Parent-child interactions continue to be important for positive child development during childhood and adolescence. For example, Maccoby and Martin (1983) proposed

that children develop a willingness to comply to parental directives, based in large part on early parental sensitivity and responsiveness. When parents are involved, cooperative, and responsive, children are likely to be compliant, and conflict will be minimized. Dix (1991) proposed that a similar pattern occurs for parents. In well-functioning dyads, caregivers expect compliance based on prior experiences, show concern for their children's desires, and often comply with their children's requests.

During childhood and adolescence, healthy emotional and social development is characterized by children's emotional self-regulation and the internalization of social norms (e.g., lack of aggressive behavior). The effectiveness of socialization attempts is associated with the parent-child relationship and with caregivers' interaction styles (e.g., Grusec & Ungerer, 2003). Further, a willingness to consider children's perspectives, is fundamental to the parenting *style* widely accepted as effective.

First articulated by Baumrind (1971), *Authoritative* parenting is defined by high levels of warmth and responsiveness, and age-appropriate levels of control. Authoritative caregivers have close emotional relationships with their children, make reasonable, age appropriate demands which they enforce, explain reasons for their actions and requests, and listen to their children's points of view. Throughout childhood and adolescence, Authoritative parenting is linked with competence. For example, children of authoritative parents show self control, task persistence, and higher levels of self-esteem (e.g., Kaisa, Stattin, & Nurmi, 2000). Although critics have pointed out that Baumrind's static parenting typologies do not match the changing nature of children and childrearing (e.g.,

Holden & Miller, 1999), the Authoritative parenting style remains a widely accepted global characteristic of effective caregiving (Steinberg & Blatt-Eisengart, 2006).

One model that builds on the construct of Authoritative parenting is labeled *AWARE* parenting (Bronstein et al., 1996). This philosophy of childrearing includes the warmth and appropriate control factors from Authoritative parenting and adds non-punitive discipline and emotional receptivity. Receptivity to emotion was added in response to research findings that emotional release was related to enhanced adult functioning. Further, research indicated that a lack of emotional expressiveness was related to poor health outcomes including diminished immune system response (e.g., Pennebaker, Kiecott-Glaser, & Glaser, 1988). The program includes five components intended to facilitate positive “social, cognitive, and emotional development in children and adolescents” (p. 132). Based on the constructs of warmth, acceptance, democratic communication, and relationships, the program focuses on caregiver awareness that children are unique individuals with their own personalities and needs. Constructs included to facilitate this awareness are *support* (i.e., praising, agreeing, encouraging, and showing affection), *attentiveness* (i.e., listening, encouraging conversation and individuality), and *responsiveness* (i.e., acknowledging the needs that children express, responding to those needs when possible, and taking the child’s perspective). In addition, the program suggests *guidance* (i.e., providing information, direction and guidelines for appropriate cultural behaviors and values) and promotes *receptivity to emotion* (i.e., allowing children to openly express their emotions). This program has proven successful in an 11-week intervention program with lower-income families. Parents trained in these

skills had adolescents who made better transitions to middle school, a time when many students in low income families show declines in social and psychological adjustment (Bronstein et al.).

Given the reported relations between caregiver behaviors and positive child outcomes, a clear understanding of the determinants of beneficial parenting behaviors is essential. Parental social cognitions have been frequently investigated as a prime determinant.

Cognitive Dimensions of Effective Care

Much of the research on parental social cognition has focused on the content of caregivers' thoughts. The types of content reviewed included attributions (Bugental & Happaney, 2002), attitudes and values (Holden & Buck, 2002), beliefs (Sigel & McGillicuddy-DeLisi, 2002), and expectations and knowledge (Goodnow, 2002). Broadly, these constructs seek to explain *what* parents think.

More recent efforts to characterize social cognition have included the distinction of whether thoughts are automatic, operating with little awareness, or effortful and event-dependent (e.g., Bargh & Chartrand, 1999; Bugental & Johnston, 2000). Two examples of research that focuses on processing levels include caregivers' use of effortful cognition including Mindfulness (Wahler, 2002) and Meta-parenting (Hawk & Holden, 2006). These distinctions seek to explain *how* parents think. Both the nature or quality of parental social cognitions and the awareness levels at which the thoughts occur are likely contributors to parenting behaviors and child characteristics (Bugental & Johnston, 2000). Links between these two dimensions of parental social cognition and parenting

behaviors will be discussed. Research regarding caregiver ideas about children and childrearing, parental perspective taking, and attachment representation is presented next.

Content of Cognition

Attachment Representation

Two related ideas about the origins of adaptive effective parenting behaviors draw on Attachment theory (e.g., Main, Kaplan, & Cassidy, 1985) and concern the developmental underpinnings for positive care. Both conceptualizations rely on positive interpersonal interactions. The first is tied directly to early parent-child interactions and relies on consistency of attachment status over time to explain associations with caregiving behaviors. The second acknowledges that later experiences also influence representations about relationships.

Secure Infant Attachment. The predominant view in social development is that effective caregiving is based on a history of secure infant attachment (e.g., Main et al., 1985, Thompson, 1998). Individuals who were sensitively cared for as infants grow into effective caregivers. This is an inter-generational transmission of attachment theory. However, the concordance between secure infant attachment and sensitive caregiving is not complete. A review of the associations between infant attachment and sensitive caregiving found that secure infant attachment accounts for only 12% of the variance in parental sensitivity (van IJzendoorn, 1993). This leaves the determinants of effective caregiving, and parental influence on infant attachment, mostly unexplained.

Secure Adult Attachment. The low level of concordance between having a history of secure infant attachment and sensitive parenting leaves the determinants of sensitive

caregiving in question. Secure Adult Attachment is a second theory of the origin of adaptive parenting behaviors. This construct also draws on Bowlby's (1982) theory of attachment and the importance of interactions with others. However, it does not rely solely on early experiences for internal working model formation. Instead, it includes the possibility that later relationships (e.g., with a therapist or trusted friend) may also contribute to coherent and autonomous attachment representation.

Adult attachment research has developed in two distinct areas. The first line of inquiry, primarily from developmental psychology, uses The Adult Attachment Interview (George, Kaplan, & Main, 1985) to assess state of mind regarding attachment. The hour-long interview assesses adults' memories of relationships with attachment figures in childhood. The quality of attachment is rated based on the adult's coherence of discourse regarding early experiences and on the interviewees' ability to collaborate with the interviewers.

The second body of research, primarily from social psychology, focuses on adult romantic relationships, and uses self-report measures (e.g., Bartholomew & Horowitz, 1991; Hazen & Shaver, 1987) to identify attachment *styles*. Although the recency of the close relationship (i.e., current or from childhood) and the significant other involved (i.e., romantic partner or childhood caregiver) varies for these two approaches, the basic tenets of these theoretical approaches overlap.

Comparison and Limitations of the Attachment Theories

Both attachment representation theories acknowledge the developmental importance of at least one close relationship as an emotional regulatory mechanism. In

adulthood, as in infancy, this significant *other* acts as an emotional secure base from which one ventures out into the world, and as a safe haven when distress occurs. This is in line with Bowlby's (1982) proposal that one's need for attachment relationships persists from "the cradle to the grave" (p. 208). Secure infant attachment and adult forms of secure attachment *state of mind* have been proposed as the mechanism that promotes sensitive or effective parenting (Fonagy, 2001; Main et al., 1985). See Figure 1.

Two issues affect attachment status assessment. First, assessment of maternal attachment representations is difficult. Use of the AAI (George et al., 1985) is limited because it involves a lengthy interview and requires extensive coder training. Measurement of secure attachment in adult romantic relationships has also been somewhat problematic due to competing surveys. Allen, Stein, Fonagy, Fultz, and Target (2005) noted that assessments of secure attachment representation were likely confounded with more global characteristics of the relationships. However, a new measure from these same authors shows promise, as will be discussed below.

Caregiver Ideas about Childrearing – Two Stage Theories

A second approach to understanding parenting behaviors that considers the content of caregivers' social cognition focuses on the nature of caregivers' ideas about children and childrearing. Influenced by the work of Piaget (e.g., Piaget, 1970) and Erikson (e.g., Erikson, 1968), these parenting researchers have organized differences in parents' thinking about children and parenting into stages (for a review, see Demick, 2002). Although the theories focus on different continuums of parental capacity (e.g., ideas about childrearing, parental perspective taking), they share a common structure:

higher stages represent a more complex and advanced level of thinking and include characteristics that are not present in earlier stages.

The complexity of parents' ideas about children and childrearing refers to a parent's ability to hold a complex theory of child development and to critically analyze child behavior. A second approach to conceptualizing cognitive complexity has been to focus on caregivers' perspective taking abilities. This is their ability to understand their children's autonomous views and cognitive abilities. The two best developed stage theories will be described.

Newberger: Parental awareness. In the first parenting stage theory developed, Newberger (1980) proposed four levels of parental awareness regarding interpersonal relationships. The levels differ on the extent to which caregivers differentiated their children from themselves. Stages include an *egoistic orientation* in which parents only considered their own wants and needs (level 1), a *conventional orientation* wherein parents consider customs, traditions, rules, and social norms (level 2), a *subjective individualistic orientation* in which parents reason from the child's perspective (level 3), and a *process or mutual-system orientation* in which parents consider the separate views, needs, and interests of both themselves and their children (level 4). Each higher stage represents more complex and abstract reasoning skills which are associated with caregiver responses. The higher the stage, the greater the likelihood that parents will generate appropriate responses and provide effective caregiving. Newberger theorized that parental awareness revealed the complexity and flexibility of parents' underlying cognitive resources.

To date, four published studies have tested Newberger's (1980) stage theory. In the first, Dekovic and Gerris (1992) investigated whether parental awareness was associated with observed or self-reported behavior. Participants included 226 parents (mothers and fathers from 113 families) of elementary school age children with a wide SES range and various educational backgrounds. Occupation and education were found to be related to caregiver behavior, and parental awareness made an independent contribution to caregiver behavior even after these factors were held constant. Parental awareness stage levels were associated with parenting style and child outcomes. Specifically, lower stages were associated with authoritarian parenting and reduced children's self esteem whereas higher levels were associated with increased sensitivity and authoritative parenting.

A second study using Newberger's (1980) model was conducted by Gerris, Dekovic, and Janssens (1997). They investigated relations between parental awareness and social class (education level and occupation level), value orientations, and childrearing behaviors. Gerris et al. labeled parental awareness as "parental perspective taking." Participants included 124 mothers and 113 fathers (125 families) from various SES and educational backgrounds. Childrearing behaviors were assessed through direct observation, interviews with parents, and from independent observers. Parents were rated on six scales: warmth, responsiveness, power assertion, induction, demandingness, and restrictiveness. Social status was positively related to parental perspective taking and value orientation. LISREL modeling revealed that the relation between social class and childrearing style was mediated by parental perspective taking. Parental perspective

taking was a better predictor of caregiver behavior than were parental values: higher levels of perspective taking, or parental awareness, were associated with more sensitive, authoritative parenting.

A third study, conducted by Rodrigo, Janssens, and Ceballos (2001), related Newberger's (1980) parental awareness construct with a social cognitive theory of action complexity. Using a sample of 60 mothers with a child between 7 – 10 years old, mothers who reasoned at higher levels of awareness also had more abstract and broader explanations for their actions. Both maternal reasoning complexity and action complexity played mediating roles between maternal SES and negative childrearing behaviors. These related measures of cognitive complexity were associated with parental sensitivity: caregivers who reasoned at higher stages of awareness and action complexity showed lower levels of controlling, demanding, and permissive behaviors, and higher levels of warmth and responsiveness.

Taken together, these studies indicate that parental awareness is an important support for parents. A second stage theory regarding parental cognition is presented next.

Sameroff and Feil: Concepts of Development. Sameroff and Feil (1985) proposed that parents progress through four stages of Concepts of Development. Higher stages in this model represent more developed cognitive capacity, greater abstraction, and broader concepts of child development. In the first stage of development, *symbiotic* parents attend only to the immediate responses to their actions and judge interactions as successful when they elicit the desired response. At the second level, *categorical* parents state single causes for a particular situation. *Compensating* parents, at the third level, specify two or

more influences, but do not integrate the influences. In contrast, *perspectivistic* parents in the final stage understand that developmental outcomes are a function of the characteristics of a particular child interacting with specific environmental influences across time. The higher the stage, the more likely parents are to think about their children outside parent-child interactions and include contextual factors when interpreting child behaviors. Because these interpretations are thought to affect behaviors, they represent an important determinant of caregivers' responses.

To date, three empirical efforts have tested Sameroff and Feil's (1985) Concepts of Development theory. First, Gutierrez, Sameroff, and Karrer (1988) investigated the effect of acculturation on Concepts of Development. In a study including 69 Mexican-American mothers and 20 European-American mothers recruited from daycare facilities in Chicago, Mexican-American mothers were evaluated for their level of acculturation and socio-economic status was assessed for all mothers. Mothers also completed the Concepts of Development Questionnaire (Sameroff & Feil, 1985). Gutierrez et al. theorized that highly acculturated Mexican-American mothers would be comparable to European-American mothers in Concepts of Development classifications. Their results did not support this hypothesis, but did provide interesting information regarding cognitive developmental change. The researchers found that high SES mothers varied in their concepts of development: more acculturated Mexican-American mothers provided more complex developmental explanations for child behavior than did European-American mothers or less acculturated Mexican-American mothers. Gutierrez and colleagues suspected that the necessity to integrate two cultures allowed mothers to

“differentiate and coordinate multiple influences on development” (Gutierrez et al., p. 253), presumably a cognitive prerequisite for effective caregiving.

Next, in a series of three studies, Pratt, Hunsberger, Pancer, Roth, and Santolupo (1993) explored the validity and utility of the Concepts of Development construct. The first study assessed measures of working memory (i.e., backward digit span), Concepts of Development vignettes, and a discourse measure of reasoning complexity in 15 male and 20 female participants aged 7 to 27 years. The researchers found that Concepts of Development levels were associated with age and with levels of differentiation on the integrative complexity measure, but not associated with information processing capacity. In the second small study ($N = 24$ parent/child dyads), Concepts of Development levels were associated with caregivers’ greater use of effective and sensitive teaching techniques during homework and with warmer patterns of responding. Their third study tested the development of concepts across adulthood. Sixty adults were interviewed about hypothetical and real examples of parental problem-solving, and completed a scale measuring authoritarianism. There were differences by type of dilemma: hypothetical parenting dilemmas were especially difficult for older adults. Furthermore, authoritarianism, considered a simplistic cognitive stance, was associated with lower Concepts of Development levels across the lifespan. Taken together, the results of these three studies provide support for the view that Concepts of Development stage scores are positively related to reasoning complexity and effective caregiving.

In more recent longitudinal research on parental concepts of development, Miller-Loncar, Landry, Smith, and Swank (2000) investigated direct and indirect paths of

influence of mothers' Concepts of Development and maternal sensitivity on child outcomes. Pre-term ($n = 184$) and full-term ($n = 103$) mother-infant dyads were evaluated. Mothers completed the Concepts of Development questionnaire (Sameroff & Feil, 1985) and were assessed on attention-directing behaviors and sensitivity when their children were 2 years old. Children's social responsiveness was measured when they were 4½ years old. Structural equation modeling revealed that maternal complexity of thought related indirectly to child social responsiveness through a direct relation with parenting behaviors. These researchers concluded that cognitive complexity of parents' ideas about children was related to effective parenting behaviors.

Comparison and Limitations of the Two Stage Theories.

Although these stage theories provided a simple and appealing way of understanding variation in parental social cognitions and associated differences in caregiving, limitations exist. The stage notion of development in parents' ideas about children and childrearing shares some of the weaknesses of all stage theories (e.g., Flavell, 1982). For example, the hypothesized qualitative changes in cognitive development are likely linked to more gradual quantitative developments. Second, stages are often less coherent than stage theorists propose depending on the domain or the particular questions asked.

Of the two theories, Sameroff and Feil's is more differentiated due to the inclusion of a basic idea of change across time. In addition, measurement of the Concepts of Development construct is facilitated by the availability of a self-report measure.

However, neither theory accounts for why people change or advance to the next stage (i.e., cognitive development).

Despite the limitations of the stage theory approach, this research has sparked additional interest in the role that parental social cognition plays in differences in caregiving behaviors. Specifically, interest in characteristics of parents rated at the higher ends of the ability continuums are now under investigation. For example, more recent research has focused on perspective-taking skills which are likely related to the higher levels of understanding described within both of the previous models.

Parental Perspective Taking

The next approach to understanding the social-cognitive mechanisms involved in parental sensitivity can be categorized under the rubric of parental perspective taking. Three terms for essentially the same characteristic have been proposed. *Reflective function*, *insightfulness*, and *maternal mind-mindedness* each refer to parents' abilities to understand their own and their children's intentions, motivations, and emotions. Research indicates that individual differences in parents' abilities to understand their own mental states and take the perspective of their children relate to parental responses.

Fonagy: Reflective function. In an early study of mental state awareness, British psychoanalyst Fonagy and colleagues (Fonagy, Steele, Steele, Moran, & Higgitt, 1991) investigated a person's ability to understand that the self feels, perceives, and reacts (i.e., mental activity). They distinguished between two linked cognitive structures: a *pre-reflective self*, considered the unmediated "experiencer of life" and the *reflective self*, the "internal observer" of mental life. The reflective self represents the ability to "take

account of one's own and others' mental states and, thus, to understand why people behave in specific ways" (p. 203). Fonagy et al. labeled the ability *mentalizing*, and proposed that the mind is fundamentally interpersonal and that an understanding of self is interdependent with an understanding of others.

As theorized by Fonagy and colleagues (e.g., Fonagy et al., 1991), reflective function plays a critical role in parenting and is associated with current maternal attachment status. In a study of 200 British mothers, adult attachment classifications measured with the Adult Attachment Interview (George et al., 1985) completed before the birth of their children, were strongly related to measures of reflective function independent of social class, SES, ethnicity, education and verbal intelligence. Furthermore, there was a strong predictive association between mothers' adult attachment status and child's attachment status at one year. The researchers concluded that secure attachment is founded on caregivers' understanding of and sensitivity to the infant's mental world. They argued that the ability to observe and understand one's own mental activity is a precursor to understanding and sensitively caring for a child.

Koren-Karie: Insightfulness. In a second line of research on parents' perspective taking, Koren-Karie and colleagues (Koren-Karie, Oppenheim, Dolev, Sher, & Etzion-Carasso, 2002; Oppenheim, Koren-Karie, & Sagi, 2001) studied a mother's empathic understanding of her child's inner world, or her *insightfulness*. This includes her ability to see things from her child's perspective (i.e., to understand motives, intentions) and to build a complex view of the child by continuing to accept new information about her or him. They characterized mothers in one of four ways: *positively insightful* (able to see

through child's eyes), *one-sided* (holding pre-set conceptions of child behaviors that don't change), *disengaged* (lacking emotional involvement), and *mixed* (no clear pattern). Mothers' classifications were associated with effective caregiving. Koren-Karie et al. (2002) theorized that insightful mothers would provide a more emotionally complete picture of their child's motives and behaviors, update their understanding in light of new behavior, and respond overall in more sensitive ways. In contrast, one-sided or disengaged parents were considered at risk for having insecurely attached children.

One empirical investigation of insightfulness included 118 mothers who were part of a larger longitudinal study. Mothers participated with their 4.5 year old children (Oppenheim et al., 2001). Forty-six of the children had been rated securely attached at 12 months; 72 had been rated as insecurely attached (50 ambivalent, 22 disorganized). Maternal insightfulness was rated based on interviews of previously videotaped interactions. Results indicated that mothers' insightfulness was related to infant attachment status. Mothers who were accepting of their children's behaviors, attempted to understand their children's motives, and related their understanding of their children's behaviors in coherent ways had children who had previously been classified as securely attached. In contrast, mothers of children previously rated as insecurely attached were more likely to hold "one-sided, incoherent, rigid, or mixed styles of thought and speech" (p. 23).

In a second empirical test of insightfulness, Koren-Karie et al. (2002) examined the associations between mothers' insightfulness, sensitivity, and infant attachment status for 129 Israeli mothers and their 12-month-old infants. Mothers' insightfulness was

assessed using Oppenheim et al.'s (2001) Insightfulness Assessment, an interview that asks mothers to report on their child's mental states while watching pre-recorded segments from structured play, diapering, and maternal distraction episodes. Maternal sensitivity was assessed using the Maternal Sensitivity Scale developed by Biringen, Robinson, and Emde (1993). Infant attachment status was identified from the Strange Situation. Using regression analyses, researchers concluded that caregiver insightfulness was a better predictor of infant secure attachment status than was caregiver sensitivity.

Meins: Maternal mind-mindedness. The third concept of caregivers' perspective taking ability is *maternal mind-mindedness*. It is described as a "proclivity to treat one's infant as an individual with a mind, capable of intentional behavior" (Meins et al., 2002, p. 1716). Meins and colleagues (Meins, 1997; Meins, Fernyhough, Fradley, & Tuckey, 2001) noted that Ainsworth's description of sensitivity included the requirement for caregivers to perceive and correctly interpret their infants' cues. They proposed that these skills require an understanding of the child's mental state and that this measure of caregiver sensitivity might help explain infant attachment status.

An empirical study by Meins et al. (2001) investigated the role of mind-mindedness as a predictor of infant attachment security. Seventy-one mothers and their 6-month-old infants participated. Mother-infant dyads were videotaped during non-structured interaction sessions when infants were 6-months old. Mothers' sensitivity was assessed using Ainsworth, Bell, and Stayton's (1971) scale. Maternal mind-mindedness was based on direct observations and categorized under five headings: maternal responsiveness to change in infant's direction of gaze; maternal responsiveness to

infant's object-directed action; imitation; encouragement of autonomy; and appropriate mind-related comments. At 12-months, infant attachment status was assessed using the Strange Situation. Researchers found that mothers' explicit use of mental state language regarding their 6-month old infants was a better predictor of later secure attachment than observed maternal sensitivity. Significantly, mothers' perspective taking ability, which was assessed prior to the birth of her child, predicted infants' secure attachment formation.

Comparison and Limitations of the Perspective Taking Models

Although no empirical concurrent comparisons of reflective function, insightfulness, and maternal mind-mindedness have been published, their correspondence seems evident. By definition, *insightful* mothers are *mind-minded* mothers and use *reflective function*. Empathic understanding is included in all of these concepts. Each measures parents' understanding of mental states. For clarity, they are included here under the heading of *parental perspective taking*. Together they provide a strong argument that understanding mental states influences effective caregiving.

Constructs describing parents' ideas about children, parental perspective taking, and attachment status advance our understanding of how social cognition relates to childrearing. Research from all three of these separate efforts indicates that parenting behaviors based on more flexible, child-centered ideas about rearing are associated with positive child outcomes. It seems evident that these disparate lines of research tap overlapping characteristics of parental perspective taking. In addition, these perspective taking constructs may be related to other parental social cognition constructs.

Usefulness is limited, however, due to assessment complexity. As mentioned earlier, extensive interviews (e.g., the AAI) burden participants and highly structured coding schemes make interpretation difficult. Of the assessments completed by participants in the reviewed studies, Oppenheim et al.'s (2001) Insightfulness Assessment provides a more concise and clear measure of perspective taking skills than the others.

The perspective taking models also appear to be related to the parenting stage theories described earlier. The cognitive characteristics defined in the perspective taking constructs are consistent with those found in descriptions of the higher stages of Newberger's (1980) theory of Parental Awareness and Sameroff and Feil's (1985) Concepts of Development. In both of these stage theories, parents' abilities to consider multiple dimensions (i.e., their own and their child's perspective) is associated with higher stages of cognitive development and more effective caregiving (e.g., Dekovic & Gerris, 1992). In contrast, the inability to consider mental states is associated with problems across the lifespan (e.g., Grietens & Hellinckx, 2002; and see epistemic egocentrism, as discussed in Royzman, Cassidy & Baron, 2003). The actual relations among the perspective taking constructs and ideas about children and childrearing is an empirical question.

Comparisons and Limitations of Content Constructs

Fonagy (2001) recently published a paper in which he described a link between Reflective Function and Secure Adult Attachment. He suggested that a secure attachment relationship provides an intersubjective environment which facilitates "symbolic understanding of internal states by the human mind" (p. 188). That is, the ability to

understand mental states originates in secure attachment relationships and then fosters secure attachment relationships. Similarly, Allen, Bleiberg, and Haslam-Hopwood (2005) stated that Secure Adult Attachment “provides crucial scaffolding for the ongoing activity of mentalizing and for its continuing development” (p. 65). This proposed link between perspective taking and Secure Adult Attachment poses an interesting question regarding the inter-relatedness of social cognition constructs. If Secure Adult Attachment relationships promote the development of the perspective taking abilities that are associated with effective parenting, then an association should exist between perspective taking abilities and a caregiver’s reported Secure Adult Attachment. A test of this proposed association would increase our understanding of the correlates of effective caregiving.

The focus on content in parental social cognition has provided invaluable information regarding the nature and characteristics of thoughts related to the childrearing domain. However, much of what is considered effective caregiving has been conceptualized as a static, stable individual difference. Caregivers’ behaviors (i.e., responses to infant cues or perspective taking skills) have been analyzed at one or a limited number of time points (e.g., Sameroff & Feil, 1985) and have been conceptualized as static organizers of behavior. As mentioned earlier, Baumrind’s (1971) proposed parenting styles were said to represent parenting behaviors that occurred over a wide range of situations. Similarly, Dekovic et al. (1997) proposed that stage levels represented stable social-cognitive structures that were consistently applied to issues

relevant to the childrearing domain. Clearly, these underlying cognitive representations affect caregiver behavior.

However, research indicates that parents' behaviors change across time, contexts, and with different children (Holden & Miller, 1999). The Concepts of Development and Parental Perspective Taking constructs provide no mechanism for change. Therefore, a more complete explanation of the origins of effective caregiving must also account for change in caregiver responses. Descriptions of change in the childrearing domain are presented next.

The Dynamic Nature of Effective Caregiving

Many researchers have recognized that development in children and changes in the environment require change in the parent. Demick and colleagues (Demick, 2002; Wapner & Demick, 2000) describe cognitive change as the result of perturbations in the "person-in-environment" system that require new ways of interacting. This "systems" approach indicates that a parent's cognitive disequilibrium, initiated by an event that is important to the parent and related to the child, would require reorganization, or change, in the parent's self-world relationship to restore cognitive equilibrium.

For example, the onset of a young child's locomotion requires new disciplinary behaviors that can tax caregivers' abilities to be sensitive (Campos, Kermoniam, & Zumbahlen, 1992). Similarly, adolescence brings additional requirements for adjustments in supervision (e.g., monitoring). This fine-tuning of caregiver behavior is indicative of effective caregiving and is associated with important outcomes for adolescents (e.g., Mize, Pettit, & Brown, 1995) including better academic performance (Crouter,

MacDermid, McHale, & Perry-Jenkins, 1990). These and other developmental milestones require assessment (or reassessment) of child capacity and contextual risks.

The dynamic nature of childrearing necessitates caregivers' continued cognitive and psychosocial development. A failure to accurately assess each situation and adapt to new conditions, reduces the likelihood that caregivers will respond effectively. This ability will likely be affected by the kinds of interactions that occur between parent and child as well as the associated cognitive processing.

Cognitive Processing Levels

To date, the majority of research on parental social cognition has been directed at implicit processes (i.e., schema-based cognitions) that occur automatically and with little or no awareness (e.g., internal working models, attributional styles), and explicit processes (i.e., effortful cognition) that occur with higher levels of awareness (e.g., planning, problem-solving, mindfulness). These two processing levels provide a useful distinction for understanding the social-cognitive underpinnings of effective caregiving. Research reviewed next examines cognition at both of these processing levels.

Schema-based Cognition

Parents' ideas about children, childrearing, as well as their implicit understanding of their own and their children's mental states represent underlying schemes that organize automatic responses to behavior. Because these underlying cognitive structures influence the ways in which caregivers attend to, encode, interpret, and respond to different stimuli in their environments (e.g., Bargh, 2006), it is important to understand how they are constructed, as well as explicate the direct and indirect influences on their nature.

Construction of schemes. Almost 60 years ago, Piaget (1970) described a schema as a cognitive structure built through direct interaction with the environment. These internal representations were said to organize one's understanding of reality and adapt through assimilation and accommodation. Although Piaget's groundbreaking work focused on child development, research indicates that the equilibration he described continues in adulthood (e.g., Padesky, 1994) and current research on automaticity indicates that much of human behavior depends on the complexity and availability of the schemes one holds. Schemes are constructed by parents about children and childrearing during direct interaction with their early environment. These representations likely have powerful effects on later parenting behaviors (e.g., Grietens & Hellinckx, 2002). However, the direct effects from early experiences are not the only influence on internal representations; schemes are influenced by other individuals, family systems, communities, and culture (e.g., Bronfenbrenner, 2001).

Influences on schema content. Over the past 15 years, efforts to illuminate the influences on parental schemes have included investigations of family systems, communities, and culture. In terms of the family as a system, Fiese and Sameroff (1999) investigated the stories families tell. These researchers stated that family narratives reflect internal representations of the family as a "rule-governed system that changes over time" (p. 1). In an investigation of the influence of communities, Palacios, Gonzalez, and Moreno (1992) found that parents' estimates of the degree to which they will influence their children's development were related to the type of community in which they lived (e.g., rural or urban). At the broader, cultural level, Harkness and Super (1992) identified

what they labeled as *parental ethno-theories* which included expectations that parents hold that affect the ways in which they structure children's environment and, therefore, affect child outcomes. Furthermore, Markus and Kitayama (1991) identified divergent American and Japanese culture's constructions of the self, of others, and of the interdependence of the two. These multiply determined schemes influence caregiver interpretations of children's behaviors and, presumably, play a part in how parents interact with their children.

Effortful Cognition

Investigations into the effects of explicit, or effortful, cognition on caregiving have centered on proactive parenting (e.g., Holden, 1983), problem-solving (e.g., Webster-Stratton & Hammond, 1997), Meta-parenting (Holden & Hawk, 2003), and Mindfulness (Brown & Ryan, 2003). These constructs generally seek to explain *how* parents think. Each will be described next.

Proactive parenting. Proactive parenting involves planning. Specifically, it describes anticipation prior to an event or interaction and includes pre-selection of a behavior. Proactive parenting is associated with effective caregiving and child behavior. For example, Kuczynski and Kochanska (1995) found that proactive parenting reduced children's misbehavior. They discovered that mothers who used "future-oriented" demands or offered guidance about appropriate behaviors before challenging situations occurred had toddlers who were more compliant and less oppositional. Similarly, Holden (1983) showed that mothers who planned ahead for a potentially stressful trip to the grocery store were rewarded with fewer incidents of misbehavior. Mothers preempted

problem behaviors in their small children by bringing toys or snacks to divert the child's attention and by avoiding aisles with toys and candy. By planning ahead, caregivers were able to reduce situations that might lead to problematic exchanges or interactions.

Problem-solving. Problem-solving, a second area commonly identified in effortful cognitions, describes how parents recognize a problem, identify the source of the problem, generate possible solutions, anticipate possible outcomes associated with the solutions, test a solution, and evaluate the success of the solution (Crick & Dodge, 1994). Socialization, a primary parenting goal, has even been described as effective problem-solving (Grusec & Ungerer, 2003). Because problem-solving skills are essential to effective parenting, many parent training programs include training for this task (e.g., Webster-Stratton & Hammond, 1997).

Meta-parenting. In a more recent effort to conceptualize effortful, or deliberate, parental social cognition, proactive parenting and problem-solving have been incorporated into a superordinant construct labeled *Meta-parenting* (Holden & Hawk, 2003). The construct includes Anticipating (e.g., planning), Assessing, Problem-solving, and Reflecting. These deliberate thoughts typically occur before or after interactions with children. Holden and Hawk proposed that effortful attention to the childrearing domain facilitates appropriate responses to ongoing parenting challenges, the essence of effective parenting. A description of each component follows.

Anticipating refers to parents' intentional consideration of something related to childrearing that has yet to occur. Through Anticipation, short-term and long-term parental goals can be organized and activated. For example, a parent may childproof a

home before an infant can crawl (Morrongiello & Kiriakou, 2004) or start a college fund for a child beginning kindergarten. Assessing, the second component, involves parental evaluations of the child, self, and context. An example of assessing includes when a parent thinks about her child's academic development or monitoring peer social interactions (e.g., Parke et al., 2003). Reflecting, the third component, involves parents' re-assessment of their own behaviors, their child's behaviors, or past parent-child interactions. Reflecting on past experiences affords parents the opportunity to evaluate factors in the childrearing domain in a reasoned way (e.g., Fonagy et al., 1991; Heath, 2000). The final component, Problem-solving, involves multiple aspects of parental thought, including identifying a problem, planning a solution, implementing the solution, and evaluating the result (e.g., Crick & Dodge, 1994). Through these processes (Anticipating, Assessing, Reflecting, and Problem-solving) myriad childrearing issues can be dealt with effectively, whether it be a universal childrearing problem (e.g., diagnosing why an infant is crying; Holden, 1988) or an issue specific to parents of special needs children (e.g., severe communication impairment in children with developmental disabilities; Bristol, Gallagher, & Schopler, 1988).

In the first empirical test of Meta-parenting (Hawk & Holden, 2006), 116 U.S. mothers reported on their Meta-parenting and described their usual responses to child misbehavior. All mothers reported that Meta-parenting is a frequent occurrence in their daily lives. Mothers of younger children reported more Assessing and Anticipating. Mothers in smaller families reported engaging in more Problem-solving. Mothers of boys Anticipated more than mothers of girls. Higher levels of life stress were associated with

more Reflection. Mothers who engaged in more Problem-solving reported lower levels of over-reactivity and laxness, but mothers who reported higher levels of Reflecting were also high on over-reactivity. Hawk and Holden concluded that mothers commonly engage in multiple components of Meta-parenting which are influenced by maternal, child, and contextual factors and related to reported childrearing behaviors.

Mindfulness. The final social cognitive construct to be described that relates parenting is Mindfulness. It has been described as the state of being aware of and attentive to what is going on in the present moment (Marlatt & Kristeller, 1999). It includes the ability to understand the thoughts, motives, and emotions of others, as did the parental perspective taking constructs discussed earlier. However, it also includes a heightened readiness to accept sensory and perceptual stimuli and emphasizes the importance of a non-judgmental receptivity to whatever is occurring in the present moment (Kabat-Zinn, 1994). The emphasis is on attention to and interpretation of environmental stimuli without automatic processing.

The construct of Mindfulness is relatively new to developmental psychology. However, interest in this social cognition construct has grown rapidly in the last decade in other areas of psychological research, in particular, in clinical psychology (for a review, see Baer, 2003). Brown and Ryan (2003) examined the role of Mindfulness in psychological well-being. They proposed that the co-occurrence of regular or sustained awareness and attention to the present allows humans to function effectively. Awareness is defined as a continuous monitoring of the “inner and outer environment” (p. 822), and attention, which is the process of focusing conscious awareness on a particular

experience. Although little research has been conducted on Mindfulness as it relates to parenting, there are indications that Mindfulness training can be beneficial.

Dumas (2005) proposed that Mindfulness training be added to behavioral parent training (BPT) programs to create a mindfulness-based parent training (MBPT). Specifically, Mindfulness training is intended to reduce the level of automatic responses that can become instantiated in families with disruptive children (see also, Patterson & Stouthamer-Loeber, 1984). In these families, coercive and maladaptive response patterns become over-learned, or scripted, and a move to more effortful, or mindful, responses would likely lead to more effective caregiving.

In a second effort toward understanding the influences of Mindfulness on parenting, Wahler (2002) analyzed conversations with effective mothers and performed home observations. He described three characteristics of mindful parents: (1) they encouraged their children to articulate their personal beliefs and experiences, (2) they used the information received from these descriptions to develop caregiving strategies that were specific to the child in question, and (3) they were able to respond to specific situations with each child without being overwhelmed by the pressures experienced in adverse parenting situations. Mindful responding seems to allow caregivers to stay focused on their children, acknowledge children's agency and value during interactions, and respond in appropriate ways.

Effortful Cognition and Effective Caregiving

Proactive parenting, problem-solving, Meta-parenting, and Mindfulness are effortful forms of thought that can positively affect caregiver effectiveness and may, by

reducing parent-child conflict, facilitate closer relationships. Parents are likely to benefit from these effortful cognitions in all childrearing contexts, but their value becomes even more apparent in the most challenging environments.

For example, all working parents of school age children must determine how to manage children's after-school time. Mothers in neighborhoods with chronic social and economic challenges (e.g., crime, poverty) must more carefully weigh the costs and benefits of community involvement. In a 7-year study of 500 families in disadvantaged neighborhoods in Philadelphia, Furstenberg et al. (1999) found that effective mothers made different decisions about their children's after-school activities based on the physical danger they perceived in their communities. Mothers in some of the communities made sure their adolescents were busy with structured after-school activities in community and religious organizations. These teens were less likely to engage in delinquent behaviors than those left on their own. In contrast, in the communities where crime and associated dangers were highest, effective parents used very restrictive monitoring practices to reduce the possibility of immediate harm. Their children came directly home after school and were isolated from potential dangers in the neighborhood. Parents in each of these communities evaluated their child's characteristics and their neighborhoods to guide parenting behaviors. They engaged with the community when involvement would improve their children's opportunities, but isolated their families to limit exposure when the risk of immediate danger was too high.

Summary of Literature Review and Hypotheses

Current research indicates that effective caregiving is facilitated by two broad social-cognitive underpinnings: (1) access to a complex set of concepts of child development that include perspective taking abilities and positive attachment representations, and (2) cognitive processing that includes appropriate use of schema-based, effortful, and mindful cognition. In other words, effective caregivers appear to have a comprehensive understanding of children and childrearing, the ability to understand mental states, and the ability to mindfully attend to children while considering situational or environmental concerns. These cognitive underpinnings provide caregivers with the flexibility required to adapt caregiving strategies for a particular child within a unique developmental environment – a skill much needed for effective caregiving. To ascertain the relations among these separate constructs of parental social cognition, parenting constructs, and child assessments, an integrative concurrent study is necessary.

Two goals guided this investigation into the associations among social-cognition variables, effective parenting constructs, and child measures. The primary goal was to examine the relations among five social-cognitive variables: caregivers' Concepts of Development (Sameroff & Feil, 1985), Insightfulness (Oppenheim et al., 2001), Secure Adult Attachment (e.g., Van IJzendoorn, 1993), Meta-parenting (Holden & Hawk, 2003), and Mindfulness (e.g., Brown & Ryan, 2003).

Although Concepts of Development, Insightfulness, and Meta-parenting have never been studied concurrently, associations were expected for two reasons. First, the maternal perspective taking indicative of higher levels of Concepts of Development is

consistent with that found in descriptions of Insightfulness. For example, highly rated caregivers are aware of, and attentive to, their child's internal state (i.e., emotions, intentions, and motivations) and external environments. Further, it had been theorized that Meta-parenting facilitated parents' awareness of their child, most likely in a bidirectional manner. For example, parents' Assessing would likely be associated with a higher level of understanding, and Anticipating would easily be triggered by understanding a child's goals. Because Concepts of Development, Insightfulness, and Meta-parenting shared characteristics related to mothers' awareness of their child, they were expected to be positively correlated.

Another research question related to the first goal concerned the relations among Secure Adult Attachment, Concepts of Development, and Insightfulness. Fonagy (2001) theorized that an understanding of others was interdependent with an understanding of self. He reasoned that the cognitive coherence that is characteristic of a Secure Adult Attachment status allows mothers to interpret their child's perspective and respond in sensitive ways. Because high ratings on Concepts of Development and Insightfulness indicated a more complex and nuanced understanding of the child, it was expected that higher scores on these two measures would be positively related to higher Secure Adult Attachment scores.

The second goal was to examine the associations among the social cognition constructs, the two indices of parenting beliefs and behaviors, and the three child measures. Two hypotheses guided this work. First, it was expected that Insightfulness would be a stronger predictor of effective parenting than would Secure Adult Attachment

or Concepts of Development. Insightfulness – the ability to understand the child’s mind -- appeared to exemplify the essential element of the other constructs that would lead to effective caregiving. Insightfulness represented the highest stage of Concepts of Development, and was more specific to the child than the broader construct of Secure Adult Attachment.

Next, it was expected that Meta-parenting would be positively related to effective parenting measures and child behaviors. Those parents who reported higher levels of Meta-parenting were also expected to report higher levels of Authoritative and AWARE parenting. Holden and Hawk (2003) theorized that the effortful cognition represented by Meta-parenting was a “mechanism of change” for parents. By adjusting ideas and behaviors through Meta-parenting, caregivers would, presumably, improve parenting and be associated with better child behavior. The three child measures included in the present study were (1) the warmth and closeness of the parent-child relationship, (2) a recent history of child injury, and (3) reports of aggressive behavior. No specific predictions were made about the relations among the social cognitive constructs and these measures.

Most of the reports analyzed for this study were obtained from a single informant, the mother. However, in an attempt to provide convergent support for maternal reports and investigate the utility of using second informants for social cognitive research, secondary informant ratings for one parenting assessment (AWARE parenting) and one social-cognitive construct (Meta-parenting) were added. No predictions were made about associations between caregiver and secondary informant ratings on these measures. See Table 1 for a listing of all variables.

CHAPTER TWO

METHOD

Participants

Participants were recruited in one of two ways. Mothers who had participated in an earlier parental social cognition study ($n = 187$) were mailed recruitment letters. Sixty-five were subsequently contacted by phone, and 41 agreed to participate. In addition, names of mothers were obtained from a database. Two-hundred-fifty of these mothers were contacted by phone, and 109 agreed to participate.

In all, 150 mothers agreed to participate in the study, and were e-mailed the website URL and an ID number for login purposes. One-hundred-forty mothers logged on to the study website and completed at least one questionnaire (see Table 2). Only data for those mothers who completed all of the five social cognition measures were analyzed ($N = 102$).

Participants had from one to six children between the ages of 2.8 and 14.5 years ($M = 6.7$, $SD = 3.6$) and were primarily college-educated (75%), European-Americans (60.8%). Fifty-three percent reported annual family incomes over \$90,000, and another 32.5% indicated incomes between \$50,000 and \$90,000. Maternal age averaged 38 years ($SD = 5.78$), and 90% ($n = 91$) of the mothers were married (see Table 3).

Maternal Measures

The procedure included mothers filling out nine self-report measures of mothers' cognitions and childrearing behaviors. Five instruments assessed the quality of parents' cognitive structures regarding close relationships and childrearing. They included a

survey of parental concepts of child development, a narrative response that was used to assess parental insightfulness, a measure of secure adult attachment characteristics, an assessment of meta-parenting, and a survey on mindfulness. In addition to assessments of mothers' cognitions, two measures of parenting behaviors were included: an Authoritative parenting evaluation and a measure to determine parents' use of AWARE parenting. In addition to maternal variables, three child measures were included. The first survey assessed the level of warmth and closeness in the parent-child relationship (Warm Relationship). The two final child measures completed by mothers were a child injury history and an evaluation of their child's aggressive behaviors. A 20-item demographic survey was also included. In total, mothers completed 11 measures (see Table 2).

Concepts of Development Questionnaire (Sameroff & Feil, 1985). This measure (Appendix A) assessed caregivers' underlying beliefs about children and childrearing. Ten *categorical* statements (e.g., "Parents must keep to their standards and rules no matter what their child is like") and 10 *perspectivistic* statements (e.g., "Children's problems seldom have a single cause") are included for which respondents were asked to rate their levels of agreement. Responses were given on a 4-point Likert scale. Response options range from 1 = (*strongly disagree*) to 4 = (*strongly agree*). Sameroff and Feil reported the Cronbach's α for the total scores as .82. The α in the present sample was .64.

Insight. This measure assessed caregivers' abilities to describe internal motivations for their child's behavior (i.e., to view things from the child's point of view). Questions from Koren-Karie and Oppenheim's (2004) Insightfulness Assessment were administered in a novel way. In the original version of this assessment, caregivers watch

video segments of their children and answer questions regarding their child's mental states. The 45-minute interview process includes discussion of three video segments which usually yield a lengthy transcript (10-12 pages). Transcripts are first assessed on 10 ratings using a 9-point scale (i.e., Complexity, Focus, Insight, Acceptance, Hostility, Concern, Separateness, Flexibility, Richness, and Coherence) and then given an overall insightfulness rating (i.e., Positive insightfulness, Non insightful/one sided, Non insightful/disengaged, and Non-insightful).

Because video segments were not included in this dissertation, mothers were asked to describe a recent interaction they had with their child in which the child felt strongly about doing something. Mothers then answered the five questions used as prompts in Koren-Karie and Oppenheim's assessment (2004). Three questions specifically asked about the child's mental state (e.g., "What do you think went through your child's head during this episode?"; what did she or he think or feel?") and two asked about the child in general (e.g., "Based on what you described today and your familiarity with your child, what are the things that characterize your child the most?"). Responses were rated on a 9-point scale by two undergraduate research assistants. This rating assessed a mother's ability to provide internal motivations for her child's behavior. This rating scale was selected for two reasons: (1) high ratings on this scale are almost always associated with Positively Insightful global ratings (Koren-Karie and Oppenheim), and (2) this rating was appropriate for the concise maternal comments we collected (N. Koren-Karie, personal correspondence, January 25, 2007). After training, inter-rater reliability was .75 based on 137 transcripts. Following Koren-Karie and Oppenheim,

items within 1 point were considered reliable, and were given a score between the two original scores. All other discrepant items were discussed and scored after raters reached agreement (see Appendix B).

Secure Adult Attachment. This measure assessed parents' secure adult attachment characteristics. Allen, Stein, Fonagy, Fultz, and Target (2005) surveyed an international panel of experts to develop items for a new Q-Sort measure of Adult Attachment. For the purpose of this study, participants were asked to assess their agreement with each item regarding their closest (adult) relationship. Because the computerized Q-Sort is still in development, Allen recommended changing the format (J. Allen, personal correspondence, April, 25, 2006). This is not without precedence; the Block Child-rearing Practices Q-Sort was modified into a self-report measure without impeding reliability (Rickel & Biasatti, 1982). Therefore, 44 items for which there was consensus on secure adult attachment were included (e.g., "When I need him/her, he/she always makes time for me"). Items were rated on a 5-point Likert scale ranging from 1 = (*strongly disagree*) to 5 = (*strongly agree*). Cronbach's α for the items was .98. (Appendix C).

Meta-parenting Questionnaire (Hawk & Holden, 2006). This instrument assesses parents' use of deliberate thought (i.e., effortful cognition) including anticipating, assessing, reflecting and problem-solving. Parents were instructed to respond with a particular, or focal, child in mind. Responses for the 16 items were given on a 5-point Likert scale. Response options include 1 = (*never/rarely*), 3 = (*often*), 5 = (*constantly*). Anticipating questions ask caregivers about planning cognitions (e.g., "To what extent do

you plan ahead for situations in which your child might get bored?”). Assessing items rate mother’s evaluative cognitions about their child or the childrearing domain (e.g., “How often do you think about how well your parenting meets your child’s needs?”). Reflecting items assess mother’s thoughts about events that have already occurred (e.g., “In general, how often do you have concerns, worry, or think about things that have already happened with your child?”). Items assessing Problem-solving allow mothers to describe thoughts about finding solutions for problems (e.g., “How often have you modified a problem-solving strategy to make it more effective when it wasn’t working well?”). (Appendix D). Hawk and Holden (2006) reported Cronbach’s α s for the subscales ranging from a low of .64 to a high of .77. Cronbach’s α s for the present sample ranged from .60 to .83 (see Table 2).

Mindful Attention Awareness Scale (Brown & Ryan, 2003). This 15-item measure evaluates parents’ receptive attention to, and awareness of, present events and experiences (Appendix E). For example, one item states: “I get so focused on the goal I want to achieve that I lose touch with what I’m doing right now to get there.” Items were scored on a 6-point Likert scale with response options ranging from 1 = (*almost always*), to 3 = (*somewhat frequently*), to 6 = (*almost never*). Higher ratings on the scale indicate more mindful day-to-day experiences. Brown and Ryan reported the Cronbach’s α for the scale as .81. For the present sample, Cronbach’s α for the scale was .89.

Effective Parenting Measures

Parental Authority Questionnaire (Buri, 1991). This 30-item questionnaire (Appendix F) measures Baumrind’s (1971) permissive, authoritarian, and authoritative

parental authority styles. Each item is rated on a 5-point Likert scale ranging from 1 = (*strongly disagree*) to 5 = (*strongly agree*). For the purpose of this study, only the 10 authoritative items were used. The items were reworded for self-report by mothers (e.g., “I listen to my child’s point of view when it is different from mine.”). Buri reported the Cronbach’s alpha for the authoritative subscale as .82; In this study, the alpha was .72.

The *Middle School Parenting Questionnaire* (Bronstein et al., 1996) is a 44-item self-report instrument that measures frequencies of parenting behaviors (e.g., “I listen to my child’s point of view when it is different from mine.”) and feelings (e.g., “I am swayed by my child’s viewpoint when we disagree.”). Items are based on a 4-point Likert scale ranging from 1 = (*seldom, if ever*) to 4 = (*very often*). For the purpose of this study, only the 29 items comprising the five AWARE parenting subscales were used (Appendix G). Bronstein et al. reported Cronbach’s alphas for these subscales ranging from .52 to .84. In the present study the total score (average of all subscales) was used. Cronbach’s α for this total score was .82. With Bronstein’s guidance (P. Bronstein, personal correspondence, June, 26, 2006) some items were reworded for mothers of children under 4-years old).

Child Measures

Quality of Parent-Child Relationship Questionnaire (Furman & Gibson, 1995). The PCRQ (Appendix H) is a 57-item instrument designed to assess the quality of the parent-child relationship. It includes five factors: warmth, personal relationship, disciplinary warmth, power assertion, and possessiveness with 19 underlying subscales. For this study, 25 items that comprise the warmth (e.g., “How much do you and this child

care about each other?") and personal relationship factors (e.g., "How much do you and this child give each other a hand with things?") were included. The scale is appropriate for this sample as the instrument was designed for use with parents of preschoolers through sixth-graders. Each item is rated on a 5-point Likert scale ranging from 1 = (hardly at all), to 3 = (somewhat), to 5 = (extremely much). Cronbach's alphas for these subscales have been reported to range from .68 to .88 (M = .81) (Touliatos, Perlmutter, & Holden, 2001). In the present study, Cronbach's α for a combined warmth and closeness scale was .91.

The *Child Behavior Checklist* (Achenbach & Edelbrock, 1983) is a widely used measure that tabulates child behavior problems as reported by parents or other adults who are well acquainted with the child. Adults rate how well each behavior (e.g., "cries a lot", "fears going to school") characterizes the child's behavior during the past 6 months. Items were rated on a 3-point scale where 2 = (very true or often true), 1 = (somewhat or sometimes true), and 0 = (not true). For this investigation, only the aggression subscale was included. Separate forms are provided for children aged 2-3 years (32 items) and 4-18 years (23 items). For analysis with other subscales, all scores were standardized by group. Cronbach's α for the 2-3 year-olds and 4-14 year-olds were .91 and .93 respectively (Appendix I).

Injury History Questionnaire. (Morrongiello, Corbett, McCourt, & Johnston, 2006). In this measure, mothers report the quantity and severity of injuries experienced by their child. Participants were asked about three injury severity levels: (1) minor injuries included those that did not require any treatment or only required minimal

treatment (e.g., band-aid), (2) treatments requiring medical treatment (visit to a doctor's office, clinic, or emergency room), and (3) injuries requiring hospitalization. Only the number of minor injuries during the last 3 months will be considered. This report was selected because it provides the strongest opportunity for variation between participants while maintaining the advantage of recency for accurate recall (Appendix J).

Background Information Form. This 20-item information form (Appendix K) covers demographic information about the parent (age, formal education, employment, family income), information about the family (number, gender of children), and includes estimates of how many hours per week the parent has sole responsibility for the target, or focal, child.

Secondary Informant Measure

In addition to maternal reports, information was collected from a friend or family member. Mothers recommended secondary informants who spent time with the mother and her child, but did not live with the family. This secondary informant assessment included five items that make general assessments of mothers' AWARE parenting (e.g., "How often do you think (your friend) supports her child/children?"), and four items that assess the Meta-parenting subscales (e.g., "In general, how often do you think your friend thinks ahead about things related to her child or her parenting?"). Items relating to AWARE parenting and Meta-parenting were selected to maximize the possibility of collecting convergent information. Because mothers were instructed to select secondary informants who spent time with them and their child, it was likely that the secondary informants observed mothers' behaviors that might be characterized using AWARE

characteristics. Although another person's cognitions are not directly observable, it was expected that behaviors resulting from those cognitions might be. For example, Holden and Hawk (2003) theorized that one expression of Meta-parenting might be mothers' conversations with others regarding childrearing issues. Cronbach's α for the AWARE parenting and Meta-parenting items was .92 and .81, respectively. (Appendix L).

Website

A website for this project was created using PHP scripts interfacing with MySQL database software. It was maintained using PHPMyadmin. The navigation system allowed users to login to the study and complete measures one at a time. The system uniquely identified participants using assigned ID numbers and validated user identities by confirming the mother's first name, e-mail address, and her child's name. The login system also required that the participants agree to an IRB approved digital consent form. All surveys were listed at the welcome page and marked with the participant's progress (i.e., each indicated whether it had been completed or not). Users were allowed to signoff and return to the website to resume progress at their discretion. Once a survey had been completed, it was no longer available to mothers. Only a few instances were reported in which mothers inadvertently logged off the website prior to completing a particular survey or accidentally submitted a survey prior to completion. In these instances, mothers contacted the author, and the measure was reset to allow access.

In addition to the data collection website, a web status page was created that generated real-time progress reports for each participant. This allowed researchers to send personalized e-mail requests to participants (e.g., "only 4 more surveys to go..." or

“you’ve completed the mother’s portion of the survey, now it’s your friend’s turn...”).

During the course of the study, over 600 e-mails were generated to study participants.

Data were exported to Microsoft Excel and imported to SPSS 14 for analysis.

Procedure

Participants were directed to the study website via e-mail. After mothers completed their measures, they were asked to recommend friends or family members to complete a final assessment. Secondary informants were then directed to the study website via e-mail. Participants who completed the maternal measures and recommended secondary informants who provided responses were mailed a \$10 gift card, gift card receipt, and an envelope for returning the receipt.

CHAPTER THREE

RESULTS

Results are presented in four sections. First, preliminary analyses including descriptive statistics for all variables will be provided. Next, evaluations of the hypotheses are reported in two parts. First, descriptions of the relations among the cognitive constructs, associations among the cognitive constructs and effective parenting, and relations among the cognitive constructs and three child measures are presented. Then, the results from an exploratory factor analysis of the social cognitive constructs are presented. These include a description of the extracted factors and the associations among the extracted factors, the parenting measures, and the three child variables. Evaluations of the hypotheses are followed by post hoc analyses of caregivers' responses on parenting and child variables. Finally, secondary informant assessments are presented. These include reports of the associations between secondary informants' and mothers' reports and associations among the secondary informant assessments, the parenting measures, and the child variables.

Preliminary Analyses

Prior to testing hypotheses, data were checked for normality and outliers, and participant characteristics were evaluated as covariates that might confound hypotheses tests. First, continuous variables (i.e., mother's age, family income, child's age, number of children, Concepts of Development, Insight, Secure Adult Attachment, Anticipating, Assessing, Reflecting, Problem-solving, Mindfulness, Authoritative parenting, AWARE parenting, Warm relationship, Injury, and Aggression) were evaluated for outliers (i.e.,

scores that fall more than 3.29 standard deviations away from the mean, $p < .001$, two tailed test). When datasets are smaller than 1000 participants, outliers can markedly influence results. Appropriate remedies include deleting cases or adjusting individual scores. As suggested by Tabachnick and Fidell (2001), 10 outlying points were replaced with a score that was one unit larger (or smaller) than the next least extreme score in the distribution. This procedure minimized undue influence of outliers while retaining all cases that included the five cognitive variables of interest.

After outliers were adjusted, variables were examined for normality. The majority of the variables displayed acceptable distributions. Three required transformations. Family income and Child Injury were positively skewed. Income was moderately positively skewed and benefited from a square root transformation. Child Injury was substantially positively skewed and was transformed using a logarithmic transformation. The final transformation was performed on the Secure Adult Attachment variable which was the only negatively skewed variable. A normal distribution for this variable was achieved using a reflected square root transformation.

Next, participant background characteristics were evaluated as potential confounds in subsequent analyses. The two goals of this research were to examine five social cognitive constructs and explicate their associations, and then to examine whether these social cognitions were associated with child measures. However, the individual characteristics of participants and their families may also determine scores for these factors. If these characteristics are significantly correlated with the social cognitive constructs under investigation, they should be entered as covariates in subsequent

analyses to ensure that results from the variables of interest, and not simply participant characteristics, are elucidated. To test if any of the participant characteristics should be retained as covariates, maternal age, ethnicity, income, education, and child age and gender were evaluated. To maximize the possibility of finding effects for these variables, four maternal variables (age, ethnicity, income, and education) and two child characteristics (age, gender) were regressed in a stepwise manner on the social cognitive, parenting, and child variables (see Tables 4-6).

Three maternal characteristics (ethnicity, age, and income) and one child characteristic (age) related significantly to variable scores. Ethnicity was related to Concepts of Development ($\beta = -.36, t = -3.38, p < .001$) and Authoritative parenting ($\beta = -.23, t = -2.03, p < .05$). European-American mothers scored significantly higher on these variables than non European-American mothers. Mother's age explained a significant proportion of variability for Anticipating ($\beta = -.28, t = -2.61, p < .05$). Younger mothers reported higher Anticipating scores. Family income was also related to the Anticipating subscale ($\beta = .23, t = 2.17, p < .05$); mothers who reported higher incomes also reported more Anticipating. Child age was the only child characteristic that affected variable scores. Mothers with younger children reported higher Warm relationship scores ($\beta = -.24, t = -2.21, p < .05$). In sum, these four maternal and child characteristics were added as covariates when affected variables were included in subsequent analyses.

Descriptive Statistics

The description of variables begins with the social cognitive variables. Next, parenting constructs are described. These are followed by the child variables (see Table 7 for descriptive statistics for all variables). The first social cognitive variable, Concepts of Development, represents the extent to which mothers affirm perspectivistic beliefs about children and childrearing (i.e., multi-faceted, flexible) and refute categorical beliefs (i.e., narrow, rigid). Overall, mothers' scores ranged from 1.65 to 2.75 ($M = 2.11$, $SD = .23$). As mentioned in the preliminary analyses, scores differed significantly by ethnicity. European-American mothers' scores ranged from 1.80 to 2.75. Scores for Non European-American mothers ranged from 1.65 to 2.35.

Secure Adult Attachment scores varied widely ($Ms = 2.07$ to 5.00). Scores at the high end were more than double those at the low end, and were highly consistent (Cronbach's $\alpha = .98$).

Meta-parenting is reported by subscale. The 5-point rating options included "1 = never/rarely, 2 = sometimes, 3 = often, 4 = usually, and 5 = constantly." All mothers reported they typically Anticipated, Assessed, Reflected, and Problem-solved. Anticipating received the highest average score ($M = 3.94$, $SD = .66$) followed by Assessing ($M = 3.57$, $SD = .75$). Mothers also reported Problem-solving "often" ($M = 3.45$, $SD = .64$). Reflecting was the least often reported Meta-parenting component ($M = 2.43$, $SD = .92$) and received the greatest variability ($Ms = 1.00$ to 5.00). In contrast, Anticipating had the least variability ($Ms = 2.25$ to 5.00).

Mothers varied widely on their reports of Mindfulness as measured by their attention to the present moment in everyday experiences. Lower scores indicate low levels of Mindfulness, and mothers reported scores as low as 1.87 ($M = 4.27, SD = .75$). A rating of “2” on the scale indicates that respondents “very frequently” are not focused on the present moment, whereas a “6” indicates that focus is “almost never” distracted from the present moment. The range for this scale was 4.07 displaying good variability on the measure.

Scores on the two measures of effective parenting differed in range. Authoritative parenting scores were generally high ($M = 4.29, SD = .40$). There was a slightly restricted range of response on the 5-point scale. Scores ranged from 3.40 to 5.00. For AWARE parenting, mothers reported scores ranging from 2.42 to 3.80 ($M = 3.28, SD = .28$). The range for AWARE parenting was similar to the range of Authoritative parenting (i.e., 1.38 on a 4-point scale).

Scores for the three child measures are described next. Warmth and closeness in parent-child relationships was rated on a 5-point scale. Scores ranged from 2.99 to 5.00 ($M = 4.17, SD = .40$). Injury scores were reported for the “past 3 months.” Mothers reported their children experienced from 0 to 30 minor injuries ($M = 5.23, SD = 6.38$). By far, the most often reported injury was a “cut of any kind (e.g., scrape, puncture)” with one mother reporting 50 in the prior year. Thankfully, the average number of this type of injury was 5 ($SD = 7.92$). Overall, aggression scores were mostly normative, although a few of the scores for children 4-years and older were higher than average. Aggression scores are reported for two age groups: children under 4-years and those who are 4 and

older. For children under 4 years, Aggression scores ranged from 0 to 35 ($M = 11.45$, $SD = 8.45$). Achenbach and Edelbrock (1986) reported the typical range for this age group as 0 to 46. Aggression for children 4-years and older had the same range, but a lower average ($M = 5.77$, $SD = 6.99$). Scores above 20 for this age group is considered higher than average. Ninety-seven percent of the scores for the present sample were at or below the 75th percentile of reported scores.

Evaluation of Hypotheses

Predictions were made regarding the associations among three of the social cognitive variables and regarding the relations among the cognitive variables and correlates for mothers and their children. To examine associations among Concepts of Development, Insightfulness, and Meta-parenting, Pearson correlation coefficients were calculated (see Table 8). Predictions about Insightfulness were partially supported. As expected, Concepts of Development and Insight were significantly positively correlated, $r(102) = .24$, $p < .05$. However, the association was weak. Contrary to predictions, no relation was found between Concepts of Development and Meta-parenting.

When Pearson correlation coefficients were calculated for all eight of the social cognition constructs (Concepts of Development, Insight, Secure Adult Attachment, Mindfulness, Anticipating, Assessing, Reflecting, and Problem-solving), 11 significant associations were revealed. Six of the constructs were associated with three or more of the others. Only Concepts of Development and Insight had fewer associations (two and one, respectively). Each of the Meta-parenting components was associated with at least two of the other Meta-parenting components. In addition, three of the Meta-parenting

components (Anticipating, Reflecting, and Problem-solving) were also associated with non-Meta-parenting social-cognition constructs. Concepts of Development and Insight were the only social cognition constructs that were not associated with any of the Meta-parenting subscales (see Table 8).

The next hypothesis concerned the predictive value of Concepts of Development and Insightfulness for Secure Adult Attachment. Two regression analyses were performed, each with Secure Adult Attachment as the dependent variable. In the first, Ethnicity and Concepts of Development were included as independent variables. Contrary to expectations, parents' ideas about children and childrearing had no significant predictive value (see Table 9). Next, Insight was regressed on Secure Adult Attachment. As with Concepts of Development, no relation was found between Insight and Secure Adult Attachment (see Table 10).

The next set of analyses was performed to ascertain the relations among the social cognition constructs, two parenting measures, and three child measures (Warm relationships, child Injury, and Aggression). Five multiple regressions were computed. In each, a block containing covariates (mother's age, ethnicity, and family income) and a second block including the cognitive variables (Concepts of Development, Insight, Secure Adult Attachment, Mindfulness, Anticipating, Assessing, Reflecting, and Problem-solving) were regressed in a stepwise manner on the dependent variable.

The two parenting analyses are reported next. In the first regression, mothers' Authoritative parenting scores were entered as the dependent variable (see Table 8). The final model was significant, $F(2,79) = 11.75, p < .001$. Secure Adult Attachment and

Problem-solving were significantly positively associated with this measure of effective parenting. Those parents who reported higher levels of Secure Adult Attachment and Problem-solving also reported more Authoritative parenting (see Table 11).

When AWARE parenting was entered as the dependent variable, the final model was also significant, $F(3,78) = 14.82, p < .001$, and included Secure Adult Attachment, Problem-solving, and Anticipating (see Table 12). All relations were positive and mothers who reported higher levels of Secure Adult Attachment, Problem-solving, and Anticipating also reported higher AWARE parenting scores.

These results confirm one of the two hypotheses offered for the first goal of this dissertation. As predicted, Meta-parenting was positively related to both Authoritative parenting and AWARE parenting. However, contrary to predictions, Secure Adult Attachment was a better predictor of effective parenting than Concepts of Development or Insightfulness.

Next, the relations among the social cognitive variables and the three child measures (Warm relationship, Injury, Aggression) were evaluated. The final model was significant $F(2,79) = 7.72, p < .01$, and contained Anticipating and Problem-solving. Mothers who reported higher Anticipating and Problem-solving scores also reported greater closeness and warmth in their relationship with their child (see Table 13).

In the next regression, Injury was used as the dependent variable. The overall model was significant $F(1,71) = 7.50, p < .01$, and included Anticipation. In line with expectations, mothers who reported lower levels of Anticipation also reported a greater number of injuries (see Table 14).

When Aggression was used as the dependent variable, the final model was, again, significant, $F(2,79) = 5.83, p < .01$. For this analysis, both Secure Adult Attachment and Anticipating accounted for significant portions of the variance. Higher levels of Aggression were associated with lower levels of Secure Adult Attachment and Anticipating (see Table 15).

Exploratory Factor Analyses

To further examine the relations among the social cognitive constructs, the parenting assessments, and child measures, three exploratory factor analyses were performed. The first analysis included scale or subscale total scores for Concepts of Development, Insight, Secure Adult Attachment, Anticipating, Assessing, Reflecting, Problem-solving, and Mindfulness and is reported next.

Because results from Pearson correlation coefficients indicated that the individual constructs were related, it was expected that any extracted factors would be correlated. Therefore, a direct oblimin rotation was selected. Based on the latent root criterion, scree test examination, and interpretability criteria (Tabachnick & Fidell, 2001), three factors were identified that accounted for 65.21% of the variance.

The first factor included Assessing, Anticipating, and Problem-solving (27.29%) and was labeled *Meta-parenting*. The second factor included Insight and Concepts of Development (19.84%), and was labeled *Childrearing Ideas*. Factor three included Secure Adult Attachment and Mindfulness and was labeled *Interaction Receptivity* (18.08%). Reflecting was removed from the analysis because it was a complex factor (i.e., it loaded on two separate factors above .40). According to the Kaiser-Meyer-Olkin

measure of sampling adequacy, the factor structure was acceptable (KMO = .57). See Table 16 for factor loadings of all items.

Factor scores were retained and five regression analyses were computed to identify the relations among the extracted factors, the effective parenting measures, and the three child measures. As in the previous series of regressions, a first block containing covariates (mother's age, ethnicity, family income, and child's age) was entered, followed by a block containing the extracted variables (Meta-parenting, Childrearing Ideas, and Interaction Receptivity).

For the two parenting measures, all extracted factors were significantly related in the expected direction. When Authoritative parenting was entered as the dependent variable, the overall model was significant, $F(3,78) = 6.58, p < .001$. Meta-parenting ($\beta = .24, t = 2.37, p < .05$), Childrearing Ideas ($\beta = .26, t = 2.61, p < .01$), and Interaction Receptivity ($\beta = .26, t = 2.60, p < .01$) were significantly positively associated with this measure of effective parenting. Those parents who had higher scores on these measures also reported more Authoritative parenting (see Table 17).

When AWARE parenting was used as the dependent variable, the final model was also significant, $F(3,78) = 14.91, p < .001$, and again included all three extracted factors (see Table 13). All relations were positive. Mothers who reported higher levels of Meta-parenting ($\beta = .41, t = 4.50, p < .001$), Childrearing Ideas ($\beta = .22, t = 2.46, p < .05$), and Interaction Receptivity ($\beta = .37, t = 4.09, p < .001$) also reported higher AWARE parenting scores (see Table 18).

The relations among the extracted factors and the three child measures are reported next. First, Warm relationship was entered as the dependent variable. The final model was significant $F(3,78) = 6.51, p < .001$, and contained all three extracted variables. However, only Meta-parenting accounted for a significant amount of the variance ($\beta = .44, t = 4.38, p < .001$). Mothers who reported higher Meta-parenting scores also reported greater closeness and warmth in their relationship with their child (see Table 19).

For the extracted factors, the results for Aggression and child Injury were mixed. Aggression was negatively related to two of the extracted factors, $F(3,78) = 3.64, p < .05$. Meta-parenting accounted for a significant amount of the variance ($\beta = -.26, t = -2.44, p < .05$), as did Interaction Receptivity ($\beta = -.23, t = -2.14, p < .05$). Mothers who reported lower levels of Meta-parenting and Interaction Receptivity reported higher levels of aggression in their child (see Table 20). The model for child Injury did not reach significance.

The second exploratory factor analysis also included total scores for the social cognitive constructs. In addition, it included the two parenting assessments and the three child measures. Four factors were extracted. The first factor included Assessing, Anticipating, Warm Relationships, and AWARE parenting. The second factor included Reflecting, (-) Secure Adult Attachment, (-) Mindfulness, and Aggression. Factor 3 included Insight and Concepts of Development. The final factor included Authoritative parenting, (-) Injury, and Problem-solving. See Appendix O for factor loadings.

The final factor analysis included all maternal items excluding aggression scores. Thirty-nine factors were extracted. See Appendix P for item listings and factor loadings for the first five factors.

Post hoc Analyses

To examine the relations among the parenting measures and the child measures, two post hoc analyses were computed. First, Pearson correlation coefficients were calculated to examine the relations between Authoritative parenting and AWARE parenting. As expected, these two parenting measures were significantly positively intercorrelated, $r(102) = .41, p < .001$. Next, six simple regressions were performed to examine the relations among the parenting measures and the child measures. The two parenting measures were regressed on each of the child measures. Results indicate that both parenting measures were positively related to reports of a Warm Relationship. AWARE parenting was associated with a larger portion of the variance than was Authoritative parenting ($\beta = .63, t = 8.13, p < .001, \beta = .27, t = 2.76, p < .01$, respectively). AWARE parenting was also associated with lower Aggression scores ($\beta = -.28, t = -2.88, p < .01$). However, neither parenting measure was related to child Injury (see Tables 21– 23).

Secondary Informant Assessments

The final set of analyses involved comparisons of mothers' and secondary informants' ratings on two cognitive constructs and the relations among secondary informants' assessments of these two constructs, the parenting assessments, and the three child measures. To examine associations between mothers' reports of AWARE parenting

and ratings by secondary informants, Pearson correlation coefficients were calculated. Results revealed a weak, positive relation between mothers' and secondary informants' reports of AWARE parenting, $r(74) = .24, p < .05$.

Next, mothers' reports of Meta-parenting were compared with secondary informants' reports of mothers' Meta-parenting. Pearson correlation coefficients were calculated for mothers' subscale scores and secondary informants' item scores. Not a single association between mothers' and secondary informants' ratings on the Meta-parenting subscales was significant. However, significant relations were reported for Secondary informant ratings of all four Meta-parenting subscales. When secondary informants rated mothers highly on one subscale, they rated them significantly higher on all other subscales (see Table 24).

Finally, five hierarchical multiple regressions were computed to assess the relations between secondary informants' assessments of mothers' AWARE parenting and Meta-parenting. As with earlier regressions, covariates (mother's age, ethnicity, family income, and child's age) were entered in the first block. The scores for mothers' AWARE parenting, Anticipating, Assessing, Reflecting, and Problem-solving were entered in the second block, and both blocks were regressed in a stepwise manner on the two parenting measures and the three child measures.

Only one secondary informant assessment was significantly related to mothers' reports of parenting or the three child measures. The final model for the AWARE parenting regression was significant, $F(1, 57) = 8.43, p < .01$. The secondary informants' scores for mothers' Assessing accounted for a significant amount of the variance ($\beta = .36$,

$t = 2.90, p < .01$). Mothers who were rated by their secondary informants as higher in Assessing also reported higher scores on AWARE parenting.

CHAPTER FOUR

DISCUSSION

The importance of parental social cognitions to childrearing behavior and parent-child relationships has been recognized for decades (e.g., Grusec & Ungerer, 2003; Holden & Buck, 2002; Kuczynski, 2003; Stogdill, 1934). Parental social cognitions serve multiple purposes: they filter experiences, influence interpretation of events and behaviors, set the stage for actions, and prompt change. Although their importance is evident, the difficulty in examining social cognition constructs is equally as clear. Parental social cognitions do not easily fit into simple categories. To truly capture the complexity of the subject, researchers should examine the quality or nature of the cognition (i.e., the content), the level of awareness at which it occurs (i.e., cognitive processing), and the results. This study of multiple social cognition constructs is the type of investigation that is necessary to tease apart the similarities and differences between the constructs.

This study adds to the literature on parental social cognitions in several ways. First, results from the study highlight common characteristics in the constructs that, before now, have only been studied separately. Results indicate that many of the individual constructs are indeed linked. For example, Concepts of Development and Insight were positively correlated, as were Secure Adult Attachment and Meta-parenting. The finding that these schema-based cognitions were related to parents' more effortful cognition brings two disparate areas of research together. In addition, results from the exploratory factor analysis indicated that Secure Adult Attachment and Mindfulness are

related. One interpretation for this finding is that both represent an open receptivity to interaction that is important for parents and children. One of the most provocative findings from the extracted factors was that Meta-parenting was associated with more of the parenting and child measures than any other construct. This factor was significantly related to the parenting measures, warm relationships, and to lower levels of child aggression. This finding clearly indicates the need for additional research on this new construct.

In addition to findings that explicate understanding of the parental social cognitions, methodological advancements were included. Specifically, this study was the first to attempt to validate, using a second informant, caregivers' reports about AWARE parenting and Meta-parenting. As reported earlier, the results were mixed. Mothers' and informants' ratings of AWARE parenting were associated. This adds to the quality of the results for this measure. In contrast, there was no concordance between mothers' and secondary informants' measures of Meta-parenting; not a single association was found. These results indicated, not surprisingly, that secondary informant assessments were not useful for revealing another's mental processes. Although the question remains whether a spouse can accurately report on the frequency of meta-parenting thoughts, this study indicates a friend cannot.

Individual Social Cognition Constructs

Findings regarding relations among the individual constructs and reports of their underlying factor structure were generally in line with the hypotheses. As expected, Concepts of Development and Insight were positively associated. This finding

corresponds with the current literature concerning these constructs. One explanation is that the perspective taking abilities indicative of maternal insightfulness (Koren-Karie et al., 2002) are related to the complex ideas about childrearing that Sameroff and Feil (1985) describe. This explanation provides support for the idea that these constructs measure a similar characteristic that has previously been associated with effective caregivers. However, Concepts of Development and Insight were not individually significant predictors of the parenting measures (but, see factor analysis results).

The individual construct of Problem-solving was also positively associated with the parenting measures, as predicted. Problem-solving is often regarded as an important skill for caregivers (Crick & Dodge, 1994). For example, daily hassles, the typical problems that caregivers must face have been associated with low responsiveness, increases in controlling behaviors during interactions, and with greater maternal stress (Crnic, Greenberg, Ragozin, Robinson, & Basham, 1983). Clearly, good problem-solving skills are paramount for effective caregiving.

Results revealed that Anticipating was also important for the child variables as reported by mothers. Higher levels of Anticipating were related to warmer relationships, fewer injuries, and lower levels of aggression. Problem-solving was also associated with warm relationships. The only other variable that was a significant predictor of the child measures was Secure Adult Attachment. Lower levels of Secure Adult Attachment were associated with increased aggression scores. The results for Meta-parenting and these child measures are in line with Holden and Hawk's (2003) description of the construct. They theorized that Anticipating serves to smooth the way for parents and their children

by reducing conflict and making environments safer for children (Morrongiello & Kiriakou, 2004).

Factor Structure

Although the results for the individual constructs indicate associations among the constructs, parenting measures, and child measures, results from the first exploratory factor analysis shed light on more specific associations among the constructs. The results were provocative. Three interpretable factors were extracted from the social cognitive constructs: Meta-parenting (Anticipating, Assessing, and Problem-solving), Childrearing Ideas, and Interaction Receptivity. The combinations of constructs for each factor and the implications of their relations with the parenting and child measures are discussed next.

Interaction Receptivity. Two constructs, Secure Adult Attachment and Mindfulness combined to form the factor labeled Interaction Receptivity which was significantly related to both parenting measures and to lower levels of child aggression. The factor name highlights key characteristics of the two constructs included: a receptive stance toward interactions. This interest in, or attention to, *another* is a central element of both attachment status (Hazan & Shaver, 1987) and mindfulness (Baer, 2003). Only a concurrent examination, like the present one, allows this type of commonality to be identified.

The fact that Secure Adult Attachment and Mindfulness combined to form a single factor illuminates the complex nature of parental social cognition. Secure Adult Attachment status is a reflection of the nature, or quality, of caregivers' internal working models. Presumably, these schemes are the basis for responses that occur with little

awareness (i.e., automatic responses). In contrast, Mindfulness assesses caregivers' focus and attention on what is presently occurring. These cognitions are more effortful than automatic. One interpretation is that these cognitive processes considered *automatic* (Secure Adult Attachment) and more *effortful* (Mindfulness) combine based on the content, or intention – to be interested in those for whom you care (Secure Adult Attachment) and, perhaps, to be interested in whatever is occurring in the present moment (Mindfulness). The question of *how* Interaction Receptivity works to influence parenting behaviors remains an unanswered one.

Although the findings regarding Interaction Receptivity are promising, a cautionary note is warranted about the measure used in this study, the Mindfulness Attention Awareness Scale (Brown & Ryan, 2003). Brown and Ryan's scale has a unidimensional factor structure which measures attention to occurrences in the present moment in daily life. The focus on attention to the present, although an integral part of the concept of Mindfulness, may not fully capture the construct. A newer, multifaceted measure, the Kentucky Inventory of Mindfulness Skills (Baer, 2003), includes items assessing four factors: *Act with Awareness*, *Observe*, *Describe*, and *Accept without Judgment*. It is possible that results in the present study are only capturing the awareness portion of the construct. The importance of the additional subscales in the new measure is an empirical question.

Childrearing Ideas. Results for the second extracted factor, Childrearing Ideas, indicated it was formed by a combination of the constructs Concepts of Development and Insight. This factor was significantly related, as expected, to both Authoritative parenting

and AWARE parenting. This is the first study that allowed for concurrent evaluation of these two traits that have each been associated with effective parenting and positive child outcomes. The finding indicates that complex and flexible childrearing ideas and perspective taking skills may be necessary tools that allow parents to respond in effective ways.

A surprising result was that this factor was not associated with warm relations, child aggression, or injury history. If more complex and flexible childrearing ideas are, indeed, associated with effective parenting, positive outcomes (i.e., lower number of injuries, warmer relationships, less aggression) should follow. There are three explanations for this lack of relationship: the variables were not adequately assessed, there was not enough variation in these two measures of effective parenting to differentiate between high and low skill sets (i.e., the sample was homogeneous), or the effective parenting measures are not actually related to these child assessments in this sample.

A post hoc examination of the relations among authoritative parenting and the child measures, and between AWARE parenting and the child measures revealed that scores for both measures were important for a warm relationship. Further, AWARE parenting was associated with lower aggression scores. However, neither of these parenting measures was significantly related to child Injury. Because of the associations among authoritative parenting, AWARE parenting, and two of the outcome measures (warm relationship, aggression), it is clear that the parenting measures included in this

study were likely predictors of these child characteristics. Questions about the lack of predictive value of these parenting measures for child injury remain.

Meta-parenting. The final factor, Meta-parenting, was comprised of Anticipating, Assessing, and Problem-solving. This factor was associated with four of the five parenting and child measures. Meta-parenting accounted for a significant portion of the variance in scores for authoritative parenting, AWARE parenting, warm relationships, and was associated with lower child aggression. These findings are in line with the current literature on Meta-parenting.

Holden and Hawk (2003) proposed that Meta-parenting represents effortful attention to the childrearing domain which facilitates appropriate responses to ongoing parenting challenges -- the essence of effective parenting. Hawk and Holden (2006) found preliminary indications that these forms of effortful cognition were associated with some parent reports of their behaviors and proposed that this effortful cognition represented a mechanism used for regulating parenting behaviors and affecting child outcomes.

Of particular interest in the present study was the finding that Meta-parenting was a significant predictor of Warm Relationships when Interaction Receptivity was not. This finding indicates the possibility that Meta-parenting, an effortful form of cognition, can facilitate warm relationships over and above the automatic or schema-based thoughts that reportedly account for the majority of day-to-day cognition (e.g., Bargh & Chartrand, 1999). This has important implications for any caregivers who formed maladaptive schemes based on difficult early life histories. Future research that controls for family

history would allow additional evaluations. Additional limitations and directions for future research are discussed next.

Limitations and Directions for Future Research

Although this project provides empirical evidence regarding the associations among parental social cognitions, several limitations need to be recognized. First, the study was based, primarily on maternal self-reports. Although a secondary informant was recruited, that effort in providing convergent evidence was only partially successful. A second limitation was that assessments of the constructs were limited to questionnaires. More extensive assessments, such as an extensive interview with videotapes typically used to assess Insightfulness (Koren-Karie et al., 2002) would likely provide a more accurate assessment of the construct. Third, an extensive assessment of early family histories would be helpful. This information might shed light on the issue of automatic and effortful cognition. Parents with early histories that provided an environment in which positive complex schemes regarding children and childrearing were developed may be able to rely more heavily on automatic processing as they can result in desirable outcomes. In contrast, if parents are actively engaged in parenting in different ways from their own caregivers, more effortful cognition (i.e., Meta-parenting and/or Mindfulness) may be necessary for positive caregiving (see Figure 2).

In addition to the family histories mentioned earlier, a more complete picture of the context within which caregiving occurs is important (Bronfenbrenner, 2001; Grusec & Ungerer, 2003). For example, a 30-year prospective longitudinal study (Sroufe, 2005), revealed that infant development is directly tied to the care received, and that the care

was “dependent upon the nature of the [caregivers’] surrounding stresses and supports” (p. 354).

A fifth limitation regards the lack of an examination of caregivers’ motivations for their behavior toward children (e.g., Bell & Richards, 2000; Dix, 2000). Although a secure attachment status or a mindful approach to cognition have been identified as schema-based inclinations toward building relationships, it is likely that effortful motivations also exist. An examination of the role of these explicit goals could lead to better understanding of the determinants of change in caregiving and provide useful information for parent training programs.

In addition, all findings were based on correlational data. These results can not illuminate direction of effect for relations among the constructs, reported behaviors, and child measures. Future research that includes a training or intervention step would provide additional options for analyses. For example, caregivers and their children could be assessed for social cognitions and behaviors prior to and after Meta-parenting training. With an appropriate control group, this methodology would provide an opportunity to analyze any training benefits.

A final limitation concerns the theoretical dichotomy discussed in this dissertation. The project was organized around the proposition that research on parental social cognition focuses, generally, on either *what* or *how* parents think. Although the statement is generally correct and provides a straight-forward way to think about the constructs, it is a false dichotomy. All cognitions include content and are processed at some level of awareness, and efforts should be taken to describe them thoroughly. This

may require implementing a variety of methodologies (i.e., quantitative, qualitative, and/or implicit measures of parental cognition).

Summary and Conclusion

Effective childrearing is facilitated by a complex understanding of children that includes perspective-taking capabilities and a cognitive processing style that incorporates appropriate levels of schema-based and effortful cognition. Implicit, or automatic, processing may allow parents to efficiently deal with the day-to-day rigors of childrearing. Whether this type of responding is beneficial or problematic will likely depend on the cognitive complexity of parents' internal representations of children and childrearing. Presumably, parents who have more complex parenting schemes that incorporate an understanding of their children's perspectives will be capable of more schema-based responses that result in effective caregiving (see Figure 3). This reserves effortful cognition (e.g., Baumeister, Bratslavsky, Muraven, & Tice, 1998) for situations in which a problem exists or change is required. The appropriate blend of schema-based and effortful cognition will depend on the complexity of the caregivers' schemes, the needs of the child, and environmental or situational considerations.

In conclusion, this dissertation was conducted to investigate the associations among five dimensions of parental social cognition: Concepts of Development, Insight, Secure Adult Attachment, Meta-parenting, and Mindfulness. Each of these constructs has been associated with various measures of effective parenting, but never before have they been evaluated concurrently. Results from this concurrent evaluation indicate that the

constructs are related and that caregivers' thoughts are associated with their parenting reports and their children.

There is much more to be learned about the relations among *what* parents think, *how* they think, and the influence their thoughts and behaviors have on child outcomes. Interest is growing, also, in comparing and contrasting separate conceptualizations of parental social cognition. The present study adds to the current understanding of parental social cognition constructs and sets the stage for additional inquiries.

Table 1

Listing of Variables and their Focal Description

Social Cognition Variables

Secure Adult Attachment: Attachment representation regarding relationships

Concepts of Development: Ideas about childrearing

Insight: Parental perspective taking

Meta-parenting: Effortful parenting cognition (Anticipating, Assessing, Reflecting, and Problem-solving)

Mindfulness: Attention to the present moment in day-to-day experiences

Parenting Variables

Authoritative Parenting: Warmth and age-appropriate control

AWARE Parenting: Authoritative parenting style, non-coercive discipline, and emotional receptivity

Child Variables

Warm relationship

Injury

Aggression

Table 2

Measures, Number of Participants Who Completed each Instrument, and Cronbach's α s

	<i>N</i>	α s
Social Cognitive Variables		
Concepts of Development Questionnaire	130	.64
Insight	137	
Secure Adult Attachment	130	.98
Anticipating	115	.69
Assessing	115	.79
Reflecting	115	.83
Problem-solving	115	.60
Mindfulness Attention Awareness Scale (Mindfulness)	118	.89
Parenting Variables		
Parental Authority Questionnaire (Authoritative)	140	.72
Middle School Parenting Questionnaire (AWARE)	134	.82
Child Variables		
Quality of Parent-Child Relationship Questionnaire (Warm relationship)	138	.91
Injury History Questionnaire (Injury)	117	n/a
Child Behavior Check List (Aggression)		
2-3 year olds	35	.93
4-14 year olds	76	.91

Table 3

Participant Demographics

Characteristics	<i>N</i>	<i>M</i>	<i>SD</i>	<i>Range</i>
Maternal				
Age	102	38.19	5.78	25 - 54
Education ^a	101	4.02	.82	2 - 5
Ethnicity	97			
European-American	62			
Non European-American	35			
Family Income (\$1000s)	84	\$94.8	\$48	\$3.4 - \$250
Parity (number of children)	101	2.31	1.13	1 - 6
Partner Status	101			
Married	91			
Single	10			
Child				
Age	101	6.88	3.68	2.75 - 14.50
Gender	101			
Females	52			
Males	49			

Note. ^a Education (highest level completed): 1 = No HS diploma, 2 = diploma/GED, 3 = vocational/some college, 4 = college graduate, 5 = graduate/professional school.

Table 4

Covariates for Social Cognition Variables

	<i>F</i>	<i>R</i> ²	<i>B</i>	SE <i>B</i>	β	<i>t</i>
Concepts of Development (1,78)	11.45	.13				
Ethnicity			-.17	.05	-.36	-3.38***
Insight (<i>ns</i>)						
Secure Adult Attachment (<i>ns</i>)						
Anticipating (2,77)	5.51	.13				
Mother's Age			-.03	.01	-.28	-2.61*
Family Income			3.00E-006	.00	.23	2.17*
Assessing (<i>ns</i>)						
Reflecting (<i>ns</i>)						
Problem-solving (<i>ns</i>)						
Meta-parenting Total (1,78)	6.22	.07				
Mother's Age			-.09	.04	-.27	-2.49*
Mindfulness (<i>ns</i>)						

Note. *ns* = 75 – 80. Stepwise entry.

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

Table 5

Covariates for Parenting Variables

	<i>F</i>	<i>R</i> ²	B	SE B	β	<i>t</i>
Authoritative Parenting (1,77)	4.10	.05				
Ethnicity			-.19	.09	-.23	-2.03*
AWARE Parenting (<i>ns</i>)						

Note. *ns* = 75 - 80. Stepwise entry.

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

Table 6

Covariates for Child Variables

	<i>F</i>	<i>R</i> ²	<i>B</i>	SE <i>B</i>	β	<i>t</i>
Warm Relationship (1,78)	4.87	.06				
Child's Age			-.03	.01	-.24	-2.21*
Minor Injuries (<i>ns</i>)						
Aggression (<i>ns</i>)						

Note. *ns* = 75 - 80. Stepwise entry.

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

Table 7

Descriptive Statistics for Social-Cognitive, Parenting, and Child Variables

Variable	Range	<i>M</i>	<i>SD</i>
Social Cognitive			
Concepts of Development	1.65 – 2.75	2.11	.23
Insight	2 – 8	5.72	1.48
Secure Adult Attachment	75 – 220	187.96	33.52
Anticipating	2.25 – 5.00	3.94	.66
Assessing	2.20 – 5.00	3.57	.75
Reflecting	1.00 – 5.00	2.43	.92
Problem-solving	2.00 – 4.75	3.45	.64
Mindfulness	1.87 – 9.87	4.30	.92
Parenting			
Authoritative parenting	3.40 – 5.00	4.29	.40
AWARE parenting	2.42 – 3.80	3.28	.27
Child			
Warm Relationship	2.99 – 5.00	4.17	.40
Injury	0 – 30	5.23	6.39
Aggression (<i>z</i> scores)	-1.36 – 2.79	-.05	.77

Note. *ns* = 99 – 102.

Table 8

Intercorrelations of all Variables

	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Concepts of Development	--	.24*	.04	.07	.01	.01	.16	-.20*	.10	.12	-.11	.04	.14
2. Insight		--	.17	.02	-.08	.01	.10	-.17	.08	.13	-.06	.12	.01
3. Secure Adult Attachment			--	.24*	.05	-.24*	.27**	.23*	.25*	.47***	.24*	.09	-.29**
4. Anticipating				--	.50***	.27**	.33***	-.03	.08	.36***	.33***	.14	-.19
5. Assessing					--	.36***	.28**	-.15	.07	.21*	.38***	.08	-.18
6. Reflecting						--	.08	-.32**	.00	.02	.08	.08	-.18
7. Problem solving							--	.07	.37***	.41***	.34***	.05	-.15
8. Mindfulness								--	.11	.10	.09	.16	-.14
9. Authoritative Parenting									--	.41***	.27**	.19	.11
10. AWARE Parenting										--	.63***	.12	.28**
11. Warm Relationship											--	-.13	.31**
12. Injury												--	.21*
13. Aggression													--

Note. *ns* = 99 - 102.

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

Table 9

Relations between Concepts of Development and Secure Adult Attachment

	<i>F</i>	<i>R</i> ²	B	SE B	β	<i>t</i>
Secure Adult Attachment (2,93)	.40	.03				
Ethnicity (<i>p</i> =.37)			-6.68	7.43	.10	-.90
Concepts of Development (<i>p</i> =.75)			-5.07	15.72	-.04	-.32

Note. *n* = 95.

Table 10

Relations between Insight and Secure Adult Attachment

	<i>F</i>	<i>R</i> ²	B	SE B	β	<i>t</i>
Secure Adult Attachment (1,99)	3.53	.03				
Insight (<i>p</i> = .06)			3.97	2.11	.19	1.88

Note. *n* = 101.

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

Table 11

Relations among Social Cognitive Variables and Authoritative parenting

	<i>F</i>	<i>R</i> ²	B	SE B	β	<i>t</i>
Authoritative parenting (2,79)	11.75	.23				
Problem-solving			.23	.07	.37	3.58**
Secure Adult Attachment			.23	.10	.22	2.13*

Note. *n* = 77. Stepwise entry.

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

Table 12

Relations among Social Cognitive Variables and AWARE parenting

	<i>F</i>	<i>R</i> ²	B	SE B	β	<i>t</i>
Aware parenting (3,78)	14.82	.36				
Secure Adult Attachment			.21	.06	.34	3.61**
Problem-solving			.11	.04	.27	2.79**
Anticipating			.10	.04	.23	2.38*

Note. *n* = 77. Stepwise entry.

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

Table 13

Relations among Social Cognitive Variables and Warm Relationship

	<i>F</i>	<i>R</i> ²	B	SE B	β	<i>t</i>
Warm Relationship (2,79)	7.72	.16				
Anticipating			.16	.07	.27	2.54*
Problem-solving			.14	.06	.23	2.17*

Note. *n* = 77. Stepwise entry.

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

Table 14

Relations among Social Cognitive Variables and Injury

	<i>F</i>	<i>R</i> ²	B	SE B	β	<i>t</i>
Injury (1,71)	7.50	.10				
Anticipating			-3.16	1.15	-.31	-2.74**

Note. *n* = 72. Stepwise entry.

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

Table 15

Relations among Social Cognitive Variables and Aggression

	<i>F</i>	<i>R</i> ²	B	SE B	β	<i>t</i>
Aggression (1,72)	15.52	.18				
Secure Adult Attachment			-.01	-.00	-.42	-3.94 ^{***}

Note. *n* = 73. Stepwise entry regression analysis.

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

Table 16

Three-Factor Structure of the Social Cognition Variables

	Factor loadings		
	1	2	3
Factor 1: Meta-parenting			
Assessing	.87	-.17	-.21
Anticipating	.82	-.02	.10
Problem-solving	.54	.20	.36
Factor 2: Childrearing Ideas			
Insight	-.15	.79	.11
Concepts of Development	.05	.73	-.13
Factor 3: Interaction Receptivity			
Secure Adult Attachment	.16	.21	.76
Mindfulness	-.17	-.40	.75

Note. Reflecting was deleted due to a complex structure. Oblimin rotation.

Table 17

Relations among Extracted Factors and Authoritative Parenting

	<i>F</i>	<i>R</i> ²	B	SE B	β	<i>t</i>
Authoritative parenting (3,78)	6.58	.20				
Meta-parenting			.10	.04	.24	2.37*
Interaction Receptivity			.11	.04	.26	2.61*
Childrearing Ideas			.11	.04	.26	2.60*

Note. *n* = 81. Stepwise entry.

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

Table 18

Relations among Extracted Factors and AWARE Parenting

	<i>F</i>	<i>R</i> ²	B	SE B	β	<i>t</i>
AWARE parenting (3,78)	14.91	.36				
Meta-parenting			.11	.03	.41	4.50***
Interaction Receptivity			.16	.03	.22	2.46*
Childrearing Ideas			.10	.02	.37	4.09***

Note. *n* = 81. Stepwise entry.

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

Table 19

Relations among Extracted Factors and Warm Relationship

	<i>F</i>	<i>R</i> ²	B	SE B	β	<i>t</i>
Warm Relationship (3,78)	6.51	.20				
Meta-parenting			.18	.04	-.05	4.38***
Interaction Receptivity			.01	.04	.02	.24
Childrearing Ideas			-.02	.04	-.05	-.52

Note. *n* = 81. Stepwise entry.

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

Table 20

Relations among Extracted Factors and Aggression

	<i>F</i>	<i>R</i> ²	B	SE B	β	<i>t</i>
Aggression (3,78)	3.64	.12				
Meta-parenting			-.21	.09	-.26	-2.44*
Interaction Receptivity			-.17	.08	-.23	-2.14*
Childrearing Ideas			-.01	.08	-.02	-.14

Note. *n* = 81.

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

Table 21

Authoritative Parenting and Warm Relationship

	<i>F</i>	<i>R</i> ²	B	SE B	β	<i>t</i>
Warm Relationship (1,100)	7.64	.07				
Authoritative			.26	.10	.27	2.76**

Note. *n* = 101. Stepwise entry.

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

Table 22

AWARE Parenting and Warm Relationship

	<i>F</i>	<i>R</i> ²	B	SE B	β	<i>t</i>
Warm Relationship (1,100)	66.06	.40				
AWARE parenting			.91	.11	.63	8.13***

Note. *n* = 101.

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

Table 23

AWARE Parenting and Aggression

	<i>F</i>	<i>R</i> ²	B	SE B	β	<i>t</i>
Aggression (1,100)	8.31	.08				
AWARE parenting			-.77	.27	-.28	-2.88**

Note. *n* = 101. Stepwise entry.

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

Table 24

Intercorrelations of Mothers' and Secondary Informants' Assessments

	1	2	3	4	5	6	7	8
Mothers								
1. Anticipating	--	.50**	.27**	.33**	.18	.20	-.02	.11
2. Assessing		--	.36**	.28**	.07	.15	.06	.26**
3. Reflecting			--	.08	.02	-.01	.08	.12
4. Problem-solving				--	.37**	.34**	-.00	.03
Secondary informants								
5. Anticipating					--	.86***	.42***	.45***
6. Assessing						--	.39**	.47***
7. Reflecting							--	.65***
8. Problem-solving								--

Note. *ns* = 72 - 102.

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

Figure 1

Attachment Representation and Caregiving

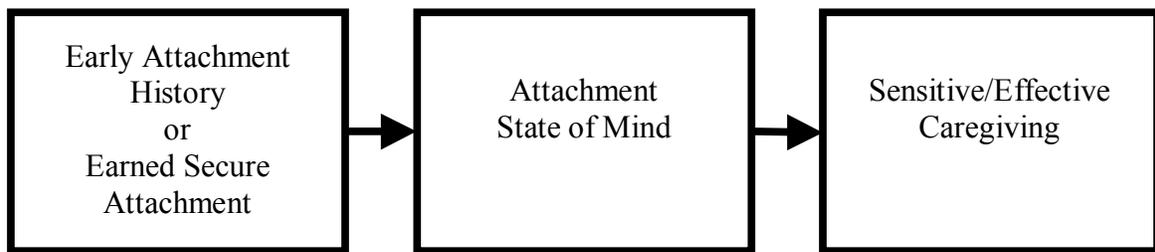


Figure 2

Social Cognition and Caregiver State of Mind

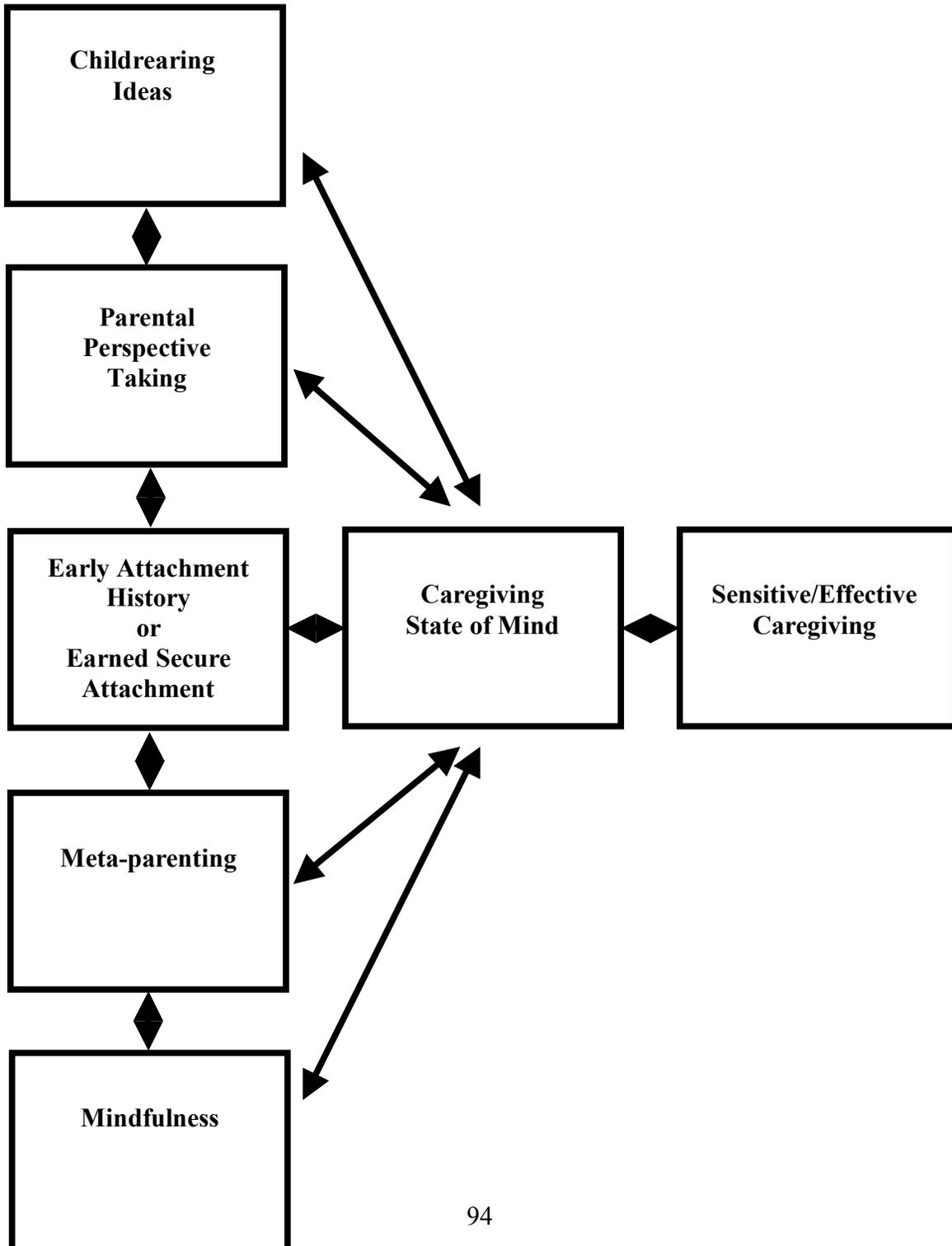
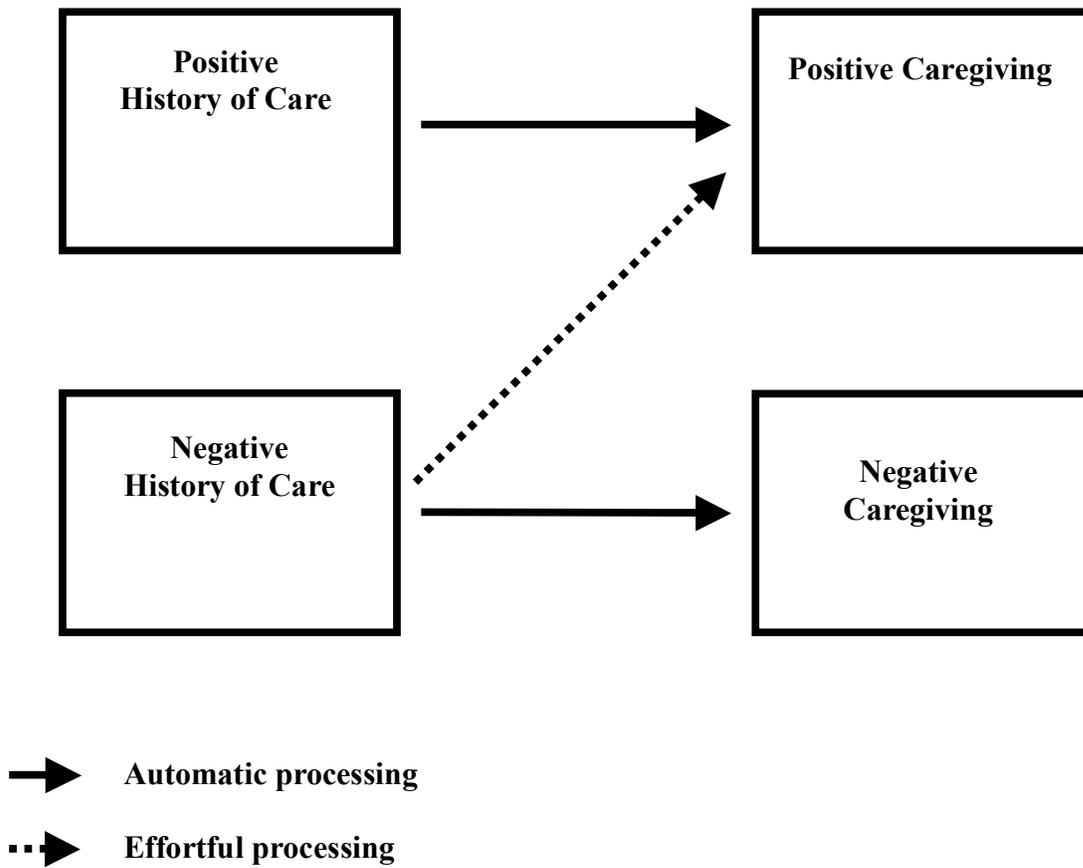


Figure 3

Effortful Cognition and Change in Caregiving



Appendix A

Concepts of Development Questionnaire

This questionnaire asks for your opinions about different aspects of child rearing. Please give your own opinions and do not worry about what others may think. You will probably agree with some statements and disagree with others. There are no right or wrong answers to these questions since they are all matters of opinion. In addition, your answers will be treated with complete confidentiality.

Read each item carefully and, when you are sure you understand it, select the number which best expresses your feelings about the statement. Do not spend much time on any item. Please answer every question according to the following scale:

1	2	3	4
Strongly Disagree	Disagree	Agree	Strongly Agree

1. Children have to be treated differently as they grow older.
2. Parents must keep to their standards and rules no matter what their child is like.
10. Children's problems seldom have a single cause.
11. The father's role is to provide the discipline in the family and the mother's role is to give love and attention to the children.

Note: Due to copyright protection, only these sample items are included.

Appendix B

Insight

1 of 7

Before we begin the questions, we'd like to get an overview of your thoughts and beliefs about parenting. Please take some time to tell us about yourself as a parent.

You may write as much as you wish in the textbox below. If you fill up the space provided, the scrollbars will allow you to write more.

2 of 7

The next series of pages contain questions relating to the interaction you describe here. The purpose of these questions is to give you an opportunity to help us better understand your child. We particularly want to know about his or her thoughts and feelings. Please be sure to give us examples to support your answers.

Please describe a recent interaction you had with your child when he or she felt strongly about doing something.

You may write as much as you wish in the textbox below. If you fill up the space provided, the scrollbars will allow you to write more.

3 of 7

The following question refers to the situation you previously described. Please remember that we particularly want to know about your child's thoughts and feelings. Please be sure to give us examples to support your answers.

What do you think went through your child's head during this episode; what did she or he think, feel?

You may write as much as you wish in the textbox below. If you fill up the space provided, the scrollbars will allow you to write more.

4 of 7

The following question refers to the situation you previously described. Please remember that we particularly want to know about your child's thoughts and feelings. Please be sure to give us examples to support your answers.

Do the behaviors you described about show traits that are typical of your child more generally?

Appendix B (continued)

You may write as much as you wish in the textbox below. If you fill up the space provided, the scrollbars will allow you to write more.

5 of 7

The following question refers to the situation you previously described. Please remember that we particularly want to know about your child's thoughts and feelings. Please be sure to give us examples to support your answers.

How did you feel when you were describing the interaction above? Did anything surprise you, concern you, or make you happy?

You may write as much as you wish in the textbox below. If you fill up the space provided, the scrollbars will allow you to write more.

6 of 7

The following question refers to the situation you previously described. Please remember that we particularly want to know about your child's thoughts and feelings. Please be sure to give us examples to support your answers.

In general, based on what you described today and your familiarity with your child, what are the things that characterize your child the most?

You may write as much as you wish in the textbox below. If you fill up the space provided, the scrollbars will allow you to write more.

7 of 7

You have described your feelings regarding the interaction, and now, more generally, is there anything that surprises you, concerns you, or makes you happy about your child?

You may write as much as you wish in the textbox below. If you fill up the space provided, the scrollbars will allow you to write more.

Appendix C

Secure Adult Attachment

For each of the following statements, select the number on the 5-point scale that best describes how that statement applies to you and your closest adult relationship. There are no right or wrong answers, so don't spend a lot of time on any one item. We are looking for your overall impression regarding each statement.

1	2	3	4	5
Strongly Disagree	Somewhat Disagree	Neutral	Somewhat Agree	Strongly Agree

1. I know that he/she will be there when I need him/her
2. When I need him/her, he/she always makes time for me
3. I'm confident that he/she will stay with me
4. I am confident that our relationship will last

Note: Due to copyright protection, only these sample items are included.

Appendix D

Meta-Parenting Questionnaire (Short Form)

This survey is designed to tell us about your parenting thoughts. When you answer these questions, please use the following scale:

Never/Rarely	Sometimes	Often	Usually	Constantly
1	2	3	4	5

Please answer all of the following questions regarding your focal child.

Anticipating:

1. To what extent do you think about activities that will happen the next day?
2. To what extent do you plan ahead for situations in which your child might get bored (for example, bring toys or books for use in the car while you're running errands)?
3. In general, how often do you think ahead about things related to your child or your parenting? (Examples include planning ahead for when you take your child to a difficult event or talking with your child about the consequences of future behavior.)
4. How often do you think about your child's safety when you and your child are away from home in a public place (e.g., at the store or mall)?

Assessing:

5. How often do you consider whether your child's friends may be a positive or negative influence?
6. How often do you consider the extent to which activities away from home influence your child (activities at school, in the neighborhood, at church, etc.)?
7. How often do you think about how well your parenting meets your child's needs?
8. How often do you think about how your child is developing compared with her/his peers?
9. In general, how often do you consider, or think about what is occurring with you and your child? (Examples include considering how or what your child is doing, how you're feeling as it relates to parenting, the quality of your interactions with your child, or how the surroundings might affect your child.)

Reflecting:

10. In general, how often do you have concerns, worry, or think about things that have already happened with your child? (Examples include thinking about a problem that occurred, thinking about an event that went well, or thinking about your parenting decisions.)
11. How often do you have concerns about why your child behaves the way s/he does?
12. How often do you have concerns about your parenting behaviors, or the decisions you've made as a parent?

Appendix D (continued)

Problem-solving

13. How often do you think your problem solving strategies are effective?
14. How often do you stick with a problem solving strategy you planned?
15. When you're having a problem with your child, how often do you develop a strategy to deal with the problem?
16. In general, how often have you identified and attempted to solve a problem you're having with your child or with your parenting? (Examples include making a plan or strategy to better handle a problem that occurred, or asking someone else how they deal with a specific issue.)

Appendix E

Mindful Attention Awareness Scale

Instructions: Below is a collection of statements about your everyday experience. Using the 1-6 scale below, please indicate how frequently or infrequently you currently have each experience. Please answer according to what really reflects your experience rather than what you think your experience should be. Please treat each item separately from every other item.

1	2	3	4	5	6
Almost Always	Very Frequently	Somewhat Frequently	Somewhat Infrequently	Very Infrequently	Almost Never

1. I could be experiencing some emotion and not be conscious of it until some time later.
2. I break or spill things because of carelessness, not paying attention, or thinking of something else.
3. I find it difficult to stay focused on what's happening in the present.
4. I tend to walk quickly to get where I'm going without paying attention to what I experience along the way.

Note: Due to copyright protection, only these sample items are included.

Appendix F

Parental Authority Questionnaire

For each of the following statements, select the number on the 5-point scale that best describes how much you think this statement describes you. There are no right or wrong answers, so don't spend a lot of time on any one item. We are looking for your overall impression regarding each statement.

Please answer all of the following items using the following scale.

Strongly Disagree	Somewhat Disagree	Neutral	Somewhat Agree	Strongly Agree
1	2	3	4	5

1. Once family policy is established, I discuss the reasoning behind the policy with my children.
2. I always encourage verbal give-and-take whenever my children feel that family rules and restrictions are unreasonable.
3. I direct the activities and decisions about the children in the family through reasoning and discipline.
4. My children know what I expect of them within the family, but they also feel free to discuss it with me when they feel my expectations are unreasonable.

Note: Due to copyright protection, only these sample items are included.

Appendix G

Middle School Parenting Questionnaire (AWARE Parenting)

Read each item carefully and, when you are sure you understand it, select the number which best expresses your feelings about the statement. Do not spend much time on any item. Please answer every question according to the following scale.

Seldom, if ever	Occasionally	Often	Very often
1	2	3	4

1. I compliment my child for his/her positive qualities.
2. I let my child know that I am impressed by his/her accomplishments.
3. I let my child know, in words or affectionate gestures, that I love him/her.
4. I let my child know that I think she/he is very capable.

Note: Due to copyright protection, only these sample items are included.

Appendix H

Quality of Parent-Child Relationship Questionnaire

This survey is designed to tell us about the relationship you have with your “focal child.” Please complete the questions using the following scale.

Hardly	Not		Very	Extremely
At all	Too Much	Somewhat	Much	Much
1	2	3	4	5

1. How much do you and this child care about each other?
2. How much do you and this child do nice things for each other?
3. How much do you and this child like the same things?
4. How much do you and this child tell each other everything?

Note: Due to copyright protection, only these sample items are included.

Appendix I

Child Behavior Checklist (Aggression Subscale)

Below is a list of items that describes children and youth. For each item that describes your child now or within the past 6 months, please mark the 2 if the item is very true or often true of your child. Mark the 1 if the item is somewhat or sometimes true for your child. If the answer is not true of your child, mark the 0. Please answer all items as well as you can, even if some do not seem to apply to your child.

0 = Not true 1 = Somewhat or sometimes true 2 = Very true or often true

2-3 year-olds:

4-14 year-olds:

Can't concentrate

Argues

Can't sit still

Braggs

Can't wait

Cruel to others

Cries much

Demands attention

Defiant

Disobeys at home

Note: Due to copyright protection, only these sample items are included.

Appendix J

Injury History Questionnaire

This questionnaire asks you about the # of injuries your child has had. We realize that some people find it hard to recall these events. Therefore, we also ask you to rate how confident you feel that the number of injuries you report is accurate.

Count as an injury only those times when there was visible sign of tissue damage (e.g., red mark, bump, scrape, etc) and this lasted for at least 1 hour.

For rating your CONFIDENCE in this number, please select a # using this scale and enter it where indicated below:

- 0 = not at all certain
- 1 = a little bit certain
- 2 = somewhat certain (about half and half)
- 3 = fairly certain
- 4 = very certain

1. How many injuries has your child had that were minor and did not require any treatment or required only minimal treatment at home (e.g., band-aid, for the injured area to be washed):

In the last 3 months, my child has had ___ minor injuries

[ENTER a # on the line; if none then enter a 0]

MY CONFIDENCE RATING IS: _____ [SEE rating scale above]

Note: Due to copyright protection, only these sample items are included.

Appendix K

Background Information Form

Please fill out this form by checking the appropriate line or writing in the requested information.

1. Your gender: female _____ male _____
2. Your age: _____
3. Are you Hispanic or Latino? Yes _____ No _____
4. Please indicate your race or ethnic group (check all that apply)
 - African American _____
 - American Indian/Alaska Native _____
 - Asian American _____
 - European American _____
 - Mexican American _____
 - Native Hawaiian or Other Pacific Islander _____
 - Other _____
5. Were both your parents born in the United States? Yes _____ No _____
6. Partner Status
 - a. Currently Married _____
 - b. Divorced/separated _____
 - c. Widowed _____
 - d. Never Married _____
7. List number of years in your marriage or current steady relationship _____
8. Your occupation:
 - a. Homemaker: _____
 - b. Student: _____
 - c. Working full-time: _____ Describe job: _____
 - d. Working part-time: _____ Describe job: _____
9. Your education:
 - a. No high school diploma _____
 - b. High school diploma/GED _____
 - c. Vocational/some college _____
 - d. College graduate _____
 - e. Graduate/professional school _____

If not currently partnered, please check this box and go to question #12.

10. Partner's occupation:
 - a. Homemaker: _____
 - b. Student: _____
 - c. Working full-time: _____ Describe job: _____
 - d. Working part-time: _____ Describe job: _____

Appendix K (Continued)

11. Partner's education:

- a. No high school diploma _____
- b. High school diploma/GED _____
- c. Vocational/some college _____
- d. College graduate _____
- e. Graduate/professional school _____

12. Total annual family income: \$ _____

13. For each of your children, please indicate gender and list age.

- 1st child: female / male age: _____ 2nd child: female / male age: _____
3rd child: female / male age: _____ 4th child: female / male age: _____
5th child: female / male age: _____ 6th child: female / male age: _____
Others: _____

14. Besides the children you indicated above, who else is currently living in your home?

15. Your religious affiliation, if any _____

16. How often do you go to religious services? _____

Focal Child:

For the purpose of this study, we want you to answer all the questions while thinking of your

2-3 year old _____ 5-6 year old _____ 11-12 year old _____

Focal child's age: Years _____ Months _____

Focal child's gender: Female _____ Male _____

17. Has your focal child attended special education classes? _____

18. Please list any medication that your focal child takes regularly _____

19. Not counting the hours your youngster is in school or at a daycare center, with a sitter, or asleep for the night, what percentage of the remaining time are you the child's prime caregiver? (By prime caregiver is meant the person who must be available to attend to the child's needs)

_____ % You
_____ % Your spouse/partner
100 % Total

20. Were you born in the United States? Yes _____ No _____

Appendix L

Secondary Informant Assessments

The purpose of the following questions is to give you an opportunity to help us better understand your friend and her child. We particularly want to know about her thoughts and feelings. When possible, please be sure to give us examples to support your answer. Please keep your friend's (2-3, 5-6, or 11-12) year old child in mind when answering the questions.

1. How well do you know the mother?
2. Please describe the settings where you've seen her interact with her child/children.
3. Briefly describe your friend as a parent.
4. Briefly describe your friend's child.
5. How well do you think your friend's child is doing in school?
6. Does your friend's child have good peer relationships (friendships)?

Read each of the following items carefully and select the number which best expresses your feelings about the statement. (The following scale was used.)

Seldom, if ever	Occasionally	Often	Very often
1	2	3	4

AWARE Parenting General Assessments

7. How often do you think she supports her child/children (for example, she compliments her child, shows affection for her child, or shows affection to her child)?
8. How often do you think she is attentive to her child/children (for example, she helps her child with problems, she pays attention to her child, she talks with her child about school)?
9. How often do you think she is responsive to her child/children (for example, she listens to her child's point of view or encourages her child to express opinions in family discussions)?

Appendix L (Continued)

10. How often do you think she provides guidance for her child/children (for example, she lets her child know what is expected of her/him, she makes sure her child completes chores)?
11. How often do you think she is receptive to her child's/children's emotions (for example, she encourages her child to let her/his feelings out when upset, she let's her child knows when she is upset or angry)?

Meta-parenting General Assessments

Please answer the next questions using the following scale:

Never/Rarely	Sometimes	Often	Usually	Constantly
1	2	3	4	5

12. In general, how often do you think your friend considers, or thinks about what is occurring with her child/children? (The following scale was used.)
13. In general, how often do you think your friend thinks ahead about things related to her child or her parenting?
14. In general, how often do you think your friend has concerns, worries, or thinks about things that have already happened with her child?
15. In general, how often do you think your friend has identified and attempted to solve a problem she was having with her child or with her parenting?

Appendix M

Participant Consent

Welcome to the Fall 2006 Online Parenting Study being conducted by the Holden Lab at UT Austin!

Please login below by typing your identification number.

ID Number:

PARTICIPATION CONSENT

As part of our parenting study, you are being asked to provide us with information about your parenting ideas and behaviors and with general information about your child's characteristics. The purpose of this study is to see if the ways that parents think about their children and childrearing affects the relationships they have with their children and their children's characteristics. Carol Kozak Hawk, M.A., and George W. Holden, Ph.D., of the University of Texas are conducting this research. If you choose to participate in this study, we will ask you to fill out online surveys that will take about an hour to complete. By taking part in this study, you will help us understand more about parental social cognition and how the ways that parents think may affect their children.

Participation in the study is voluntary and you are free to refuse to participate without influencing your current or future relationships with the University of Texas. If you wish to stop your participation in this research study at any time, you should contact: Carol Kozak Hawk at (512-475-7882 or chawk@mail.utexas.edu). In addition, if you have questions about your rights as a research participant, please contact Lisa Leiden, Ph.D., Chair, The University of Texas at Austin Institutional Review Board for Protection of Human Subjects, 512-471-8604.

- I agree to participate in the online parenting research study.
- I do not agree to participate in online parenting research study.

Appendix N

Secondary Informant Consent

PARTICIPATION CONSENT

As part of our parenting study, you are being asked to provide us with information about your friend's parenting ideas and behaviors and with general information about her child's characteristics. The purpose of this study is to see if the ways that parents think about their children and childrearing affects the relationships they have with their children and their children's characteristics. Carol Kozak Hawk, M.A., and George W. Holden, Ph.D., of the University of Texas are conducting this research. If you choose to participate in this study, we will ask you to fill out online surveys that will take about 15 minutes to complete. By taking part in this study, you will help us understand more about parental social cognition and how the ways that parents think affects their children. Participation in the study is voluntary and you are free to refuse to participate without influencing your current or future relationships with the University of Texas. If you wish to stop your participation in this research study at any time, you should contact: Carol Kozak Hawk at (512-475-7882 or chawk@mail.utexas.edu). In addition, if you have questions about your rights as a research participant, please contact Lisa Leiden, Ph.D., Chair, The University of Texas at Austin Institutional Review Board for Protection of Human Subjects, 512-471-8604.

- I agree to participate in the online parenting research study.
- I do not agree to participate in online parenting research study.

Appendix O

Four-Factor Structure of All Variables (Scales/Subscales)

	Factor loadings			
	1	2	3	4
<hr/>				
Factor 1:				
Assessing	.77	.31	-.10	-.04
Anticipating	.75	.07	.00	-.03
Warm Relationship	.72	-.13	-.05	.13
AWARE Parenting	.53	-.35	.23	.29
Factor 2:				
Reflecting	.36	.80	.02	.09
Secure Adult Attachment	.27	-.68	.23	.29
Mindfulness	-.22	-.51	-.35	.34
Aggression	-.45	.49	.23	.05
Factor 3:				
Insight	-.00	-.12	.76	-.16
Concepts of Development	-.14	.14	.68	.16
Factor 4:				
Authoritative Parenting	.01	-.06	.24	.76
Injury	-.02	-.13	.32	-.65
Problem-solving	.46	-.17	.34	.49
<hr/>				

Appendix P

Item-level Factor Analysis

Factor 1

1	I feel good knowing he/she cares about me.	0.89
2	I know that he/she will never hurt me by rejecting me when I need him/her.	0.86
3	I am confident that our relationship will last.	0.83
4	He/she makes me feel better every time I see him/her.	0.82
5	I don't worry that he/she will reject me, because he's/she's always there for me.	0.82
6	I feel good about being able to depend on him/her.	0.82
7	I feel like he/she takes very good care of me.	0.81
8	When I am sad, he/she comforts me.	0.81
9	I am confident that he/she will really understand my feelings.	0.79
10	I know that he/she will be there for me when I need him/her.	0.79
11	I always feel better if I turn to him/her for support.	0.79
12	I find it easy to get emotionally close to him/her.	0.79
12	I feel he/she is very sensitive to my emotional needs.	0.78
13	I enjoy getting comfort from him/her.	0.77
14	I'm confident that he/she will stay with me.	0.77
15	When I am hurting, talking to him/her makes me feel better.	0.77
16	I don't feel afraid that I will lose his/her support.	0.77
17	I don't worry about him/her leaving me.	0.76
18	He/she is able to comfort me when I am distressed.	0.76
19	When I need him/her, he/she always makes time for me.	0.76
20	Whenever I tell him/her my personal problems, I know he/she is concerned.	0.76
21	When I show my feelings for him/her, I know that he/she feels the same about me.	0.75
22	He/she is the kind of person I want to tell my troubles to.	0.75
23	He/she pays attention to my needs.	0.75
24	I know he/she won't let me down.	0.75
25	I turn to him/her for comfort and reassurance.	0.74
26	When I feel anxious, being close to him/her makes me feel better.	0.74
27	I like being able to depend on him/her for emotional support.	0.74
28	I'm confident that he/she loves me.	0.73
29	When I am frightened, I feel safer with him/her.	0.73
30	I know he/she won't abandon me.	0.72

Appendix P (Continued)

31	I trust him/her completely.	0.72
32	When he/she is away for a few days, I take comfort in just thinking about our relationship.	0.71
33	When I am sick, I am comfortable depending on him/her.	0.71
34	Spending time with him/her makes me feel secure.	0.70
35	I look for him/her when I feel sad.	0.69
36	I feel safe when I am with him/her.	0.69
37	How much do you love each other?	0.67
38	I know that he/she won't hurt my feelings when I get emotionally close to him/her.	0.65
39	He/she never hurts my feelings when I turn to him/her for help.	0.63
40	I let my child know, in words or affectionate gestures, that I love him/her.	0.62
41	I like it when he/she gets emotionally close to me.	0.59
42	How much do you and this child have strong feelings of affection (love) towards each other?	0.56
43	I let my child know that I think she/he is very capable.	0.56
44	I consistently give my children direction and guidance in rational and objective ways.	0.54
45	He/she is the first person I look for when something bad happens.	0.54
46	I want to have him/her with me when I am upset.	0.54
47	My child tells me about things that happen when she/he is not with me.	0.54
48	If my child has a problem, she/he comes and talks to me about it.	0.52
49	I complement my child for his/her positive qualities.	0.50
50	When I am hurting, I really want to tell him/her.	0.49
51	I enjoy it when he/she gets emotionally close to me because I feel close to him/her.	0.48
52	I let my child know that I am impressed by his/her accomplishments.	0.46
53	I follow through and make sure that my child does the things I ask her/him to do.	0.46
54	I encourage my child to express her/his opinions in family discussions.	0.45
55	I make sure that my child abides by whatever expectations or rules we have in our home.	0.44
56	I show my child how to do things she/he needs or wants to learn.	0.43
57	How much do you think highly of this child	0.41
58	I try to control my feelings in front of my child, if I am anxious or upset about a problem or situation in my life.	0.41

Appendix P (Continued)

59	When you're having a problem with your child, how often do you develop a strategy to deal with the problem.	0.40
60	My child lets me know when she/he is angry or upset about something.	0.39
61	It's hard for me to know what my child is thinking or feeling.	-0.39
62	It is not easy to define a good home because it is made up of many different things.	-0.35
63	I give my children clear direction for their behaviors and activities, but I am also understanding when they disagree with me.	0.32
64	I compliment my child on her/his appearance.	0.32
65	Children's problems seldom have a single cause.	-0.31

Factor 2

1	Some children feel really proud of their parents while others do not. How much does this child feel proud of you?	0.63
2	Some children think very highly of their parent, while others do not. How much does this child think highly of you?	0.62
3	How much do you and this child do nice things for each other?	0.62
4	How much do you show this child how to do things that s/he doesn't know how to do?	0.61
5	Some parents and children spend a lot of free time together while others do not. How much free time do you and this child spend together?	0.59
6	Some parents and children do special favors for each other a lot, while others do not. How much do you and this child do special favors for each other?	0.58
7	How much does this child admire and respect you?	0.58
8	How much do you and this child like the same things?	0.57
9	How much do you and this child give each other a hand with things?	0.57
10	How much do you help this child with things he/she can't do by him/her self?	0.56
11	How much do you teach this child things that he/she doesn't know?	0.56
12	How much do you play around and have fun with this child?	0.53
13	How much do you and this child go places and do things together?	0.53
14	When my child is upset about something, I know how to help	0.52
15	How much do you admire and respect this child?	0.50

Table P (Continued)

16	Some parents and children have a lot of things in common, while others have little in common. How much do you and this child have things in common?	0.46
17	How much do you and this child share secrets and private feelings with each other?	0.40
18	How much do you and this child tell each other everything?	0.39
19	How much do you feel proud of this child?	0.38
20	If my child has a problem in a setting outside the family, I know how to deal with it.	0.38
21	In general, how often do you think ahead about things related to your child or your parenting?	0.36
22	How often do you think about how well your parenting meets your child's needs?	0.35
23	In general, how often do you consider or think about what is occurring with you and your child?	0.35

Factor 3

1	I find myself doing things with paying attention.	0.75
2	It seems I am "running on automatic," without much awareness of what I'm doing.	0.72
3	I do jobs or tasks automatically, without being aware of what I'm doing.	0.69
4	I rush through activities without being really attentive to them.	0.68
5	I get so focused on the goal I want to achieve that I lose touch with what I'm doing right now to get there.	0.65
6	I find myself preoccupied with the future or the past.	0.61
7	I find it difficult to stay focused on what's happening in the present.	0.60
8	I tend to walk quickly to get where I'm going without paying attention to what I experience along the way.	0.56
9	I could be experiencing some emotion and not be conscious of it until some time later.	0.54
10	I drive places on "automatic pilot" and then wonder why I went there.	0.51
11	I find myself listening to someone with one ear, doing something else at the same time.	0.49
12	I break or spill things because of carelessness, not paying attention, or thinking of something else.	0.46
13	How often have you modified a problem-solving strategy to make it more effective when it wasn't working well?	0.45

Table P (Continued)

14	I snack without being aware that I'm eating.	0.44
15	How often do you have concerns about why your child behaves the way s/he does?	-0.42
16	I do jobs or tasks automatically, without being aware of what I'm doing.	0.42
17	I tend not to notice feelings of physical tension or discomfort until they really grab my attention.	0.41
18	In general, how often do you have concerns, worry, or think about things that have already happened with your child	-0.36
19	In general, how often have you identified and attempted to solve a problem you're having with your child or with your parenting.	-0.26

Factor 4

1	There is not much anyone can do to help emotionally disturbed children.	-0.51
2	A child who isn't toilet trained by 3 years of age must have something wrong with him.	-0.50
3	Boy babies are less affectionate than girl babies.	-0.45
4	There is no one right way to raise children.	0.42
5	Parents must keep to their standards and rules no matter what their child is like.	-0.42
6	Parents need to be sensitive to the needs of their children.	0.42
7	I let my child know what the expectations are for her/his behavior in our home.	0.42
8	Children's success at school depends on how much their mothers taught them at home.	-0.41
10	My children know what I expect of them within the family, but they also feel free to discuss it with me when they feel my expectations are unreasonable.	0.39
11	I talk with my child about ways to get along in the world.	0.38
12	Babies have to be taught to behave themselves or they will be bad later on.	-0.35
13	Mother's ability to understand her child's state of mind (motivation, intentions, etc.). Includes understanding of contextual influences	0.30

Table P (Continued)

Factor 5

14	How often do you think about how your child is developing compared with her/his peers?	0.50
15	Mother's report of minor injuries (cuts, scrapes) during the last 3 months	-0.49
16	Parents can be turned off by a fussy child so that they are unable to be as nice as they would like.	-0.40
17	How often do you have concerns about your parenting behaviors, or the decisions you've made as a parent?	0.37

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