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AFFECT IN MATERNAL REPRESENTATIONS

AND

INFANT-MOTHER ATTACHMENT

by

Francoise Geisendorf Graf

A dissertation submitted to the Graduate Faculty in Psychology in partial fulfillment of the requirements for the degree of Doctor of Philosophy, The City University of New York.

1999

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Abstract

Affect in Maternal Representations and
Infant-Mother Attachment
by
Francoise Geisendorf Graf

Adviser: Professor Arietta Slade

This study investigated the stability of the affective dimension of mothers' thoughts and feelings about their baby between pregnancy and 10 months post birth as well as the relationship between the quality of these feelings and the child's later attachment security. To assess mothers' feelings, 49 first time mothers were interviewed during their third trimester of pregnancy using the Pregnancy Interview (PI), a semi-structured interview assessing women's representations of their baby and of their overall experience of pregnancy, and at 10 months post birth using the Parent Development Interview (PDI) a similar semi-structured interview aimed at capturing a parent's representation of their affective experience of parenting and of their relationship to the child. The Strange Situation was used as the outcome measure to assess infant-mother attachment at 14 months. Results showed significant relationships between negative maternal affect in pregnancy and high degrees of maternal anger at ten months. Negative maternal affect in pregnancy also related to insecure attachment in the child, whereas positive maternal affect in pregnancy related to secure attachment in the child. At 10 months post birth, neither maternal anger or joy/pleasure related to child attachment security.

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CHAPTER ONE

Introduction

> Mrs. Harris consulted us during the eighth month of her first and planned pregnancy because she found herself overwhelmed by intense anxiety and unexpected negative feelings about it. She was afraid that these feelings would affect her ability to mother her baby. (Fraiberg, 1994, p. 242)

The road to motherhood is paved with intense emotions. Generally, women react with pride and joy at the news of having conceived. Joy, however, is not the only emotion surrounding pregnancy and early motherhood. The physical as well as emotional demands frequently induce ambivalence or downright negative emotions in a new mother, triggering doubts, fears, anxiety or sometimes even anger. Yet these darker feelings ought to be temporary, or at least offset by the pleasures of motherhood. Mrs. Harris, however, is concerned. She reports being overwhelmed, obviously conveying that her negative feelings have taken over. She fears that they will adversely affect her future mothering and her capacity to create an optimal environment for her baby to develop and thrive.

Mrs. Harris' intuitive belief that predominantly negative maternal feelings interfere with optimal mothering and adversely affect the child's development finds widespread theoretical and clinical confirmation. Mothers have strong feelings about being a mother and about their baby. These feelings are present long before the birth of the baby as they take root in mothers' own attachment history, a history colored by old hurts, conflicts and grief as well as by joyful memories. At conception, these feelings rise to the surface and develop through pregnancy and into motherhood (Benedek, 1959;

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Bibring, 1959; Bibring, Dwyer, Huntington, & Valenstein, 1961; Cohen & Slade, in press; Deutsch, 1945). They are at the heart of the earliest mother-infant communication as they are conveyed to the baby via the mothers' daily ministrations. In this process, maternal feelings impact the child's developing sense of self and other and become an integral part of early personality organization (Sandler & Sandler, 1978; Stern, 1985). As feelings of joy coexist with feelings of fear, anxiety and anger, it is mothers' capacity to manage the emotional complexity and ambivalence of pregnancy and early motherhood that is believed to positively affect the relationship and the child's adaptation (Bion, 1962; Parker, 1995; Winnicott, 1947; Winnicott, 1971). When the relationship between mother and child has gone awry, analytically informed clinicians listen to the way parents portray the child and the relationship, paying particular attention to the affective signals that invariably point to the difficulties (Cramer, 1986; Fraiberg, 1994; Lieberman & Pawl, 1993; Slade, invited for publication).

Attachment research has opened an empirical window onto these maternal feelings and thoughts, collectively referred to as maternal representations. After establishing links between mothers' behavior in the relationship to the child and the effect maternal sensitivity and empathic responsiveness have on the child's felt security, attachment research turned its attention to mothers' thoughts and feelings with respect to attachment and found links between the quality of these thoughts and feelings and the child's social and emotional adaptation (Ainsworth, Blehar, Waters, & Wall, 1978; Main, Kaplan, & Cassidy, 1985; van IJzendoorn, 1995). Mothers who were able to remember and coherently speak about positive as well as painful attachment related experiences were significantly more likely to have a securely attached child than mothers whose

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narrative was marked by a lack of memory, emotional constriction, contradictions, disorganization or ongoing preoccupation with unresolved conflicts.

More recently, attachment researchers have started to pay particular attention to parents' thoughts and feelings about the child and about parenting. They have begun to empirically investigate the relationship between the quality of these representations and child outcome, and have found concordances between coherent and emotionally balanced representations of parenting and of the child and secure attachment in the child (Benoit, Parker, & Zeanah, 1994; George & Solomon, 1996; Zeanah, Benoit, Hirschberg, Barton, & Regan, 1995). Paying particular attention to the affective dimension of mothers' representations of the child and of the relationship, they also have found that secure attachment in the mother was associated with more joyful maternal representations of the child and of the relationship (Slade et al., 1995), as well as with the mothers' capacity to engage in more positive mothering (Slade, 1999). The present study builds on these findings and proposes to add to this body of research.

This study will focus exclusively on the affective dimension of mothers' thoughts and feelings about their baby, stipulating that emotionally balanced and predominantly positive feelings will be associated with positive outcome in the child, whereas predominantly negative feelings will lead to insecurity of attachment in the child. Mothers' representations of the child in pregnancy and at 10 months post birth will be used to access these feelings: the degree to which these maternal representations are characterized as positive or negative will serve as a measure of the affective quality of mothers' feelings about their baby. The particular aspects to be explored are the stability of these feelings between late pregnancy and 10 months post birth, as well as the

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relationship between the quality of these maternal feelings and the child's social and emotional adaptation at 14 months. Semi-structured clinical interviews in the last trimester of pregnancy and at 10 months post birth will be used to assess the affective quality of mothers' representations, and the Strange Situation will serve as the measure of child outcome.

Literature Review

The literature domains relevant to this study include attachment theory and research, the place of affect in object relations and representations, as well as psychological aspects of pregnancy and early motherhood. These three domains will provide the context for this study and lead to a summary of the proposed research question and formulation of hypotheses.

Attachment Theory

John Bowlby, the British psychoanalyst trained by Melanie Klein but dissatisfied by her utter disregard for environmental influences as contributing factors to the development of neurosis, set out to formulate more scientifically based explanations for the development of psychopathology. Convinced by his observations and the evidence he had accumulated that maternal deprivation, separation, or loss lead to negative outcome in the child, and intrigued by concepts of ethology, he formulated a new conceptual framework for understanding personality development and psychopathology. Attachment theory, spelled out in his three volumes on attachment and loss (Bowlby, 1969; Bowlby,

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1973; Bowlby, 1980), was his attempt to, "modernize psychoanalytic metapsychology and to find a sound biological underpinning for object relations theory" (Holmes, 1993).

Bowlby saw his theory as a variant of object relations theory and his ideas as closest to those of Fairbairn (Bowlby, 1982b). However, as discussed by recent reviewers (Holmes, 1993; Karen, 1994; Slade, 1998), his theory was poorly received, criticized, and ultimately dismissed by psychoanalytic circles due to his exclusion of some of drive theory's central tenets (such as infant sexuality, unconscious fantasy, the Oedipus complex, etc.), and due to his stipulation of a primary innate instinct to become attached. Nevertheless, his neo-Darwinian ideas and notions borrowed from ethology, systems theory, and cognitive psychology made for a link with scientific psychology and gave rise to a rich body of empirical research, one which over time has validated many of his original ideas.

Pivotal to his theory is the child's innate, biologically driven need to attach to a caregiver whose function it is to provide physical and psychological protection for survival. Attachment is viewed as, "a fundamental form of behavior with its own internal motivation distinct from feeding and sex and of no less importance" (Bowlby, 1982b). The focus is on the infant who actively elicits protection from the caregiver by means of attachment behaviors such as crying, proximity seeking, or bids for emotional comforting, yet the relationship is truly reciprocal from the beginning, since the child's sense of security hinges on the quality of the caregiver's protective function.

Besides the goal of providing protection, attachment behaviors serve other functions and are defined as having several important characteristics. They are set in motion - not only in childhood but throughout an individual's life - by perceived danger

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and are mediated by goal-corrected behavioral systems (Bowlby, 1969), only to be deactivated by felt security. They are accompanied - as they are activated, maintained or disrupted - by intense, basic emotions such as love, joy, anxiety, anger or grief, resulting eventually in enduring affectional bonds and setting the stage for future emotional relationships. They are the fundamental building blocks of experience between attachment figure and child, leading over time to set patterns of interaction and responsible for the development of psychological health or psychopathology later in life. They are responsible for the construction of representational models of the self, the other, and of the relationship, operating automatically in and outside of awareness.

Thus, Bowlby defines attachment as, a) an instinct motivated by the individual's need for physical and psychological survival, b) a behavioral control system with its episodic appearance and disappearance, and c) an internal psychological organization developing out of the relational matrix and responsible for later psychological functioning, and, d) an attribute, an enduring emotional bond of the attached person to a preferred caregiver.

Recent evidence from developmental and clinical studies, as well as from basic neuroscience support the assumption of attachment as a motivational instinct: the infant's need to attach in order to receive vital physiological, behavioral, neural and affective regulation is conceived of by some today as a basic "drive" (Slade, 1999). It is, however, attachment as a behavioral system influencing the construction of internal working models and the regulation of emotion that will be reviewed here in more detail.

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Attachment Research: The Strange Situation and Representational Interviews

Attachment theory, with its notions borrowed from other sciences and its data taken from the observation of real life events, is a theory ideally suited to empirical studies, one that lends itself particularly well to verification. Mary Ainsworth, a close collaborator of Bowlby's and a pioneer in attachment research, intuitively understood this. Bowlby has credited her with advancing attachment theory by way of her seminal empirical research on attachment as a behavioral system (Bowlby, 1982b). Her original studies leading to the concept of maternal sensitivity, to the laboratory paradigm of the Strange Situation and to attachment classifications inspired many developmental psychologists and paved the way to countless later examinations that both duplicated as well as expanded upon her findings.

Mary Main, "one of Ainsworth's most creative and prolific students" (Karen, 1994, p. 215), took interest in attachment as an internal psychological organization and set out to measure attachment in older children and adults. Expanding on Bowlby's concept of "internal working models" of attachment (Bowlby, 1969; Bowlby, 1973; Bowlby, 1980; Bowlby, 1982a), she constructed the 'Adult Attachment Interview' and moved attachment research to the level of representation (Main et al., 1985). This has led to the development of interviews aimed at assessing representational processes in a variety of contexts. As will be discussed below, interviews assessing parental representations of the child will be central to the present study.

Attachment as a behavioral system: The Strange Situation. Mary Ainsworth's research established the first empirical link between early maternal behavior and later

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child outcome. Her naturalistic observational studies of mother-infant interactions in Uganda (Ainsworth, 1967) were a prelude to her more formal, longitudinal research carried out in Baltimore, leading to the definition of important concepts and paradigms: the concept of 'maternal sensitivity', the laboratory based research paradigm of the 'Strange Situation', and the definition of the child attachment classifications (Ainsworth et al., 1978).

The Baltimore study, initially conceived of as a tool to assess the mother's influence on the socio-emotional development of her infant, started out with careful monthly home observations of mother-infant interactions during the child's first year. Particular attention was paid to the mother's behavior and responsiveness towards her child. Her interactions during feeding, face-to-face play, physical contact and her responsiveness to her child's distress came to be called collectively, 'maternal sensitivity'.

The effects of 'maternal sensitivity' were measured in the fourth quarter of the child's first year in a naturalistic laboratory setting called the 'Strange Situation'. The 'Strange Situation' is composed of eight episodes involving a toddler, his mother, and a stranger in a standard series of brief separations and reunions. The episodes, designed to elicit and activate the attachment system, allow to observe the child's attachment-exploration balance in the presence of the mother, of a stranger, or when alone. They are increasingly stressful for the child, subjecting him to repeated separations and testing his coping strategies, both when alone and when reunited.

Salient in these episodes were the children's behavior upon reunion with the mother. The categorical differences between the children's responses resulted in the

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establishment of three main child attachment classifications, one for securely attached children and two for insecurely attached children. The children who had been distressed by the separation and who sought comfort and interaction with the mother upon reunion came to be classified as securely attached (group B). The remaining group of children, classified as insecurely attached, were divided into two categories: those who showed no apparent distress following separation and avoided or dismissed the mother upon reunion (group A, insecure-avoidant), and those who were quite distressed following separation, yet whose reaction upon the mother's return showed a conflict between comfort seeking on the one hand, and expression of anger and resistance to the mother's attempts at pacification on the other (group C, insecure-ambivalent) (Ainsworth et al., 1978).

A fourth category of child attachment was introduced a decade later as a result of attachment research having identified infants who did not fit the classification system developed and described by Ainsworth. Research on maltreated infants (Crittenden, 1985), and on children raised in families with parental depression (Radke-Yarrow, Cummings, Kuczynski, & et al., 1985), as well as difficult-to-classify infants in other samples prompted Main and Solomon to propose a new category (group D, insecure-disorganized/ disoriented)(Main & Solomon, 1986).

Ainsworth's original research thus demonstrated a link between early maternal sensitivity and later child behavior in the Strange Situation. The way a mother typically interacted with her child at three months could serve as a predictor of child attachment classification at one year. Indeed, categorical differences in the mother's sensitivity towards her child had been observed during home observations. Thus, mothers of secure children had been found to be attentive and responsive to their infants signals. Being

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warm and affectionate, they were effective soothers and expressed positive affect in their interactions. Mothers of avoidant children, on the other hand, had shown compulsive kinds of adjustments which made them consistently less attentive to their infant's signals; they had manifested controlled anger in their interactions and stated dislike of physical contact, thus hugging and cuddling their infants less than mothers of secure children. The hallmark of the mothers of ambivalent children was that they were inconsistent in their interactions, alternating between over- and underinvolvement, as well as often ineffective in their attempts to soothe their babies (Ainsworth et al., 1978). Lastly, mothers of disorganized/disoriented children could be characterized by overt hostility, abuse or neglect (Youngblade & Belsky, 1989), or as suffering form sequelae of unresolved trauma (Main & Hesse, 1990).

Ainsworth's observations and the subsequent findings from clinical samples have been confirmed by numerous studies. As reported by Belsky and Cassidy (Belsky & Cassidy, 1994), attachment security at 12 to 18 months has consistently been correlated to maternal sensitivity towards the child in the first year of life, whereas insecurity has been associated with emotionally insensitive, perfunctory, overstimulating, or controlling maternal behavior for anxiously-avoidant infants, and inconsistent, ineffectual or unresponsive maternal behavior for anxiously-resistant infants. Similar results were found cross-culturally in German families (Grossmann, Grossman, Spangler, Suess, & Unzner, 1985), and in different populations, such as in high-risk infant-mother pairs (Egeland & Farber, 1984). Looking at the maternal contribution in attachment relationships, Belsky and his colleagues identified mothers of securely attached children as having provided intermediate levels of reciprocal interaction and stimulation, as

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opposed to maternal overstimulation in anxiously-avoidant attachment pairs and understimulation in anxiously-resistant pairs (Belsky, Taylor, & Rovine, 1984). Zaslow found mothers of securely attached children to have provided significantly higher rates of playful interaction with their babies (Zaslow, Rabinovich, Suwalsky, & Klein, 1988), and Isabella identified them as overall more sensitively responsive and less rejecting over the first 9 months of the infants life (Isabella, 1993). Further evidence linking maternal sensitivity to differences in quality of infant-mother attachment was established by Smith et al. (Smith & Pederson, 1988), who tested the relations between contemporaneous measures of maternal sensitivity and attachment security. In his study he was able to correctly distinguish between anxiously and securely attached children in 94 % of the cases, by simply observing the different styles of maternal responding to infant's cues. Mothers of securely attached children showed appropriate levels of responding, whereas mothers of insecurely attached children were either unresponsive or more intrusive (Smith & Pederson, 1988).

Attachment theorists have attributed causality to these consistent relationships between mothers behavior and responsiveness and the child's adaptation, seeing the mother's influence as decisively shaping the infant's regulation of interactions. Bretherton has referred to this as the 'effect of maternal behavior' (Bretherton, 1985, p. 14). Yet proponents of infant temperament as a determining factor in child attachment have contested this 'effect of maternal behavior'. They have argued for an 'infant effect' in attachment, citing research linking neonatal irritability to later insecure-resistant attachment classifications (Goldsmith & Alansky, 1987; Miyake, Chen, & Campos, 1985). This claim, however, has been tempered by several other studies. In one study,

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negative emotionality as shown by infant distress during separation was indeed linked to temperamental difficulty, yet temperament measures did not reliably predict to attachment security (Vaughn, Lefever, Seifer, & Barglow, 1989). In another study, mothers of highly irritable babies were coached to attend consistently and sensitively to both positive and negative signals in their infants. As a result, the coached mothers were twice as likely to have securely attached children at twelve months than their control group (Van den Boom, 1990). These results thus mitigate the claim made by proponents of infant temperament in favor of the importance and influence attributed by attachment theory and research to the maternal variable.

Further evidence of the 'maternal effect' can be found in instances in which the quality of mothers' interactions with their child changed over time. In one study, a shift in the mother from initially adequate caretaking to aggressive and suspicious behavior resulted in a change of the child's secure attachment classification to an insecure-anxious one (Egeland & Farber, 1984). Another study showed that even short term interventions with abusing, neglecting or inept mothers had an effect. When the mothers were helped to interact more sensitively with their child and to respond more appropriately to the child's cues, the functioning of their insecurely attached child was positively affected as measured by an increased capacity to cooperate (Crittenden, 1985). Finally, twelve months of infant-mother psychotherapy with insecurely attached one-year olds and their mother resulted in more secure behavior in the child (Lieberman, Weston, & Pawl, 1991).

Thus, Ainsworth's research on the mother-infant pair and the numerous subsequent studies it generated convincingly established the effect maternal sensitivity and behavior exert on the child's behavioral and emotional regulation. It showed that

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what a mother brings to the dyadic relationship with her child results for the child in stable, predictable, preferred ways of interacting, captured in the different attachment classifications. Attachment theory, however, also stipulates that an internal psychological organization develops out of the relational matrix, an organization responsible for psychological functioning. Main's research on attachment in older children and adults can be credited for accessing these internal psychological organizations - these "internal working models" - via the Adult Attachment Interview (Main et al., 1985). The concepts underlying her research with this representational interview as well as newer representational interviews used in this study will be discussed in the following chapter.

Attachment as an internal psychological organization: Internal working models and representational interviews. The motivational-behavioral control system stipulated in attachment theory and studied in depth by Ainsworth and subsequent researchers is one of the pillars of attachment theory. Of equal theoretical importance in attachment theory is the notion that the history of attachment relationships is integrated into the personality structure through the construction of complementary "internal working models" of attachment figures, of the self, and of the relationship (Bowlby, 1969; Bowlby, 1973; Bowlby, 1980; Bowlby, 1982a). The child's actual dyadic experiences with his or her caretaker result over time in the construction of these models which, once organized, become increasingly complex, tend to become resistant to change and to operate outside of awareness (Bowlby, 1980).

Bretherton (Bretherton, 1985) pointed to the dynamic aspects of these models coined in the word "working". Indeed, "working models" are built out of the interactions

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between the infants bids for security and the caregiver's responses to them. Over time they come to influence thought, behavior and appraisal of experience, guiding the child's expectations and actions as well as the attachment figure's responsiveness in the attachment relationship. Thus, a child whose needs for comfort and security have been met sensitively by the caretaker, will anticipate the same response to expressed need, and will think of the attachment figure as loving and of the self as worthy of protection and love. Conversely, minimized, disregarded, or inconsistently met needs for comfort and security will adversely influence the child's thoughts and behavior, leading him or her to expect similar behavior from the attachment figure in the future, to think of the caregiver as uninterested, unavailable or unpredictable, and consider the self as unworthy of love and attention. Bretherton has called this assumption the, "constructivist-developmental and interpersonal" dimension of attachment (Bretherton, 1985, p. 13). In a review of attachment theory's basic assumptions, Slade noted that the real relationship between infant and mother serves as bedrock of psychic structure, and that there is an observable relationship between actual lived experience and the development of structures for thinking, feeling, remembering and knowing in the child (Slade, in press). Mary Main's groundbreaking research on attachment in older children and adults initiated the investigation into these mental and representational correlates of attachment (Main et al., 1985).

Given the presumed influence of the "internal working models" on structures for thinking, feeling and remembering, Main speculated that "internal working models" ought to manifest themselves in areas other than merely behavior in the attachment relationship. She postulated their influence on attention, memory, as well as the

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organization of thought and language as these pertain to attachment, and wondered whether older children and adults would differ in the way they speak about attachment related issues (Main et al., 1985).

Together with colleagues and as part of a larger, longitudinal study designed to assess attachment beyond infancy, she created the first interview presumed to reflect an adult's working model of attachment, the Adult Attachment Interview (AAI) (George, Kaplan, & Main, 1984). A structured, semi-clinical interview, it asks adults to characterize their relationship to each parent in childhood, to describe attachment-related events including rejection, separation and loss, as well as to reflect on the adult's sense of how these events have affected their personality (Main et al., 1985). The scoring of the interview is based on the careful analysis of the fully transcribed interview, with particular attention paid to contradictions and inconsistencies of the discourse, as well as to the narrative's overall quality (Main & Goldwyn, 1985). As reported by Stein (Stein, Jacobs, Ferguson, Allen, & Fonagy, 1998), Main found the four criteria for judging the coherence of discourse defined by the linguistic philosopher Grice (Grice, 1975) - quality, quantity, manner and relevance - useful to rate the interview protocols. Her findings confirmed her hypothesis: the interviews yielded qualitative differences in discourse comparable to the categorical differences defining the various attachment classifications, and permitted the definition of adult attachment categories.

Analogous to infant classifications, these initial interviews fell into four categories, one for securely attached adults and three for insecurely attached adults. Readiness of remembering and an ease in discussing attachment-related experiences in rich, believable, coherent terms, expressing a full range of feelings, characterized the

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discourse of adults rated as *secure-autonomous.* Adults classified as *insecure-dismissing* often had sparse interviews, devoid of historical details or emotional richness yet often marked by idealizations that were not substantiated by actual memories. The discourse of adults classified as *insecure-preoccupied* lacked organization and coherency and showed ongoing preoccupations with attachment relationships, expressing either unresolved anger or an exaggerated need to please. The last category, described in more detail a few years later and labeled *unresolved with respect to mourning or trauma*, was characterized by the highest degree of disorganization, and showed a total lack of emotional integration (Main & Hesse, 1990).

Another important finding of Main's original study was the strong association found between maternal security of attachment, assessed by the AAI, and early infant security of attachment, assessed in the Strange Situation five years prior to the AAI. In 75% of the cases, mothers classified as autonomous had infants who had been classified as securely attached at one year, whereas mothers classified as dismissing were associated with infants classified as avoidant, mothers classified as preoccupied with infants classified as resistant, and mothers classified as unresolved with respect to mourning or trauma had infants classified as disorganized in relation to attachment.

Main's thinking and work on the representational correlates of attachment have been of considerable import for attachment theory and research. Numerous studies have replicated the associations established by Main between Adult Attachment category and infant attachment status (Ainsworth & Eichberg, 1992; Grossmann, Fremer-Bombik, Rudolph, & Grossmann, 1988; Zeanah et al., 1993). Others have expanded on her research, investigating such aspects as the influence of adult attachment status on

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maternal sensitivity (Ward & Carlson, 1995), the intergenerational transmission of attachment (Benoit & Parker, 1994), or even the predictive validity of the maternal representations assessed prenatally for subsequent infant-mother attachment (Fonagy, Steele, & Steele, 1991). The strength of these associations have been confirmed by meta-analyses of this important body of research (Stein et al., 1998; van IJzendoorn, 1995; van IJzendoorn & Bakersman-Kranenburg, 1996).

Inspired by Bowlby's assumption that parental caretaking behavior is under the aegis of its own attachment behavioral system, a system guided at a cognitive level by internal representations comparable to other attachment systems (Bowlby, 1982a), some attachment researchers have turned their attention to the parental side of these internal working models, namely to the development in parents of the representation of the self as caregiver, of the child, and of the relationship to the child (Aber, Belsky, Slade, & Crnic, in press; Bretherton, Biringen, Ridgeway, Maslin, & Sherman, 1989; Slade, Belsky, Aber, & Phelps, 1999; Slade & Cohen, 1996; Solomon & George, 1996; Zeanah, Benoit, & Barton, 1989; Zeanah et al., 1995). Since these parental representations build on earlier attachment relationships, they are present long before the advent of a child and influence thoughts and feelings about becoming a parent. Starting with the birth of the child, though, they come to guide the behavior in the caregiving relationship. It is the development, function and effect of these parental representations of the child that some attachment researchers have set out to study via representational interviews.

There are a variety of interviews that look at the parent's representation of the child and of the relationship (Aber, Slade, Berger, Bresgi, & Kaplan, 1985; George & Solomon, 1989; Slade, Grunebaum, Huganir, & Reeves, 1987; Zeanah et al., 1989). The

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Pregnancy Interview (PI) (Slade et al., 1987), aims at capturing the developing maternal representation of motherhood and of the expected child in the third trimester of pregnancy. The Parent Development Interview (PDI) (Aber, 1985) assesses the affective experience of parenting as well as the parent's representation of the child. Inspired by the PDI, The Caregiving Interview (George & Solomon, 1989) looks at the representation of caregiving, whereas The Working Model of the Child Interview (WMCI) (Zeanah et al., 1989) assesses the parental perception of the child's individual characteristics. These interviews are given at different points in time: before birth, after birth, when the child is a toddler, or when the child is six years old.

Two approaches to coding these interviews have been used. The first one, adopted by both George and his colleague and Zeanah and his colleagues (George & Solomon, 1989; Zeanah et al., 1989) is categorical and similar to the one used by Main (Main & Goldwyn, 1985). The other one, developed by Aber and Slade (Aber, 1985), uses a continuous variable approach to coding, focusing specifically on affective dimensions of representations.

Taking a categorical approach to coding, Zeanah has found concurrent links between parents' representation of attachment to their own parents and their representation of their child (Zeanah, Benoit, Hirschberg, Barton, & Regan, 1991; Zeanah et al., 1993), as well as concurrent and predictive links between a parent's internal working model of the child and the child's attachment classification (Zeanah et al., 1995). George and colleagues established links between parental representation of the self as a caregiver and security of attachment in the child (George & Solomon, 1989; George & Solomon, 1996). These findings point to similar levels of concordance obtained between

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parental AAI assessed prenatally and subsequent child attachment classification (Fonagy et al., 1991), and suggest that categories of parental representations of the child or of caretaking equally predict to and correlate with child outcome as assessed via the Strange Situation.

Taking the continuous variable approach to coding, Slade (Slade et al., 1995) found that secure mothers represent their unborn babies in more positive terms and the imagined relationship as more pleasurable than insecure mothers. Research with the PDI has identified three conceptually distinct and empirically independent dimensions of mothers' affective experience of parenting: joy/pleasure, anger, and guilt/separation distress (Slade, 1999). This same research has shown mothers classified as securely attached on the AAI to have more coherent representations of their relationship to their child, to convey more joy and pleasure about the relationship and to engage in less negative and more positive mothering, than mothers classified as dismissing or preoccupied. Aber and his colleagues (Aber et al., in press) found that the affective dimension of mothers' representations of their relationship to their toddler boys showed structural stability when measured at 15 and again at 28 months of age, that is, the dimension of joy-pleasure/coherence, anger, guilt/separation distress remained stable. One exception to this stability was an increase in the mean level of expressed maternal anger at 28 months by mothers who also experienced high levels of daily parenting hassles. Conversely, positive mothering predicted to an increase in the expressed joy-pleasure/coherence dimensions (Aber et al., in press).

In summary, empirical work with representational interviews presumed to reflect internal working models of attachment has consistently shown that a parent's thoughts

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and feelings about attachment correlates with and even predicts to the security of attachment in the child. Moreover, when assessed categorically, representations about attachment show structural similarities with representations about the self as caregiver and representations about one's child. The more recent research on the affective dimension of parental representations has established preliminary links between affect in the representation and a parent's thoughts and feelings about attachment. The present study builds on this body of research. It proposes to examine the quality of affect mothers express in their representations in pregnancy and early motherhood, and to investigate its presumed effect on child attachment security. To account for the attention paid to the affective dimension of maternal representations, it is relevant to consider the place of affect in object relations, representations, and attachment.

Affect, Object Relations, Representations and Attachment

Representations develop out of the lived experience between the infant and the caregiver, an experience imbued with a wide range of feelings. It is the place of these feelings in the dynamic interplay between infant and mother and their effect on development, representation and attachment that will be reviewed here. The proposed discussion will demonstrate the centrality of affect in object relations; how affect confers meaning to experience, regulates behavior and ultimately becomes intimately linked to the development of representations and of attachment.

Affect is a central aspect of psychoanalytic theory, even if its theoretical formulations have changed over time and vary between different psychoanalytic schools (Shapiro & Emde, 1992; Spezzano, 1993; Spezzano, 1995). Contemporary analytic

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theories concur with the views of developmental psychologists and neurobiologists who consider affect a genetically determined innate biological potential spanning the spectrum from pleasurable to unpleasurable experiences, and who locate the seat of affects in brain structures (Basch, 1992; Emde, 1989a; Schore, 1995). They also agree that affects are influenced by maturation, development, and life experience, and related to motivation, cognition and behavior. Affects also have adaptive as well as communicative functions, and figure importantly in ego development, object relations and infant-caregiver communication (Blum, 1992). This multitude of aspects make for the centrality of affect in theory, development, experience and interpersonal relationships. But how does affect influence relationships, behavior and the development of self and object representation, how does it becomes an important part of representations? The current thinking on some developmental and interpersonal aspects of affect has been formulated by researchers and theoreticians such as Emde (Emde, 1983; Emde, 1989a; Emde, 1989b; Emde, 1992a; Emde, 1992b), Stern (Stern, 1985), and Sandler (Sandler & Sandler, 1978).

Emde has written extensively on the adaptive, communicative and developmental aspects of affect in the child (Emde, 1983; Emde, 1989a; Emde, 1989b). Affects are rooted in biology; the infant is born a feeling individual, equipped with the capacity to register experiences as pleasurable or unpleasurable. This evaluative function monitors experience, in turn motivating and influencing behavior. The baby's initial reflex-like responses and self-regulations evolve with increasing maturation and development into organized activity involving cognition. As such, affect can be conceived of as a complex, autonomous primary structure in the individual, as an active principle operating unconsciously as well as consciously, monitoring, motivating and organizing behavior.

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These evaluative and adaptive functions are complemented by affect's most important communicative role (Emde, 1989a).

The communicative role covers expression as well as recognition of emotions and speaks to affect in the social matrix. Human experience is endowed with an affective component, one more or less clearly expressed by the feeling individual and recognized by the onlooker. The capacity to "read" other's affective experience rests on the fact that affects are universal, categorized into a discrete number of primary emotions and that the individual is biologically pre-programmed to express and recognize these emotions. The work of Darwin (Darwin, 1872), Tompkins (Tompkins, 1962-63), and Izard (Izard, 1971) on the facial expression and recognition of such categorical affects as happiness, surprise, interest, fear, anger, sadness, disgust/contempt and distress, confirms their universality and illustrates convincingly affect's signaling as well as communicative functions. As such, affect is an important and fundamental means of communication.

Emde (Emde, 1989b) has called affect the language of infancy. Initially global and diffuse, informing the caretaker only about general states of contentment or distress, its signaling function develops with maturation. An attentive mother is able to distinguish after only a few weeks between a cry signaling hunger, fatigue, or irritation, and between vocalizations accompanying alert wakefulness or those communicating an increase in tension or an incipient need. Yet this affective signaling is not restricted to the communication of needs; it also serves to enhance social interactions (Emde, 1983; Emde, 1989b). Affective signaling engages the caretaker, informs him about the infants state of mind and guides his response. Affective communication is thus not only the language of infancy but also the first language between mother and infant.

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Emotional communication and affective interactions between primary caregiver and infant are believed to contribute to the development of brain structures and socio-emotional functioning, and to decisively influence the development of the child's self (Emde, 1983; Emde, 1989b; Schore, 1995; Stern, 1985). Social referencing - the active emotional communication between mother and child in cases of uncertainty in order to get feedback to inform subsequent behavior - is believed to be an important mediator of the child's self-development (Emde, 1989b). Within the mother-infant dyad it is initially the mother who does most of the referencing: she seeks out the child's emotional communication in order to guide her own behavior and responses to the child. With development, the child begins to look for his mother's emotional expression to resolve uncertainty and influence behavior. This affective communication is thought to mediate self-development in the child, by increasing differentiation of the experience of self, of other, and of self-with-other. It is a process that engages mother and child around an affective understanding about a third event, one which through repetition creates shared memories, understanding about present experience and expectations for future events. It is these repeated experiences with their important affective component that eventually lead to internal working models of the relationship and that are believed to account for the internalization of rules and of empathy (Emde, 1983; Emde, 1989b).

Affect and affective communication between primary caregiver and infant is also a ruling principle in Stern's theory of the development of the self (Stern, 1985). Stern sees the infant as an active participant in life and social interactions, one whose development is importantly influenced by the affective quality of his experience and initial dyadic interactions. Categorical affects, vitality affects, and affect attunement are

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organizing principles and building blocks of the infant's developing senses of the self, shaping his or her subjective experience, interpersonal world, and the construction of representations.

To account for the baby's affective experiences, Stern adds the concept of vitality affects to the more limited but generally accepted concept of categorical affects. The latter speaks to the intensity, urgency and hedonic tone of an experience, but says little about the way an event is experienced. The infant's social world, Stern argues, is one primarily colored by vitality affects. Vitality affects are experienced by the infant from within as well as in behaviors of others; they are continuous forms of feelings, representing "how" events are experienced. The manner in which a mother ministers to her child might be devoid of definite categorical affect, yet the way she moves, speaks, changes the diaper, etc. is imbued with an affective dimension that has patterned changes of intensity over time - activation contours - something akin to a feeling shape. The baby is immersed in these "feelings of vitality" (Stern, 1985, p. 54) since birth, creating a mainly unconscious but pervasive medium contributing to the development of his sense of self.

Affect attunement, according to Stern, is the mechanism permitting the sharing of affective states between mother and infant. Occurring largely out of awareness, affect attunements are those affective acts of the mother, by which she matches some displayed feeling state in the child with her own corresponding behavior, attempting to equate the recognized feeling but going beyond simple imitation. For an affect attunement to be complete, the mother must read the child's feeling state correctly, display a corresponding behavior translating that same feeling state, and the child must make a connection

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between the mother's display and its own feeling state. Generally, attunements are cross-modal, namely a surprised facial expression in the child might be attuned to by the mother with words uttered in a tone of voice conveying surprise. Parental mirroring and empathic responsiveness are perfect examples involving affect attunements; they are moments of intense intersubjective relatedness.

Categorical affects, vitality affects and affect attunements, different forms of affective experiences and communications starting in infancy, are thus integral and important parts of the structure of lived experiences encoded in memory and resulting over time in representations of interactions. Once generalized, these representations become part of the infant's unconscious representations of the self, of the other, and of the self-with-other, a form of prototypic memory, a guiding function of the past that creates expectations for the present and the future (Stern, 1985).

Affects are also considered to be primary and central in Sandler's theory of object relations and of the construction of the representational world (Sandler, 1994; Sandler & Sandler, 1978). Sandler considers the child's first object to be biologically based experiences of pleasure and unpleasure, and the baby's representational world to be initially ruled by similar diametrically opposed feeling states. Affect, he contends, is the basic motivator of development, a development influenced by the child's own constitutional capacities as well as by the particular experiences the child has. Moreover, he argues, experiences have no meaning for the child unless they are attached to a feeling state. Thus, affect confers meaning to experiences, shaping the developing relational as well as representational world of the infant.

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In Sandler's view, the representational world involves a self-representation, an object representation and a wished-for interaction. The representational world evolves out of interactions with the object and can never be divorced from it. Sandler defines these interactions, these object relations, as the fulfillment of important needs and wishes, needs and wishes that arise out of desequillibrium and that are always linked to gaining or preserving safety, well-being and affirmation, and to defending against a wide range of unpleasant feelings. Object relations involve the other, but not solely or primarily in a instinctual need gratifying way. They are two-sided in the sense that each partner is presumed to have a role for the other, attempting to get the other to respond in a wished-for way. Citing the example of a child wishing to cling to the mother, Sandler underscores this double aspect: the child's wish to cling to the mother is complemented by the wish for her to respond in a particular way, such as bending down or embracing the child (Sandler & Sandler, 1978, p. 288). Thus, object relations, or wished-for role relationships, can be regarded as wish-fulfillments, ultimately motivated by a need to control and influence feeling. For Sandler, the part played by affective experience is indeed central in object relations, hence also in the representational world.

The establishment of the object in an affective field takes place during the first year of life; it is either fostered or hindered by the way in which the environment responds (Shapiro & Stern, 1989). Positive emotions have been found to favorably affect social relations and cognitive development in the child (Broucek, 1979; Emde, 1992b; Gouin Decarie, 1968; Lebovici & Stoleru, 1983; Osofsky, 1995; Spitz, 1957), whereas maternal hostility, unpredictability or lack of empathy are held responsible for negatively

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influencing psychological development (Fonagy, Moran, & Target, 1993; Kernberg, 1992; Parens, 1989a; Parens, 1989b; Parens, 1992).

Spitz, a pioneer in infant observation, considers affective reciprocity between the primary caretaker and the infant of paramount importance for the child's development (Spitz, 1957; Spitz, 1965). He has found the human face to be a potent elicitor of the social smile in the three to four months old infant. The smiling response, he contends, marks the beginning of social reciprocity and represents a major transformation in the organization of pleasure for the child and for the caretaker (Spitz & Wolf, 1946). Emde (Emde, 1992b) too attributes great importance to the baby's smile. As an expression of activation and excitement in the baby, it informs, positively rewards, and encourages the caretaker, serving thus dual and reciprocal needs in the dyad. Similarly, the caretaker's expression of positive emotion is a powerful incentive for the baby; mother's approving smile or nod signal encouragement to the child in instances of social referencing. More generally, emotional availability on the part of the mother and her expression of positive affect are key ingredients of the healthy maturational environment. A lack of positive emotions can be a better indicator of problems in the dyad, than an excess of negative emotions (Emde, 1992b). Osofsky (Osofsky, 1995), also remarks on the importance of the quality of the affective communication in the dyad. In her research with teenage mothers in a high-risk population, she found that the communication between these mothers and their infants was characterized by a lack of positive exchanges coupled with a preponderance of angry or negative affect (Osofsky & Eberhart-Wright, 1988).

Kernberg's affect theory (Kernberg, 1992) supports such findings. Kernberg contends that early affect states fixed in the infant's memory always involve an object

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relation, and that memory structures acquired during peak affect states will differ from those acquired during low-level affect states. Memory organization of a cognitive, discriminatory nature leading to ego development takes place during low level affect states, whereas peak affect states represent extremely desirable or undesirable experiences making for the internalization of primitive object relations with the rewarding all-good or the aversive all-bad object. The pathological development of excessive aggression in the form of hatred evolves out of the repeatedly unheeded appeals of the infant to the caretaker to stop an aversive experience and restore a state of gratification. Kernberg thus agrees with the clinicians and infant researchers (Call, 1980; Fraiberg, 1982; Galenson, 1986; Osofsky & Eberhart-Wright, 1988) who postulate a relationship between pathological infant-mother relationships and the development of aggression in infants at high risk.

A similar link is proposed by Parens' theory on the development of hostile destructiveness in humans (Parens, 1989a; Parens, 1989b; Parens, 1992); excessive experiences of unpleasure of any type during the formative years of infancy and early childhood result in an intensification of the aggressive drive, leading to an increase of negative emotions such as anger, hostility, hate and rage which come to deeply influence personality development and object relations.

Fonagy (Fonagy et al., 1993) holds similar preconditions responsible for interfering with the development of a psychological self, and leading to pathological destructiveness. Hostile, unpredictable object relationships early on, or those lacking adequate attunement and empathy lead the caretaker to misinterpret the child's forceful self-expressions for aggression. This misattribution is believed to be painful to the

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child's psychological self, invoking an over-use of aggression as a defense. Fonagy contends that over time, the child's self-expression will become fused with his aggression, resulting in pathological pleasure in destructiveness, and interfering with his development of a psychological self.

Contemporary attachment theory's position on affect has also come to consider difficulties with the management of negative affect to be a result of insecure attachment relationships (Cassidy, 1994; Kobak, 1988; Slade, 1993a; Slade, 1993b). Kobak's (Kobak & Sceery, 1988) original research on the correlates between working models of attachment and styles of affect regulation in late adolescence confirmed his thesis that attachment theory can be viewed as a theory of affect regulation. He found that security of attachment correlates with low ratings of anxiety and hostility, and with the ability to constructively modulate negative feelings, whereas insecure attachment is associated with greater hostility for the dismissing attachment classification, and with higher manifestation of anxiety for the preoccupied attachment classification.

In her discussion of emotion regulation within attachment relationships, Cassidy (Cassidy, 1994) adopts a functionalist perspective (Bretherton, Fritz, Zahn-Waxler, & Ridgeway, 1986). She regards the avoidant/dismissive individuals' curtailed expression of negative affect - the minimizing strategy - and the ambivalent/preoccupied individuals' heightened expression of negative affect - the maximizing strategy - in attachment relationships to be adaptations to the emotional exchange experienced with the caregiver. These strategies are the infant's way of communicating to the caregiver a willingness to cooperate with the presumed parental state of mind in order to maintain the relationship. These adaptations of emotion regulation within attachment relationships lead to

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characterological ways of expressing negative affect - either by diminishing it, exaggerating it or by entirely failing to manage it - resulting in fixed patterns of defense or, in extreme cases, leading to psychopathology (Cassidy, 1994; Cassidy & Berlin, 1994; Kobak & Sceery, 1988).

As reviewed here, affects are biologically rooted, universal and pervasive. They have evaluative, adaptive, organizing and communicative functions. They motivate and influence behavior, and are a central aspect of experience to which they confer meaning, depth and shape. They are an integral part of object relations, and are therefore intimately linked to the development of representations. Affective communication is the first and primary form of communication; it is the language of infancy, hence the first language between a mother and her infant. Theory stipulates that affect is intimately linked to the development of the self. The quality of affective communication becomes thus a determining influence. A mother's expression of positive affect as well as her capacity to modulate her affect facilitate the child's cognitive as well as emotional development. Conversely, a caretaker's lack of positive emotions and incapacity to appropriately and flexibly modulate negative affect influences emotion regulation in the child and negatively bears on the growing child's adaptation. Since affective communication is the first and primary form of communication between a mother and her infant, it is fitting to consider affect at the very beginning of relationship, namely in pregnancy and early motherhood. To this effect, some aspects of the emotional and psychological meaning of pregnancy and early motherhood will be reviewed here.

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Emotional and Psychological Aspects of Pregnancy and Early Motherhood

Pregnancy and early motherhood have been viewed as a biologically driven developmental crisis in the life of a woman since the seminal theorizing of Deutsch (Deutsch, 1945), Benedek (Benedek, 1959), and Bibring (Bibring, 1959; Bibring et al., 1961). Marked by hormonal and somatic changes often accompanied by emotional upheaval, pregnancy frequently is compared to puberty and menopause. Pregnancy however differs from these two naturally occuring biologically driven developmental stages, as it is the result of a sexual act (Cohen & Slade, in press). If not terminated, pregnancy leads to motherhood; it entails a psychological re-organization as it creates new relationships and redefines old ones. A psychologically vulnerable time bringing forth regressive states and the revival of infantile conflicts, it also provides a renewed chance to work through unresolved issues and holds promise for greater maturity and integration. Good personality integration by early pregnancy and a flexible adjustment to the emotional as well as developmental task of pregnancy are predictive of adaptation to the maternal role. They are the best guarantors of psychological growth leading to increased maturation and to a new sense of adulthood (Ammaniti et al., 1992; Leifer, 1977). The development of a maternal identity and of a mental space for the child are among the most important psychological tasks in pregnancy and early motherhood; these substantial shifts in identity are linked to each woman's own history and invariably evoke intense emotional reactions. A mother's emotional handling of these tasks is critical and has an effect on the growing baby and child.

Several authors see the physical transformations of pregnancy as a metaphor for the equally important psychological changes to the sense of self and identity (Lester &

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Notman, 1988; Pines, 1982; Trad, 1990). Indeed, the pregnant woman is confronted with a new task of integrating double identifications: with her own mother - which she is now for the first time in a position to emulate - and with herself as the fetus, as she carries a baby within her body. The emotional tone coloring this demanding shift in self and object representation is greatly influenced by her original experience of having been mothered. The experience of having been nurtured and loved in childhood will allow for an identification with a fertile, omnipotent, life-giving and generative pre-oedipal mother, as well as reawaken the experience of being a lovable and loved child. This will make for a predominantly enriching and pleasurable pregnancy experience, furthering the developmental process and growth of the self to new maturational levels. Conversely, the experience of inadequate or cruel mothering as a child will reactivate primitive anxieties of merging with the withholding or frightening mother. It will also rekindle early unfulfilled needs and primitive rage, hindering the psychological task of differentiation and identification (Pines, 1982). Slade (Slade & Cohen,) eloquently described how the past gets repeated and transferred to the child via mothering, both by means of the moment to moment physical and verbal exchanges with the child as well as by means of sudden and directly triggered moments of identification, during which emotionally charged conflicts are unconsciously and automatically re-enacted.

Thus, a pregnant woman's own history as well as her psychological integration and motivation for procreation determine in great part the success of this developmental crisis (Benedek, 1959; Bibring, 1959; Bibring et al., 1961; Deutsch, 1945; Leifer, 1977; Pines, 1982; Slade & Cohen,). Pines (Pines, 1988) noted for instance, that pregnancy in adolescence is often an expression of unfulfilled pregenital longings to be mothered, an

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attempt to regain an infantile state by identification with the needy baby. This constitutes an insufficient premise for a successful transition to motherhood and invariably leads to troubled mother-child relationships. Leifer (Leifer, 1977) found the degree of personality stability achieved by early pregnancy correlating with adaptation to pregnancy, and predictive, to a large extent, of the possibility for psychological growth and new personality integration.

Maternal feelings and attachment to the child develop throughout pregnancy and early motherhood (Leifer, 1977). Distinct events along the three trimesters of pregnancy as well as the birth of the infant and the child's developmental shifts over the course of the first year cause profound psychological transformation in the mother. The attainment of a maternal identity is by no means linear and entails considerable emotional upheaval. The mother's capacity to navigate this emotionally charged time affects the child's emotional adaptation.

The first trimester of pregnancy is characterized by narcissism and a heightened investment into the self (Deutsch, 1945), with little affective attachment to the fetus as a separate object. Excitement about the new capacity to procreate is mixed with ambivalence and fear; fears about bodily changes, about a regression to an oral stage due to nausea (Pines, 1982), and about miscarriage (Leifer, 1977).

In the second trimester, the first perceived movements of the fetus are ordinarily greeted with feelings of relief and thrill. Fears about miscarriage subside, and are gradually replaced by concerns about the integrity of the fetus. The baby within takes on a new reality, a fact which facilitates an increase in differentiation and fuels maternal fantasies about the infant. The pregnant woman is faced with the new task of recognizing

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the fetus as a separate object (Lester & Notman, 1988). Acceptance and incorporation of the fetus is considered to be one of the most important psychological tasks of pregnancy (Leifer, 1977).

As pregnancy progresses, maternal feelings and the bond to the baby further develop, with the concomitant fear of loss of the infant at childbirth or beyond (Leifer, 1977). By the third trimester, the pregnant woman has elaborated a mental space for the child (Ammaniti et al., 1992); her degree of affective involvement with the fetus becomes a good predictor of maternal feelings towards the infant after birth (Leifer, 1977). Conversely, a lack of antenatal attachment to the fetus correlates with adverse psychological sequelea later on (Condon, 1987). Stack (Stack, 1987) commented on the role of the fetus as a transference object, tracing disturbances in early parenting back to the projection upon the infant, already in pregnancy, of negative attributes belonging to the parent's past.

When pregnancy draws to a close, shifts in identity become more noticeable: an integration takes place between the pregnant woman's sense of "self-as-woman" and her developing sense of "self-as-mother" (Fava Vizziello, Antonioli, Cocci, & Invernizzi, 1993). At the same time, there is an increase in differentiation between her representation of herself as a mother and her representation of her baby (Ammaniti et al., 1992). The last weeks of gestation have proven to be a propitious time to investigate a future mother's thinking and feeling, as it yields a good measure of the psychological work at hand and correlates with developments after the birth of the baby (Fava Vizziello et al., 1993; Fonagy et al., 1991; Stack, 1987; Zeanah, Keener, Stewart, & Anders, 1985). The gradual development during pregnancy of a maternal identity and of a mental space for

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the baby are necessary for a successful transition to motherhood, a transition which sees further changes in these representations (Fava Vizziello et al., 1993).

Early motherhood continues the crisis of pregnancy, even if it holds promise for a turning point. Leifer (Leifer, 1977) identified early parenting as an important crisis, one saddled with negative moods stemming from isolation, dissatisfaction, boredom and depression. The feelings a mother harbors towards her child and towards her identity as a mother determine in great part the course of this crisis. Mothers anticipating negativistic attitudes in their child are presumed to lack confidence in their maternal role, a self-fulfilling prophesy starting a negative interpersonal and communicative interaction (Benedek, 1959). On the other hand, the relationship and growing bond to the positively invested baby influences the developing maternal function in reaffirming ways, holding promise for a resolution of the crisis of pregnancy by allowing for the mother's infantile and maternal needs to be gratified (Elkin, 1990; Leon, 1987).

The first year of motherhood represents a true revolution for every new mother, a metamorphosis with both change and continuity (Block, 1990). The necessity to adapt to the baby's needs and monumental developmental shifts over the first twelve months requires the mother to constantly adjust physically, emotionally and psychologically. Every mother perfoms and experiences this task differently. Bassin et al. (Bassin, Honey, & Kaplan, 1994) speak about the multiplicity of meanings motherhood can assume; these meanings translate into actual styles of mothering. There is the idealized, all-powerful mother who strives to be larger than life, who "loves to let herself be the baby's whole world" (Winnicott, 1973, p. 83); there is the dominated, victim mother, who is subjected to her baby's every need, pleasure and demand; there is the demanding, engulfing mother,

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whose baby is there to be controlled and manipulated: and finally, there is the mother for whom motherhood is freeing and generative. Linked to each mother's psychological organization, each mothering style is present long before the actual internalization of the maternal role.

In a study on the process of maternal role attainment over the first year, Mercer (Mercer, 1985) defined the maternal role operationally as: feelings of love for the baby, gratifications in the maternal role, observed maternal behavior, and self-reported ways of handling irritating child behaviors. Maternal role attainment is a process by which the mother achieves competence, leading her to feel comfortable and to identify with her role as a mother. Mercer found that irrespective of the mother's age, maternal role attainment did not show a positive linear increase over the first twelve months. Positive feelings and behaviors as well as role competence grew gradually after birth and peaked around 4 months post birth, but declined again between the child's 8th and 12th months. This finding was attributed to the infant's developmental behaviors, affecting mothers feeling about their child and their sense of competence as a mother.

Indeed, it is a different experience to mother a 4 month old or a child between 8 to 12 months. At 4 months, the child has achieved some degree of homeostatic control; he or she can go longer periods between feedings, sleeps longer, and has longer periods of attention accompanied by a spurt in cognitive awareness and by the emergence of some autonomy (Brazelton & Cramer, 1989). Most importantly, the appearance of the social smile allows the baby to begin to "hatch" as a social being (Mahler, Pine, & Bergman, 1975). All of this is very gratifying to the mother who now feels more competent and rewarded. Development, however, soon brings new challenges. Around 8 months, the

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infant clearly emerges as an individual with a mind of his own, with a capacity to make his intentions, desires, and feelings known more clearly and with an increase in manifestations of autonomy (Stern, 1990). The advent of locomotion, first through crawling and then attempts at walking, the incessant explorations with no sense of the dangers involved, and the appearance of stranger anxiety are all clear manifestations of this developmental shift. The child adds to the need for physical gratification an expressed dependence on emotional reassurance and regulation (Stern, 1990). These new demands on the mother disrupt the previous equilibrium, and call for new adaptations. No wonder mothers feel again less competent and more conflicted in the last trimester of the first year.

Thus, pregnancy and early motherhood are dominated by a constant need to adapt anew, causing affective changes and emotional disequilibrium. Yet a cultural induction and pervasive myth that pregnancy and motherhood should solely be an enjoyable experience hinder the expression of ambivalent or negative feelings, feelings that are pervasive during this time of upheaval. Condon (Condon, 1987), found that the majority of pregnant women experience some form of negative psychological symptoms such as anxiety, depression, irritability, impaired concentration, disorganization and feelings of loss of control. He reports these symptoms to be related to threats to the pregnant woman's sense of self, and to her sense of loss - loss of physical well-being, of social activities, of career, of freedom, of figure, and of dyadic marital relationship. Dreams and fantasies during pregnancy and early motherhood best give voice to these negative feelings (Trad, 1990). Themes of hostility, ambivalence, over-identification, regression, and fear of separation are often evoked during the developmental transformation towards

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motherhood, and stand in stark contrast with the expression of positive and nurturing emotions towards the fetus or infant. The capacity to express these ambivalent feelings symbolically, to repress, dissociate or discharge them appropriately are necessary traits of the adaptive mother; a failure to do so puts her and the infant at risk of becoming the target of discharge of these negative emotions (Trad, 1990). Winnicott (Winnicott, 1947; Winnicott, 1971) and Parker (Parker, 1995) both speak about the importance for the mother to be able to feel hate towards her child, pointing to the constructive and creative aspects of this emotion when it is counterbalanced by love. Parker argues that maternal ambivalence, the clash between feelings of love and moments of hate actually spurs mothers on to struggle to understand and know their baby, "the suffering of ambivalence can promote thought - and the capacity of think about the baby and child is arguably the single most important aspect of mothering" (Parker, 1995, p. 7).

In summary, pregnancy and early motherhood are times of psychological transformation requiring the reworking of mothers' identity, a task evoking earlier conflicts and issues and causing considerable emotional upheaval. A prospective mother's own history as well as her psychological integration determine the course of this development which requires emotional as well as psychological flexibility. The double task of identification and of differentiation - with one's own mother and with one's baby - as well as the attainment of a maternal identity arouses a wide range of feelings, both positive and negative. A mother's capacity to access, experience and modulate these complex and contradictory feelings is considered to be a measure of psychological integration predicting to the quality of adaptation to motherhood, and is believed to bear on the child's social and emotional development.

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Summary and Hypotheses

The maternal contribution to child outcome has been viewed here from several perspectives: from the perspective of maternal sensitivity, a mother's daily interactions with her child and quality of responses to her child's bids for comfort and security, from the perspective of maternal representations, a mother's thoughts and feelings about her child and about the quality and value of primary relationships, and from the perspective of a mother's earliest affective communications within the dyad.

Quite generally, what a mother brings to the task of mothering is present long before conception, determined by her psychological make-up and anchored in her own history (Solomon & George, 1996). Her thoughts and feelings about being a mother rise to the surface in pregnancy and develop into early motherhood. Yet pregnancy as well as early motherhood are the equivalent of an emotional roller coaster. Feelings of elation and sheer joy coexist or alternate with negative emotions such as fear, doubts, frustrations or sometimes even anger. A mother's capacity to navigate these emotionally turbulent waters, to experience, contain or adequately express these contradictory feelings is considered to be a sign of psychological health (Cohen & Slade, in press). These feelings are also thought to guide her behavior in the intimate dyadic relationship with the child, a relationship which is pre-verbal in its origin. Literature points to the primary affective dimension of this first communication and underscores the effect its quality has on the child's social and emotional development.

Empirical studies on the antecedents of optimal social and emotional development in the child have focused primarily on what a mother does to promote such development.

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Attachment research has established that the overall quality of maternal thoughts and feelings about primary relationships relates to the quality of mothering, and it has started to pay closer attention to the emotional valence of maternal thinking, namely to the degree to which mothers' representations are characterized as positive or negative. This study proposes to build on these findings.

This study will focus on the emotional quality of prospective mothers' thoughts and feelings about their child in late pregnancy and again at ten months after birth, and their link to child attachment security at 14 months. Late pregnancy has been found to be a good time to investigate a mother's thinking and feeling about the baby, as it correlates with developments after birth (Fava Vizziello et al., 1993). Ten months after birth is again a sensitive period to probe mothers' thoughts and feelings about their baby and about motherhood, as mothers' newly found competence in their role is challenged towards the end of the first year due to the baby's development (Mercer, 1985). The affective valance of mothers' thoughts and feelings about their child are a critical feature of the quality and affectivity of their attachment to their child. In pregnancy, the affective quality of mothers thoughts is a measure of the developing attachment to the child, expressed by the way mothers speak about the fetus and about the imagined child after birth. The representations of the fetus and of the imagined child after birth will be rated separately via the prenatal representation (referring to the representation of the fetus, which is felt and has thus some basis in reality) and via the postnatal representation of the child after birth (referring to the mothers' representations of the imagined child after birth, and of the place and role that child will have in their life). The expression of various degrees of joy and pleasure are considered reflective of positive maternal

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representations: the expression of anger, frustration, rejection, or depreciation will be considered to portray negative maternal representations, and in cases of a mixed affective picture of both negative and positive feelings, the more prominent feeling will characterize the representation. Paucity of emotional expression will be regarded as a sign of neutrality or of constriction, due to a mother's reluctance or incapacity to express any feelings, or due to a successful defense against unacceptable negative feelings.

First, this study will focus on the stability of these feelings over time. It will look at the degree to which the prospective mothers' thoughts and feelings in late pregnancy can be qualified as positive, negative, neutral or constricted, and compare these findings to the degree of anger and joy/pleasure expressed by the mothers at 10 months post birth. Consistent with the views that what a prospective mother brings to the task of mothering is so solidly anchored in her own history and in her psychological organization, this study stipulates that the quality of a mother's feelings will not be altered fundamentally by the advent of a child, and that this will be particularly true for predominantly negative emotions.

Secondly, this study will seek to establish a relationship between the emotional quality of maternal feelings in pregnancy and the child's later social and emotional adaptation, and again between the quality of maternal feelings at 10 months post birth and the child's later social and emotional adaptation. Late pregnancy is an emotionally charged period for prospective mothers, when doubts and fears about what lies ahead can often overshadow the joys of pregnancy and impending motherhood. When the baby reaches eight to ten months, their developmental milestones challenge the new mother's recently found competence and pull again for doubts, fears, and sometimes anger. It is

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therefore likely that negative characterizations will exist side by side with expressions of joy in mother's representations at these two points in time. Consequently, attention will be paid to the mother's capacity to manage and integrate these intense and conflicting feelings. Thus, the central hypotheses of the study are as follows: mothers who express positive as well as negative feelings, but whose representations can be qualified as more joyful than angry, fearful, overwhelmed or constricted, will be more likely to engage in sensitive, affectionate and responsive mothering, and therefore be more likely to have securely attached children. Conversely, mothers whose thoughts and feelings about their child and about the relationship lack adequate degrees of joy and can therefore be qualified as primarily negative, angry or constricted will be presumed to show hostility, controlled anger or inconsistencies in their interactions with their child, and hence be more likely to have insecurely attached children.

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CHAPTER TWO

Methods

Subjects

The subjects of this study are 49 first time mothers, ages 24 to 40, and their 14 month old toddlers, all participants in a longitudinal research funded by the National Institute of Child Health & Human Development, the "Pregnancy Project", headed by Dr. Arietta Slade at the City College of New York. This research followed 66 first time mothers from their last trimester of pregnancy until their child reached 28 month: it investigated various aspects of mothers' transition to parenthood, as well as the developing relationship to their child. The general aim of the study is to examine the maternal antecedents of infant attachment quality.

The subjects were recruited through different services catering to pregnant women, such as obstetricians, childbirth education classes, maternity shops, parent magazines and local newspapers. All were self-selected married women or in stable, heterosexual relationships. Most came from white (94 %) middle or upper middle class backgrounds and lived in New York City. They were highly educated (50 % had partial or completed postgraduate training, 41% had completed college, 9% had some college education), working as professionals (48%), in public service, business or white collar jobs (29%), or as artists (15%). The remaining 8% were full time students or not working at time of recruitment. All subjects were reported to be medically healthy and devoid of overt psychiatric symptomatology; all the children were healthy babies at birth (51% girls, 49% boys). The mothers can be considered to have been highly motivated

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participants since compensation was modest (20 dollars per visit, small gifts for the child).

Setting

All the visits took place in a research laboratory located at The City College of The City University of New York. The physical plant consisted of three connected rooms: one small and two larger ones. One of the large rooms was equipped as a playroom for the toddlers and used by them under supervision as their mother was being interviewed in the other large, comfortably furnished, adjoining room. The smaller room was divided in half by a one-way-mirror. On one side of the room the mother-child interactions took place; on the other side of the room, behind the mirror, the camera equipment permitted inconspicuous videotaping of the interactions.

Procedures

The "Pregnancy Project" required three prenatal visits to the lab, followed by a brief telephone interview 1 month after delivery, and four visits when the child was respectively 4, 10, 14 and 28 month old. Various measures were collected during those visits, such as paper and pencil measures, interviews, and for the four postnatal visits also videotaped play sessions of mother and child. Data for this study were collected by means of the Pregnancy Interview (Slade et al., 1987) during the first of the three prenatal visits, by means of the Parent Development Interview (Aber et al., 1985) at the second postnatal visit, and by means of the videotaped Strange Situation (Ainsworth et al., 1978) at the third postnatal visit, when the child was 14 months old.

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Measures

This study will utilize two maternal measures and one child measure. The maternal measures consist of two clinical interviews; the first collected in the third trimester of pregnancy, the Pregnancy Interview (PI) (Slade et al., 1987), with its corresponding coding system (Slade et al., 1994), and the second collected when the child is 10 months old, the Parent Development Interview (PDI) (Aber et al., 1985), with its corresponding coding system (Slade, 1994). The child measure involves the videotaping of the mother, the child, and a stranger in Ainsworth's Strange Situation (Ainsworth et al., 1978) and is collected when the child is 14 months old.

The Pregnancy Interview

The Pregnancy Interview (Slade et al., 1987) is a semi-structured clinical interview of 43 questions exploring various aspects of the mothers' emotional experience of pregnancy (cf. Appendix A). This interview, administered in the third trimester of pregnancy, takes typically between one and two hours. It examines the mothers motivation for pregnancy, her actual experience of being pregnant, the changes it has brought on for her in relationships and other areas, as well as her thoughts and feelings about her baby and about the impact motherhood will effect on her life. The entire interview is audio-taped and then transcribed in full to allow for coding.

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The Pregnancy Interview Coding System

The Pregnancy Interview Coding System (Slade et al., 1994) is divided into three sections: Developing Representations of the Baby, Parental Representations, and State of Mind. Four codes assess the Developing Representations of the Baby: Affective Tone of the Prenatal Representation, Affective Tone of the Postnatal Representation, Degree of Elaboration of the Representation, and Quality of Relatedness. Three codes assess the Parental Representations: Parental Confidence and Competence, Acceptance of Baby and Self Needs, and Intensity of Interrole Conflict. Two codes assess the State of Mind: Coherency of Representation, and Lack of Resolution of Mourning-Miscarriage. All dimensions are coded on a nine point scale, except for the Quality of Relatedness code, which is coded on a five point scale. The whole transcript needs to be read to code an interview, but questions 1-22 are primarily used for formal scoring, Answers to questions 23-35 can be used for additional information, but only secondarily. Moreover, each code descriptor lists the questions primarily considered to score a given dimension (cf. Appendix B for the Pregnancy Interview Coding System).

This study will use the two codes rating the mother's affective valence of the Developing Representation of the Baby: the Affective Tone of the Prenatal Representation, and the Affective Tone of the Postnatal Representation. The first of these two dimensions is different from the second insofar as it refers primarily to the thoughts and feelings the mother has towards her fetus, whereas the second dimension addresses the mother's fantasy and projections into the future concerning her baby. The prenatal representations are influenced by the mother's pregnancy and are therefore partially

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reality based, since the mother can feel the movements of the fetus and is influenced by the reality of her pregnancy. The postnatal representations are exclusively based on the mother's mental representation of the baby/child she hopes or fears to have, and of its effect she thinks it will have on her life. Both codes have scalepoints ranging from 1 (high negative) to 9 (high positive), where 1 stands for being totally overwhelmed with negativity, and 9 stands for being totally and believably positive towards the fetus/child.

The pregnancy interview was coded with the Pregnancy Interview Coding System by trained coders; the reliability coefficients were above .90. It is in the early stages of establishing reliability and validity. Slade found in her sample that mothers rated as securely and insecurely attached (as measured by the AAI) differed in their prenatal representation of their babies (Slade et al., 1995). Further studies are required, though, to support the Pregnancy Interview's reliability and validity. This study will contribute to the previous one by testing its validity as a measure predicting to child attachment at fourteen months.

The Parent Development Interview

The Parent Development Interview (PDI) (Aber et al., 1985) is a 45 question semi-structured clinical interview aimed at capturing a parent's representation of their affective experience of parenting and of their relationship to the child. It is divided into five sections, asking the parent to reflect on their view of their relationship to the child, their affective experience of parenting, their reactions to typical infant situations, their thoughts on typical separations, and their thoughts on how the relationship to their husband has been affected by their baby. The interview is administered in an informal,

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conversational manner, with occasional probes by the experimenter to encourage mothers to be as explicit as possible and to give a rich description of their experiences and thoughts. It takes about one and a half to two hours to administer the interview. The interviews are audio taped and later transcribed for coding purposes (cf. Appendix C for the Parent Development Interview).

The Parent Development Interview Coding System

Verbatim transcripts of the PDI are used to code the interview with the Parent Development Interview Coding System (Slade, 1993) along three general dimensions: the parental representation of their affective experience of parenting, the parental representation of their child's affective experience and the quality of their representation measured by the overall coherence and by the richness of the caregiver's perception of the infant, the last two codes adapted from Zeanah's work (Zeanah et al., 1989). This system permits the evaluation of both organizational and affective features of the representation. The six parental affective experience codes include: Anger, Neediness, Separation Distress, Guilt, Joy/Pleasure, Competence/Efficacy. Anger and Separation Distress are rated for degree, acknowledgment and modulation, Guilt is rated for degree and acknowledgment. The four child affective experience codes include: Anger, Dependence/Independence, Separation Distress, and Joy/Pleasure.

The PDI codes to be used in this proposed study are limited to two dimensions of the parental representation of their affective experience of parenting: Anger, which addresses the parent's capacity to recognize and modulate anger within the relationship, and Joy/Pleasure, which addresses the parent's capacity to experience joy, pleasure, and

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contentment in the relationship. For the "Anger" code, the Degree is rated on a three point scale covering,"little", "moderate", and "considerable; Acknowledgment and Behavioral Control are both rated on a nine point scale, with the mid-point representing the optimal score, the lower scores indicating an effort to avoid, down play or deny, and the higher scores pointing to more disruptive and intense levels of emotion. The "Joy/Pleasure" code is rated on a nine point scale, with the low scores showing minimal or low acknowledgment, the middle score showing moderate acknowledgment but with a tendency to idealize or minimize the pleasure, and with the upper scores showing increasingly high acknowledgment of joy and pleasure.

Interviews were coded by raters trained to reliability by the director of The Pregnancy Project; interrater reliability ranged from .80 to .95 with a mean of .87. Raters were not involved in data collection and are blind to the purpose of this study. Arietta Slade, Ph.D. at The City University of New York, J. Lawrence Aber, Ph.D. at the Columbia University School of Public Health, and Jay Belsky, Ph.D. at the Pennsylvania State University have all established reliability and validity. (cf. Appendix D for the Parent Development Interview Coding System)

The Strange Situation

The Strange Situation, a laboratory based procedure designed to assess the quality of a child's attachment to his/her mother involves eight episodes with the mother, her baby, and a stranger, and lasts approximately half an hour. The child is always in the room, and the mother and the stranger alternately leave following a standard order, thus subjecting the child to increased levels of stress. It is the child's behavior towards the

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mother upon reunion that is rated; as a result, each infant is assigned to one of four main attachment classifications: Secure, Avoidant, Resistant, and Disorganized. In addition to these four main classifications, subgroups might also be assigned. No subgroups will be considered for the purpose of this study.

Videotapes of the Strange Situation were scored by trained coders, whose reliability was .88 for the A, B, and C groups, and dropped to .65 when the D group was included. Coders had not part in the data collection and are blind to this study's hypotheses.

Hypotheses

Statistical analyses will be conducted to examine the links between maternal representations in pregnancy and at 10 months post birth and child attachment security at 14 months with the following hypotheses in mind:

1a) The affective tone of mothers' representations of the child in pregnancy will be correlated with the degree of anger and joy/pleasure expressed at 10 months post birth.

1b) Mothers who in pregnancy express a preponderance of negative affect in their representations of the child (as manifested by the exclusive expressions of anger and constriction in both prenatal and postnatal representations), will be more likely than mothers whose representations are largely positive to express a high degree of anger at 10 months post birth.

2. Mothers who in pregnancy express a preponderance of negative affect in their representations of the child will be more likely than mothers whose representations are largely positive to have an insecurely attached child at 14 months.

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3. Mothers who at 10 months post birth express a medium to high degree of anger and a low to medium degree of joy in their representations will be more likely than mothers who express a medium to high degree of joy and a low degree of anger to have an insecurely attached child at 14 months.

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CHAPTER THREE

Results

Three sets of results are presented here. In the first, the relationship between the affective tone of mothers' representations of the child in pregnancy and the degree of maternal anger and joy/pleasure expressed at 10 months post birth are examined. In the second analysis, the relationship between the affective tone of mothers' representations of the child in pregnancy and child attachment security at 14 months are examined. In the third analysis, the link between the degree of maternal anger and joy/pleasure expressed at 10 months post birth and child attachment security at 14 months are examined.

Affective Tone in Pregnancy and Degree of Maternal Anger and Joy/Pleasure at 10 Months Post Birth

The first set of analyses explored the relationship between the affective tone of mothers' representations of the child in pregnancy and the degree of maternal anger and joy/pleasure expressed at 10 months post birth. In pregnancy (PI), each mother received a score for the prenatal representation (referring to the thoughts and feelings towards the fetus) and for the postnatal representation (referring to the thoughts and feelings towards the imagined baby of the future). Both the prenatal as well as the postnatal representations have scalepoints ranging from 1 to 9; scalepoints 1 to 3 stand for high, medium and low negative affect, scalepoints 4 to 6 stand for emotional constriction or neutrality, whereas scalepoints 7 to 9 stand for low, medium and high positive affect. At 10 months post birth (PDI), each mother received a separate score for the degree of anger

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expressed (on a 3 point scale: low/medium/high) and for the joy/pleasure expressed (on a 9 point scale). In order to facilitate comparisons, the joy/pleasure scale of the PDI was converted into a 3 point scale (low/medium/high).

Hypothesis 1a: Affective tone in pregnancy and degree of maternal anger and joy/pleasure at ten months post birth. It was predicted that scores obtained on the affective tone of the prenatal and postnatal representations on the PI would correlate with the degree of anger and joy/pleasure on the PDI. Results are presented in Table 1.

Table 1

Affective Tone in Pregnancy and Degree of Maternal Anger and Joy/Pleasure at 10 Months Post Birth

	Prenatal Affective Tone	**Postnatal Affective Tone**
Degree of Anger @ ten months	-.4164* (41) P= .007	-.3183** (41) P= .043
Joy/Pleasure @ ten months	.1666 (41) P= .298	.0741 (41) P= .645

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

Inspection of Table 1 shows a significant negative relationship between both prenatal and postnatal affective tone in pregnancy and the degree of maternal anger

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expressed at 10 months post birth. Thus, mothers who expressed a preponderance of positive affect in pregnancy expressed a low degree of anger at 10 months post birth. and conversely, mothers who expressed a preponderance of negative affect in pregnancy expressed a high degree of anger at 10 months post birth. No significant relationship was established between the prenatal and postnatal affective tone in pregnancy and the degree of maternal joy/pleasure expressed at 10 months post birth. Thus, the affective tone of the maternal representations of the child in pregnancy did not significantly relate to the degree of maternal joy/pleasure expressed at 10 months post birth.

These findings lend partial support to the hypothesis that the affective tone of prenatal and postnatal representations on the PI would be linked to the degree of anger and joy/pleasure expressed on the PDI. It was expected that positive affect in pregnancy would be associated with the expression of maternal joy/pleasure at 10 months post birth, and negative affect in pregnancy would be linked to the expression of maternal anger at 10 months post birth. In this study, the affective tone of the prenatal and postnatal maternal representations of the child was significantly related only to the degree of maternal anger expressed at 10 months post birth, but not to the degree of maternal joy/pleasure.

Hypothesis 1b: Negative affect in pregnancy and degree of maternal anger at 10 months post birth. It was predicted that mothers who expressed a preponderance of negative affect in pregnancy would express medium to high degrees of anger at 10 months post birth. "Preponderance of negative affect" in pregnancy was defined as scoring between 1 and 5 on the scales measuring the prenatal and postnatal affective tone

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on the PI (negative affect in pregnancy). "Medium to high degree of anger" at 10 months post birth was defined as scoring a 2 or 3 on the "degree of anger" scale in the PDI (angry at 10 months). A Chi-Square test was performed to compare the mothers expressing a preponderance of negative affect in pregnancy to the mothers expressing a preponderance of positive affect in pregnancy with respect to the degree of anger expressed at 10 months post birth. Results are presented in Table 2.

Table 2

Negative Affect in Pregnancy and Degree of Maternal Anger at Ten months Post Birth

	Positive affect in pregnancy	**Negative affect in pregnancy**	**Row total**
not angry at 10 months	20 80.0	7 43.8	27 65.9
angry at 10 months	5 20.0	9 56.3	14 34.1
Column total	25 61.0	16 39.0	41 100.0

Pearson x^2 Value: 5.70122 DF 1 $p = .01695$

Table 2 shows that mothers who expressed a preponderance of negative affect in pregnancy were significantly more likely to express a medium to high degree of anger at 10 months post birth than mothers who expressed a preponderance of positive affect in pregnancy; the latter were significantly more likely to express lower degrees of anger at 10 months post birth. This finding lends support to the hypothesis that a preponderance

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of negative affect in pregnancy significantly relates to the expression of medium to high degrees of anger at 10 months post birth.

Affective Tone in Pregnancy and Child Attachment Security at 14 months

Hypothesis 2: It was predicted that the quality of mothers' affective tone in pregnancy would be related to child attachment security at 14 months. Specifically, it was predicted that mothers who in pregnancy expressed a preponderance of negative affect would be more likely to have an insecurely attached child at 14 months. "Preponderance of negative affect" was defined in the same way as in Hypothesis 1b. A Chi-Square test was performed to compare mothers who in pregnancy expressed a preponderance of negative affect to mothers who expressed a preponderance of positive affect with respect to child attachment security. The results are reported in Table 3.

Table 3

Affective Tone in Pregnancy and Child Security of Attachment

	Positive affect in pregnancy	**Negative affect in pregnancy**	**Row total**
Secure	17 65..4	9 39.1	26 53.1
Insecure	9 34.6	14 60.9	23 46.9
Column total	26 53.1	23 46.9	49 100.0

Pearson x^2 Value 3.37748 DF 1 $p = .06609$

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Inspection of Table 3 shows a relationship which just misses significance between negative affective tone in pregnancy and insecure attachment in the child at 14 months. In a sample of this size, such a result is notable. It suggests that negative affect in pregnancy tends to be associated with insecurity of attachment in the child at 14 months.

Degree of Maternal Anger and Joy/Pleasure Expressed at 10 Months Post Birth and Child Attachment Security

Hypothesis 3: It was predicted that mothers who at 10 months post birth expressed medium to high degrees of anger and only low to medium degrees of joy/pleasure in their representations would be more likely to have an insecurely attached child at 14 months post birth. A Chi-Square test was performed to test this hypothesis. The results are presented in Table 4.

Table 4

Maternal Anger at Ten Months Post Birth and Child Attachment Security at 14 Months

	Hi Joy/Low Anger	Hi Anger/Low Joy	Row Total
Secure	12	13	25
	57.1	52.0	54.3
Insecure	9	12	21
	42.9	48.0	45.7
Column Total	21	25	46
	45.7	54.3	100.0

Pearson x^2 Value .12167 DF 1 p= .72724

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Table 4 shows that there was no significant difference between mothers at 10 months post birth with respect to their degree of anger and joy/pleasure expressed in their representations and child attachment security at 14 months. Mothers who expressed medium to high degrees of anger and low to medium degrees of joy/pleasure at 10 months post birth were not more likely to have an insecurely attached child at 14 months than mothers who expressed higher degrees of joy/pleasure and lower degrees of anger. Thus, the degree of anger or joy/pleasure expressed in the maternal representations at 10 months post birth did not meaningfully relate to child attachment classification at 14 months.

Post-Hoc Analysis: Acknowledgment of Anger in the Maternal Representation

One of the main assumptions underlying the present study is that mothers' modulation of anger and joy in the relationship to the child bears on child attachment security. The affective tone of the maternal representations of the child in pregnancy and the degree of anger and of joy/pleasure in the maternal representation at 10 months post birth served to assess this modulation. In this study, mothers who expressed a preponderance of negative affect in pregnancy tended to be more likely to have an insecurely attached child at 14 months than mothers who expressed a preponderance of positive affect. This relationship was not found again in this sample of mothers at 10 months post birth; the degree of maternal anger and joy/pleasure expressed in the maternal representation at 10 months post birth did not relate to child attachment security at 14 months.

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In an attempt to further explore the relationship of maternal anger to child attachment security, a second scale, namely Acknowledgment of Anger in mothers' representation of the child at 10 months post birth was examined. For the sake of consistency and simplicity, the "acknowledgment of anger" scale coded on a 9 point scale was converted to a 3 point scale, with scalepoint 1 representing mothers who denied anger, scalepoint 2 mothers who acknowledged anger, and scalepoint 3 mothers who were overwhelmed by anger.

Post-Hoc Hypothesis: Maternal Acknowledgment of Anger and Child Attachment Security. The hypothesis tested was: mothers who at 10 months post birth acknowledge anger in the relationship to the child (scalepoint 2) are more likely to have a securely attached child at fourteen months, than mothers who either deny anger or who are overwhelmed by anger (scalepoints 1 and 3 combined). A Chi-Square test was performed to test this hypothesis. Results are presented in Table 5.

Table 5

Maternal Acknowledgment of Anger and Child Security of Attachment

	Denial/Overwhelm. by Anger	**Acknowledgment of Anger**	**Row Total**
Secure	11 44.0	14 66.7	25 54.3
Insecure	14 56.0	7 33.3	21 45.7
Column Total	25 54.3	21 45.7	46 100.00

Pearson x^2 Value 2,36338 DF 1 $p = .12421$

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Inspection of Table 5 shows that although the relationship between maternal acknowledgment of anger at 10 months post birth and child attachment security is not significant, there is a noticeable degree of difference between the two groups of mothers (approx. 23%). This suggests that mothers who acknowledge anger at 10 months post birth tend to differ with respect to child attachment security from mothers who either deny anger or are overwhelmed by it.

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CHAPTER FOUR

Discussion

Summary of the Findings

This study sought to explore prospective mothers' feelings about their baby and about being a mother in pregnancy, and again at the end of the baby's first year, as well as the relationship between the quality of these maternal feelings and the child's subsequent attachment classification. The first question centered around the stability of these feelings. Would the birth of the baby and mothering that baby for 10 months change the quality of a mother's feelings? Could an enthusiastic mother convey joy in pregnancy, yet be disappointed by the actual baby and by the demands made on her as a mother, resulting in overwhelmingly negative feelings later on? Or conversely, could fearful, anxious, and negative maternal feelings in pregnancy change to more positive maternal feelings after 10 months of mothering? In addition, this study also explored the possible link between the quality of these maternal feelings and the child's later attachment security. Specifically, would positive maternal feelings towards the baby in pregnancy and at ten months post birth relate to subsequent security of attachment in the child. Or on the contrary, would negative maternal feelings be linked to insecurity of attachment in the child?

Numerous previous empirical studies have confirmed Bowlby's conviction that the quality of primary relationships in infancy affect the child's emotional and social development, and that these early and all-important relationships are translated over time into increasingly complex and stable mental structures that operate outside of awareness

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and come to guide an individual's behavior as well as thinking, feeling and remembering. Main's research demonstrated that these internal working models can be accessed via representations which are stable and linked to attachment classification. Main's findings inspired the basic hypotheses of this study. Specifically, (1) that the quality of maternal affect - as a dimension of maternal representations - would be stable over time, and (2) that a link would exist between the quality of maternal affect and later child adaptation.

The first finding of this study relates to the stability of these maternal feelings, namely to the relationship of maternal affect between pregnancy and 10 months post birth. Mothers whose representations of their baby in pregnancy were characterized primarily by a negative affective tone, such as anger, fear, anxiety or constriction, were significantly more likely to express high degrees of anger when the baby was 10 months old. Conversely, mothers whose representations of their baby in pregnancy were characterized primarily by a positive affective tone were significantly more likely to express lower degrees of anger at 10 months post birth.

The second finding speaks to the relationship between the quality of maternal affect in pregnancy and the child's attachment security at 14 months. These results suggest that mothers whose representations in pregnancy were dominated by negative affect, such as anger, fear, anxiety or constriction, tended to be more likely to have an insecurely attached child at 14 months, whereas mothers whose representations in pregnancy were predominantly positive were more likely to have a securely attached child at 14 months.

Finally, and contrary to expectations, at 10 months post birth the expressed degree of maternal anger and joy related in no way to subsequent child attachment security.

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However, a post hoc assessment of maternal acknowledgment of anger at 10 months post birth suggested a relationship between this variable and the subsequent security of attachment in the child.

In sum, a preponderance of negative maternal affect in pregnancy related to the expression of higher degrees of anger at 10 months post birth and to insecurity of attachment in the child at 14 months, whereas a preponderance of positive maternal affect in pregnancy related to lower degrees of anger at 10 months post birth and to security of attachment in the child at 14 months. At 10 months post birth, neither the degree of expressed maternal anger or joy/pleasure predicted to child attachment security. However, a mother's capacity to acknowledge anger at this time tended to be associated with subsequent child attachment security. The following discussion will address how some of these results confirm existing theory and empirical findings, while others fall short of such confirmation.

The Stability of Affect between Pregnancy and 10 Months Post Birth

The first result refers to the significant link found between the quality of maternal affect in pregnancy and the expression of degrees of anger at 10 months post birth. A preponderance of negative maternal affect in pregnancy was significantly related to higher degrees of anger at 10 months post birth, whereas a preponderance of positive affect in pregnancy related significantly to lower degrees of anger at 10 months post birth. However, neither a preponderance of positive or negative affect in the maternal representation in pregnancy related to the degree of maternal joy expressed at 10 months post birth.

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To truly evaluate the result linking the quality of affect in the maternal representation in pregnancy to the degree of maternal anger expressed at 10 months post birth, it is fitting to remember what it meant for a mother to be qualified as expressing a "preponderance of negative affect" in pregnancy. These are mothers whose narratives in pregnancy were marked by significant anger, anxiety, fear or distress, or by significant emotional constriction. If these mothers expressed any joy at all, it was minimal or fleeting. The overall quality of the representation of the fetus and of the relationship to the fetus (prenatal representation in pregnancy) as well as the representation of the imagined baby after birth and of the quality of that imagined relationship (postnatal representation in pregnancy) was thus negative and devoid of substantial joy. These are mothers who after having given birth and mothered their baby for 10 months expressed significantly higher degrees of anger and lower degrees of joy in their representations. On the other hand, joy or varying degrees of pleasure outweighed concerns or negative thoughts for mothers whose representations expressed a "preponderance of positive affect" in pregnancy. This finding speaks to a certain stability of affect over a period of profound psychological transformation; predominantly positive representations in pregnancy remained more positive as they were associated with a lesser degree of anger at 10 months post birth, whereas predominantly negative or constricted representations in pregnancy were marked by higher degrees of anger at 10 months post birth.

This stability of affect is suggested by object relations theorists who propose a gradual integration of initially polarized all-good and all-bad experiences in object relations, as well as a gradual differentiation of self and object in object representations over the course of healthy development. (Fairbairn, 1952; Kernberg, 1992; Sandler &

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Sandler, 1978). From an object relations point of view then, mothers whose thoughts and feelings about their baby in pregnancy were characterized primarily by genuine joy and pleasure and whose representations at 10 months post birth showed lower degrees of anger, are mothers who are capable of such integration. These mothers are able to successfully defend against or integrate anger, anxiety and fear. Conversely, mothers whose representations are predominantly negative in pregnancy and who express high degrees of anger at 10 months post birth can be considered mothers lacking emotional integration. This finding suggests that if mothers' experience in late pregnancy is primarily negative, chances are that their feelings are unlikely to change fundamentally once the baby is born. The research of Fava Vizziello and colleagues (Fava Vizziello et al., 1993) established a similar link between a future mother's thinking and feeling in late pregnancy and developments after the baby's birth. Attachment theory and research further confirm this kind of stability.

Bowlby (Bowlby, 1980) argued that internal working models once constructed tend to resist change, as they represent rules guiding attention, memory, feelings and behavior. Empirical studies using the Strange Situation and the Adult Attachment Interview confirmed this presumed stability (Benoit & Parker, 1994). Attachment researchers investigating aspects of parents' representations of their infant and of the relationship over the period of pregnancy, childbirth and early motherhood have found that these representations also tended to be stable (Aber, et al., in press; Benoit, et al.,1994; Slade et al., 1999; Slade et al., 1995; Zeanah et al., 1991; Zeanah, et al., 1986). Aber and Slade's research (Aber, et al., in press; Slade, et al., 1995; Slade, et al, 1999) paid particular attention to affect in the parental representation. Aber and his colleagues

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(Aber et al., in press) for instance found that there were no changes of average levels of mothers' joy/pleasure over a 13 month period when their toddler sons were between 15 and 28 months of age. There was, however, an increase in mothers' level of anger over the same period, an increase linked to the move to the "terrible twos" in the child, and to a rise in parenting hassles.

Thus, it would appear that affect in maternal representations is stable in some instances and not in others. The question becomes then, why, in this sample, negative affect related to higher degrees of anger and lower degrees of joy at 10 months post birth, when no such relationship was found for positive affect. One possible reason could be related to sample composition. Indeed, Slade (Slade et al., 1995) remarked on the fact that this sample of mothers, based on results obtained on the Symptom Checklist 90, looked more disturbed than a non-patient normal population. Slade suggested that these mothers' motivation for participating in this longitudinal research requiring a considerable investment of time and effort with minimal financial compensation might be due to higher degrees of anxiety about being a mother. Thus, positive affect in pregnancy for some of these mothers might not have been a genuine and profound expression of joy about impending motherhood, but rather a more narcissistically tinged expression of satisfaction about having been able to conceive and carry a pregnancy to term. In this instance, positive affect at the end of pregnancy could be a response to assuaged conscious or unconscious anxiety about one's capacity to be fertile and to bear a child. Moreover, positive maternal affect in pregnancy could also have been the expression of an idealized image of who the baby needs to be for the mother, rather than a joyful expression of open curiosity of who the baby might reveal itself to become. An

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additional reason for this lack of association between positive affect in pregnancy and the expression of anger and joy at 10 months post birth might be linked to measurement issues at 10 months, a point that will be taken up in a later section of this discussion. In keeping with the results obtained concerning negative affect, though, it is helpful to refer here to Kobak (Kobak, 1987) and Cassidy's (Cassidy, 1994) formulation on emotion regulation in attachment relationships.

Kobak and Cassidy suggest that attachment theory can be viewed as a theory of affect regulation, closely linked to the psychoanalytic notion of defense. They showed that individual differences in attachment parallel differences in the capacity to integrate negative affect. Securely attached individuals are characterized by their ability to access both positive and negative affects. Negative affects are recognized as intrinsic to relationships; as they arise, they are accepted and integrated. Insecurely attached individuals, by contrast, are characterized by their incapacity to integrate negative affect; the avoidant/dismissing individuals use strategies to minimize negative affect, and the resistant/preoccupied individuals use strategies to maximize negative affect.

Therefore, the mothers in this study who expressed a preponderance of negative affect in pregnancy and high degrees of anger coupled with low degrees of joy at 10 months post birth, could be qualified as mothers showing an incapacity to integrate negative affect. This might suggest that these mothers are insecurely attached. Indeed, Slade (Slade et al., 1995) found in this same sample of mothers, that insecurely attached mothers represented their unborn babies in less positive terms and conveyed less pleasure than secure mothers. In the present study the mothers' attachment classification was not considered; thus this proposition will remain at the level of speculation. What remains

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certain, however, is that negative affect is so securely moored in these mothers' personality that the advent of the actual baby and 10 months of mothering did not change the overall affective tone of their representations.

The incapacity to integrate negative affect as a characteristic of insecure attachment classifications has been linked to particular defense mechanisms (Cassidy, 1994; Kobak, 1987; Slade, 1993a; Slade, 1993b). Insecurely attached individuals are believed to use primitive defenses such as splitting, projection, avoidance, denial and idealization to defend against anxiety when negative affects are evoked; in extreme cases, they experience a breakdown of defense altogether. This becomes evident in their narratives with a loss in coherency.

Thus, Sarah in late pregnancy, illustrates this lack of integration of negative affect leading to primitive defenses and to incoherence in her narrative. When asked how she felt when she found out she was pregnant, she answers that she was "pretty happy". Her answer is followed by unexpected and contradictory crying that surprises both her and the interviewer. As she elaborates on emotionally difficult aspects of the pregnancy, she remembers having had a tough time at the beginning of pregnancy, feeling, "real bad, very blue, very depressed." She goes on to explain how a friend reassured her that it was the hormonal changes in her body that were responsible for these negative feelings. So she tells the interviewer:

> "It's, you know, what your body is going through. I didn't want to be pregnant, which was hard knowing that I went through so much getting pregnant, that um, it was really hard for me to handle not wanting to be pregnant...[...] You know, you have no control over your emotions when you're pregnant the first couple of months."

The interviewer then asks, what it was that made her not want to be pregnant:

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> "I, who the hell knows? I wanted to be pregnant! I think it was just my hormones had just gotten me so depressed and down because it wasn't logical. It, it just, I knew, I knew I wanted to be pregnant but I didn't want to be pregnant. It just, I don't know if you're gonna be able to understand that but that's really, it was just terrible, crying all the time. And I had no control over it but um I knew, thanks to this one person that it wasn't me, that it was my hormones and that it would end and it did so."

When Sarah is asked when she first really believed there was a baby growing inside of her, and how this affected her, she answers:

> "Oh, wow! When did I first <u>really</u> believe? Even the sonogram didn't really make me, no, I don't... It's such a hard question to answer. I mean, you know, you see the baby, you see them bobbing around, you know, sucking his thumb, but I don't know when I <u>really</u>, I knew logically but not emo... See, I think, you know it intellectually, but you don't know emotionally. I've really just now begun to realize it emotionally. I've only now, like I just had my first dream about the baby two days ago, you know. And, and, you know, maybe the first time I saw my stomach move and realizing that I couldn't make it move like that. And there was, it was like Alien. I expected this thing to come shooting out of me at any minute. It was very weird. So I guess it was just like in my fifth, fourth, fifth week." [Interviewer: "When your stomach moved?"] "Yeah I think that's when it was, my fifth month? I don't remember."

Sarah goes on to say that she was "freaked out...[...] there is something in there that I can't control. And it has a mind of its own..." She adds that she cannot picture the baby at all; yet she thinks that it is going to be a very "active" baby, "very willful because I can't make it move." When asked what it will be like for her to take care of the baby, Sarah says, "I'm so petrified of that (laughs)...[...] I think I'm very very anxious about that..."

Sarah's Pregnancy Interview is remarkable for its lack of emotional integration. Although she states having been "pretty happy" when she found out that she was pregnant, this memory is accompanied by crying, followed by the memory of depression and real conflict about being pregnant. Her narrative becomes confusing, filled with

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obvious contradictions, as her attempts at splitting off, denying and disowning the painful aspects of her experience falter. Her emotional incapacity to think of her baby really growing and developing inside her body appears metaphoric of her lack of integration. Her defenses don't hold again, as she becomes confused about weeks and months of gestation. Sarah uses massive denial to defend against the vivid picture she has of her baby. She says she cannot picture the baby at all, yet she volunteers a description of a "very active," "very willful" "Alien," someone with a mind of its own, whom she cannot control. And she is petrified.

At 10 months post birth her narrative as a whole is more coherent; it is however marked by obvious idealizations accompanied by split off hostility. When asked to describe her child she says, "He's great. He's great, he's very... he's a cute little boy. Very good." As soon as she moves to more personal descriptions, representations suggestive of her earlier attributions appear:

> "Very active. He's walking already by himself. Very inquisitive. His temper is starting to show. He screams when he wants something and doesn't get it immediately. When he fi- when he has a new skill, he uses it and uses it and uses it. So he's great. He sleeps well, eats well. I couldn't ask for a better child."

Echoes of the active, willful Alien, with a mind of his own abound. Yet the possible difficulties are glossed over by idealization. Her child sleeps well, eats well, and she could not ask for a better child. However, Sarah's hostility shows in surprising ways. She cuts the interviewer off, she answers in paradoxical fashion, i.e. when asked whether she ever feels intensely happy as a parent, she says: "No. Never (laughs) No. (whispers) Don't listen tape. (Interviewer laughs) Yeah. I do. Was that a yes or no question, right?"

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Sarah's child at 14 months was classified as insecurely attached. Sarah belongs to the group of mothers whose preponderance of negative affect in pregnancy related to high degrees of anger coupled with low degrees of joy/pleasure at 10 months post birth. Her negative affect in pregnancy also predicted to insecurity of attachment in the child at 14 months.

Maternal Affect in Pregnancy and Child Attachment Security at One Year

The second results established a link between the expression of maternal affect in pregnancy and child attachment security at 14 months: Mothers whose representations of the baby in pregnancy conveyed mainly fear, anxiety, or anger were more likely to have an insecurely attached child at 14 months. Conversely, mothers whose representations in pregnancy were characterized primarily by joy were more likely to have a securely attached child at 14 months. These findings are in line with existing psychoanalytic and attachment theory, as well as with empirical and clinical findings.

Indeed, each baby is born into a sea of affects, partially inborn, carried and experienced from within by the baby, partially predating the baby's birth and determined by maternal contribution. For the child, these affects are the first and most fundamental mediators of experience and communication. They are at the root of, contribute to and fundamentally influence the developing object representations and construction of the self (Emde, 1983; Emde, 1989a; Emde, 1989b; Sandler, 1994; Sandler & Sandler, 1978; Schore, 1995; Stern, 1985).

Object relations theorists have underscored a mother's contribution to the child's psychological development; particularly her ability to meet empathically the child's

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spontaneous gestures and needs (Bion, 1962; Winnicott, 1976). Both Bion and Winnicott consider the mother's capacity to receive and contain the baby's love, anger, needs and distress a necessary precondition to the child's own integration of these affects, hence to healthy social and emotional development in the child. This theoretical perspective would suggest that mothers who in pregnancy access a wide range of affects with a preponderance of positive representations - presumably because the negative affects have been adequately integrated - are better equipped to mother their baby sensitively. These mothers most likely are able to recognize the range of affects displayed by the baby; they can contain and appropriately respond to the child's expression of pain, anger, or despair as well as receive and return the child's love. This capacity contributes to optimal mother-infant interactions, ultimately positively influencing the child's emotional development. Conversely, mothers who when thinking about the child they are carrying in pregnancy manifest a preponderance of negative affect - either defended against by way of emotional constriction or as an expression of unintegrated fears, anxiety or anger - bring a negative frame of mind to the experience of mothering. This most likely will interfere with their ability to flexibly recognize and express the range of affects inherent in the relationship to their child. This frame of mind is unlikely to contribute to optimal child adaptation.

Attachment theory's stipulation that the quality of mothers' internal working models of attachment bears on the child's adaptation has amply been demonstrated empirically. This relationship has been confirmed even when mothers' internal working models of attachment relationships were assessed prenatally (Fonagy et al., 1991). Maternal representations of the child and of caregiving have also been found to relate to

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adult representations of attachment, and to the child's attachment classification (George & Solomon, 1989; Slade et al., 1999; Zeanah et al., 1995), even when assessed prenatally (Benoit et al., 1994).

Benoit's most important finding was that narrative features of mothers' representations of their infant when assessed in pregnancy using a classification system analogous to the one proposed by Main (Main & Goldwyn, 1985) predicted to infant security of attachment at one year. Benoit found that mothers who had a balanced representation addressed positive and negative aspects of their imagined infant and of the relationship; they valued the relationship, recognized the infant's individuality and were flexible and open to change their representations to accommodate new information. These mothers tended to have a securely attached child later on. Mothers with narratives classified as disengaged or distorted, on the other hand, tended to have an insecurely attached child later on. Slade and colleagues (Slade, et al., 1999) whose research focused more specifically on the affective dimensions in the maternal representations of the child found that mothers classified as autonomous on the AAI scored highest on the joy-pleasure/coherence dimension of the PDI and engaged in more positive mothering, whereas mothers classified as dismissing on the AAI scored highest on the anger dimension of the PDI. These results are consistent with attachment theory's stipulations that security of attachment is associated with the flexible access to both positive and negative affective experiences and the capacity to successfully integrate negative affect, whereas insecurity of attachment is associated with rigid, lower order or unsuccessful defenses against negative affect. These results also represent a bridge to the understanding of the present finding.

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Simply put, in this study, mothers whose representations of their child in pregnancy were primarily positive tended to have a securely attached child at 14 months, whereas mothers whose representations were dominated by negative affect tended to have an insecurely attached child at 14 months. This finding, which is in line with object relations theory and attachment theory, and confirmed by empirical studies, has long been a staple of clinicians working with mothers and infants. When mothers carry emotionally unintegrated traumatic or negative childhood experiences, even if factually remembered as an adult, these experiences leave profound relational and affective scars that interfere with "good enough" mothering, resulting in symptom formation in the child (Brazelton & Cramer, 1989; Cramer, 1986; Cramer & Stern, 1988; Fraiberg, 1994; Lieberman & Pawl, 1993; Seligman, 1994; Stern-Bruschweiler, 1989). It could be, then, that mothers who in pregnancy cannot summon up enough positive representations about their child and about becoming a mother to outweigh doubts, fears, anxieties and possible anger, are mothers burdened by negative childhood experiences that have remained emotionally unintegrated. Lieberman's (Lieberman, 1997) concept of "maternal attributions" as expressions of working models, "...uncovering the themes, rather than the morphological structure, of patterns of attachment" (Lieberman, 1997, p. 289) emerges as a particularly useful area of inquiry in this context.

Lieberman defines maternal attributions as, "...fixed beliefs that the mother has about her child's existential core, beliefs that she perceives as objective, accurate perceptions of the child's essence but might in fact reflect the mother's fantasies, including her fears, conflicts, and wishes about the child and the child's function in her life." (Lieberman, 1997, p. 282). These parental attributions are a normal phenomenon.

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When they are flexible, correspond to the child's motives and developmental abilities and reflect the parent's joy and competence in raising their child, they contribute in essential ways to the child's healthy development and positively influence the quality of his attachment. However, when these attributions are rigid, constricting, unrelated to the child's developmental level or inherent characteristics, and reflective of the parent's anxieties, anger or disowned parts of self, these attributions become the vehicle for negative projections onto the child and affect the quality of his attachment in negative ways. They are partially responsible for "selective attunements" (Stern, 1985) between mother and baby, eventually weaving the mother's attributions or projections into the fabric of the child's own sense of self.

Could it be that maternal representations of the child in pregnancy characterized by a preponderance of negative affect, are carriers of these kinds of attributions? When we remember Sarah's imagined baby in pregnancy and compare it to her description of her son at 10 months we get a sense of a fixed, rigid, somewhat negative attribution. In pregnancy she has a representation of her baby as very active, willful Alien, with a mind of its own that she cannot control; at 10 months post birth she describes him as a very active, inquisitive boy who is already walking, starting to show his temper and screaming when he wants something and does not get it immediately.

The case of Florence is another example of such maternal attribution. At the beginning of her Pregnancy Interview, Florence admits that she never really wanted to have a child. Marrying a considerably older man whom she loves, however, made her change her mind. Love for her husband and the fear of finding herself alone - in case her older husband died - are then cited as her motives for wanting to have a baby. As the

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interview progresses, her anxieties and fears become apparent. She admits to a lot of concerns about the well-being of the baby, fearing she might "inadvertently" kill the baby, either in a fall, or because of the amniocentesis she decided to have; she is worried she might lose the baby and that it would be her fault. In her 8th month of pregnancy, she denies having a relationship with her baby, "...although, I feel protective towards whatever *it* is that's in me..." Florence knows she is carrying a baby boy, yet she is incapable of imagining what her baby will be like, "I have no idea. I can't imagine this. We'll hope he is a *person*." Florence admits to being very disappointed about having conceived of a baby boy; she desperately wanted a girl. She is able to address the reasons for her preference:

> "Um, well, there are other reasons. I don't know if you want me to get into them now, I mean, they have to do a lot with my family history. I have... I have a brother who's... um, ... who has a lot of mental and emotional problems and he's been hospitalized. He's always been a kind of problem. I think, I don't think, I know that I feel this apprehension that I'll have a child that's like him and I think my father has had, also, a history of mental problems as well. Not as severe as my brother's, in some way he's more functional than my brother is but um, ... you know, I ...'cause I kind of worry about that... you know, that they'll be... that's where... that's just on a sort of ... gut level. You can only... is like someone with a lot of difficulty that I'm going to have to... handle and take care of... and I don't... I don't... ah, look for that... opportunity. I mean, I guess I feel like when my mother dies, I will have to take care of my brother because there won't be anyone else to do it and there's some sort of link in my mind that, you know, there'll be another incapacitated person, you know, and it'll be my son. So, all together, I have, like a better feeling (chuckles) about girls, you know. They're the viability of the world. I know... I know that that's a particular thing that must affect me."

This profound and understandable fear originating in Florence's family history is compounded by an additional anxiety. When asked, whether she is afraid, she might do things as a mother she wished she would not do, her answer is:

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> "Well, one of my great fears about this baby is that um,... is that he'll be a homosexual... and I don't know what... and I felt that it would be my fault that that would happen and I don't know quite what that will... what I will have to do. Or either I will be so rejecting of him because he's a boy and not a girl. That that would do it, or I would, um, be so smothering to him that, you know, that will.. [She goes on to explain that her husband does not have this concern, that if their boy turned out to be a homosexual, they would still love him. But Florence isn't reassured].. Um, but I feel like it would be a terrible accusation, you know, to me. You know, it would be my fault, it would by my fault, my responsibility and this indictment that I had made women so abhorring to him that he could never have ano... that he'd never want to be with another one and it's really sort of shocked me..."

Florence's anxieties are spelled out; her defenses are massive and not very successful. The representation of her child in pregnancy totally lacks emotional integration; it is dominated by fear and rejection. She is unable to summon up any positive feelings or thoughts about carrying a baby boy. Good and bad are split along gender lines: girl is good, boy is bad. So bad, in fact, that she strips it of humanity. She knows she is carrying a baby boy and she calls him "*it*"; she hopes he is a "*person*". It also is impossible for her to conjure up an image of her baby, as she defends against fears of giving birth to a little boy who might grow up to be mentally ill, just like her brother, just like her father. Florence's anxiety is so massive that, unconsciously, she wishes her baby dead. Her anxiety is also the driving force behind her elaborate attributions onto her baby, a baby who isn't even born yet. Hers is a textbook example of unhealthy maternal attributions. Her projection goes full circle, as in the case of projective identification: she imagines her boy to grow up to be a homosexual, one to whom women are "abhorring," just as her mental representation of her baby is abhorrent to her.

At 10 months post birth her anxieties are somewhat reduced. There is, however, a lingering shadow of preoccupation concerning her homosexual attribution. In the course

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of her PDI, she comments on the fact that her husband spends a good deal of time with their child, and that recently her son has preferred his father's presence to hers. The interviewer then asks her, whether this preference makes her feel rejected. Her answer denies it:

> "Actually, I mean I don't know if you'll believe me, 'cause I sound like such a Pollyanna, it feels great. I don't feel rejected. I feel... relieved, and I think, you know, the one thing I can't teach him, I mean I can give him a lot but I can't teach him how to be a man. So when I see him with my husband, I say, 'This is, this is a good thing. They are doing what they're supposed to be doing, they are bonding.' And, you know, he'll have someone to teach him how to be a man when the time comes, because I can't do that. I've never been one, and he's gonna need to know that."

Although there is no direct mention of homosexuality in what she says, her worry that she might not be able to "teach him how to be a man when the time comes," harks back to her concern and attribution in pregnancy.

Just like Sarah's child, Florence's little boy was classified as insecurely attached at 14 months. For this sample of mothers, there was a clear link between predominantly negative maternal representations of the child in pregnancy and subsequent insecurity of attachment in the child at 14 months. As Emde (Emde, 1992b) remarked, a lack of positive emotions on the part of the mother can be a better indicator of problems in the dyad, than an excess of negative emotions. Given these results, it is surprising that the degree of anger and joy in maternal representations of the child at 10 months post birth did not relate to attachment security in the child at 14 months.

Maternal Anger and Joy/Pleasure at 10 Months and Child Attachment Security

The third and surprising finding of this study relates to the lack of association found between the degree of anger and the degree of joy expressed by the mothers at 10

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months post birth, and their child's subsequent attachment classification at 14 months. This finding contradicts expectations dictated by attachment theory and empirical findings. It was expected that high degrees of anger and low degrees of joy in the mothers would predict to insecurity of attachment in the child, and conversely, high degrees of joy and low degrees of maternal anger would predict to security of attachment in the child. Instead, neither joy nor anger, considered separately or combined into a ratio, related to the child's attachment security.

One way of understanding this lack of relationship is to remember what it means to mother a 10 months old baby. There are as many reasons to be elated and joyful as there are reasons to be angry, frustrated, and exhausted. The 10 months old child has clearly "hatched" out of the mother's orbit and entered the practicing period (Mahler et al., 1975); separation and individuation are at their height, with accompanying emotional lability on the part of the child. One moment daringly darting off to explore new territory, the other anxiously clinging to the mother in fear of strangers or new situations (Stern, 1990). This period is notoriously trying for new mothers. While the child's new achievements often are cause for pleasure and joy, they also call for the mother's ability to tolerate being desperately needed as well as forcefully rejected in rapid succession. In her study on the process of maternal role attainment, Mercer (Mercer, 1985) showed that positive maternal feelings and role competence clearly declined over the last quarter of the child's first year. The developmental advances of the child challenge the mothers in ways that might well interfere with their maternal joy and temporarily raise their level of anger or anxiety. Considering this emotional turmoil, it is possible that at this point in time and taken as sole dimensions, the degree of anger and the degree of joy/pleasure in

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maternal representations are not good indicators of the mothers' emotional internal working model of the child and of the relationship. This would be one way to understand why otherwise robust associations between maternal joy and child security of attachment on the one hand, and maternal anger or anxiety and child insecurity of attachment on the other, was not found.

Linked to this, another possible explanation could reside in measurement error. As stated above, the assessment of the *degree* of anger and joy/pleasure taken alone in times of emotional turmoil might not be a valid measure of the affective valence of mothers' internal working model of the child and of the relationship. In pregnancy, it is not the absolute *degree* of anger or joy that was assessed, but rather the preponderance of anger or joy in the representation. Coders were asked to decide whether overall, the representation could be qualified as more angry, constricted or joyful, and only secondarily, to what degree it was so for each of these dimensions. Implicitly, the scale of affective tone in pregnancy implies thus an integration of affect, whereas at 10 months post birth, *degree* rates a straight forward measure of quantity, not of integration.

There is an additional point concerning the scales of degree of anger and joy/pleasure at 10 months. A three point scale for degree of anger with scalepoints representing low, medium and high anger is in all likelihood not sensitive enough to capture the actual degree of anger a mother might have. For instance, it does not adequately represent the defensive constriction of anger of the dismissing attachment classification. A rating of low anger could represent a genuine low degree of anger, or a successful defense against a great deal of anger. Moreover, in order to facilitate comparison of the scales for degree of anger and joy/pleasure at 10 months, the originally

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9 point scale of the degree of joy/pleasure was condensed into a three point scale. This might have lowered the sensitivity of the joy/pleasure scale, contributing thus to lower validity. Except for the highly significant relationship found between negative affect in pregnancy and higher degrees of anger coupled with low joy/pleasure at 10 months post birth - a relationship discussed earlier and understood as deeply rooted, unintegrated maternal anger - all measurements involving the degree of anger and degree of joy/pleasure scales at 10 months post birth yielded no results. Issues of measurement error are therefore likely.

Since the expected associations between degree of anger and joy/pleasure and child attachment security could not be established, a post-hoc analysis examining maternal acknowledgment of anger was performed to further explore the relationship of maternal anger to child attachment security at 10 months post birth. The relationship of maternal joy/pleasure at 10 months post birth to child attachment security could not be assessed further for lack of other measures of joy/pleasure.

Acknowledged Maternal Anger and Child Attachment Security

The results of the post-hoc analysis examining the relationship between maternal acknowledgment of anger and child attachment security, although not significant, indicated a trend; mothers who acknowledged anger in the relationship to the child were proportionally more likely to have a securely attached child than mothers who denied anger or who were overwhelmed by it.

The value of acknowledged anger is undeniable as it represents thinking about anger, rather than acted out or defensively manipulated anger. Anger is an ineluctable

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part of the human experience; it is as real as love, yet harder to acknowledge, possibly because of its potential for destruction. In the course of development, a progressive integration between love and hate is believed to occur, leading to ambivalence, the coexistence and relative balance between feelings of love and feelings of hate towards the same object. Yet, the integration is never complete, the balance never full and permanent. There is a constant need to deal with unintegrated anger, a cause for considerable guilt and anxiety for many. Mothers' realization that they are capable of intensely hating the infant they also love can be quite disturbing; the extent to which they can tolerate and manage feelings of anger and hatred towards their child varies. Thus, when unacknowledged, anger leads to defensive operations, when overwhelming, it leads to a breakdown of defenses. Hence the importance of acknowledgment and integration of negative affect, the value of true ambivalence. It is proposed here that acknowledgment of anger rests on an individual's ability to mentalize, to consider and understand mental states in the self and in others.

Klein (Klein, 1975), Winnicott (Winnicott, 1947; Winnicott, 1971) and Bion (Bion, 1962; Bion, 1964) have all addressed the constructive value of anger and hatred in relationships and development, as these feelings further the process of differentiation. Building on this notion, Parker (Parker, 1995) argues, that maternal ambivalence contributes to the development of the maternal function, as it promotes not only the child's but also the mother's separation and individuation process. To view maternal ambivalence as a risk factor is to pathologize it and render it unavailable for constructive consideration. Parker attributes a creative role to maternal ambivalence, one which is conducive to thought. The co-existence of maternal love and hate for the baby when

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acknowledged promotes a sense of concern and responsibility towards the baby. It allows the mother to know herself more fully, as she tolerates traits in herself she may deem less than admirable; it spurs her on to struggle to understand her baby as well as her own conflicting feelings. Parker argues that "...the capacity to think about the baby and child is arguably the single most important aspect of mothering." (Parker, 1995, p.7). She also contends that "...ambivalence entirely denied, cannot provide a spur to thought." (Parker, 1995, p.8).

The link Parker makes between ambivalence and thought requires a mother's capacity to thinks about her own thinking, to reflect upon it's origin, nature and validity. Main (Main, 1991) found that this capacity, which she refers to as metacognitive knowledge and monitoring, differs in important ways for individuals, and that securely attached individuals have the capacity for metarepresentational processes, whereas this process is distorted or lacking in insecurely attached individuals. Conscious ambivalence, which implies the simultaneous experience of and thinking about love and hate, seems to be a perfect example of metacognitive process. When ambivalence is conscious, neither love nor hate are acted upon; they are experienced simultaneously, their origin, nature and validity are contemplated and reflected upon. This mental activity creates a space for the consideration of and reflection on negative affect, for the acknowledgment of anger. It makes for the distinction between thought and action, between internal and external reality.

A mother's capacity to acknowledge anger in the relationship is thus a corollary of her capacity to think about her own affective state, including her anger and anxiety, and to contemplate the effect it can have on others. Her ability to reflect on mental states also

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provides her with the ability to correctly appraise and contain anger or anxiety in her child. This ability to understand one's own as well as others' mental state as entailing beliefs and wishes has been referred to as reflective functioning and has been the object of much theorizing and research by Fonagy (Fonagy, 1991; Fonagy, 1996; Fonagy et al., 1995). Fonagy proposes the parental capacity for reflective functioning to be a key element in the intergenerational transmission of attachment relationships (Fonagy, 1996). Looking at Adult Attachment Interviews, he found that securely attached individuals were able to make sense of psychological states in their narratives, showing thus good reflective functioning. Conversely, insecurely attached individuals' narratives lacked specificity, were dominated by projection or lacked psychological mindedness altogether; they were lacking in reflective functioning. Linking these results to Bion's (Bion, 1962) notion of containment, namely the capacity to identify an emotional state in the other, not to be overwhelmed by it, and to reflect it back as a tolerable affective state, Fonagy remarks, "... secure attachment is the outcome of successful containment, while insecure attachment is a defensive compromise." (Fonagy, 1996, p.76-77).

Examples of this are readily available in the PDI of mothers asked about their anger as a parent. Florence, who had fixed, negative maternal attributions in pregnancy about the baby boy she was carrying, fearing he might grow up to be mentally ill like her brother and father, or turn into a homosexual, denies anger as a parent. She admits she is upset at the lack of tolerance of some adults in public places when they are inconvenienced by her crying baby or by her struggles with the stroller, etc.. She states that this makes her feel like wanting to stay home, which results in making her feel isolated. Here, anger triggered by the limiting and isolating aspects of parenthood are

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projected onto strangers who are intolerant of babies. When she is asked whether she ever gets angry at her son, she answers, "No. No. I can't say that I've been angry at him." Florence's incapacity to acknowledge anger is complete; it leads to projection and denial.

Sarah's lack of acknowledgment of anger is not quite as complete; her strategy is to distance herself from her anger. When asked, whether she ever feels really angry as a parent, her answer is, "Well, you said really angry. I don't think really angry, no. Angry sometimes, but not really angry." She reports that she cries when she has angry feelings, that she even yelled at her infant two or three times, when he was difficult, but that this is many months ago. She is unable to imagine what effect her anger had on her baby, showing thus a lack of reflective functioning. When asked whether she ever feels really angry at her child, she answers, "Not now. No. I never really did before. When he cried all the time during the day I used to get very angry. I don't know if angry is the right word. That may not be the right word. So I can't say that." Sarah distances herself from her anger, she contradicts herself, she ultimately denies it. Both Sarah and Florence had insecurely attached children at 14 months.

In contrast to Florence and Sarah, Tracy is quite open about her anger. When asked whether she ever feels angry as a parent her answer is:

> "Yeah, I'm... when I can't make any sense of what she wants and she's going on, I get frustrated, I get angry. When... she's such a great schedule person... I mean, it's funny, I get angry when... because she's so good, when she's not good, because I'm spoiled. I'm not used to it. So sometimes I get angry when, like today, she, she didn't... we normally have breakfast at, like nine thirty for her, and she didn't want her cereal, and she didn't eat her cereal. And 'I've got to get out, you know, it's one o'clock, we're going to walk here.' You know, and it's like... You know, she didn't have colic or anything, I never had this thing of like, 'My God, why did I do this?' But, you know, she had the runs for a week once, to the point where I was doing wash three times a day, you know, she'd go through the sheets. Then it was, like, you know, 'This is what I went to grad school for, I got an MBA so I could sit here and change dirty diapers

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> and do wash, you know.' So you go through those. So I guess I get angry. but not, not any more than to be expected."

When asked whether she ever gets really angry at her, she answers, "Sometimes, I mean I try to catch myself, but to be honest, yeah." Tracy also acknowledges that her angry feelings might have an effect on her child. She imagines that her child feels very bad, hurt and confused by her mom's angry feelings. This total acknowledgment of anger supported by details of situations that are frustrating and coupled with an awareness of the effect the anger could have on the child represents the mother's capacity to recognize her feelings, even the negative ones, to think about them and to imagine the effect they might have on her child. Tracy's child was securely attached at 14 months, in spite of her mother's occasional openly expressed anger towards her.

Concluding remarks

In sum, the two most interesting findings of this study pertain to (1) the predictive value of affect in maternal representations in pregnancy as it relates to child attachment security at 14 months, and to (2) findings related to negative maternal affect. Mothers' predominantly positive thoughts and feelings about the child in pregnancy predicting to secure attachment in the child later on was interpreted as a sign of mothers' psychological integration. Confirming object relations theories, attachment theory and empirical findings, it was suggested that these mothers' capacity to successfully integrate negative affect freed them up to the joys of motherhood and provided them with the necessary emotional flexibility to later be able to sensitively mother their child, thus positively impacting the child's social and emotional development.

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On the other hand, mothers' thoughts and feelings in pregnancy marked by anger, fear or anxiety or by emotional constriction related to the expression of higher degrees of maternal anger and lower degrees of joy at 10 months post birth and predicted to insecure attachment in the child at 14 months. This was understood as mothers' lack of emotional integration and was discussed in terms of object relations theories as well as in terms of attachment theory's notion of affect regulation and defense in attachment relationships. Clinical examples illustrating mothers' defensive operations as well as rigid negative attributions as a consequence of unintegrated negative maternal affect were presented and discussed.

The lack of relationship found between degree of maternal anger and joy/pleasure at 10 months post birth and child attachment security were attributed to a possible limitation of research design as well as to measurement error. Finally, the trend between acknowledgment of maternal anger at 10 months post birth and secure attachment in the child at 14 months was considered from the point of view of mothers' capacity for mentalization, a capacity which positively relates to psychological mindedness. Mothers' acknowledgment of anger was proposed as an example of their ability to contemplate their own as well as others' mental states, an ability which allows them to identify affective states in the child, to contain them and to adequately reflect them back, a process believed to positively contribute to the child's emotional integration and development. The argument can therefore be made that unacknowledged anger is more likely to relate to insecurity of attachment than the mere expression of negative affect.

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Limitations of the Present Study and Need for Further Research

Sample size, sample composition and aspects of the research design and methodology need to be considered to properly evaluate the present findings. The limitations of this study inherently point to the need for further research.

For one, the sample size was relatively small. This limitation restricted the outcome measure to security versus insecurity of attachment in the child, foreclosing thus the possibility to distinguish between the three main categories of insecure attachments. This limitation of sample size made it also impossible to distinguish between mothers whose negative affect in pregnancy was due to constriction from those for whom it was due to overwhelming anger or anxiety. A larger sample would thus not only confer more confidence to the present findings; it would also permit to assess the affective tone of the maternal representations along the lines suggested by Cassidy's (Cassidy, 1994) theory on emotion regulation within attachment relationships.

A second limitation relates to the sample population. Indeed, Slade (Slade et al., 1995) in her discussion of the sample pointed to the fact that it was uncharacteristic as it did not show expected rates of mother-infant attachment concordances. Moreover, in view of the results obtained on the Symptom Checklist 90 (SCL-90), she concluded that as a whole, this sample of mothers looked more disturbed than a non-patient normal population. Slade suggested the mothers motivation for participating in this research as a possible explanation. Indeed, the study required many visits over a long period of time to an inconveniently located research site and with minimal financial compensation. One possible explanation is that the women in this study had higher degrees of anxiety about

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being a mother, and that they participated as a means of support and to assuage their concerns about child rearing. Replication of this study with a sample more representative of the larger population would therefore be necessary to validate the present results.

A third limitation relates to methodological issues. First, the assessment of maternal affect in pregnancy differed somewhat from the way it was assessed at 10 months post birth. It is possible that this might have contributed to the difficulty of establishing affective stability across time. In a future study it might be useful to use the same means of assessing affect in the maternal representation at different points in time. For instance, it would be interesting to see whether affect measured along the continuum of negative, constricted, neutral and positive at 10 months - as it was measured in the PI - would yield significant results.

Second, although the primary goal of this study was to look only at affect in the maternal representations, in hindsight it would have been interesting to see how affect relates to other dimensions, such as coherency, for instance. Slade and Aber's research (Aber, et al., in press; Slade, et al., 1999) is exemplary in this respect and allows for richer conclusions, linking affect to other aspects of mothering and attachment. It was fortuitous that at 10 months post birth the mothers' acknowledgment of anger was available as a dimension to investigate, a dimension which yielded results opening new perspectives on affect in the relationship.

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APPENDIX A

THE PREGNANCY PROJECT: PREGNANCY INTERVIEW

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March, 1987

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The Pregnancy Interview

Introduction: This is the interview that is going to be about the emotional experience of your pregnancy. As you probably know, very little is known about what women think about and feel during the course of their pregnancies and our lab is very interested in finding out more about what this experience has been like for you and what kinds of changes you've been through. The whole interview will probably take us about an hour and a half.

Questions:

1. Can you start by telling me why you wanted to have children?

Prompt: Why did you want to have a child at this time in your life?

2. How did you feel when you found out you were pregnant?

Comment: Here, we are looking for the subject's affect about knowing she was pregnant in the first days and weeks. Be sure to get elaboration if necessary. For example, if subject says she was scared or excited, find out what she means by this what was she scared or excited about.

Prompt to help subject elaborate if necessary.

3. What was your husband's (or baby's father) reaction when you became pregnant?

Prompt: What was he _____ about? (e.g. scared or excited)

In what ways was your husband's reaction to finding out you were pregnant similar to yours and in what ways was it different?

Comment: Here, we are looking for his affect about early pregnancy. Again, be sure to ask for elaboration about specific feelings.

4. What kinds of changes have you made in your lifestyle during your pregnancy?

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Prompts: Have you had to adapt your diet, physical activity, sleep schedule, work habits or other aspects of your life?

How did you feel about making these changes?

Comment: Here we are interested both in whether subject has in fact made any changes as well as in how she feels about having had to make these changes - - - - does she feel happy, deprived, etc . . .? If the subject brings up emotional changes, explain that we'll be getting to emotional changes in a minute but for now we 're specifically interested in changes in habits and patterns.

5. Now we're going to talk some about what your pregnancy has been like for you emotionally. Have there been aspects of the pregnancy that have been emotionally difficult for you?

Prompt (if subject does not bring it up spontaneously): Have there been times when you've felt needy or unsupported or worried or just surprised by your emotional state?

Have you had any concerns about the well-being of your baby?

6. How have you dealt with these feelings?

Prompt: Is there anyone (or anyone else) with whom you can talk about your difficulties in pregnancy?

Comment: Be sure to find out how subject has dealt with her feelings of neediness, etc . . .

7. We've just talked about the difficult feelings, what about the good feelings?

8. Now, we're going to go back to talking about your feelings about the baby during pregnancy. When would you say you first really believed there was a baby growing inside of you? How did this affect you?

9. Would you say you have a relationship with your baby yet? How would you describe it?

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Prompt: For example, do you or your husband ever talk to your baby, do you have a nickname for your baby, or are there things you imagine about your baby?

9a. What do you imagine your baby will be like?

10. Do you know the sex of the baby?

If "yes": How do you feel about it?

If "no": Do you have a preference or feelings either way?

11. Now we're going to talk about becoming a mother. Do you have a sense of your baby's dependence on you and how do you feel about this?

12. Do you have a sense of whether your baby needs anything from you now?

Prompt: How do you feel about responding to those needs?

Comment: Be sure to find out what subject feels those needs are, e.g., protection by subject, good health of subject, etc . . . We are trying to get a sense of whether the subject can identify with and respond to the needs of her baby yet.

13. How comfortable do you feel about taking care of your baby once it's born? What do you think this will be like for you?

14. Have you thought about whether you'll bottle-feed or breast-feed your baby?

Comment: Make sure to find out why they've chosen one or the other and how they feel about their choice (i.e., certain, ambivalent, etc....)

15. When you think of your baby's earliest months, what do you imagine will be the most pleasurable times with your baby?

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16. What do you imagine will be the most difficult times in your relationship with your baby?

17. What are your current plans for caretaking after the baby is born?

Prompt: (If subject is planning to return to work): What kind of babysitting or daycare arrangements have you thought about?

Comment: Try to get a sense of whether the subject anticipates feeling in need of help after the baby is born and whether there is anyone she can count on to help her (e.g., mother, mother-in-law, husband, etc . . .)

18. Now, we're going to shift gears a little bit. What kinds of feelings have you had about your own mother during your pregnancy?

19. Have these feelings affected you actual relationship with your mother?

20. How do you think your early experiences of being parented have affected your feelings during pregnancy?

21 In what ways do you imagine you'll be like your mother as a parent? In what ways do you imagine you'll be different?

22. Are there things that you're afraid you'll do as a mother that you wish you wouldn't?

23. Now we're going to talk a bit about how your marriage has been affected by your being pregnant. What's the pregnancy been like for your husband emotionally?

Prompt: How has he dealt with these feelings? Inquire further if subject doesn't mention husband's negative feelings.

24. How has your relationship with your husband been affected by your pregnancy?

Prompt: How have the two of you felt about these changes?

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25. How has your sexual relationship been affected by your pregnancy?

Prompt: What's that been like for you both?

26. What kind of impact do you think having a baby will have on your marriage?

27. How do you expect your husband to be involved with the baby?

28. How well do you think your husband will be able to support you emotionally and practically in the day-to-day job of mothering?

29. Now let's talk a bit about how the two of you negotiate conflicts. When the two of you disagree about something or are angry with each other, what happens? Do you fight? Talk? Let it slide?

Prompt: Use subject's language regarding conflict. How do you fight? (Get a sense of the process of fighting.)

30. Do you think the particular way you two disagree or fight works for you? Does it make things better or worse? (If subject has -- implicitly or explicitly -- answered this in preceding question, ask this question anyway, but say something to acknowledge that the question is redundant.)

31. What kinds of things do you two come into conflict about most often?

32. How often do you fight?

33. How "serious" does it feel?

34. In what ways do you think that being a parent will change your life? How do you feel about these changes?

Prompt: What kinds of changes in your lifestyle do you anticipate having to make and what will this be like for you?

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35. Has the way you think about yourself or the way you view yourself as a person changed since you've been pregnant?

Prompt: Do you feel like a mother yet?

Interviewer: Now we're going to switch gears slightly and talk about your feelings about body changes during pregnancy. As you are probably well aware of by now, one of the most dramatic experiences of pregnancy is how much your body and your appearance change over the course of these nine months. I'd like to ask you some questions about what this experience has been like for you as well as about how you felt about your body before pregnancy and even back when you were a child.

36. How have you felt about your body and your appearance during your pregnancy?

37. How early in your pregnancy did you first notice changes in your body and appearance?

Prompts: What was it like when you first realized you couldn't wear your own clothes anymore?

When did you begin to wear maternity clothes and what was this like for you?

How did you feel about looking pregnant?

38. How has your husband's experience of your body during your pregnancy been the same as yours and how has it been different?

39. Can you remember how you felt about your body or your appearance when you were growing up? Are there any specific incidents or memories that illustrate these feelings?

Comment: If subject describes a shift in feelings about her appearance at some point in her life, find out what brought about the change.

40. Did you get any sense of how your parents or anyone else in your family felt about the way you looked when you were growing up?

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Can you remember any specific incidents that illustrate this attitude?

41. How do you think your feelings about your appearance when you were young have affected the way you feel about your body as an adult, especially now during pregnancy?

42. I'd like to finish up the interview by asking you how satisfied you've been, overall, with your pregnancy? Is there anything you would have wanted to be different?

43. Is there any other aspect of your pregnancy that has been important to you that we haven't asked you about?

THANK YOU VERY MUCH !

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APPENDIX B

Revised draft 7/15/94

PREGNANCY INTERVIEW

CODING SYSTEM

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The Pregnancy Interview (Slade, Grunebaum, Huganir & Reeves, 1987) is a semistructured clinical interview designed to examine the affective experience of pregnancy. The Pregnancy Interview is administered to women in their third trimester of pregnancy. They are asked to describe their fantasies about the unborn baby, their feelings about the pregnancy itself, their feelings and fantasies about the process of becoming a parent, and their reflections on the ways parenthood will influence their marriage and other aspects of their life.

The coding system described here is divided into 3 sections: Developing Representations of the Baby, Parental Representations and State of Mind. There are 3 codes that comprise the section on Developing Representations of the Baby: Affective Tone, Degree of Elaboration, and Content of Fetal Representation. There are 2 codes that comprise the Parental Representation section: Confidence/Limitations & Acceptance of Baby and Self Needs. Finally, there are 2 State of Mind codes: Coherence and Resolution of Mourning of Miscarriage.

In order to become reliable on these rating scales, it is first necessary to read a number of pregnancy interview transcripts so as to be familiar with the breadth and range of emotions and fantasies during pregnancy. It is a time of enormous emotional turmoil and upheaval; women reevaluate their identities and primary relationships in a variety of ways as they begin to imagine themselves in the role of mother and caregiver, and as they confront the dramatic changes that will follow the birth of their first child.

When coding individual transcripts, raters should read the entire transcript through carefully once or twice (or more, if necessary). Use only questions 1-22 for formal scoring for all scales. Read questions 23-34 for additional information. Do not read beyond question 35. Ratings for individual codes should then be based primarily (although not exclusively) upon parental response to questions listed under code descriptors. Responses to questions other than those listed should be included in coding decisions when they add substantially to the information gained from core coding questions. Training around these decisions is particularly important.

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SAMPLE CODING SHEET
PREGNANCY INTERVIEW

I Developing Representations of the Baby

1a.	Affective tone of prenatal representation	_____	(1-9)
1b.	Affective tone of postnatal representation	_____	(1-9)
2.	Degree of elaboration of representation	_____	(1-9)
3.	Content of fetal representation	1._____	(1-7)
		2._____	
		3._____	
4.	Quality of relatedness	_____	(1-5)

II Parental Representations

5.	Parental confidence and competence	_____	(1-9)
6.	Acceptance of baby and self needs	_____	(1-9)
7.	Intensity of interrole conflict	_____	(1-9)

III State of Mind

8.	Coherency of representation	_____	(1-9)
9.	Lack of resolution of mourning-miscarriage	_____	(1-9)

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I DEVELOPING REPRESENTATIONS OF THE BABY

There are several dimensions to consider when attempting to determine the quality of a mother's developing representation of her baby. There is first the dimension of the affective tone of the representation; the predominant affective valence of the mother's thoughts and feelings about the baby. There is second the degree of elaboration of the representation, which conveys something important about the degree to which the mother has allowed herself to develop a relationship with the baby in utero. The degree of relationship is thus separate from the affective valence of the representation of the relationship. There is also the content of the representation itself. Some mothers endow their fetuses with human attributes, others with animal attributes, and still others with those of aliens or strange creatures. This content category conveys something important about the object relations level of the mother's fantasies about her unborn child, and is an important complement to the affective tone and degree of elaboration evaluations.

1. Affective tone.

Affective tone refers to the affective valence of mother's representation of her child. The representation of the developing child is sometimes different in quality from the developing representation of the fetus. The fetus, by virtue of its movement and the changes it has brought about in the mother's body, is more "real" than the child after birth, who is not yet known to the parent. The mother's thoughts and feelings about her born baby are therefore based in fantasy and projection. It may be more comfortable, for instance, to a mother to express negative feelings toward the fetus, given that her pregnancy is a time limited state that provides containment for her negative affects. Or, a mother may feel quite comfortable with her pregnant state, and attribute positive qualities to the fetus' motion and kicking, whereas she may have a good deal of anger about the baby's fantasied interference in her marriage. Therefore, mother's representation of the fetus will be scored separately from that of the child after birth.

Affective tone is a critical feature of the mother's developing attachment to the child, for it is the most direct indicator of the quality and affectivity of this attachment. Affective tone is judged on the basis of the way mothers speak about their babies, the kind of qualities they attribute to the baby, and the ways they imagine the baby fitting into or changing their lives. Affective tone can best be thought of as having two components in this context: 1) the affective quality of the representation of the fetus or baby, i.e. "cute", "curious", "nudgy", "communicative", "always running my life", etc., and 2) the affective quality of

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the mother's fantasy about the baby's place or role in her life, i.e." I just know he's going to make me very happy", "I'm worried that this baby is going to keep me from doing the things I want and need to do in terms of my work", "I keep thinking he'll never let me get a night's sleep once he's here", etc. Most pregnant women use generally positive terms to describe their feelings about the baby, yet there are often subtle and not so subtle indices of negative attributes of the representation -- the baby as an annoyance, a disruption, etc. It is important not to be misled by the mother's general character style. For example, a mother may be very upbeat and humorous throughout the interview, but use her humor to portray the baby as disruptive. On the other hand, a mother may be low-key but may represent her baby as someone whom she has very positive and protective feelings toward.

The tone of the representation is scaled from high negative to high positive. While the affective tone of some mothers' representations is overwhelmingly positive or overwhelmingly negative, the quality of many mothers' representations is characterized by both positive and negative affect. In fact, this kind of mixed affective picture is both typical and highly adaptive, as it is -- in a sense -- a preparation for the ways in which mothers will have to balance positive and negative feelings once their babies are born. The rater must, in effect, assign a weight to the positive or negative affect, and determine which is more prevalent. In some cases, the affective tone of the representation will be neither negative nor positive but neutral. In addition, sometimes the mother's negativity will be expressed by constriction of indifference.

1a. Prenatal Affective Tone

For affective tone of fetal representation, use questions #1,2,5-12,35.

1. High Negative. A mother receives a 1, the lowest point on the scale, if she chooses words and describes fantasies that convey a highly negative affective tone about her fetus. This will be conveyed in highly negative attributions and in an absence of positive representations. The mother may see the fetus as annoying, intrusive, making her feel uncomfortable, or being draining in other ways. She derives no pleasure from her pregnancy and she does not experience warm moments with her fetus. As well, the mother may ascribe willful, negative motivation to the fetus' movement. The hall mark of a 1 on this scale is the overall negative quality of the representation. A scale point of 2 would be in order when the representation is not so monochromatically negative - this mother is able to represent her fetus with minimal positive affect but these representations are fleeting and can not be sustained.

3. Low Negative. A woman receives a 3 on this scale if her affective tone when speaking about her fetus is moderately but directly negative. The

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negativity at this scale point is not as striking as a 1 or a 2. The affective tone of her representations of her fetus is tinged with negative ambivalence. The negativity, even if expressed directly, gets modulated by positive affect that is sustained more easily than in a 2. She can acknowledge positive features of the relationship but they do not represent her salient experience of her fetus. Because the overall representation is tinged with negative affect, positive expressions may often not seem genuine or believable. In some cases the mother may resort to idealization but her efforts are unsuccessful as negative affects intrude.

A woman who is a 3 may experience her pregnancy as mildly annoying. When asked about concerns about the well-being of her fetus she may describe disturbing fantasies about it's intactness. There may be a negative cast to her experience of the fetus' movements however, unlike women who are a 1 or a 2, these negative fantasies would be offset by more positive ones. She may liken the baby's movements to "a thud" or "pecking" that convey her annoyance. Although she may express having a positive reaction to being pregnant she also expresses disappointment about some aspect of it.

4. Constricted - Indifferent. Unlike the directly negative women described above some women express their negativity via constriction and indifference - these women are scored as a 4. While not as directly negative as the women at 3 there is a decidedly negative cast to their statements about their fetus. Constricted, flat affect conveys the effort to minimize and contain negative feelings while indifference has qualities of scorn and dismissal. These women do not express feelings about their fetus directly and may go as far as refusing to acknowledge having any feelings at all. However, this denial and dismissing stands out against a backdrop of indirectly expressed negative and idealized feelings. Feelings are not acknowledged or taken seriously, they are fleeting and passing. Their descriptions sound hollow, trite and stereotypic. Women who score a 5 may also express few feelings about their fetus, but their reserve conveys a more neutral attitude. They appear to be in a holding pattern and do not convey the negative feelings portrayed by women who are a 4.

One of the ways that this manifests itself is in mothers' use of terms that indicate her wish to distance herself from her experience: she describes her experience by using the pronoun "you" when speaking about her own feelings. Their responses are brief and poorly elaborated. When asked about their feelings these mothers are often incapable of answering the question or will resort to different manoeuvres to avoid doing so directly. They may forget the question or not answer it altogether. They may also dismiss it by saying everything is "fine" or "OK." Rather than discussing feelings directly they often focus on physical complaints or difficulties during their pregnancy.

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5. Neutral. A rating of 5 is assigned to mothers who do not ascribe any particularly positive or negative qualities to the representation of their fetus. They may respond vaguely or indirectly to the interviewer's probes, and it will often seem to the rater that the mother has not allowed herself to endow the representation in any elaborated way. It does not have the constricted, indifferent, and/or negative tone of a 4. There is a sense of reservation and "waiting" rather than a defensive effort to cover up negative feelings and anticipations. It is as if the affective signs of a beginning attachment have been neutralized, perhaps because of fears, character style or prior losses. When there is a limited expression of feelings about the fetus but affective qualities are expressed use scale point 4 to indicate negatively tinged expressions, and 6 to indicate positively tinged ones.

Such a woman may be unable to imagine much about her fetus and resort to generalities that in and of themselves seem neutral. She may not be able to articulate feelings about the fetus' growing dependence on her, and she may not appear to have a representation of the fetus that can be affectively characterized. The reader has little sense of how she is representing her fetus internally; she remains, in this sense, quite neutral.

7. Low Positive. A mother receives scale point 7 if her representations of her fetus are predominantly positive in nature. She can discuss her fears and concerns but these do not overshadow her predominantly positive experience of her fetus. Any ambivalence is always resolved in favor of positive representations. What differentiates a mother receiving this code from a mother receiving a higher score is the extent to which negativity appears to diminish her overall experience of her fetus. Although her experience remains predominantly positive, there remains an element of discomfort around the expression of negative affect. Women receiving this rating are still struggling to integrate the two sets of feelings, whereas mothers receiving a 9 are not. In some instances this struggle may result in a successfully maintained idealization of her experience.

When asked how it feels to have a baby growing inside her, a mother may represent her fetus as someone who brings her pleasure. For example, the fetus' movements may give her a warm, happy feeling. Although the mother may have had a hard time believing she was pregnant, or may say negative things about her fetus such as "this baby's already been sacrificed for" or "it's just give, give, give," her overall representation is positive, related and infused with many warm, affectionate terms and fantasies. She may refer to her fetus as a "little buddy" or a "little pal" and find herself "happier in a lot of ways."

9. High Positive. A mother receives the highest score of 9 if she represents her fetus with highly positive affect that seems believable and genuine. While she may well acknowledge negative affects, they are not only fewer in number than for those women receiving a 7, but are dramatically outweighed by positive attributions

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and feelings. There is no evidence of efforts to defend against or minimize negative feelings; they exist, but do not threaten a generally believable, highly positive representation.

A woman may represent her pregnancy with positive affect before the interviewer has an opportunity to ask her about it. When asked to elaborate on the positives, she will talk spontaneously, believably and excitedly about the pleasure her fetus has already brought her. For example, she may speak of the pleasure of telling family and friends and sharing with her husband the excitement of experiencing the new things that are happening. She may spontaneously describe the excitement involved when she and her husband heard the baby's heartbeat for the first time or how good the fetus' movements make her feel.. Her language and presentation indicate real, deep and acknowledged pleasure. This does not mean that the mother does not have the "usual" anxieties related to pregnancy. These do not interfere with her developing a clear, coherent, positive representation.

1b. Postnatal Affective Tone

For affective tone of postnatal representation, use questions 1,2,9a,10-17, 21-22,26,34,35.

1. High Negative. A mother receives a 1, the lowest point on the scale, if she chooses words and describes fantasies that convey a highly negative affective tone about her baby. This will be conveyed in highly negative attributions about her baby. She may imagine her baby as someone she has to take care of and worry about, someone who will be annoying or intrusive and will give her little pleasure. As well, the mother may ascribe negative motives to the child's earliest behavior; for example, a mother may describe her child as crying to annoy or manipulate her. The hall mark of a 1 on this scale is the overall negative quality of the representation. A scale point of 2 would be in order when the representation is not so monochromatically negative - this mother is able to represent her fetus with minimal positive affect but these representations are fleeting and can not be sustained.

3. Low Negative. A woman receives a 3 on this scale if her affective tone when speaking about her baby is moderately but directly negative. The negativity at this scale point is not as striking as a 1 or a 2. The affective tone of her representations of her baby is tinged with negative ambivalence. The negativity, even if expressed directly, gets modulated by positive affect that is sustained more easily than in a 2. She can acknowledge positive features of the relationship but they do not represent her salient experience of her baby. In some cases the mother may resort to idealization but her efforts are unsuccessful as negative affects intrude. Because they are so tinged with negative affect, positive expressions may not seem genuine or believable. She may view her baby as someone she and her husband will have to

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worry about or she may represent the baby as someone who will take from her and possibly not give her much in return. She may imply a kind of fearfulness about meeting her baby, feeling apprehensive about what she imagines may be a negative or difficult encounter.

4. Constricted - Indifferent Unlike the directly negative women described above some women express their negativity via constriction and indifference - these women are scored as a 4. While not as directly negative as the women at 3 there is a decidedly negative cast to their statements about their baby. Constricted, flat affect conveys the effort to minimize and contain negative feelings while indifference has qualities of scorn and dismissal. These women do not express feelings about their baby directly and may go as far as refusing to acknowledge having any feelings at all. However, this denial and dismissing stands out against a backdrop of indirectly expressed negative and idealized feelings. Feelings are not acknowledged or taken seriously, they are fleeting and passing. Their descriptions sound hollow, trite and stereotypic. Women who score a 5 may also express few feelings about their baby but their reserve conveys a more neutral attitude about their baby. They appear to be in a holding pattern and do not convey the negative feelings portrayed by women who are a 4.

One of the ways that this manifests itself is in mothers' use of terms that indicate her wish to distance herself from her experience: she describes her experience by using the pronoun "you" when speaking about her own feelings. Their responses are brief and poorly elaborated. When asked about their feelings these mothers are often incapable of answering the question or will resort to different maneuvers to avoid doing so directly. They may forget the question or not answer it altogether. They may also dismiss it by saying everything is "fine" or "OK." These women have great difficulty imagining things about their baby. When they describe interactions they imagine with their baby it is reduced to discussions of having to take care of the baby in practical ways. When asked about changes that they anticipate once their baby is born they do not mention emotional changes but focus on practical issues such as: schedule restrictions, need for more space, etc.

5. Neutral. A rating of 5 is assigned to mothers who do not ascribe any particularly positive or negative qualities to the representation of their baby. They may respond vaguely or indirectly to the interviewer's probes, and it will often seem to the rater that the mother has not allowed herself to endow the representation in any elaborated way. It does not have the constricted, indifferent, and/or negative tone of a 4. There is a sense of reservation and "waiting" rather than a defensive effort to cover up negative feelings and anticipations. It is as if the affective signs of a beginning attachment have been neutralized, perhaps because of fears, character style or prior losses. When there is a limited expression of feelings about her baby but affective qualities are expressed use scale point 4 to indicate negatively tinged expressions, and 6 to indicate positively tinged ones.

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Such a woman may shy away from imagining her baby in the future and resort to generalities that in and of themselves seem neutral. She may use words like "interesting" or other vague descriptors to describe imagined moments with her child. She may state that the baby is not here yet and does not know what her baby will be like. She may state that she imagines there will be a relationship but does not know what it will be like. As a result it seems as if she does not have a representation of the baby that can be affectively characterized.

7. Low Positive. A mother receives scale point 7 if her representations of her baby are predominantly positive in nature. She can discuss her fears and concerns but these do not overshadow her predominantly positive experience of her baby. Any ambivalence is always resolved in favor of positive representations. What differentiates a mother receiving this code from a mother receiving a higher score is the extent to which negativity appears to diminish her overall experience of her baby. Although her experience remains predominantly positive, there remains an element of discomfort around the expression of negative affect. Women receiving this rating are still struggling to integrate the two sets of feelings, whereas mothers receiving a 9 are not. In some instances this struggle may result in a successfully maintained idealization of her experience.

When asked to imagine the most pleasurable moments with her baby, a woman may describe the baby as someone whose company she will enjoy. She may look forward to feeding the baby and just interacting with the baby as mother and child. However, while a woman's positive representations of her baby may seem warm, they are diminished in overall strength by her negatively tinged fantasies. For example, she may imagine her baby's --albeit welcome -- intrusions as disrupting her life and other relationships in unwelcome ways.

9. High Positive. A mother receives the highest score of 9 if she represents her baby with highly positive affect that seems believable and genuine. While she may well acknowledge negative affects, they are not only fewer in number than for those women receiving a 7, but are dramatically outweighed by positive attributions and feelings. There is no evidence of efforts to defend against or minimize negative feelings; they exist, but do not threaten a generally believable, highly positive representation.

Whether she is describing playing with her baby after it is born, feeding her baby, or just attending to the movements of her baby, her language and presentation indicate real, deep and acknowledged pleasure. This does not mean that the mother does not have the "usual" anxieties about the effect of the baby on her life. These do not interfere with her developing a clear, coherent, positive representation.

2. Elaboration of Baby In-utero

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This scale measures the extent to which a pregnant woman fantasizes about - internally represents - her prenatal child. It can be thought of as a degree of relationship code. Does she imbue her fetus with characteristics and qualities? Does she convey a sense of her fetus as someone that she could have a relationship with, talk to, have a concept of ? Whereas the affective qualities of the relationship with the fetus are assessed in the scale for affective tone (#1a and #1b) the elaboration scale measures the level or degree of representation; namely, the extent to which a representation of the fetus can be described and elaborated. It is important to distinguish between the prenatal representation and fantasies about the "born" baby. Here we are solely interested in coding the extent of the prenatal relationship.

Use questions 8, 9, 9a, and 35. Question 9 and its probes offer the most direct evidence for the degree of elaboration. Question 9a should be used for coding only if her future forecasts are based on her representation of the prenatal relationship. On question 35 pay particular attention to the probe "Do you feel like a mother yet?"

1. No Elaboration. The lowest point, a 1, is assigned when the subject denies having any fantasies about her fetus. When she is asked if she has a relationship with her baby yet such a subject may respond with a definitive "No." She may initially indicate that she and her husband talk to the baby "Once in a while. Not a lot, once in a while." When she is asked to elaborate, however, it becomes clear that it is her husband who does the talking, not her. She denies either having a nickname for her baby or imagining anything about it. While the subject may express feelings and wishes about her baby by projecting into the future ("I hope it will be a boy." "I hope it will be well adjusted"), the reader is left with no sense of the pregnant subject's current representation of her fetus.

3. Low, Constricted Elaboration. Scale point 3 is reflective of a low, constricted, and/or sparse account of the pregnant woman's sense of her fetus. The subject may tentatively affirm that she does have a relationship with her baby, but when she is asked to describe it, she is very vague, One is left with little sense of what this "relationship" is. Such a subject will report minimal fantasies about her baby. She may be aware of her difficulty in representing her fetus and feel guilty or uncomfortable about it. Her flow of imagery, what little there is, is terse and restricted.

5. Moderate elaboration. When asked to describe her relationship with her in-utero child, the subject is able to do so. While her responses do not speak to a highly elaborated sense of her fetus, she does not convey being defended against fantasizing about the baby growing inside of her. Such a subject may speak convincingly about having strong maternal feelings. She may state confidently that she has a relationship with her baby, but it is predominately a one way relationship from mother to baby. She may also follow her statement about having a relationship with her baby with a disclaimer about it "not being here yet, or not knowing what it

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looks like." The subject may attempt to describe her relationship with her baby, emphasizing the bond and the connection. She may have nicknames for the baby and enjoy putting cream on her stomach as a gift for the baby. Such a subject may indicate that she talks to her baby, perhaps offering a little vignette that suggests a three way interaction between mother, father and child.

7. High elaboration. This scale point is assigned when the subject's responses go beyond conveying a sense of her fetus. The subject elaborates fantasies about her baby that are sufficiently defined such that the reader has clear images of the way the mother represents her fetus. Such a subject will use powerful imagery to depict her shifting representations of her baby; the baby seems real to the subject. She may describe how it feels to have a baby growing inside her, likening the uncomfortable moments to the movie "Aliens" and contrasting this description with a sense of feeling comforted and reassured by its familiar movements or hiccoughs.

The subject may offer detailed examples of reciprocal "conversations" with the baby. All the while she richly communicates her sense of awareness of her fetus as a responsive "somebody". The subject may reveal her "nickname" for her baby and illustrate the reason for the nickname. She may also report her fantasies about the baby, describing in a compelling way her vision of her child's qualities.

9. Over Elaboration This scale point is assigned when the subject's fantasies about the fetus are so elaborated that she conveys her notion of the fetus as a separate person. The reader may have the sense that the subject's highly detailed responses serve as a defense against the anxiety of acknowledging her baby's dependency. Such a subject may imbue her child with highly developed thought processes, telling the interviewer what she imagined her baby was thinking and feeling at various times, perhaps imagining what the fetus would say to her if it could. The subject may attribute to her prenatal child feelings and motives that would more appropriately belong to an independent person. The hallmark of this scale point is the richness of elaboration. While anxiety around dependency issues may be operative in scores at either end of this scale, it is the richness of description that suggests a nine.

3. Content of Fetal Representation

Mothers refer to their children in a number of ways: they may give them nicknames that are human, they may refer to them as small mammals such as kittens or bunnies, amphibians, fish, or creatures such as aliens. Some mothers do not ascribe any such qualities to their fetal representations, and just refer to the child as "the baby" or "it". These are indicated as "none". On the coding sheet, enter the representations in order of their appearance. i.e. #1 is the first representation mentioned, the second representation is #2, and the third mentioned representation would be #3. Do not include all general conversational references; use specific instances where mother is

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asked to describe characteristics of the child or nicknames, etc, namely question #9. Write the specific names, or type of animal, alien, etc on the coding sheet.

7.1 Human (Specific name and/or gender)

7.2 Human (General;non specific)

6. Mammal

5. Amphibian

4. Alien

3. Quasi-Animal (Creature)

2. Idiosyncratic/Other

1. None

4. Quality of Relatedness

Looking at the moments in the interview when the mother fantasizes about the baby or about their relationship, or the time(s) they will spend together, judge the object relatedness of those fantasies along the following dimension.

Use questions 9a - 11, 13-17, 20-22 for coding this scale.

1. High Independent Mother stresses the child's independent activities, learning and growth away from her.

2. Independent Less extreme emphasis on independence than 1.

3. Mixed independent/intimate: Mother may make mention of independent, autonomous development, but this is mixed with mention of expectation of a developing, close, pleasurable relationship.

4. Intimate Mother emphasizes the development of a pleasurable, intimate and mutual relationship with her baby, but the feelings and thoughts are less well-developed than in #5.

5. High intimate: Mother anticipates the development of a pleasurable, intimate and mutual relationship with her baby. She thinks about moments when they will do things together and experience pleasure in such moments of closeness.

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N/A.: At this point there are mothers who do not fit any of the above scale points. For some mothers the child is really only serving mother's needs. For others independence or intimacy cannot be judged. There is nothing in the text that indicates how the mother feels about her child. For other mothers she and her child are connected to each other in a negative way.

II PARENTAL REPRESENTATIONS

The three codes in this section are aimed at assessing the quality of a woman's representation of herself as a parent: her level of confidence, her ability to balance her own needs with those of the baby, and the degree to which she is experiencing conflict as she anticipates incorporating this new role into her life.

Women who are about to become parents are confronting one of the biggest challenges of their lives. It is a task for which a woman has no real prior experience, although she may have taken care of other children in the past, and it is a task that is enormously complicated emotionally. She will be asked to make a myriad of decisions on matters with which she has no experience, and she will necessarily turn to others for support and -- in some instances -- guidance. She will be confronted with the limitations of her own childhood, and with those of her parents. It will realistically take time away from her marriage, from her work, and from her own personal goals and interests.

5. Parental Confidence and Competence

Clearly, no woman can be even vaguely "competent" before she has at least several months of experience mothering, although she may have many competencies that will help her cope. What will distinguish women is the degree to which they are realistically confident of their own abilities to cope with the situation; thus, a realistically confident woman will acknowledge her limitations but will be confident in her ability to love the child and to benefit from the knowledge and support of those around her. Realistic competence also implies a certain degree of anxiety that is balanced by realistic plans for coping, as well as a flexible approach to problem solving. These characteristics define competence during this period, for being competent to cope with such challenges is to be both confident and accepting of one's limits at the same time. Can the mother feel that she has what it takes to make her baby happy, safe and secure, and still acknowledge that she has a lot to learn and will need help during the process, or is she unable to acknowledge her personal limits? Or, does she feel so encumbered by her personal limits and her past that she doubts her ability to give her baby what he/she needs?

It is sometimes difficult to distinguish between responses that are minimizing (overconfident) and those that are maximizing (lacking confidence). Some women

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will fluctuate between denying their anxiety regarding competence, and seeming overwhelmed by it. One can often have the impression of a mixed defensive style, where minimization and maximization coexist. Sometimes, the temptation may be to give a "balanced" score (a "5") in order to indicate the presence of both. However, these situations are typically much more primitive than is implied by a balanced score, and indeed indicates an inner struggle and tension. In this code, we take the position that one or the other strategy will always be dominant, even if the other appears to be present. A minimizing, or distancing strategy is marked by the effort to maintain a structure or ego defense that is usually in place and functions well. The parent obviously has a fairly reliable and stable mode of defense that occasionally breaks. When such intrusions occur, the parent struggles to re-establish her method of coping and containment. By contrast, when a powerful affect breaks through, and the coder has the sense of a failed attempt to establish (rather than maintain) structure, a maximizing strategy is probably being used. If there is intense emotion and oscillation (indicative of the absence of structure), the preoccupation end of the scale should be used. Oscillation is defined by affective surges, by fluctuations either within the interview, or within a single statement where the subject undoes or reverses what she has just said. Thus, if lack of confidence intrudes into the narrative with regularity, and with affect, a high score should be assigned.

Code questions 5, 11-13, 15 - 17, 20-22. Pay particular attention to question 13 which specifically asks the women about confidence. Scale points 1, 3, 5, 7 and 9 are described below. The scale ranges from under to overconfident, with realistically competent serving as the mid and optimal point.

1. Lack of Confidence. A mother receives a 1, the lowest point on the scale, if she experiences a total lack of confidence in her ability to mother her baby. She overestimates her inability to cope with the demands of parenting, and thus sees herself as helpless and unable to manage. Unlike the overly confident woman who rigidly defines the future, she sees the future as a fluid and essentially unmanageable, unorganizable situation. At the same time, she greatly undervalues what she has to give the child, and does not recognize that her nurturing and love will be important to the baby. She may actually question her decision to have had a child. She experiences the fact that she does not yet know how to care for the baby as an insurmountable hurdle and does not seem able to prepare herself in any way for the baby's birth. She cannot imagine herself relying on other people for help. Mothers receiving this scale rating may not be able to imagine themselves having pleasurable exchanges with their babies, although this is not in and of itself an indicator of a lack of confidence. Some mothers receiving this rating may experience the child as overwhelming her resources; this kind of view of the child would be the complement of her sense of helplessness and passivity.

3. Moderate Lack of Confidence. A woman receives a score of 3 if she lacks confidence but struggles to counter this feeling. She can imagine coping with

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the demands of parenting, and can imagine achieving some success, but her worry is evident. She doesn't fully acknowledge how much she has to give her baby, and in this sense undervalues herself. However, her concerns are not so overwhelming as to prevent her from imagining pleasurable moments with her infant, but she may describe the difficult moments with a sense of urgency that reveals her underlying lack of confidence. She imagines turning to others for help a great deal, and acknowledges reading a great deal in preparation for parenthood. It is important to determine the degree to which such information seeking is driven by a sense of powerlessness or is an adaptive and successful coping strategy, which would earn her a higher score. Women receiving this rating may experience the baby him/herself as potentially overwhelming; thus, their view of themselves is deflated relative to their view of the child.

5. Realistic Confidence. A woman receives a score of 5, the midpoint, if she feels that she will be able to make her baby feel happy, safe and secure, while at the same time acknowledging her being a novice parent who has much to learn. She can imagine turning to others to get the information she needs, and she does not imagine being alone with the challenges that will confront her. She does not approach parenthood rigidly, but understands that she will be confronted by a range of options and issues that she will have to evaluate based on her child's and her own needs. Her representation of what her baby might need is flexible; she is aware of the options but will decide what is right for her and the baby once the baby is born. Although her lack of knowledge causes her anxiety about what she will do in certain situations, it does not prevent her from fantasizing about pleasurable moments with her newborn. She values herself and her ability to care for the baby, but she is not so invested in her competence that she needs to protect an image of herself as flawless and invulnerable.

7. Moderately Overconfident. A woman receives a score of 7 if she expresses somewhat unrealistic feelings of confidence. Although she admits to some worry about what it will be like after the baby is born, she minimizes these, and does not seem to accept the limits of her knowledge and experience. Thus, she overstates her competence. She defines the situations and or potential problems she faces in a somewhat rigid way, as if it were possible to plan every aspect of an essentially unknown situation. She may have a tendency to dismiss moments when she will not know what she is doing. She may strive to reassure herself that skills from previous experiences (such as babysitting or running a business) will necessarily generalize to parenting. She does not readily imagine herself as needing help from others, and tends to turn to books and other more distant sources as a means of reinforcing her sense of confidence. In this sense, she portrays herself as highly self-reliant. Or, she may acknowledge that she will be influenced by childhood experiences, but in an overly self-reliant way insists that she will be able to manage and keep control of such upheavals. What places her between realistically confident and highly overconfident

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is the degree to which she is able to acknowledge some uncertainty, incompetence and anxiety. Such feelings might be expressed in oscillation or vacillation. Whatever difficulties she confronts or can anticipate confronting, she reassures herself (and the interviewer) that everything will turn out fine. This kind of mild grandiosity may also be reflected in a woman's minimizing a baby's impact in the attempt to manage her own anxiety.

9. Highly Overconfident. A woman who receives this rating cannot accept the limits of her knowledge or experience, and sees herself as fully able to meet the needs of her infant. She does not recognize her own limitations, and she overvalues her own ability to both cope and be available to the baby. She deals with her (presumed but not acknowledged) anxiety about parenthood by rigidly defining the problems and solutions ahead of time, by insisting that she will be able to cope with everything she is confronted with. She does not acknowledge that there will be moments when she does not know what she is doing, and implies she alone will be able to cope with everything and meet all of her baby's needs. In this sense, she is grandiose. Some of this grandiosity may manifest itself in her stating that the baby will have no impact on her life, or on her marriage, presumably because she can cope with all of it without a misstep.

6. Acceptance of Baby and Self Needs

Use questions 4, 8-17, 21-22, and 34-35.

1. Inability to accept own needs; overemphasis on baby needs. Baby's needs are paramount. The mother anticipates that the baby will be all consuming. She does not recognize or give thought to how she will continue to have her own needs which will need to be met separate from those of the baby's (granting that there is enormous inherent self-sacrifice). There is no recognition that her own needs may well surface in a way that will generate conflict. She indicates that she will tend to experience her baby's feelings and needs as her own. Self enhancement stems totally from subsuming herself to meet the needs of her infant.

These are women who go to great lengths to "make room" for their babies, but take it to an extreme. They may give up work, begin wearing maternity clothes before they are showing, they may rigidly avoid any junk food, and may limit exercise severely except as mandated by their doctors. These women act -- in a sense -- as if they were being invaded by the pregnancy.

3. Minimal acceptance of self needs; some overemphasis of baby needs. Some recognition of own needs is present but the mother indicates that she cannot allow herself to take action to meet these needs. She indicates that she will not be able to keep the baby's needs from routinely taking precedence. Self enhancement will again

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come mostly from meeting the baby's needs, although she acknowledges that her needs will sometimes, though not often, predominate.

5. Balanced acceptance on baby and self needs. Baby's and mother's needs are balanced. The baby is viewed as having separate needs and feelings, which the mother recognizes and shows a willingness to meet. The baby's individuality is also recognized and the possibility of conflict between the mother and baby is acknowledged. Healthy self-enhancement is derived from imagining herself as an attachment figure, and is present alongside her ability to recognize that she has her own needs that will sometimes take precedence.

7. Minimal ability to accept baby's dependence; some overemphasis on self needs. Mother's needs tend to take precedence despite some recognition of the baby's separate needs and feelings. The mother may indicate that the baby's dependency makes her uncomfortable and she may imagine that she will have trouble giving of herself as demanded. This discomfort makes it difficult to experience self-enhancement from her projected role as an attachment figure, although her awareness of it makes it difficult to deny the baby's needs and feelings for purposes of self-gratification.

9. Inability to accept baby's dependence; overemphasis on self needs. Mother's needs are paramount and always take precedence. Little recognition of baby's separate needs, feeling or individuality. Baby's enormous dependency on her is denied, and the possibility of conflict between mother and baby is not acknowledged due to lack of recognition of baby's needs. Mother (implicitly or explicitly) anticipates using baby as an object or self-enhancement and as a means of self-gratification. Little evidence that the mother gets pleasure anticipating a time when she will meet the baby's needs. The test will indicate difficulty in valuing the baby for itself because mother is more concerned with how the baby will reflect on her or mirror the view of herself she must maintain.

These are often mothers who do not see any need to cut down on their normal activities, nor do they seem concerned with modifying their diets. They insist on going on living their lives as much as possible during pregnancy, and seem to resent any burdens or restrictions placed upon them. They take no pleasure in nesting or preparing for the baby, and enjoy maternity clothes, etc. only insofar as they get attention from others when wearing them.

III STATE OF MIND

8. Coherency

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Mary Main, in her coding manual for the Adult Attachment Interview (Main & Goldwyn, 1988), defines the concept of coherency as "sticking together or a union of parts; a connection or congruity arising from some common principle or relationship; consistency; connectedness of thought such that parts of a discourse are clearly related; form a logical whole; or are suitable or suited and adapted to context." The coherency scale on the AAI is a central one in that it is "an overall assessment of the individual's state of mind with respect to attachment and is the chief correlate of infant security attachment." For the purposes of the Pregnancy Interview, coherency has a somewhat different import. Unlike one's state of mind with respect to attachment which is thought to be relatively stable, the condition of pregnancy is a transitional one, fraught with physical and emotional changes. Given the transformational power of pregnancy, we would not expect a pregnant woman to produce a perfectly coherent transcript; she is being asked to integrate too many unknowns and to confront too many as yet unintegrated anxieties and feelings. For these reasons, Main et al's scale has been adapted to assess the coherency of a Pregnancy Interview transcript in terms of the subject's ability to acknowledge and integrate a wide range of affects associated with both her representation of being pregnant and impending motherhood. A coherent transcript is coherent because it is variegated in a consistent and believable way with respect to the representation of pregnancy. It is not a monochromatically "happy" or "depressed" interview.

In coding interviews it is also important to look at how the women tell their story. Cues used in the AAI can guide the coding of the women's narrative of their experience of pregnancy. Run on sentences, clipped answers, subtle omissions in answering questions, losing track of the questions, and dysfluency all reflect a degree of incoherency. So does a narrative that is irrational, unbelievable, confusing, and showing too high an ideal or reflecting present and active anger. Coding is informed both by the degree to which these narrative clues are present along with the degree to which the women can acknowledge and address the conflicting feelings brought up by their pregnancy.

All questions up to 35 should be used in coding this dimension.

1. Highly Incoherent. In attempting to score a Pregnancy Interview that is highly incoherent, a coder will struggle to understand and interpret the subject's experience. The coder will feel confused and is unlikely to agree with the woman regarding her experience. Women at this scale point, rather than having integrated a wide range of affects, can present a sharply contradictory picture of their internal state. This can take two different forms: they oscillate between two extremes of contradictory feelings or they appear monochromatically depressed. The former oscillate and can not modulate their overwhelming and contradictory feelings. These women make shocking and often bizarre or disturbing comments resulting from the articulation of their fragmented and overwhelming feelings around the representation of their experience of pregnancy and motherhood. Reading such an interview can feel like riding a roller coaster. The later's lack of modulation expresses itself by a total

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lack of expression of anticipatory happiness. Their experience is gloom and doom throughout.

A subject who receives a 1 on this scale might have a representation of pregnancy and motherhood that shifts in tone from grandly positive to something close to despair and rage. Such a subject might state that she felt "real joy" upon discovering that she was pregnant and paint a rosy picture of her pregnancy experience and her anticipation of motherhood. She might then abruptly talk about feeling suicidal and feeling like her life is over. Such a subject often speaks with intensity, following each positive declaration with an equally strong negating comment. In contrast, a subject who appears more monochromatically depressed, for example, may speak almost without variation about feeling depressed, trapped, concerned about having a baby, and may still harbor thoughts of wanting to abort her fetus. In both cases the use of splitting is striking,demonstrating little or any integration.

3. Incoherent. In this scale point the coder will still struggle to understand and interpret the subject's experience because of inherent contradictions and narrative difficulty regarding her experience of pregnancy and impending motherhood. The hallmark of this scale point is found in the expression of a wider range of affect, however, contradictions remain characteristic. The interview does not "hang together" as a result of the contradiction that is still quite active and present. There are intrusions of disturbing or bizarre comments but not to the stark degree found at scale point 1 or 2. In the light of these comments the narrative gets colored and previous statements do not seem as believable. Often the interviewer has to redirect, contain, or push for clarifications. When the subject further articulates her experience it often does not agree with previous statements.

The subject may express being very happy about her pregnancy but additional comments sharply contradict this. Moreover, her feelings are often poorly elaborated. She idealizes and discusses her pregnancy stereotypically, only to contradict herself later on. For example, a subject speaks about being happy she could conceive and is looking forward to meeting the new baby but also mentions her worries about "having killed" the fetus when she fell and never really wanting kids. This women would not be scored a 1 however because the rest of her narrative hangs together better. On the other hand a woman may represent her experience as a very onerous task that she literally does not have the stamina for but also state that she is looking forward to caring for her baby. It would seem that if carrying this baby is so depleting, she might express some concern about actually caring for the baby.

5. Neither Coherent Nor Incoherent. This is the "average coherency" category. The subject is not disorganized around competing affects concerning pregnancy and motherhood. She possesses an awareness of her emotional state and is mostly able to articulate it in an intelligible and consistent fashion. There is, however, a tendency towards idealization or negativity -- a true balance is not achieved. The

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range of expression of affect is notably wider than in the lower scale points. She can be aware of difficulties she experiences, but she is unable to fully integrate her feelings. Although she may still make comments that surprise the reader or use language that distances herself from her feelings when discussing areas of difficulty (such as using "you feel" to refer to her own feelings) anxiety laden, contradictory emotions do not intrude frequently or in an inappropriate fashion.

A subject may paint a fairly rosy picture of her pregnancy and have positive feelings about upcoming motherhood. Although she may mention some difficulties she is unable to fully describe her difficulties to the same extent. For instance concerns regarding her confidence about how she will be able to care for the baby once it is born are quickly tempered by "others have done it before." Even her positive feelings do not feel genuinely hers. Thus her rationale for breast feeding rests more on books and other people's views than on her desire for intimacy and bonding with her baby.

7. Coherent. This is essentially a well balanced transcript. Both positive and negative affects are acknowledged and expressed cogently. Opposing feelings can exist side by side, modulating and mediating the representation of pregnancy and motherhood. The subject is able to discuss her positive and negative feelings without one or the other predominating. Her story is believable and holds together. If there is unresolved conflict it would be limited to one clearly delineated subject or area in which coherency decreases. Moreover, although coherent, at this scale point there is a lack of complete coherency such as a flowing narrative and/or a sense of fresh discovery when she answers questions .

A subject may speak very coherently and articulately throughout the interview until she answers questions pertaining to her relationship with her mother during pregnancy. At this point the flow of her narrative decreases, she stumbles, hedges, and does not speak at the same level of discourse. A subject may also seem to strive for coherency, often asking for clarification of questions so that she can answer appropriately. A tendency to seek finer definitions of questions may rob her responses of a freshness and natural flow that might have resulted in an even more coherent transcript.

9. Highly Coherent. The subject articulates her feelings and thoughts in a steady and developing manner. The transcript is notable for its balanced and well integrated quality around the representation of pregnancy and motherhood. She may be either reflective and slow to speak, with some pauses and hesitations, or chattery with a rapid flow of ideas, but her thoughts and feelings are clear and have a quality of freshness. The speaker is able to address conflictual topics and seems to think afresh while she speaks, perhaps adapting to new ideas and experiencing new insights even

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while the interview is in progress. What is really important is that both negative and positive aspects of her experiences are addressed and expanded upon. The subject conveys a strong sense that in spite of possible difficulties nothing in her life is more positive and joyfully cathected than her impending motherhood.

9 Lack of Resolution of Mourning of Past Miscarriage

Their are no direct questions about prior miscarriages on the Pregnancy Interview; however, women spontaneously bring up their miscarriage(s) and reference them throughout the interview. It would seem that the state of being pregnant reactivates the feelings associated with the prior miscarriage(s), allowing them to emerge during the Pregnancy Interview.
The lack of resolution in mourning scale for the Pregnancy Interview seeks to explore women's internal representations of their miscarriages in a way that is consistent with Mary Main's (Main & Goldwyn, 1988) rating scale for disorganization and disorientation in the Lack of Resolution of Mourning category of the AAI.

This scale, like Main's, uses nine scale points to rate the degree of lack of resolution - confusion, disorientation - around the miscarriage. At one extreme would be a consuming and disorganized or fragmented representation of the loss; at the other end would be a coherent acknowledgment and integration of the miscarriage(s). The following are themes that emerge in the Pregnancy Interviews of women who have miscarried. These themes suggest the various ways that women understand their pregnancy loss. They are listed to provide examples of different representations, however, one must always consider all of the references to the miscarriage before assigning a score.

Irrational belief of having caused the miscarriage, such as through one's emotions.

> "I felt like I was pregnant, very newly pregnant...I felt like I sort of lost it during one of those rehearsals... like I couldn't maintain...go through those feelings as actively."

The above is a striking example of a disorganized statement of guilt. This subject did report having had a miscarriage, but in this example it is not clear that the woman was actually pregnant at the time. Apparently, she believed that she was and that her intense emotions caused a spontaneous abortion. In this realm, another less glaring, but related, theme to look out for is a sense of the subject's anxiety around her emotions and their potentially harmful affects on the fetus during the current pregnancy.

Perhaps related to the above example is intense and unreasonable fears of harming fetus, i.e. through sexual relations. The subject might explain an abstention from sex

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as initiated by either herself or her husband. In the case of the husband it would be important to have a sense of the subjects response to it.

> "I think my sexual feelings increased and his decreased. He was very nervous (about hurting the baby). I dragged him to the Doctor and I said tell him it's o.k. It was very frustrating...I felt like I could have sex anytime, day or night...He would always come up with an excuse...I can understand...It's not his body, he doesn't know what he's jabbing into. It wasn't like we never had sex - we did have sex a lot - but it wasn't enough for me."

In the above it seems that the subject understands her husband's reluctance to have sex as frequently as she desires as a manifestation of his concern about harming the baby. She maintains that this is not remotely a concern of hers. However, the intensity of her reported need for sex raises the question of it being a counter-phobic reaction. The rest of the protocol would have to be considered for verifying themes of this nature.

Extremes of affect and reports of redirection of distress following miscarriage.

"Last night...I was reading something about miscarriages in Parents Magazine...after the first two paragraphs I just burst out crying. It was incredible. I've never cried...I don't usually cry like this where its just overwhelming...We go to a movie and see a little sad scene and start crying. Its just incredible. I just cry."

Here it seems the subject recognizes the displacement mechanism -the question is to what extent does her representation of her prior miscarriage intrude onto her life, organizing and mediating her generalized responses during this subsequent pregnancy. Again the entire protocol would need to be considered in understanding this.

Evidence of superstitious or magical thinking - evoking the idea that certain, unrelated behaviors on the subject's part might result in the loss of her baby.

"In the fifth month I bought a new pair of pants that had a maternity waist so that was not very conspicuous...It made me a little nervous...I think moving into bigger clothes was kind of connected with my worrying about the baby vanishing and not turning out, the pregnancy not working out."

There seems to be an implication that by openly acknowledging the pregnancy - purchasing maternity clothes - the subject places her pregnancy at risk.

The subject's odd use of language, "baby vanishing" should also be noted. Subject's use of phrases such as "a baby can be there one minute and gone the next" may be indicative of unresolved loss issues.

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Preoccupation with death, especially the death of the neonate.
"I was worrying about one of us possibly dying, or both of us dying, or something going wrong with the baby."

When this sort of concern is a recurrent theme, it may be an indication of unresolved mourning.

Rating Scale for Lack of Resolution in Mourning following Miscarriage

Before assigning a rating the entire text should be considered. Often the first mention of the miscarriage comes up early in the transcript, around the question that asks, "how did you feel when you found out you were pregnant?" Each time there is mention of miscarriage as well material that seems connected with the earlier pregnancy loss the rater should attempt to score it according to the following scale. A final scale-point may be arrived out after appraising the complete transcript.

1. Definite disorganization, disorientation or evidence of confused thought processes regarding the miscarriage. Assign this score when guilt or fear have taken on overwhelming proportions. The subject may indicate powerful irrational beliefs of having caused the miscarriage. She may express a bizarre theory concerning her guilt. She may be unable to discuss the current pregnancy at all without referencing the miscarriage throughout the interview.

3. Disorganization/Confusion. Some disorganization or disorientation, or some possibility of confusion in thought process is seen in these interviews. The subject may indicate excessive fear, guilt, worry or regret regarding the prior miscarriage. Superstitious behavior, magical thinking and odd intrusions into her manner of speaking may be presented. The individual may report unusually strong or displaced bereavement responses, while failing to provide convincing evidence that reorganization has taken place. The subject may convey the sense of a loss of boundaries around the two pregnancies - they may appear to be merged. In addition, this score is assigned when individuals report the miscarriage and explicitly state that it had "no effect."

5 Unsettled, not disorganized. These individuals seem unsettled, but not quite disorganized or disoriented. When the miscarriage comes up it may be presented in a somewhat confused or incoherent manner. The subject may appear preoccupied with the loss, bringing it up with inordinate frequency. The subject may also discuss sequelae to the loss which border on the confused while seeming so aware of the source of these responses and their irrational nature as to seem more unsettled than really disorganized/disoriented. There are no statements which suggest that the subject is considerably disorganized by the prenatal loss. Essentially, the subject's consciousness of the continuing effects of her loss is of importance here. Issues around the miscarriage are not intruding into her thoughts in a disguised fashion. The

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subject may be mourning her loss, but this mourning is recognized and acknowledged by her

7. Minor difficulties in resolution. The subject's viewpoint regarding the miscarriage seems largely but not entirely resolved. The subject has essentially dealt with and accepted her loss. There remain, however, articulated feelings of sadness concerning the miscarriage, as well as fears about the current pregnancy. The subject may report becoming tearful and recognize that her sadness is a response to feelings about her prior loss. There may be anxiety about sexual activity for fear of harming the fetus. This score differs from scale point 1 in terms of degree. Here the subject finds herself living with her loss in a way that is more a part of her current experience. However, she conveys a sense of balance - while the subject may express lingering pain and anxiety related to her miscarriage, these feelings are not overwhelming, rather the subject is capable of regulating her emotions. There is the sense of some emotional distance between the current pregnancy and the aborted pregnancy - the two are not merged.

9. No evidence of disorganization or disorientation around miscarriage. The subject is able to discuss the miscarriage with out becoming mired in it. While she may express sadness about the loss and some anxiety about the current pregnancy these affects are modulated. The sadness has a retrospective quality; it does not seem to be significantly coloring her current pregnancy experience. The anxiety is appropriate to the occasion and not unduly influenced by guilt. Overall, the reader has the sense that this loss has been psychically worked through and organized into the subject's narrative. Even while the subject discusses the impact of her miscarriage she maintains boundaries around it - it does not have an intrusive quality.

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A note about scoring the Parental Representation section - these codes largely assess "acknowledgement". Acknowledgement refers to the nature and quality of parental defenses in response to referenced affects. Ratings are assigned along a continuum from denial to open acknowledgement to preoccupation. The midpoint, or optimal rating, is assigned when a parent is able to acknowledge a feeling or set of feelings with a minimum of defensiveness, and with an appreciation of its function and importance in the relationship. Description of situations that evoke such feelings are rich, detailed and believable. Low ratings indicate an inability to acknowledge negative affects; this inability may be evidenced in denial, minimization, etc. Moderate ratings are assigned when the parent is able to talk about their feelings in a way that indicates both recognition and appreciation. High ratings indicate preoccupation with the referenced affect; it is openly acknowledged, and assumes a great deal of representational "power". Here, there is a failure of containment on an ideational level, and one has the sense that mother is attempting to keep her feelings from spilling over into the narrative. This regulatory or defensive style is also referred to as "maximizing".

Two kinds of oscillation are apparent in the transcripts of parents whose representations have qualities of preoccupation or maximizing. One is the rapidly fluctuating kind of oscillation that takes place within a few sentences. Here the parent will say one thing and reverse it or undo it in the next sentence, as if the struggle for control were taking place within the sentence structure itself. The second kind of oscillation takes place within the more general framework of the interview, where the mother provides contrasting pictures of the child across a range of questions. What distinguishes this from failed minimization (a 3) is the degree to which affect breaks through in the narrative. Oscillation of the preoccupied type is defined by affective surges that must then be contained.

It is often difficult to tell the difference between minimizing and maximizing strategies when they are unsuccessful. The denier struggling against outbreaks of feeling and the overwhelmed, preoccupied parent struggling for control can seem quite similar. One can often have the impression of mixed defensive styles, where minimization and maximization or preoccupation coexist. Often, the temptation is to give a "balanced" score (a 5) in order to indicate the presence of both. However,these situations are typically much more primitive than is implied by a balanced score, and indeed indicate an inner struggle and tension. In this code, we take the position that one or the other strategy will always be dominant, even if the other appears to be present. A minimizing, or distancing strategy is marked by the effort to maintain a structure or ego defense that is usually in place and functions well. The parent obviously has a fairly reliable and stable mode of defense that occasionally breaks. When such intrusions occur, the parent struggles to re-establish his or her method of coping and containment. By contrast, when powerful affect breaks through, and the coder has the sense of a failed attempt to establish (rather than maintain) structure, a

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maximizing strategy is probably being used. If there is intense emotion and oscillation (indicative of the absence of structure), the preoccupation end of the scale should be used.

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APPENDIX C

THE PARENT DEVELOPMENT INTERVIEW - INFANCY

J. Lawrence Aber
Arietta Slade
Brenda Berger
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Merryle Kaplan

1985

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A. VIEW OF THE RELATIONSHIP

1. Could you describe (your child) to me?

2. And now, can you describe yourself as a parent.

3. Parents often notice similarities and differences between themselves and their children. How do you think (your child) is both like and unlike you?

4 I'd like you to choose 5 adjectives that you feel reflect the relationship between you and (your child). (Pause while they list adjectives.) Could you give me a specific incident that reflects each adjective?

B. THE AFFECTIVE EXPERIENCE OF PARENTING

Now, I'd like to ask you some questions about the feelings you and your baby have.

1. What gives you the most joy in your relationship with (child)?

2. What do you like most about him/her?

3. When do you feel most "with" your child?

4. Do you ever feel intensely happy as a parent? (Probe, if necessary: What kinds of situations make you feel this way? What kind of effect does it have on (your child)?)

5. Can you describe a time in the last week when you and (your child) really "clicked". (Probe, if necessary: Can you tell me more about the incident? How did you feel? How do you think (your child) felt?)

6. Now, on the more negative side, can you describe a time in the last week when you and (your child) really weren't "clicking". (Probe, if necessary: Can you tell me more about the incident? How did you feel? How do you think (your child) felt?)

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7. What gives you the most pain or difficulty in the relationship?

8. Do you ever feel really needy as a parent? (Probe, if necessary: What kinds of situations make you feel this way? How do you handle your needy feelings? What kind of effect do your feelings have on (your child)?)

9. Do you ever feel really angry as a parent? (Probe, if necessary: What kinds of situations make you feel this way? Do you ever feel really angry at your child? How do you handle your angry feelings? What kind of effect do your feelings have on (your child)?)

10. Do you ever feel really guilty as a parent? (Probe, if necessary: What kinds of situations make you feel this way? How do you handle your guilty feelings? What kind of effect does it have on (your child)?)

Now, let's talk a little bit about your child's feelings.

12. In an average day, what would you say gives him/her the most pleasure?

13. And what distresses him/her, or makes him/her unhappy?

14. When your child is upset, what does he/she do? How does that make you feel? What do you do?

15. How do you figure out what your child wants or is feeling? (Probe: What cues do you use?)

16. Does your child have moods or emotions that you sometimes have a hard time making sense of?

17. Are there times you feel you don't understand your child?

18. Are there ever times in your relationship with your child that you feel he or she has the upper hand? (Probe: How does this make you feel? How do you handle it?)

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19. Does your child ever seem to need to be by himself/ herself? (Probe: Under what kinds of circumstances? How does that make you feel?)

20. Describe a situation where your child hurt or disobeyed you. (Probe: Did you think this incident was intentional? How did you handle it? How did it make you feel?

22. Does (your child) ever feel rejected?

23. How do you think (your child's) relationship with you is affecting his/her development or personality?

C. PARENTAL REACTIONS TO TYPICAL INFANT/TODDLER SITUATIONS

1. How does (your child) feel when you are busy, and can't pay attention to him/her? (Probe, if not spontaneously volunteered: How do you feel feel when this happens?)

2. How does (your child) feel when you are able to devote considerable time and attention to him/her? (Probe, if not spontaneously volunteered: How do you feel when this happens?)

3. How does (your child) do in exploring the world and solving problems on his/her own? (Probe, if not spontaneously volunteered: How do you feel when this happens?)

4. How does your child do when he/she can't explore or solve problems without your help and support? (Probe, if not spontaneously volunteered: How do you feel when this happens?)

D. SEPARATION

1. Now, I'd like to talk about routine separations. By routine separations I mean a separation in which (your child) is left with someone familiar for the usual or expected length of time.

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a. Can you briefly describe a typical routine separation for me?

b. How do you think he/she feels about these separations? (Probe, if necessary: How does he/she feel when you leave? What kinds of reports do you get about his/her response while you're away? How does he/she feel when you return?)

c. What are these separations like for you?

2. Now, could you describe the kind of separation (your child) might experience as somewhat more stressful than a routine separation?

a. How do you think he/she feels about these separations? (Probe, if necessary: How does he/she feel when you leave? While you're away? When you return?)

b. What are these separations like for you?

3. What is the longest time you have ever left (your child)?

a. How do you think he/she felt about this separation? (Probe, if necessary: How did he/she feel when you left? While you were away? When you returned?)

b. How did you feel during the time you were away?

4. Has there ever been a time in your child's life when you felt as if you were losing him/her just a little bit? What did that feel like for you? (Probe, if not spontaneously volunteered: How did you handle these feelings?)

Now, I'd like to talk briefly about some of the ways your experiences with your own parents has influenced your parenting?

5. How do you want to be like and unlike your mother as a parent?

6. How about your father?

7. How are you like and unlike your mother as a parent?

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8. How about your father?

G. CHANGE

Now, let's talk a little bit about you and your husband.

1. How has your relationship with your husband been affected your having a nearly one year old baby?
Prompts:
a. If not offered spontaneously: Are there ways it has enhanced your marriage, or Are there things that you miss?
b. How have the two of you felt about these changes?

2. If mother has not mentioned changes in her and her husband's sexual relationship: What kind of impact has having a child had on your sexual relationship?
Prompt:
a. How have you felt about your sexuality, and about the changes in your sexual relationship?

3. How has your husband felt about the changes in your sexual relationship?

4. How is your husband involved with the baby these days? How have you felt about his involvement?

5. To what degree do you feel your husband supports you emotionally and practically in the day-to-day job of mothering?

6. How does your child differ from what you imagined he/she would be like?

7. How are you different as a mother from what you expected you'd be?

Now let's talk a bit about how you and your husband negotiate conflicts these days.

1. When the two of you disagree about something or are angry with each other, what happens? Do you fight? Talk? Let it slide?

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Comment: Use the subject's language regarding conflict.

2. Do you think the particular way you two disagree or fight works for you? Does it make things better or worse? (If subjects has -- implicitly or explicitly -- answered this in the preceding question, ask this question anyway, but say something to acknowledge that the question is redundant.)

3. What kinds of things do you two come into conflict about most often?

4. How often do you fight? How "serious" does it feel?

Finally, let's talk a little about the future.

1. What do you hope for as a parent during your baby's second year?

Thank you very much!

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APPENDIX D

Parent Development Interview Coding System

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We would like to acknowledge the contributions of our colleagues Inge Bretherton, Charley Zeanah and Mary Main. Although we have acknowledged their specific contributions within the code itself, we also wish to thank them for sharing materials and ideas with us. These discussions along with their writings and teachings have influenced our thinking in important ways, and are reflected in what is presented here. We would also like to acknowledge the important contributions of Jeannie Blaustein, Hila Hermelin, Melissa Ritter, JoAnne Sirey, Allison Sitrin and Neal Vorus to refining and finalizing the code.

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INTRODUCTION:

The coding system described here was developed to code various dimensions of the Parent Development Interview (Aber, Slade, Bresgi, Berger & Kaplan, 1985). This original version was developed for use of the parents of toddlers; it has also been adapted for use with the parents of infants (Slade, Aber, Abrams & Director, 1987). The PDI is aimed at examining parental representations of the relationship with the child, and asks the parent to describe their relationship with and feelings toward the child across a range of situations. It also asks the parent to reflect on various aspects of the relationship and to consider the links between this attachment and other primary relationships, e.g., with their spouses.

Organization of the code:

The PDI coding system presented here is divided into three sections. The first is aimed at assessing features of the parent's representation of the affective experience of parenting as manifested in the parent's ability to recognize and modulate the affects fundamental to their primary relationship with the child. These codes are not aimed at assessing the parent's representation of the child, although the parent's thoughts and feelings about the child will be important in making coding decisions. There are 6 Affective Experience Codes: Anger, Neediness, Separation Distress, Guilt/Shame, Joy/Pleasure and Competence/Efficacy.

The first 4 parental affective experience codes are scored along two or three of the following dimensions: degree, acknowledgement and behavioral control. Joy/Pleasure and Efficacy are each rated along a single, unitary dimension, from low to high recognition.

The second section of the code assesses the parent's representation of the affective experience of the child, as reflected in his or her ability to recognize the child's affects as they are manifested in this primary relationship. There are 4 Affective Experience Codes: Anger, Dependence/Independence, Separation Distress, and Joy/Pleasure.

The third section of the code assesses the overall quality of the representation as manifested in the coherence of the representation of the child, and in the richness of perception of parental representations.

For 4 of the Parental Affective Experience Codes, raters are asked to make assessments along 2 dimensions: degree and acknowledgement. For Anger and Separation Distress, they are asked to rate behavioral control as well.

Degree refers to the rater's assessment of the degree to which the referenced affect plays a role in the parent's experience of him or herself as a parent. It is based on a reading of all the criterion questions for the referenced affect, and relies upon indicators of experiences that may be consciously held or unacknowledged. It is coded on a 3 point scale: 1/Little, 2/Moderate and 3/Considerable.

1/Little is to be used when the referenced affect plays a minimal role in the parent's experience of him or herself as a parent. This may be the case when the child's developmental stage does not evoke the referenced feelings in the parent to any significant extent. For instance,the mother of a newborn may feel little anger in relationship to her child; she may feel incompetent, she may worry, but she does not yet have the type of

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relationship with the child that would engender anger. Conversely, this scale point can be used when the mother really does not seem to be dealing with the referenced affect, perhaps because another (or others) are dominant, or because this one simply does not "take up space" in her psychological make up. For instance, it may seem from a thorough reading of the transcript that a mother has genuinely few concerns with separation. There are no defensive maneuvers around relevant inquiries, the mother seems calm and relaxed, and seems to have good reason to feel this way.

2/Moderate is to be used for the usual or normal (for that particular stage) amount of a referenced affect. It is neither absent from the record, nor does it play a major and presumably troubling role in the parenting. While there may be moments of intensity, these are modified by many, less intense moments. Or, it may "take up space" in the parent's experience of parenting, but does not crowd out or assume a dominant role over other affects.

3/Considerable is to be used when the referenced affect plays a significant role in the parent's experience of parenting. "Significant role" can be defined either by level of intensity or "square footage". If the affect is felt to an intense degree, or it seems dominant and overrides other experiences, it should be rated 3/Considerable. These dimensions can be determined both by direct expressions of emotion, as well as by spontaneously expressed fantasies, incidental, unintegrated "worries", defensive maneuvers, etc. For instance, it may seem to the rater that -- even though the mother denies feelings of anger in the relationship -- she is actually quite angry, and is engaged in a major struggle to contain these feelings.

Please try to use all 3 scale points. Little does not imply none, nor does Considerable imply extreme. Within an interview, there will often be one or two emotions that play a significant role in parental experience, and that can be seen as dominant and powerful. That emotion might well be seen as considerable, whereas the lower level, more normative ones might receive a moderate score. Try not to cluster everything at 2 (the midpoint) unless the parent really feels that they are experiencing all to more or less the same degree.

Acknowledgement refers to the nature and quality of parental defenses in response to referenced affects. Ratings are assigned along a continuum from denial to open acknowledgement to preoccupation. The midpoint, or optimal rating, is assigned when a parent is able to acknowledge a feeling or set of feelings with a minimum of defensiveness, and with an appreciation of its function and importance in the relationship. Description of situations that evoke such feelings are rich, detailed and believeable. Low ratings indicate an inability to acknowledge negative affects; this inability may be evidenced in denial, minimization, etc. Moderate ratings are assigned when the parent is able to talk about their feelings in a way that indicates both recognition and appreciation. High ratings indicate preoccupation with the referenced affect; it is openly acknowledged, and assumes a great deal of representational "power". Here, there is a failure of containment on an ideational level, and one has the sense that mother is attempting to keep her feelings from spilling over into the narrative. This regulatory or defensive style is also referred to as "maximizing".

Two kinds of oscillation are apparent in the transcripts of parents whose representations have qualities of preoccupation or maximizing. One is the rapidly fluctuating kind of oscillation that takes place within a few sentences. Here the parent will say one thing and reverse it or undo it in the next sentence, as if the struggle for control were taking place

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within the sentence structure itself. The second kind of oscillation takes place within the more general framework of the interview, where the mother provides contrasting pictures of the child across a range of questions. What distinguishes this from failed minimization (a 3) is the degree to which affect breaks through in the narrative. Oscillation of the preoccupied type is defined by affective surges that must then be contained.

It is often difficult to tell the difference between minimizing and maximizing strategies when they are unsuccessful. The denier struggling against outbreaks of feeling and the overwhelmed, preoccupied parent struggling for control can seem quite similar. One can often have the impression of mixed defensive styles, where minimization and maximization or preoccupation coexist. Often, the temptation is to give a "balanced" score (a 5) in order to indicate the presence of both. However,these situations are typically much more primitive than is implied by a balanced score, and indeed indicate an inner struggle and tension. In this code, we take the position that one or the other strategy will always be dominant, even if the other appears to be present. A minimizing, or distancing strategy is marked by the effort to maintain a structure or ego defense that is usually in place and functions well. The parent obviously has a fairly reliable and stable mode of defense that occasionally breaks. When such intrusions occur, the parent struggles to re-establish his or her method of coping and containment. By contrast, when powerful affect breaks through, and the coder has the sense of a failed attempt to establish (rather than maintain) structure, a maximizing strategy is probably being used. If there is intense emotion and oscillation (indicative of the absence of structure), the preoccupation end of the scale should be used.

These ratings are necessarily related to ratings of degree, because the quality of acknowledgement is necessarily judged according to the degree of the referenced affect in the relationship. Thus, a parent who recognizes little anger but who has been judged to have a high degree of anger would receive a lower acknowledgement score than would a parent who recognized relatively the same amount of anger but has been judged to have fewer problems with anger overall. A special case is presented by instances in which the degree of a referenced affect is judged to be low; acknowledgement would then be presumed to be low as well. But, since low acknowledgement implies denial, a more mid range, moderate score should be assigned for acknowledgement in these cases, indicating a recognition of the feelings referenced to the extent that they play a role in the relationship.

Finally, the quality of behavioral control is assessed. In the case of anger, this refers to the parent's ability to modulate the behavioral modulation of their feelings. Low ratings indicate tight, rigid control, such that their feelings do not influence behavior. Moderate ratings indicate control that is largely successful. They are able to express their feelings but do not feel compelled to act feelings out. They may have occasional outbursts of anger, or at times be driven separation distress to act. High ratings indicate failures of behavioral control. These are parents who lash out and may hurt their children, or whose behavior is significantly modified by separation distress. In the case of separation distress, this refers to the amount of time they are separated from child.

Preparing to code:

Before coding individual transcripts, it is important for coders to read a number of transcripts in order to familiarize themselves with the breadth and variety of possible responses to individual questions. This is particularly true of raters who are not themselves parents, and/or who do not have experience with children under three. This is a period of tremendous upheaval and emotionality for parents; most find the early years of their first

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child to be the most transforming, rich and difficult of their lives. From our point of view, it is normal for parents to have intense feelings during this period; recognition of a range of both positive and negative feelings is intrinsic to healthy parenting.

It is also important for coders to be familiar with the developmental issues of infancy and toddlerhood. Parents will respond to questions differently depending upon the age of their child and not simply as a function of individual differences in their own affective experience. Children provoke different reactions in their parents at different ages, and it is important to recognize the demands and challenges that are inherent in the developmental spectrum of the first three years.

Please note that parental responses may be coded for more than one scale. In other words, a parental response that seems applicable for the anger codes, may also be applicable for guilt codes, as well as others. Responses can always be coded more than once, and may often be.

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Strategies for coding: Reading the transcripts:

When coding individual transcripts, raters should read the entire transcript through carefully at least once or probably twice (and occasionally more, if necessary). While it may be interesting and informative to read the latter sections of the interview dealing with the marriage, rating is based only upon sections A-D in which the parent-child relationshp is described. Ratings for individual codes should then be based primarily (although not exclusively) upon parental response to questions listed under code descriptors. Responses to questions other than those listed should be included in coding decisions when they add substantially to the information gained from core coding questions. For instance, if a mother denies feeling angry in the relationship but gives ample evidence of such feelings in response to other questions, these should be considered in coding. Training around making these decisions is particularly important.

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CODING SHEET

I PARENTAL AFFECTIVE EXPERIENCE CODES		NOTES
1. Anger		
a. Overall degree	_____	_____
b. Parental acknowledgement	_____	_____
c. Parental modulation	_____	_____
2. Neediness	_____	_____
3. Separation Distress		
a. Overall degree	_____	_____
b. Parental acknowledgement	_____	_____
c. Parental modulation	_____	_____
4. Guilt		
a. Overall degree	_____	_____
b. Parental acknowledgement	_____	_____
5. Joy/Pleasure	_____	_____
6. Competence/Efficacy	_____	_____
II. CHILD AFFECTIVE EXPERIENCE CODES		
7. Anger	_____	_____
8. Dependence/Independence	_____	_____
9. Separation Distress	_____	_____
10.Joy/Pleasure	_____	_____
III QUALITY OF REPRESENTATION		
11.Coherence (Zeanah Adapt. Main)	_____	_____
12.Richness of Perception (Zeanah)	_____	_____

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AFFECTIVE EXPERIENCE CODES

1. Anger

Anger is probably one of the most common and yet one of the most disturbing affects that exist within the parent-child relationship. All parents get angry at their children, and very few feel comfortable with these feelings. Society tells us that love should and typically does override all other feelings that emerge between parent and child, and yet virtually all parents find themselves angered at one time or another by their children's demands, their apparent noncompliance, their provocations, their need for care and attention, by the realization that the child complicates the spousal relationship and makes solitary time a luxury, and by the child's own naturally emerging aggression (biting, defiance, rebuff, etc.). Because these feelings can sometimes be very intense, and because most parents recognize that their children do not "mean" to infuriate them, they are often quite conflicted about feeling and acting angry. For some parents, anger threatens the very core of the relationship, for others it is a means to self understanding and better communication.

Code responses that address the parent's recognition and modulation of anger within the relationship. Some parents may be able to acknowledge anger toward the spouse or toward other external factors (job demands, babysitting problems, life hassles, etc.) While the degree of anger expressed outside the relationship may provide important clues to a parent's unconscious anger in the relationship (and hence the "degree" code), codes for acknowledgement and behavioral control should be assigned based on the parent's ability to express, recognize and control anger in the relationship. If the parent provides ample evidence of anger in other domains, but denies it in the relationship, a low score should be assigned on acknowledgement.

a. Overall Degree

This code assesses the degree to which the parent is judged to be angry in the relationship, whether they are consciously able to acknowledge such feelings or not. This code reflects the rater's assessment of the degree to which parental anger is an issue or a feature of the relationship. Low ratings (little, limited) are assigned when anger does not really appear to be an issue in the relationship; this might be expected in a period of relative developmental calm. Moderate ratings are assigned in situations where there are angry feelings that seem tied in expectable ways to normal developmental events, and are within normal limits. They are not especially intense, and do not overshadow other affects. High ratings (considerable, extreme) are reserved for those instances where the rater decides that anger has become a problem for the parent. Note that anger may be quite intense and problematic although it is not directly expressed or experienced. Anger or angry feelings may not be acknowledged by the mother overtly; they may also not present a problem with respect to modulation. If not acknowledged directly, they may be discernible via slips of the tongue, metaphors used, fantasies expressed, asides, contradictions, oscillations and undoing. It is very important, in this regard, to ground assumptions about degree in evidence from the transcripts. Although ratings may be based on indications of unacknowledged feelings, these ratings should not be based on speculation.

1. Little

2. Moderate

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3. Considerable

b. Parental Acknowledgement

This code assesses the degree to which the parent is able to accept and acknowledge his or her angry feelings in the relationship. Ratings are assigned along a continuum from denial to acceptance and acknowledgement to preoccupation. Low ratings (none, limited) are assigned when parents are unable to openly acknowledge or consciously recognize their angry feelings in the relationship. These two ratings indicate degrees of denial. Midrange scores are assigned when there is full and open acknowledgement of anger without defensiveness. High scores are assigned when subject seems overly involved in/with or preoccupied by angry feelings.

1. Denial. This rating is reserved for the parent who denies experiences of anger in the relationship; he/she will probably be someone who denies anger across a range of contexts. Acknowledgement of anger (toward the child) is clearly unacceptable to the subject: he/she responds in the negative to direct questions about anger in the relationship, never openly, consciously describes him/herself as angry, and emphasizes efforts to minimize and smoothe over potentially difficult situations.

3. Minimal, circumscribed acknowledgement. This rating is used when the parent acknowledges anger in ways that are minimal and circumscribed. Thus, a parent may acknowledge being "frustrated" or "a little bit angry" from time to time; or, he/she may describe him/herself as angry only under very specific circumstances and imply that such anger diffuses quickly. For instance, a mother whose only acknowledgement of anger was to admit to being fed up and irritated by the end of a day with her child would receive this rating. The language used by individuals receiving this rating is characterized by attempts to minimize the impact of angry feelings; words that diminish, such as "frustrating" "irritating" and words that minimize, such as "a little, somewhat, sometimes" are typical of these transcripts.

5. Full acknowledgement This rating is reserved for those subjects who are comfortably able to acknowledge their anger within the relationship, without feeling that such affects derail the relationship or threaten their own sense of control. Mother acknowledges her feelings of anger, and has language to describe a range of angry feelings -- she may use words like frustrated and annoyed but these are accompanied by more direct acknowledgement via words like angry, pissed-off, etc. She does not as a matter or course use words like enraged or infuriated; these would imply a swelling and less contained emotion. It is not uncommon to hear parents try to minimize these feelings with humor or attempt to deflect the feelings onto less vulnerable relationships. Overall, however, the parent is able to acknowledge that angry feelings are intrinsic to the relationship, that they have a meaning, and a purpose and that they will wane and be integrated over time.

7. Moderate preoccupation. Parents receiving this rating are well aware of their anger. It seems to the reader that they may be angry a good deal of the time, and they are unsuccessful in their efforts to make productive, communicative use of these emotions. They tend to use visceral words to describe anger, like "infuriated" and "enraged", and may also use modifiers like "very","often" and "really" when describing their angry feelings. They may struggle to minimize such feelings, but such efforts do not succeed. These attempts to defend against the experience of anger clearly lack the organized, constricted quality of lower levels; moments of intense preoccupation belie other moments of

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apparently successful minimization. Thus, the struggle to minimize may be manifested in oscillation, moments of incoherence and vagueness.

9. Extreme preoccupation. Parents receiving this rating are having a great deal of difficulty with angry feelings in the relationship. In this sense, they are preoccupied by their anger. It suffuses their talk about the relationship, and is clearly a primary feature of their feelings in relationship to their child. They are open in acknowledging these feelings, and use visceral words to describe intense and frequent experiences of anger. They feel overwhelmed and consumed by such feelings at times. Their efforts at verbally mediating these feelings via oscillation and vagueness are largely unsuccessful, and their intense feelings suffuse the narrative.

c. Behavioral Control.

Behavioral control ratings are used to assess the degree to which feelings of anger are overtly manifested in behavior. Ratings are assigned along a continuum from tight, rigid behavioral control to failures of behavioral control. Scoring incorporates severity and frequency.

1. Tight behavioral control - No outbursts. This rating is assigned when parents do not describe any verbal or behavioral outbursts with the child. The transcripts give no evidence of such outbursts, and the parents' efforts at control seem largely successful. The language used by the parent reflects his/her tremendous need to control and restrict the expression of aggression. There are no reported lapses of control, and none implied. This kind of transcript will inevitably emphasize the positive to an extent that seems unreal, and the narratives may be clipped or tense as a result of what may be presumed to be tremendous, unacknowledged efforts at control. Meaningful communication about anger is highly restricted, in the sense that the parent does not tell the child that she is angry.

3. Minimal outbursts. Individuals receiving this rating do not typically describe themselves as losing control, and only indirectly acknowledge occasional and circumscribed outbursts of temper or annoyance. These subjects are not as overly controlled as those subjects receiving a "1"; nevertheless, they describe very few outbursts, and seem generally quite behaviorally contained in their responses to the child. The kinds of behaviors that might be acknowledged by a parent receiving this rating would be relatively mild: counting to "3", stamping her feet in aggravation, raising his voice in response to the child.

5. Occasional or moderate outbursts. Parents receiving this rating lose control of their anger on occasion with their children: they may yell at the child, leave the room in a huff, or slam things around. These parents are unmistakably angry at these moments; while they are not uncontained or frightening, they are also not making particular efforts to hide or minimize their feelings. They may actually tell the child they are angry as a means to letting the child know what is going on, and in an effort to process what's happened between them.

7. Frequent or serious outbursts. Parents receiving this rating lose control of their anger with some frequency. Unlike parents receiving a rating of "5", these individuals may sometimes be frightening to themselves and to their children. They may really scream, they may shake the child, and they may throw things when angry. One has the feeling in

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reading the transcript that these parents get angry in ways that are barely and tenuously contained.

9. Extreme outbursts. Parents receiving this rating are out of control when they become angry. They lack the means to maintain communication with their children during such episodes, and consequently are frightening to their children and to themselves. These parents may actually hurt the child at times. They may slam the child against a wall, twist his arm so that it becomes dislocated, or scream wildly at the child. Their expression of anger is destructive. A parent who reports a single incident of this severity should receive the highest score.

2. Dependency/Neediness

Parental feelings of needing support and nurture (either from self or other), like anger, is a natural part of taking care of an infant or toddler, because taking care of a child requires that parents put their own needs "on a back burner" for some time. They have less time for work, friends, leisure acitivities, their spouse, and for themselves. They have to give to another without being assured of getting something in return, at least not in the usual modes of intimate, interpersonal dialogue. The parent-child relationship is, in this sense, unbalanced. The child's need for succor and a secure base places a great demand on parental resources. As a consequence of such demands, parents often feel tired, they miss having time for themselves and their marital relationship, and they frequently feel pulled between the demands of childrearing and the other demands in their lives. While many parents may deny neediness when directly asked in the interview, they may be able to acknowledge feelings of needing to lean on others or have time to replenish themselves in other ways. These feelings are conveyed in their describing needing support from others, needing help and reassurance. They may also be conveyed in their describing having unmet physical needs, like sleep, or needing time alone or with friends to replenish themselves. These are own and not baby needs.

The code is written to assess the degree to which a parent represents him/herself as needing support, needing help from others, and needing time and space to nurture him/herself. The style in which these feelings are expressed will vary from parent to parent. For some, a variety of parenting situations will make parents feel that they need support from others. For others, these feelings are experienced in only a few, circumscribed areas of childrearing, and therefore will be mentioned fewer times in the interview. In coding degree, scores are assigned on the basis of both intensity and frequency. Thus, parents whose interviews are characterized by numerous references to needing help, time or sleep may be assigned a high score, as would those whose dependency needs are quite intense, but only in the context of one or two areas of parenting.

1. Very low feelings of needing support or nurture. Parent represents him/herself as not having needs that require either help from others or self-nurture. He/she does not describe needing time for him/herself, needing support or help. Parent represents himself as having very few needs that require his/her leaning on others or taking time to care for him/herself.

3. Minimal feelings of needing support or nurture. Parent represents him/herself as having a few needs of his or her own that require help from others or self-nurture. They may transiently acknowledge asking their spouses for help, or they may represent

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themselves as sometimes tired or needing time alone. However, their own needs are not emphasized.

5. Moderate feelings of needing support or nurture Parent represents him/herself as clearly needing time for him/herself, and needing support, nurturance from family, friends and/or work. They represent themselves as having needs of their own that require the help of others, or that require that they take care of themselves. They do not necessarily feel that these needs are always met, but they know that they have needs, and represent themselves as such..

7. High feelings of needing support or nurture. Parent represents him/herself as needing alot of support, or of feeling strongly in need of time alone or away from the baby in "selfish" pursuits. He/she may oscillate in representing himself as having strong needs, but these emerge nevertheless. Even if parent describes taking steps to meet these needs, either by talking to others or taking care of him/herself, the strength and frequency of expression of these needs leads to the assignment of a higher score.

9. Very strong feelings of needing support or nurture. Parents receiving this rating represent themselves as having very strong needs. They need others' support a great deal of the time, they need a great of reassurance, or they need time to themselves, time to sleep, etc. The parent's own needs are very strong, and color the interview powerfully.

3. Separation Distress

Parents of young children experience separation from the child as intrinsically distressing -- this response is a survival mechanism for the species, one that compels parents to stay close to their child during an especially vulnerable period during his/her development. The exact quality of this distress will vary from parent to parent, depending upon his/her own attachment history. We are particularly interested in parental responses to leaving the child, for work, for pleasure, etc. Many experience separation distress in the form of anxiety and concern for the child's safety. For some the overriding affect will be guilt about leaving. Others may experience distressing feelings of anger toward the child, as these separations stir the parent's own early memories of abandonment and loss. Please note that parental responses may be coded for more than one scale. In other words, a parental response that seems applicable for the anger codes, may also be applicable for separation distress codes.

a. Overall degree.

This code assesses the degree to which separation from the child (especially leaving the child) evokes an affective response in the parent. This response could include such feelings as dependency, fearfulness/anxiety, guilt, anger, etc., that are triggered specifically by separation, whether acknowledged or not. A low ratings is assigned to mothers who seem minimally affected by a separation from their child. This rating might be expected in mothers who spend a good deal of time with their children, and who have extremely regular and reliable child care. This rating might also be expected in mothers whose children are at a stage where they are experiencing little separation anxiety or distress themselves. Thus, whatever feelings the parent might have are modified and assuaged by the infant's being comfortable with separation. Women who deny the effects of separation upon them, either by neglect or overattentiveness should not receive low ratings. A moderate rating is assigned to parents for whom separations from the child arouse distressing affects that reflect an intrinsic appreciation of the importance of attachment for

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both parent and child. A high rating is assigned to parents for whom separation has become an overriding issue in their relationship with the child. Such parents experience separation as quite aversive, and their response to separations seems to override other emotions and needs. Parents who neglect their children or who appear blindly neglectful to their children's emotional response to separation may also be struggling with a high degree of separation distress, even though it is unacknowledged. This will be revealed in other aspects of the interview.

1. Little

2. Moderate

3. Considerable

b. Parental acknowledgement.

This code assesses the degree to which the parent can acknowledge his/her emotional reaction to separations from the child. Low ratings are assigned when parents are unable to openly acknowledge or consciously recognize the distress they feel in response to separations. Midrange scores are assigned when response to separation is openly acknowledged without defensive distortion. High scores are assigned when the parent seems preoccupied with his/her feelings about separation.

1. Denial. Parents are assigned this score when they categorically deny any emotional response to separations from their child, in spite of evidence of some degree of separation distress.

3. Minimal, circumscribed acknowledgement. Parents assigned this score minimally acknowledge their emotional response to separations from their child. For example, a mother may indicate that she "sometimes" feels a little anxious, and then emphasize that she usually has no reaction to separations from her child. These parents use language that minimizes the emotional impact of separations, such as "a little", "somewhat", "slightly".

5. Full acknowledgement. Parents receiving this rating are able to openly acknowledge their emotional response to separations. They do not appear defensive about separation distress beyond some slight minimization, for example through the use of humor. At the same time, they do not seem preoccupied with their separation feelings in a way that seems to overwhelm them or compromise the coherence of the transcript.

7. Moderate Preoccupation. Parents who receive this rating are quite aware of their distress at separation, and may mention these feelings repeatedly throughout the interview. They give the impresson that their various distressing feelings and fantasies regarding separation are never far from consciousness, and may mention these in response to questions that do not specifically ask about separation. Although there may be some attempts at minimization, these attempts clearly lack the organized, constricted quality found at lower levels. Thus, oscillation and contradictions may compromise the overall coherence of the manuscript.

9. Extreme preoccupation. For parents who receive this rating, separation distress is a focal concern in their relationship to their child. They are manifestly overwhelmed with

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feelings about separation, to the point that it seriously interferes with their responsiveness and sensitivity to the child's affects. Feelings regarding separation are described using strong, visceral languge, and seem to invade unrelated questions throughout the transcript, compromising the overall coherence.

c. Behavioral Control.

Behavioral control ratings assess the extent to which parents separate from their children, rated along a 5-point continuum from very frequent to infrequent separations.

1. Very frequent separations. This score is assigned to parents who spend most of their time away from their toddler. These parents spend more than a full-time work schedule away from home, e.g. they may work a job that requires frequent travel. Alternately, full-time working parents who have left their child overnight several times would receive this score.

2. Frequent separations. Parents receiving this score spend roughly the equivalent of a full-time work week away from their child. This may also include parents who work part-time but have a number of other activities that occupy them out of the home and away from their child.

3. Regular separations. These parents separate from their toddler on a nearly daily basis for periods of time roughly equivalent to half-time work. Parents who do not work but leave on a regular basis for at least several hours at a time receive this score. Also, parents who leave for entire days several times per week receive this score.

4. Occasional separations. Parents who receive this score leave their child occasionally, but not on a daily basis. For example, they may visit with friends or go to an exercise class several times per week. These separations are mostly of only several hours' duration; longer separations warrant a higher score.

5. Infrequent separations. This score is assigned to parents who leave their children no more than once per week.

4. Guilt

Guilt is a fact of life for many parents. Guilt is best defined as a parent's feeling that s/he has transgressed some internalized standard of parental or caretaking behavior. Parents may feel guilty about leaving the child, about not spending more time with their child, they may feel guilty about changing babysitters, they may feel guilty about longing for time for themselves, they may feel guilty about not providing their children with adequately stimulating environments, they may feel guilty about forgetting to bring home the special whistle they'd promised, or leaving the child's shoes behind at a playdate. They may feel guilty about disciplining the child. Guilt can range from feelings about significant events and life decisions to the mundane. Some parents deny guilt when asked about it directly, but acknowledge guilts in other parts of the interview. Some parents do not name such feelings "guilt", but apparently feel so. It may not be in their "culture" to acknowledge or concern themselves with guilt. Code guilt wherever it comes up in the interview, regardless of whether responses have been coded for other scales. Also, do not code upon the basis of whether you think parent should feel guilty, but upon the basis of whether parent experiences guilt.

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a. Overall Degree

1. Little

2. Moderate

3. Considerable

b. Parental acknowledgement.

1. Disavowal of guilt. Parents receiving this rating disavow and deny guilt in all aspects of their relationship with their child.

3. Minimal acknowledgement. Parents receiving this rating are evidently feeling some guilt, but are defended about acknowledging such feelings. When they do acknowledge such feelings, they will typically undo them with minimizing language -- "a little guilty", "somewhat worried about what he'll think of me when he's older", etc.; they may manifest some hesitancy or self-consciousness about admitting negative feelings and behaviors, "well, you know, I know I shouldn't be feeling this way, etc". The ability to feel some guilt would be marked by the ability to talk about such experiences, albeit in a defended way.

5. Moderate acknowledgement. The parent is able to acknowledge, accept and live with a moderate amount of guilt. These emotions are not foreign to him/her, and yet he/she accepts them as intrinsic to parenthood. At the same time, he/she does not feel excessively guilty, and is able to openly disclose such feelings.

7. Significant acknowledgement. These are individuals who are struggling to keep their feelings of guilt under control. They feel overly guilty, and often make decisions about their children on the basis of such feelings rather than considering the issue(s) in a more balanced way. Parental guilt may be marked by overt statements such as "Oh, I feel so guilty when I reprimand him, so I just give in and let him have what he wants." These are parents who tell themselves they needn't be guilty, and who reassure themselves that they are doing a good job.

9. High/extreme acknowledgement. Parent acknowledges feeling guilty much of the time. On these transcripts, guilt-laden responses seem to intrude on many questions, indicating that this feeling overshadows all others. Because of high guilt, the parent has difficulty acknowledging negative feelings or behaviors; there is evidence of doubt about them and lists of excuses or qualifiers. In spite of long responses to specific questions, there may not be an adequate reply to the specific question. May refuse to answer one or more questions.

5. Joy/ Pleasure

The parent's ability to experience joy, contentment and pleasure in the relationship with the child is an important indicator of the richness and depth of their bond. Many parents describe it as a love that is like no others, and many describe it as genuinely transforming

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their lives. When things are going right, there are few relationships in life that evoke more happiness. Pleasure is communicated in the way parents talk about sharing experiences with their children, about watching them grow and discover the world, about simply being with them. This scale assesses the parent's ability to express such feelings of joy, contentment and happiness in relationship to and with the child. Unlike the anger and neediness codes, this code is scaled simply from high to low. Lower ratings indicate little pleasure in the relationship, midpoint ratings indicate thin or shallow expressions of pleasure, and higher scale points indicate increasingly rich, vivid and dimensional expressions of pleasure. This is a code for the level of joy the parent experiences in the relationship. However, coding decisions may be made on the basis of the parent's description of a single moment.

1, Minimal acknowledgement of joy or pleasure. Parents receiving this rating seem to experience their relationship with the child as devoid of pleasure or contentment. Their descriptions seem flat and constricted, or they may be completely overshadowed by negative feelings. The parent cannot summon up any descriptions of pleasure in the relationship that are at all believable.

3. Low acknowledgement of joy or pleasure. Parents receiving this rating describe pleasure in the relationship in limited, restricted and shallow terms. Descriptions of experiences of joy or contentment are few and far between, and those offered are unconvincing and thin. Parents receiving this rating are clearly experiencing little genuine pleasure in the relationship.

5. Moderate acknowledgement of joy or pleasure/ Idealization. Positive experiences are present in the narrative. However, they are modified in some way, either by the parent's efforts to minimize or undo them, or by what appear to be processes of idealization. This rating should be reserved either for transcripts characterized by moderate, unelaborated descriptions of pleasure in the relationship, or by idealized, forced and therefore less believable descriptions of contentment. If an otherwise bland transcript contains a single richly-expressed relatively vivid description of joy, the parent should receive a 6.

7. Relatively high acknowledgement of joy or pleasure Parents receiving this rating are obviously happy and contented in their relationship with the child. They are freely able to express such feelings, although they are less able to elaborate such responses than those parents receiving a "9". They provide believable descriptions, they use words that convey such affects in direct and tangible ways, and they do not minimize or downplay happiness. Only the richness of their elaborations and the range of the words they use to describe pleasure separate parents receiving this rating from those receiving the highest rating.

9. Full, rich acknowledgement of joy or pleasure. Parents receiving this rating are believably, unabashedly, openly and fully able to express the tremendous pleasure they experience in parenting. They will use evocative words like "delight", "thrilling", "tremendous love", "bowled over" to describe their feelings, and their descriptions are dimensional and elaborated. Thus, they may use many different adjectives to describe their pleasure, and they may come up with a wide array examples of their pleasurable moments. Interestingly, parents who derive this degree of pleasure can make even the most mundane moment seem transcendent, but in a believable, coherent way: a moment of laughing together, of playing with a simple object, or just enjoying one another's company.

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6. Competence/Confidence

This code is aimed at determing whether a parent represents him/herself as confident of his/her abilities to competently meet the challenges of parenting. This scale measures the degree to which the parent has a balanced/realistic representation of him/herself as confident; that is, to which he/she is realistic in his/her appraisal of his/her strengths and weaknesses as a parent. No parent is good at everything; neither is any parent terrible at everything. Most parents are better at what they have experience with; most parents are also better at taking care of the child when their own particular buttons are not pushed. Most parents struggle when the child is changing and the demands are therefore new; most parents struggle when their children challenge them, in whatever way is intrinsic to one or another stage of development.

Low ratings are assigned to the parent whose representation is overly confident, who is in effect, confident that he/she can handle any challenge that comes along. Moments of doubt, uncertainty or ambiguity are not acknowledged. He/she emphasizes that he/she is competent, and there is little acknowledgment of the inevitable limitations and difficulties that arise as a parent (i.e. takes a rigid stance, may exaggerate or overelaborate caretaking abilities, is always able to soothe child, has no problems in encouraging autonomy, etc.) The midpoint or optimal rating is assigned to the parent whose representation is well-balanced, i.e. is realistically confident about his/her caretaking abilities and at the same time, acknowledges and accepts his/her limitations as a parent. High ratings are assigned to the parent whose representation is not well balanced, and lacks a realistic confidence in his/her abilities as a parent across a range of domains. This lack of confidence may be stated directly (i.e., the parent tends to focus on limitations and difficulties to the exclusion of his/her strengths) or may break through less directly (i.e., in the form of oscillations, hesitations, qualifications, etc.)

1. Very highly confident/competent A parent who receives this rating does not describe herself as having difficulties or areas of weakness in parenting. The parent does not acknowledge limitations, and acknowledges only his/her competencies. He/she does not describe doubts or moments of uncertainty. Parent may deny or any problems, frustrations or limitations in soothing child when upset (during separations, temper tantrums), promoting autonomy and letting go (during separations, problem solving situations), etc. In this sense, he/she seems very highly confident of his/her competence.

3. Highly confident/competent The parent emphasizes his/her confidence. He/she tends to focus more exclusively on strengths and minimally acknowledges problems or limitations in caregiving domains. Parents receiving this rating tend not to voice awareness of the uncertainty and ambiguity in parenting, choosing instead to emphasize those aspects in which they feel successful.

5. Moderately competent/efficacious. Parents receiving this rating are essentially confident in their abilities as parents. This confidence in his/her own efficacy and competence is related to a basic comfort with the uncertainty and ambiguity of parenting, and with the awareness of one's own limitations and difficulties. In this sense, they may strike the coder as realistic in their acknowledgement that they are good at some aspects of parenting and less competent in others; this awareness does not trouble them, and they take advantage of help available to them in becoming competent in things that are difficult for them. The parent acknowledges and accepts both strengths and weaknesses; these

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concerns may be recognized but do not interfere with the overall representation of the self as efficacious. They can acknowledge uncertainty and doubt without its undermining their confidence.

However, in some cases parents rated as moderately competent, while manifesting a basic comfort in their abilities as parents, may not explicitly talk about or be concerned with their limitations and diffficulties. What distinguishes them from the overly competent parent is that they do not have the quality of being overly invested in seeing themselves as competent. They are more simply accepting of their competence, talk matter-of-factly about it, and are not overelaborated, do not have a rigid quality. In all cases, the parent in this rating sets realistic, attainable goals. Descriptions are coherent, consistent, fluent; parent is able to give supporting detail for generalizations.

7. Less confident/competent. Parents receiving this rating represent themselves as less than confident in their abilities as parents. They may describe themselves as questioning their own judgment, as changing their minds, as yielding to their child, or as feeling helpless in relation to their child. These parents are struggling to keep a sense of incompetence at bay. Parents may acknowledge their competence in some areas, but their underlying lack of confidence breaks through either overtly, i.e. through directly emphasizing their limitations and/or lack of confidence in certain areas, or less directly -- i.e. through oscillations, hesitations, qualifications, etc. A parent also receives this rating when he/she acknowledges or emphasizes abilities but clearly contradicts this in his/her manner of talking about competence-related material.

9. Lacking confidence/competence. These parents represent themselves as dramatically lacking in confidence. He/she describes him/herself as unable to cope across a range of domains. He/she may desribe wavering, doubting his/her inclinations, and giving in to the child. Parent may seem to feel overwhelmed, helpless and confused as a parent. Parent may express helplesness or difficulty in soothing child (during separations, temper tantrums,etc.) and in encouraging autonomy and letting go (during separations, problem solving situations), does not recognize or greatly minimizes her positive influences, may give the child credit for adaptive functioning. Will state they are not good enough parent, and may seem surprised at some of what they do right.

II CHILD AFFECTIVE EXPERIENCE CODES

The scales listed below are used to assess the parent's recognition of the child's affective experiences. Use the parent's description of her child in order to assign ratings.

7. Child Anger

This scale measures the degree to which the parent represents the child as experiencing anger. Anger may manifest itself in different ways at different developmental stages, but across the developmental spectrum there are invariably moments which arouse the child's intentional aggression, and -- ultimately -- anger. Infants may be angry because they are not fed quickly enough, because they are not picked up quickly enough; in short, because their needs are frustrated. An older toddler, by contrast, may be angry in a more specific, conscious way - - that he has been denied a particular toy, that he has been left with a babysitter, etc. Once they are a year old, children have well developed ways of expressing such feelings intentionally : biting, kicking, and sundry acts that are definitely other directed.

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This scale assesses the degree to which the parent represents the child as experiencing or expresing anger in various situations. At the low end of the scale, the parent does not represent the child as having angry feelings. The midpoint indicates that the parent represents the child as angry to a moderate degree, and at the high end the parent represents the child as very angry.

1. No anger The parent does not represent the child as angry under any circumstances. The parent may describe behavior that is clearly indicative of distress but not describe it as anger.

3. Minimal anger The mother represents her child as angry to a minimal degree. Parent may recognize that child is angry in some circumstances, but such descriptions are limited. Parent may use terms like "frustrated", " a little angry", etc.

5. Moderate anger Parent represents the child as angry in believeable, circumscribed ways. Parent does not describe the child's anger as excessive or uncontainable. Anger is moderate, and occur in situations that are understandable to mother, and seem reasonable to her.

7. Significant anger. Parent represents the child as angry much of the time. The parent may be engaged in power struggles with the child, and therefore represent the child as especially angry.

9. High/extreme. The parent sees the child as very angry.

8. Child Dependency/Independence

This code is used to assess the degree to which the parent represents the child as either independent or dependent. It is a fact of life that small children are highly dependent upon their parents, more so when they are infants, and more so in certain circumstances. This is distinct from separation distress, as it is expressed toward parents when they are present, and either available or unavailable. Children can also manifest independent and autonomous strivings in a number of ways. This code assesses the degree to which one or the other striving predominates, or to which the two are balanced.

1. Highly Dependent The parent represents the child as highly dependent upon the parent(s). The child is seen as highly demanding, needy, clingy, and independent strivings receive no mention. The child is seen as unable to do things for him/herself at all.

3. Moderately dependent The parent emphasizes the child's dependency upon him/her, and sees the child as demanding, needy and clingy. Independent strivings may be acknowledged, but they are not represented as centrally as are dependency strivings.

5. Balanced representation Parent represents child as both needing comfort and nurture and as striving for autonomy and independence. Parent gives a full, rich picture of the child's need for comfort and nurture from the parents. At the same time, autonomous strivings are described and are as much a part of parental representations as are dependency needs.

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7. Moderately independent. Parent's representation of the child emphasizes independence and autonomous strvings to a greater extent than dependency. Child is represented as needing time for himself, as enjoying (probably preferring) independent activities, and as having relatively few needs.

9. Highly independent. The parent focusses almost exclusively upon independence and autonomy in her representation of the child. The child is seen as needing and wanting alot of independence, and needs for comfort and nurture along with other dependency needs receive virtually no mention.

9. Separation Distress

This code rates the degree to which the parent represents the child as distressed by separation. All children are made anxious by separation at different points in their early development. Separation anxiety comes and goes many times during the first three years of life, peaking at 8 months and 24 months. For some children, there are many other peaks. The degree and intensity of anxiety and fearfulness will vary with the child's degree of sensitivity to changes, transitions and other state disruptions.

1. None The parent does not represent the child as experiencing or manifesting any separation distress. S/he does not report that the child will sometimes be distressed by separation and will seek a reunion with the parent.

3. Minimal The parent represents the child as experiencing only minimal separation distress. Parent reports minor distress at parent's leavetaking, uses words like " a little", "somewhat".

5. Moderate Parent represents the child as experiencing some separation distress. This distress occurs in circumscribed situations, and is seen as manageable and containable. It may have peaks, but it is generally seen as a moderate amount by the parent.

7. Considerable Parent represents the child as highly separation distressed. The child is seen as very upset by separations, as having a very difficult time with them. These upsets last awhile, and the child may be difficult to soothe, or may reject the parent following the reunion. Parent sees this anger as tied to degree and intensity of distress.

9. High/extreme The parent represents the child as extremely distressed by separation, to the extent that separations are acutely disorganizing and difficult for the child. Sadness, anger are intense in response to separation, and child is very difficult to console.

10. Child Joy/Pleasure

This scale measures the degree to which the parent represents the child as happy and joyful. Can he/she fully represent the experiential qualities of delight and joy, their intensity and excitement? At high levels, the parent describes her child's experiences of joy with convincing detail. The parent conveys what the child is enjoying and why the child enjoys it so much. He/she uses strong, expressive words like "delight", "excitement", and "really happy" which communicate intensity of positive affect. H/she describes the child's facial

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expression, gestures, or behavior with evocative detail (e.g., his little face just lights up), and clearly derives great satisfaction out of her child's happiness; the child's delight delights the parent. At moderate levels, the parent is able to describe the child's experiences of joy but may not describe them as fully and richly as at higher levels. The parent may use more vague and general language or describe the child's affect in flatter, milder tems. Parent may seem to be watching the child's joy from a distance. At lower levels, the parent's capacity to appreciate the child's experiences of joy is strikingly deficient. He/she may fail to mention what the child enjoys or describe the child's pleasure in such terse, vague, or flat terms that the reader is left unconvinced.

Note: Some of the interview questions used for this scale address the parent's own emotional experiences directly. In these questions the parent's focus on his/her own feelings does not indicate an insensitivity to her child's feelings unless significant evidence of self-preoccupation, ambivalence, or antagonism to the child suggest otherwise. If the parent spontaneously addresses the child's experiences of joy in these questions, the rater should consider a fairly high score.

1. None Parent does not represent the child as experiencing joy or happiness. Parent may discuss the child's experience in such flat, terse terms that the reader is not allowed to enter his/her experience at all. ("He likes it .. that's it.) The parent may rely on cliched, pat answers that, in the context of a flat, barren presentation, fail to convince the reader (e.g., "It gives him a good base to grow on; I think he gets pleasure all day.")Parent may show strong resistance to discussing the topic with the interviewer. ("I don't understand these questions. I don't know".)

3. Minimal The mother represents child as happy or joyful to a minimal extent. She may recognize certain experiences that give the child pleasure but not be able to describe the child's subjective experience, giving a fairly flat presentation. She may represent what the child likes but the description of pleasure lacks depth.

5. Moderate The mother represents the child as moderately joyful. Mother's representation of a child's experiences of joy is stronger yet still inhibited due to vagueness, flatness, inconsistency, or a superficial understanding of the reasons for the child's happiness. Mother may describe the child's positive experiences without conveying a sense of the intensity of the child's joy. There may be a conventional quality to the mother's description of the child's experiences that seems to lack a more intense, personal involvement.

7. Considerable. Mother represents child as joyful and happy. She gives a good portrayal of what makes the child happy, the intensity of the child's affect, and her own enjoyment of the child's delight. Her language is more detailed and evocative than at lower levels. Nonetheless, she is slightly held back from the highest scores. She may be slightly vague and general about the child's experience or the reasons behind the child's happiness. She may also be a bit inconsistent in her description, more sensitive to certain areas in the child's life than others.

9. High The parent represents the child as extremely joyful and happy She uses clear, immediate, and evocative language. (e.g., He holds his head back, smiles, and then comes forward and hugs me again!" Her own delight at the child's delight is similarly conveyed. (e.g., "I could sit there and do nothing but look at him and I would not be bored. I think it's wonderful.") She represents the child's delight at intimacy and at

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exploratory accomplishment. While she expresses her own responses to the child's feelings and behavior, she values the child's experience as separated from her own.

III QUALITY OF REPRESENTATION

11. Overall Coherence

This scale was developed by Zeanah (1989) and is essentially analogous to the Coherency of Record Scale used in scoring the Adult Attachment Interview (Main and Goldwyn, 1984). It attempts to measure the overall coherency of ideation and feeling in the caregiver's representation of the child. Essentially this refers to a well organized and logical flow of ideas and feelings about the child and the parent's relationship with the child. Incoherencies include descriptions that are confused and confusing, in the sense that they are difficult to understand. Incoherencies also include contradictions in the narrative that go unnoticed by the subject, or are unintegrated into the overall narrative. Incoherencies may also take the form of bizarre comments or non-sequitors. The subject may also have trouble staying on topic or drift away from the topic of the questions asked. Coherence refers to the believability of the caregiver's descriptions of the child, and the relationship with the child. Inability to support global descriptions with examples, or sweeping and doubtful generalizations (e.g. a two year old who is never upset) lower the rating on this scale.

1. Highly incoherent. Descriptions of the child and the parent's relationship with the child are so confused, contradictory, and/or biarre that they cannot be understood without great effort. Virtually all references to the child are vague or inconsistent or unresponsive to probes. The basic description of the child and the relationship with the child are incoherent.

2. Incoherent. Although interview responses are understandable with effort, a striking number of confusing, contradictory, or bizarre descriptions of the child and the caregiver's relationship with the child characterize the responses. Particular areas may be incoherent, but this is not as pervasive as in 1.

3. Neither coherent nor incoherent. There is average coherence throughout the interview. Statements about the child and the caregiver's relationship with the child are reasonably clear, though there may be a few notable lapses about specific issues.

4. Coherent. Coherence is clearly above average in the caregiver's descriptions of the child and the relationship to the child. Confusion, contradictions, or odd descriptions may be present but only to a very limited degree and do not obscure a generaly clear and consistent view of the child.

5. Highly coherent. Exceptional thoughtfulness and clarity characterize the caregiver's descriptions of the child and the relationship with the child. Specific examples support general descriptors and virtually all are direct, straightforward and responsive to probes.

12 Richness of Perceptions (Zeanah)

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This scale was developed by Charles Zeanah, as part of his internal working model of the child coding system. This scale is used to measure the poverty or richness of the caregiver's perceptions of the infant and the relationship with the infant. Rather than merely a count of the words used, it is also a measure of how much the words are used to elaborate a sense of "who" the infant is. Caregivers who succintly but richly describe details about their infants score at the high end of the scale, in contrast to caregivers who say alot that does not convey mcuh about the infant's personality, feelings, and behavior, and who score at the lower end of the scale. Caregivers scoring at the higher end of the scale seem to be attentive to their infants' preferences and characteristics, to have thought about their infants, and to kow their infants in some essential way. Caregivers' descriptions at the lower end of the scale lack variety and may seem repetitive, narrowly focussed, or uninformative because they do not add to the general picture of the infant. N.B. No attempt is made to determine whether or not the caregiver is describing the real infant. Richly detailed descriptions that seem fantasy based score high on this scale.

1. None Poverty of detail about the infant's personality, feelings and behavior is striking throughout the interview. There is a pervasive sense of the infant as unknown, either because the caregiver has little or nothing to say about the infant in response to probes (e.g., I don't know) without elaboration in response to direct questions about the infant), or because despite saying a great deal, the caregiver has little to say about their perceptions of the infant.

2. Limited Details about the baby are few or relatively unelaborated, or seem stereotypic in quality. The caregiver seems to know the infant somewhat, although not to have thought much about or noticed much about the infant's characteristics as an individual. Therefore, adjectives and stories about the infant are limited. The caregiver may also be extremely focussed on only one or two narrow domains of the infant's personality and behavior. Caregivers who provide voluminous detail, but only about the infant's feeding behavior or irritability and crying would be included in this rating.

3. Moderate. A moderate amount and variety of richness about the baby throughout, or despite variability at various points in the interview, there is a moderate amount of richness and variety overall.

4. Considerable. The infant is described in detail as an individual. There is little sense of stereotypy in the description, and details add fullness to the general sense of the infant and the caregiver's relationship with the infant. Adjectives used to describe the infant and the caregiver's relationship with the infant are provided. Richly detailed perceptions, even if not convincingly derived from objective characteristics and behaviors of the infant, score at least this high on this scale.

5. Extreme. Richness of perceptions and elaboration of detail about the infant in a variety of domains are striking and consistent features of the caregiver's descriptions of the infant. The infant is noticed and described as an individual in full and rich detail throughout the interview.

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