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ADULT ATTACHMENT AND  
MATERNAL REPRESENTATIONS OF GENDER  
DURING PREGNANCY:  
THEIR IMPACT ON THE CHILD'S SUBSEQUENT  
GENDER-ROLE DEVELOPMENT

by

LESLIE A. GIBSON

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.

1998

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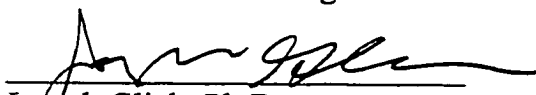
This manuscript has been read and accepted for the Graduate Faculty in Psychology in satisfaction of the dissertation requirement for the degree in Doctor of Philosophy.

April 21, 1998  
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## ABSTRACT

Adult Attachment and  
Maternal Representations of Gender During Pregnancy:  
Their Impact on the Child's Subsequent  
Gender-Role Development

by

LESLIE A. GIBSON

Advisor: Professor Arietta Slade

This study investigated the relationship between attachment, maternal gender representations of the child formed during pregnancy, and the development of sex-typed play at 28 months in 34 mother-infant pairs. Mothers were interviewed during their third trimester using the Pregnancy Interview (PI), a semi-structured interview that assesses women's representations of their babies and their overall experience of pregnancy, and the Adult Attachment Interview (AAI), which assesses adults' working models of attachment. Maternal gender representations were scored using the Maternal Gender Representation Codes which assess subjects' overall narratives regarding the issue of gender with respect to their children during the Pregnancy Interview. Sex-typed play was assessed when the children were engaged in play alone and with their mothers. Results provide preliminary evidence that maternal gender representations are associated with attachment classifications. In particular, preoccupied women developed more rigid, highly elaborated representations of their children with respect to gender, while securely attached women developed more flexible gender representations. Preoccupied women also developed stronger gender

preferences than securely attached women. Rigid, highly elaborated maternal gender representations formed during pregnancy also were associated with the presence of extremely divergent sex-typed play patterns at 28 months with stronger results being found when the children played by themselves. These play patterns reflected a greater imbalance in the expression of same-sex- and cross-sex-typed play than is typical, with play being skewed in either a same-sex typed or a cross-sex-typed direction. Finally, qualitative analyses illustrate the complexity of the relationship between attachment, maternal gender representations and sex-typed play. Two cases are discussed which document how cross-sex-stereotypic play was adopted by two children to repair troubled attachment relationships with their mothers. In each case, the child's play shifts from being predominantly same-sex-typed when playing alone to being predominantly cross-sex-typed when engaged in play with the mother.

## ACKNOWLEDGMENTS

This work would not have been possible without the significant support of Dr. Arietta Slade who, as my chair, suffered through many formulations of this project. Her feedback always brought intellectual clarity and clinical sensitivity to the material when it was most needed. Over the years in graduate classes and in work on the Pregnancy Project, Arietta has become a true mentor and I have developed great respect for her work. Furthermore, without access to her Pregnancy Project data, it would not have been possible to undertake a study of this depth, and for that I am very grateful. As is no doubt evident, this work has been significantly influenced by the work of Dr. Susan Coates. Few individuals bring the kind of analysis, breadth, and intellectual excitement to their work that Susan consistently contributes to any project in which she is involved. I have been influenced not only by her thinking, but by the profound respect, integrity, and commitment she brings to all aspects of her work with others.

I would like to thank Dr. Steven Tuber who agreed to become a committee member when this project was already underway. His feedback served to clarify important aspects of this work for which I am grateful. I also want to thank my readers, Dr. Paul Wachtel and Dr. Laurence Gould, who have also been my teachers and from whom I have learned a great deal about psychotherapy and the field of psychology.

In addition, I wish to thank Dr. Mark Glassman for his statistical consultation and valuable input in helping me to translate my understanding of the relationship between maternal gender representation and sex-typed play into statistical terms.

I am grateful to my coders, Jennifer Gerber and Dr. Jeannette Maluf, for their many hours of coding, their important feedback, and their patience during

the process of refining the two coding systems developed for this study. I am especially grateful to Jeannette Maluf, who as a sister-in-law provided unconditional support and love, and many hours of enjoyable diversions when they were most needed. As a psychologist, she provided invaluable feedback that immeasurably improved the sex-typed play coding system and manual used in this study. And finally, as a coder she provided a keen eye and high level of frustration tolerance -- essential requirements when coding children's play. I also wish to thank Annelie Hartmann for her help with the play coding and her willingness to share her knowledge about coding children's play.

I would also like to acknowledge my parents who instilled in me a love of learning and who, along with my in-laws, my sister-in-laws, and my niece, provided tremendous support and encouragement along with many hours of babysitting.

Most importantly, I want thank my husband, Edward Maluf, without whom this work truly never would have been completed. His love and encouragement, as always, sustained me throughout this process. He reminded me not only that there was a life outside of this project, but also that there was a project that needed to be completed. His editorial comments on countless drafts have made this a better, more coherent thesis, and his willingness to try to sleep through the grating sound of the printer late at night makes him a saint in my eyes.

Finally, I wish to thank my children, Nicholas and Sofia, who gave up many precious hours with Mommy for this work to be completed. Their delighted cries when I would finish working and the images of my daughter working at her 'computer' "just like Mommy" will always be a part of this work in my mind.

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## INTRODUCTION

Sugar and spice and everything nice, that's what little girls are made of. Snakes and snails and puppy dog tails, that's what little boys are made of.

Children's Nursery Rhyme

Gender is a powerful construct that affects multiple aspects of people's lives. While considerable debate has arisen over the years concerning the extent to which gender differences are innate or determined by societal forces, there is little argument that different interests, abilities and characteristics are ascribed to boys and girls. Given the primacy of gender in various aspects of human experience, it is not surprising that prospective parents give some thought to the issue of gender -- just as they envisage many other aspects of life with their children after birth. While many parents alternatively imagine what it would be like to have a boy and what it would be like to have a girl, without necessarily developing a preference, others develop strong feelings, a firm preference, and even rigid fantasies about the gender of their children.

Unfortunately, there is little research which has examined the representations women develop of their children with respect to gender during pregnancy. Consequently, little is known about the prevalence, diversity or complexity of these representations, or whether they affect their children's subsequent experience of their own gender. Although considerable research has been conducted on parental gender preference, these findings tell us nothing about the more interesting questions of the origins or impact of women's overall representations of gender. At a period in our history when gender roles have undergone extensive changes, it is important to know what factors influence

women's representations of gender and whether or not they, in turn, have the power to affect their children's subsequent gender-role development.

The central aim of this study will be to examine how a woman's representation of her early attachment experiences affect the experience of her own child with respect to gender, and whether or not her representations of gender formed during pregnancy affect her child's subsequent gender-role development. Several related domains of the literature will be reviewed in order to investigate these processes: women's overall representations of their babies in utero and postpartum, women's representations of their early attachment experiences and their internal working models of their children as addressed in the attachment literature, women's specific prenatal gender representations, the impact of maternal representations on the child, typical and atypical gender-role development, and the development of sex-typed play.

## CHAPTER ONE

### LITERATURE REVIEW

#### Maternal Representations of the Child

Maternal prenatal representations of gender form one aspect of a mother's overall representation of her child. Hence, the growing body of research on women's overall representations of their children may shed some light on the development and impact of a mother's specific representation of gender with regard to her unborn baby. Recent research in the area of maternal representations has grown out of the awareness that a mother's subjective experience and internal representation of her child can have a significant impact on the mother-child relationship and on the child's own experience of himself or herself. Moreover, many writers have indicated that a mother's representation of her child in and of itself is substantially affected by the mother's own history and development (Cramer & Stern, 1988; Lieberman & Pawl, 1993; Stern, 1995). This work has resulted largely from Fraiberg's pioneering contributions to the study of infant-parent relationships. Her work elegantly documents how a mother's inability to address the emotionally painful aspects of her childhood affects how she experiences and responds to her own child, alternately identifying with her child as the representation of her own unmet needs or with the aggressors from her past (Fraiberg, Adelson & Shapiro, 1975).

#### The Development and Stability of Maternal Representations of the Child

As Fraiberg's work implies, maternal representations of the child have a long history prior to the baby's birth. Often, mothers' representations of their children incorporate aspects of their childhood or adolescent fantasies of

becoming a mother; they also may reflect both conscious and unconscious identifications and desires (Benedek, 1959; Bibring, 1961; Lebovici, 1988; Stern, 1995). Others have noted the role of projection and projective identification in the formation of these representations, again indicating the influence of factors present long before the birth of the baby (Kaye, 1980; Zeanah & Anders, 1987).

At approximately the fourth month of pregnancy there is a notable increase in the richness and specificity of a woman's representation of her baby (Stern, 1995). This development occurs at about the same time that the baby becomes more real to the mother, typically after she has begun to feel the baby moving, has "seen" it during a sonogram, or has heard its heartbeat. This is a period when the chief psychological task for the mother involves acknowledging and coming to terms with her baby's separateness (Bibring, 1961). At around the seventh month of pregnancy, women's fantasies and representations of their babies become less detailed. Stern argues that this reduction in fantasy helps the mother connect to the real baby after birth and protects her from too great a disparity between the real baby and a "too specifically represented baby" (Stern, 1995, p. 23).

Following birth, women's representations of their babies again flourish. Specific representations developed prenatally return but ideally become transformed in response to the mother's experience with the "real baby" and her own development as a mother (Stern, 1995). Similarly, many writers have stressed the importance of a mother's ability to maintain flexible representations of her baby (Stern, 1995, Ammaniti, 1994; Slade & Cohen, 1996). When a woman's representations are not open or amenable to alteration, it is the mother's personal fantasies, rather than the realities of the baby, that become central in the mother-child relationship (Ammaniti, 1994). Still, the tendency to attribute

characteristics and motivations to the infant is strong. In particular, Zeanah and Anders (1987) note that:

the combination of ambiguous nonverbal behavior in the context of an emotionally charged relationship could lead parents to attribute a variety of characteristics and motives to their young infants. These attributions serve to elaborate the infant's personality and motives in the eyes of his or her parents. They may be positive or negative, fluid or fixed, dispositional or situational, but they are quite often richly detailed. (p. 242)

While Stern argues that ideally maternal prenatal representations of the child are revised following birth to incorporate aspects of the mother's actual experiences with her baby, there is a growing research base that indicates that women's representations of their babies are fairly stable both pre- and post-natally (Condon & Dunn, 1988; Fava Vizziello, et al., 1993; Zeanah & Anders, 1987; Zeanah, et al., 1987; Zeanah, et al., 1985). Various studies have found that prenatal maternal representations of the fetus are predictive of maternal perceptions of their infants in terms of temperament and mood (Zeanah, et al., 1985; Zeanah, et al., 1987; Zeanah & Anders, 1987). In addition, Zeanah and his colleagues have reported striking similarities between women's pre- and post-natal descriptions of their babies' personalities (Zeanah, et al., 1985; Zeanah & Anders, 1987). Other studies reporting stability in the thematic content of women's representations of their babies from pregnancy to the first year of life found that these themes were present in the women's representations of their experiences with their own mothers as well (Fava Vizziello, et al., 1993; Slade & Aber, 1986; Slade & Cohen, 1996). These findings again point to the impact of a woman's own past on her representation and experience of her baby.

Furthermore, Condon & Dunn (1988) have found that there is a moderate association between prenatal feelings for the baby and mothers' impressions of

their babies following birth. They also report that mothers who were clearly attached to the "fantasy baby" during pregnancy transferred this attachment to the real baby after birth. Moreover, those with little or no prenatal attachment did not develop feelings of attachment soon after birth, indicating the importance of both prenatal representations and attachment to the developing parent-child relationship. Finally, they found that mothers felt more positively about their babies at birth when the "fantasy baby" was relatively congruent with the "reality baby" regarding such variables as sex, appearance, and temperament.

This body of research clearly indicates that lasting maternal representations of the child are formed prenatally, and, furthermore illustrates that these representations are only partially transformed following the birth of the baby (Zeanah, et al., 1987; Zeanah & Anders, 1987). These findings that prenatal representations can affect a mother's experience of her child even after the child is born have profound implications for the parent-child relationship and decidedly attest to the on-going power of the maternal representational world.

### Internal Working Models

Researchers studying maternal representations of the child have increasingly turned to Bowlby's work on internal working models (Bowlby, 1969/1982, 1973, 1980) as a means of better understanding these representations (Ammaniti, 1994; Ammaniti, et al., 1992; Benoit, et al., 1997; Benoit, Parker & Zeanah, 1997; Slade & Aber, 1986; Slade & Cohen, 1996; Slade, et al., 1997; Zeanah & Barton, 1989; Zeanah & Benoit, 1995; Zeanah, et al., 1995). Internal working models are internal representations of self, other, and relationships that develop out of an individual's earliest experiences with key attachment figures (e.g., mother, father, caretaker). They also act as a lens through which subsequent relationships and attachment-related experiences are understood,

responded to, and evaluated. Internal working models are quite powerful, often operating out of awareness. They filter information taken in from the world, and determine the affects, behavior or memories that can be tolerated and allowed into awareness.

If internal working models of attachment affect fundamental aspects of one's relationships with others as Bowlby (1969) hypothesized, it should be expected that an individual's internal working model of attachment would have a profound effect on the development of the specific internal working models one constructs of others in new relationships -- including the internal working models mothers develop of their children. As a result, any investigation of maternal representations of the child will likely benefit from an examination of mothers' internal working models of attachment as well.

#### Internal Working Models of Attachment and the AAI

Mary Main and her colleagues developed the Adult Attachment Interview, or AAI, (George, Kaplan & Main, 1985) in order to study attachment at the level of representation and, specifically, to study adult attachment. Since its development, the AAI has become a widely used means of assessing adults' internal working models of attachment (Main, Kaplan & Cassidy, 1985); its reliability and discriminant validity has been well established (Bakermans-Kranenburg & van IJzendoorn, 1993; Crowell, et al., 1996; Sagi, et al., 1994). It also has served as a model for other interviews developed to study representational processes, in particular parental representations of the child and the care-giving relationship (Aber, et al., 1985; Ammaniti, et al., 1992; Ammaniti, 1994; Benoit, Parker & Zeanah, 1997; George & Solomon, 1996; Slade & Cohen, 1996; Slade, et al., 1987; Slade et al., 1997; Zeanah, et al., 1995).

Research with the AAI has found that adults' internal working models of attachment affect subsequent relationships with others, just as Bowlby (1969) proposed. Most notably, intergenerational studies of attachment repeatedly have found a significant concordance between mothers' internal working models of attachment and child attachment status (Benoit & Parker, 1994; Fonagy, et al., 1993; Fonagy, Steele, & Steele, 1991; Main & Goldwyn, in press; Main, Kaplan & Cassidy, 1985; Steele, Steele, & Fonagy, 1996; Zeanah, et al., 1993; see van IJzendoorn, 1995 for a meta-analysis of 18 samples and van IJzendoorn, 1992 for a brief review). That this concordance is driven by the mothers' internal working models of attachment and not by other factors is supported by several studies which assess adult attachment prenatally, indicating the power of internal working models of attachment to affect the parent-child relationship prior to the child's birth (Benoit & Parker, 1994; Fonagy, et al., 1993; Fonagy, Steele, & Steele, 1991; Steele, Steele, & Fonagy, 1996; Zeanah, et al., 1993).

The AAI is a semi-structured interview in which individuals are asked to describe their relationships with key attachment figures. The interview probes first for adjectives that describe these relationships, and later for episodic memories that support these general descriptions. While the AAI explores in great detail the individual's attachment history and early experiences with respect to separation, loss, and rejection, the presence or absence of good early attachment experiences does not de facto determine adult attachment status. Rather, it is the individual's overall understanding of these early experiences, their impact, and the individual's current state of mind with respect to attachment that determine attachment classification. In short, it is the individual's representation of his or her attachment history, rather than the details of the history itself, that are essential to classification. To assess this, great detail is paid to the structure of the individual's narrative and thought as reflected in

syntax, the overall coherence of the narrative, the degree to which memories support or contradict descriptions of early relationships, and the overall feeling expressed regarding their attachment history (e.g., is the individual inappropriately angry, overly analytical, or dismissing of the importance of early attachment experiences).

Main found that individuals differed significantly in their ability to report on their early attachment histories and has described three main adult attachment classifications: Secure/Autonomous (F), Dismissing (D) and Preoccupied/Enmeshed (E). Both the dismissing and preoccupied classifications are thought to reflect insecure attachment (Main & Goldwyn, 1988). Two additional categories subsequently have been identified, both also considered insecure classifications: Unresolved With Respect To Trauma (U) (Main & Goldwyn, 1988; Main & Hesse, 1990) and what is currently referred to as Cannot Classify (CC) (Hesse, 1996). While research using the unresolved category has been ongoing for some time, the cannot classify category and not longer represents merely a category for unscorable interviews.

Briefly, Secure adults value attachment and report that early attachment relationships and experiences were important influences in their development. Their representations of these experiences are not cut-off, idealized, or stereotypic. Rather, secure individuals discuss these experiences with objectivity and without inappropriate expressions of anger. Their relationships with others are more likely to be characterized by a give-and-take that is responsive to the individuals with whom they are involved. Finally, secure adults describe their attachment history in a coherent fashion. They do not contradict themselves, their narratives are relatively straight forward and easy to follow, and the reader is likely to agree with the subject's assessment of his or her overall experience.

Dismissing adults, however, devalue the importance of their early attachment-related experiences and relationships. Instead, they stress their independence and lack of need for others. They derogate key attachment figures and are not able to respond to others with objectivity. Their representations of attachment are sparse, poorly elaborated, and often idealized. Moreover, dismissing adults frequently are unable to provide memories that support their descriptions of their early attachment relationships, or the memories that are elicited sharply contradict their portrayal of these early relationships.

Preoccupied adults are extremely absorbed and preoccupied by their relationships with attachment figures and by their attachment history to the extent that they have difficulty "*not* attending to these experiences or functioning separately from them" (Slade & Aber, 1992, p. 163, italics in the original). Typically, preoccupied individuals recall old wounds as if they were recent. They are unable to respond to others freely or objectively, and are unable to see their own role in causing or creating various difficulties. In addition, preoccupied individuals are often angry and become easily overwhelmed when discussing attachment-related experiences. Alternatively, their representations of these experiences may seem unconvincingly analytical. Finally, their narrative is frequently incoherent, confusing, and hard to follow. The lack of coherence is reflected in numerous contradictions and also in intrusions in their narrative that reflect the degree to which these individuals remain preoccupied by their early attachment experiences.

Adults who are classified as Unresolved are individuals who have experienced the loss of an attachment figure or other significant trauma early in life, who have not fully mourned their loss or resolved their trauma. Unresolved individuals appear as if they live in the past, responding to the loss or trauma as if it had occurred recently. Their narratives become disorganized around issues

of the loss or trauma and frequently reflect specific lapses in reasoning around these issues (e.g., expressing the belief that a person who has died is both alive and not alive). In addition, unresolved individuals may appear disoriented or fearful in recalling or addressing aspects of their attachment history. Other aspects of their interviews, however, may appear more coherent and may seem similar to the narratives of secure, dismissing or preoccupied individuals. As a result, individuals receiving a classification of unresolved, also receive a second, best-fitting classification of secure, dismissing, or preoccupied.

Finally, individuals placed in the Cannot Classify category do not appear to have developed any one stance or response to attachment-related material. They may switch abruptly from what appears to be a dismissing stance to a suddenly preoccupied stance, or their narrative may reflect distinctly different responses to different attachment figures or experiences. Extreme levels of contradiction may be present throughout the interview. This category is rare, particularly in normal samples. Research is emerging reflecting a relationship between the cannot classify category and various forms of severe psychopathology and/or trauma (Hesse, 1996).

The three main adult attachment classifications (Secure, Dismissing, and Preoccupied) reflect distinct, organized styles of regulating affect, responding to attachment-related phenomenon, and making sense of and maintaining access to memories of early attachment-related experiences. Securely attached adults manifest a flexibility that displays itself in a degree of openness and access to childhood experiences and feelings, and an ability to recognize and integrate both negative and positive affects. Dismissing individuals avoid or exclude information that would trigger feelings of attachment; they minimize or distance themselves from negative affect, and work to maintain an idealized view of their relationships. Preoccupied adults, however, are flooded by memories and

feelings related to attachment. Their affect-regulation style is one of maximization, particularly of negative affect (Cassidy, 1994; Cassidy & Kobak, 1988; Kobak, 1987; Main & Goldwyn, in press; Slade & Aber, 1992).

While the three main adult attachment classifications are thought to reflect generally stable, organized strategies of responding to attachment-related phenomenon, in contrast, the two remaining classifications, Unresolved and Cannot Classify, reflect the lack of any sustainable, organized response to attachment-related material. In the Unresolved category, momentary lapses in reasoning and responses to attachment-related material occur around discussions of loss or traumatic experiences. Outside of these lapses, however, unresolved individuals may appear to fit one of the three main attachment classifications (Main & Goldwyn, 1988; Main & Hesse, 1990). In comparison, the Cannot Classify category reflects the lack of any single state of mind with respect to attachment. This may be reflected in different attachment styles displayed toward different individuals or in extreme levels of contradiction and incoherence throughout the interview. Such an absence of any organized response to attachment-related phenomenon is thought to reflect a more global breakdown in the individual's attempts to respond to the emotional demands posed by the AAI, in contrast to the momentary lapses found in the unresolved category. Whereas the unresolved category reflects the inability to maintain a coherent, organized response to attachment-related material, the cannot classify category reflects the lack of any such organized strategy (Hesse, 1996).

The various adult attachment classifications described above ultimately reflect distinct styles of experiencing, representing, and being in relationships with others. While considerable effort in the past has been directed at determining the effect of mothers' internal working models of attachment specifically on the child's attachment to his or her mother (Benoit & Parker,

1994; Fonagy, et al., 1993; Fonagy, Steele, & Steele, 1991; Main & Goldwyn, in press; Main, Kaplan & Cassidy, 1985; Steele, Steele, & Fonagy, 1996; Zeanah, et al., 1993; see van IJzendoorn, 1995 for a meta-analysis of 18 samples and van IJzendoorn, 1992 for a brief review), recent research has begun to study the impact of internal working models of attachment on actual maternal representations of the child (Aber, et al., 1985; Ammaniti, 1994; Ammaniti, et al., 1992; Benoit, Parker & Zeanah, 1997; George & Solomon, 1996; Slade & Aber, 1986; Slade & Cohen, 1996; Slade, et al., 1987; Slade, et al., 1997; Zeanah, et al., 1995). This research is driven in part by the desire to determine whether maternal representations of the child (often called "internal working models of the child") play a role in the intergenerational transmission of attachment patterns and in part by the presumption that one's internal working model of attachment affects not only one's behavior in new relationships but also the internal working models one constructs of these individuals.

#### The Contributions of Internal Working Models of Attachment to Maternal Representations of the Child

If internal working models of attachment affect women's representations of their children, we would expect these representations to have similar structural characteristics (in terms of coherence, flexibility, openness, and affect-regulation strategies, etc.) as those which characterize their internal working models of attachment. In fact, preliminary research by several groups studying maternal representations of the child (e.g., Slade and Aber using the Parent Development Interview and the Pregnancy Interview, Zeanah and Benoit using the Internal Working Model of the Child Interview, George and Solomon assessing mental representations of the care-giving system, and Ammaniti using the IRMAG and other interviews) have begun to find a relationship between mothers' internal

working models of attachment and their internal working models of their children (Aber, et al., 1985; Ammaniti, 1994; Ammaniti, et al., 1992; Benoit, Parker & Zeanah, 1997; George & Solomon, 1996; Slade & Aber, 1986; Slade & Cohen, 1996; Slade, et al., 1987; Slade, et al., 1997; Zeanah, et al., 1995).

Slade and Aber's (1986) descriptive analysis of mothers' representations of their babies using the Parent Development Interview (Aber, et al., 1985) found that secure mothers were generally coherent in their descriptions of their relationships with their children. Additionally, secure mothers acknowledged a wide range of negative and positive affects with respect to their children. In a later study using the Pregnancy Interview (Slade, et al., 1987) and the Parent Development Interview (Aber, et al., 1985), Slade and Cohen (1996) found that the structural qualities of women's representations of their babies during pregnancy and at 10 months were remarkably similar to that of their descriptions of their early attachment histories on the AAI in terms of coherence, flexibility, and the modulation of both positive and negative affect. They also found that the quality and content of the women's representations of their babies differed on the basis of attachment classification. Specifically, in analyzing the interviews of three women with distinct attachment classifications they found that the secure woman's representations of her baby were fairly free and undistorted. In contrast, the two women classified as dismissing and preoccupied had developed very rigid and fixed representations of their babies. Additionally, the insecurely attached women had concrete expectations of their babies that included specific gender preferences during pregnancy while the securely attached woman expressed no gender preference at all.

Interestingly, Slade and Cohen (1996) also found that regardless of attachment classification, themes from each subject's representation of their early attachment relationships with their mothers were repeated in their representations

of their babies. However, the repetition of these themes dominated the representations the two insecurely attached women formed of their babies -- so much so that Slade and Cohen conclude that the insecurely attached women were unable to experience their babies "outside the filter of their own representation of childhood experience" (p. 27). Furthermore, these two women largely remained unaware of the influence of these early experiences on their relationships with their babies. In contrast, the securely attached woman highlighted in this paper was more aware of the influence of her past on her relationship with her child, and these themes did not dominate her representation of her child to the degree that occurred with two insecurely attached women. Furthermore, the securely attached subject generally was able to modulate the influence of these themes in her relationship with her baby. Similar findings also have been reported by Ammaniti (1994) in his qualitative analysis of secure and insecure women's representations of their children from pregnancy through one year.

In addition, researchers have begun to examine empirically the relationship between women's overall representations of attachment and their representations of their children. Zeanah and Benoit recently developed a classification system for parents' internal working models of the child that is analogous to Main's adult attachment classifications (Benoit, et al., 1997; Benoit, Parker & Zeanah, 1997; Zeanah & Benoit, 1995; Zeanah, et al., 1995). Their work has been guided in particular by the theory that parental representations of the child will be influenced by the parents' own internal working models of attachment. In this system, mothers' representations of their children are classified as "balanced," "disengaged," or "distorted," corresponding respectively to the AAI classifications of secure, dismissing, and preoccupied. Using these classifications, Benoit, Parker & Zeanah (1997) found that women's representations of their children are stable from pregnancy to one year in 80% of

cases. Preliminary findings also indicate a concordance between these representations and mothers' internal working models of attachment (Zeanah, et al., 1991, cited in Slade & Aber, 1992). Furthermore, Zeanah, et al. (1995) have found that mother's representations of the child are concordant with their infants' attachment classifications, implying a link between mothers' representations of their children and how they respond to their children with respect to attachment. Benoit, Zeanah and colleagues have noted the similarity between adult working models of attachment and their working models of the child and express the need for future research to examine the relationship between these two representations to determine whether the AAI and the WMCI are measuring the same or merely related constructs (Benoit, Parker & Zeanah, 1997; Zeanah, et al., 1995).

Other research by George and Solomon (1996) has found that a mother's internal working model of attachment was related to how she thought about herself and her child in the context of the caregiving relationship. In addition, they found that a mother's representation of herself and her child in the context of the caregiving relationship also was related to the child's own attachment classification. Most recently, Slade, et al.'s (1997) findings provide further evidence of the impact of internal working models of attachment on maternal representations of their children. They found that AAI classifications significantly predicted the level of joy/pleasure, the degree of coherence, and the level of anger expressed in mothers' representations of their children. Secure mothers represented their children more positively, more coherently, and were better able to acknowledge anger in the relationship. Moreover, these acknowledgments did not detract from their experience of joy and pleasure in their relationship with their children. Women's expressions of anger in their representations of their children also were predicted differentially by the two

insecure attachment classifications, with dismissing mothers expressing the highest level of anger in the relationship and preoccupied mothers the least.

Clearly, the above research indicates that there are not only theoretical but also empirical links between mothers' internal working models of attachment and their representations of their children. Furthermore, the evidence indicates that these links exist not only between adult attachment style and mothers' overall representations of their children, as Benoit and Zeanah's work shows, but also between mothers' attachment style and specific aspects of their representations of their children, as demonstrated by Slade's and Ammaniti's separate findings. That maternal attachment style has been shown to affect maternal representations of the experience of anger, joy and pleasure in a mother's relationship with her child, raises the interesting question as to whether maternal attachment style may also affect other significant elements of a mother's representation of her child -- elements like her representation of gender with respect to her child.

#### Internal Working Models and Maternal Representations of Gender

A mother's representation of gender is one aspect of her overall representation of her child, and as a result, her representation of gender with respect to her child may well be affected and in part determined by her internal working model of attachment. While not all elements of a woman's representation of her child are likely to be as profoundly affected by her internal working model of attachment as others, it is proposed here that one's experience of gender and one's experience and representation of gender with respect to one's own child are likely to have profound links to one's early attachment experiences. In part this is the case because gender is a construct that acquires its meaning in a social or relational context, and as such is primarily experienced in relationship to others as gendered beings. Furthermore, significant gains are

made in children's understanding of gender during the period of development when children's most significant relationships revolve around the central attachment figures in their lives. (Children learn to distinguish between male and female voices and faces well before one year of age, make significant gains in their awareness of gender and in the development of their own gender identity between the ages of two and three, and acquire a greater understanding of gender constancy and a greater awareness of sex-role stereotypes between the ages of three and seven, see Fagot & Leinbach, 1993; Huston, 1983) Consequently, it is argued here that gender is a construct that is first made real in the context of our relationships and early experiences with key attachment figures. As a result, it is further argued that one's experience, understanding, and valuation of gender is likely to be intricately related to one's experience of one's early relationships with attachment figures and in this way gender may become caught up in the overall attachment system. In turn, it is further expected that one's experience of gender with respect to one's own child will bear the echoes to some degree of important elements of one's early attachment-related experiences.

Specifically, with respect to one of the central concerns of the present study, if internal working models of attachment do indeed influence maternal representations of gender, we would expect that this influence would be reflected in the degree to which women allow themselves to think about, anticipate and respond to the issue of gender with respect to their child. In particular it should be reflected in a similar flexibility, coherence, distortion, richness of perception, and integration of positive and negative affect as is present in their representation of their early attachment experiences. Thus, we would expect secure mothers to have developed fairly flexible representations of their children's gender; they are likely to have given the matter some thought and are more likely to address any anxiety or concerns about raising a child of a specific gender in an integrated and

coherent fashion. In contrast, we would expect dismissing mothers to seem cut-off from contemplating issues of gender during pregnancy; they would be likely to minimize its importance or may even appear angry about the importance others place on gender. While their representations of gender are expected to be vague, their stance toward gender is likely to be rigid in the degree to which they exclude any exploration of this factor in their representations of their children. Finally, we would expect preoccupied mothers to be overly concerned or preoccupied by issues of gender. This preoccupation might take the form of developing rigid, over-elaborated, or perhaps bizarre representations of their children's gender. They are likely to be flooded by their concerns, perhaps expressing extreme distress about raising a child of a given gender or becoming preoccupied by the impact of gender on their children's lives.

#### Maternal Representations of Gender

As noted in the introduction, only limited research has been conducted on women's representations of gender during pregnancy. Hence, little is known about the prevalence, complexity, or influences on women's prenatal gender representations or the effect of these representations on their children. Furthermore, despite evidence that gender looms large in the minds of many prospective parents, few researchers have explored how women incorporate gender into their fantasies and representations of their babies.

#### Parental Gender Preference

The majority of research exploring women's feelings about gender prenatally has focused narrowly on parents' prenatal gender preferences; that is, whether parents express a preference for having a boy or a girl, or express no preference at all. Earlier studies generally report greater parental preference for

boys, particularly among first-time parents (Pharis & Manosevitz, 1980; Williamson, 1983; Dixon & Levy, 1985) with Williamson (1976) reporting in a review of the sex preference literature that overall, American men indicate a moderate preference for boys while American women show a mild preference for boys. Recent research has shown some changes in this trend with several studies indicating a significant increase in the number of individuals who report no preference at all regarding the sex of their baby during pregnancy (Pharis & Manosevitz, 1980; Steinbacher & Gilroy, 1985; Teichman, Rabinovitz & Rabinovitz, 1992; Uddenberg, Almgren & Nilsson, 1971). In addition, Pooler (1991) reported data that reflect a greater preference for girls among college-educated women. It also has been shown that parents' strongest preferences are for having children of both genders, with the sex of their current child or children determining their preference for the gender of the expected child -- particularly when this child is expected to be their last (Teichman, Rabinovitz & Rabinovitz, 1992; Uddenberg, Almgren & Nilsson, 1971; Williamson, 1983). Another body of research has sought to explore the impact of these preferences, finding that a lack of congruence between parental gender preference and the gender of the child has a negative effect on parent-child relations, perceived problems in the child, and the amount of time spent in play with the child (Stattin & Klackenber-Larsson, 1991). Furthermore, parental gender preference has also been implicated in the subsequent development of various emotional problems in children (Sloman, 1948; Zucker, Bradley, & Ipp, 1993).

### Maternal Prenatal Representations of Gender

Gender preference *per se*, however, makes up only one aspect, and a very narrow one at that, of a woman's overall representation of gender. Yet research on other aspects of women's representations of gender is extremely limited. This

research is predominantly descriptive, identifying themes in women's narratives about gender or reporting interesting off-hand comments made by subjects when gender has not been a specific focus of study. Although not specifically addressing women's representations of gender, research on prenatal sex determination and testing, and research on maternal-fetal attachment has shed some light on this area of inquiry.

Given the centrality of gender in our lives, it is not surprising that the existing literature indicates that the majority of women respond to their fetus with reference to gender (Condon & Dunn, 1988; Stainton, 1985). In fact, Condon & Dunn (1988) found that the majority of women in their study assigned a gender to their babies in the absence of any knowledge of fetal sex. Other research has reported that some women even distinguish between their babies' presumed sex and their actual preference regarding the sex of their babies (Stainton, 1985). In addition, some women ascribe certain types of fetal movement to a specific gender, providing further evidence of women's capacity to engender the representations of their babies in utero (Stainton, 1985).

Because the technology of prenatal sex determination is readily available, knowledge of fetal sex may become central in some women's prenatal representations. Yet, despite evidence that there is a strong tendency to respond to one's baby during pregnancy in gendered terms, there is also evidence that women respond to information regarding fetal sex very differently, with many responding with considerable anxiety or ambivalence about obtaining this information (Silvestre & Fresco, 1980; Winestine, 1989). Winestine (1989) argues that ambivalence about determining fetal sex may reflect a woman's discomfort about prematurely narrowing the scope of her fantasies. For others, it may reflect concerns about possible disappointment regarding fetal sex (Winestine, 1989). In a study focusing on the effects of amniocentesis, many

women when told the sex of their fetus expressed their anxiety by joking about the possibility of error, although none joked about the potential error regarding the other findings of the procedure (Silvestre & Fresco, 1980).

In contrast, Teichman, Rabinovitz & Rabinovitz (1992) found that, overall, women did not respond significantly to information regarding fetal sex. However, this was not the case among women for whom gender was an important factor; these women reacted with significant changes in levels of anxiety or depression. Specifically, they found decreasing levels of depression among first time mothers who had specific gender preferences, whether or not fetal sex was congruent with those preferences. The authors felt that this group of women welcomed any information regarding gender and suggested that this information appeared to help them prepare for life with their gendered child. Information regarding fetal sex led to increased levels of depression, however, among women with a male fetus who also had two boys and a stated preference for a girl. The authors suggest that gender preference might be a more potent factor for this group, speculating that many of these women may not intend to have more children and as a result must come to terms with the fact that they may never have a daughter as desired.

Researchers have noted that knowledge of fetal gender also functions to make the baby seem more real to mothers during pregnancy (Rothman, 1986; Winestine, 1989). Interesting differences in maternal representations of gender have been noted between women choosing to know the sex of their child during pregnancy and those choosing not to know. Rothman (1986) found that women who knew the sex of their baby in utero tended to use more gender-typed descriptors to describe fetal movement, for example, using words like "strong" and "vigorous" to describe male fetal movement and phrases like "not violent" and "not energetic" for female fetal movement. In contrast, women who did not

know fetal sex used a range of "feminine" and "masculine" descriptors which they continued to use to describe their children after birth as well. These differences raise the question of how knowledge of fetal sex impacts a mother's representation of her baby and suggest interesting implications regarding how mothers translate their knowledge of fetal sex into different styles of relating to their babies. Interestingly, Grace (1984) found that prenatal knowledge of gender did not affect overall mother-infant interaction in the immediate postpartum period. Certainly, it may be that it is too soon to see the impact of maternal representations of gender in this short period of time.

Winestine (1989) found that women who wanted to know fetal sex tended to have more concrete fantasies about their babies, and generally seemed more invested in the baby than in the experience of being pregnant. They also focused on the practical aspects of knowing the gender of their baby during pregnancy, emphasizing, for example, how it would help them in buying clothes, decorating the nursery, and, in general, preparing for the baby. In contrast, women who did not want to know fetal sex preferred to maintain their fantasies about their babies undisturbed by any knowledge of fetal sex. They tended to have more amorphous fantasies and seemed to enjoy the experience of being pregnant itself. These women also expressed the concern that knowing the sex of the baby before birth would diminish the mystery of the experience. They also felt that they would be better able to deal with any disappointment regarding the actual sex of the baby after birth, when the baby's presence would mitigate any such feelings. Interestingly, Winestine also found that women who chose to know fetal sex stated a preference for a child of a particular gender 67% of the time. In contrast, women who did not want to know fetal sex stated a preference only 17% of the time.

Apparently, gender is a more significant factor in how some women think about, represent, and imagine their babies than it is for others. Furthermore, gender may trigger a variety of highly individual associations and identifications which may in turn affect how women respond to their children. Some interesting examples of this are found in case material presented by Winestine (1989). For several of her subjects, the preferred, fantasied, or known gender of their children contained a potentially reparative function, allowing them to work through or undo negative or difficult experiences in the past with individuals of that gender. One woman wanted a son as a replacement for her dead brother; learning that she would give birth to a boy allowed her finally to mourn this brother's death. For several other women, the desire to know fetal sex, together with a preference for having girls, reflected the wish to rework their individuation from their mothers.

While it remains unknown how the majority of women represent gender during their pregnancies, even the limited research on gender preference and women's prenatal representations of gender reflects the fact that women's representations of gender can be rich and varied. Furthermore, it also indicates that gender plays a much more salient role in some women's representations of their children than it does in others. This is congruent with Slade and Cohen's (1996) finding that two insecurely attached women had specific preferences regarding their children's gender during pregnancy while the securely attached woman described in this report did not. However, whether maternal attachment style plays a role in the variability of women's prenatal gender representations, or whether the apparent congruence between maternal attachment and gender preference noted in Slade and Cohen's (1996) report holds in a larger sample remain important questions to be answered. Furthermore, whether maternal prenatal gender representations have the power to directly affect their children's

subsequent experience of their own gender is a question research has yet to resolve. In order to investigate this last question, it is necessary to review the literature on the effects of maternal representations on the parent-child relationship and on the child's on-going development.

### The Impact of Maternal Gender Representations

That parents repeat experiences from their own past in their relationships with their children, and that the maternal representational world significantly affects the child's representational world, development, and sense of self, are central tenets in psychoanalytic notions of parenting and development and in the growing field of parent-infant psychotherapy (e.g., Anthony & Benedek, 1970; Benedek, 1959; Fraiberg, 1980; Lieberman & Pawl, 1993; Stern, 1995).

However, the application of these ideas with respect to maternal representations of gender is limited. Thus, it is not known whether maternal gender representations affect the child's experience of his or her own gender or gender-role development. Despite this, much can be learned about how maternal representations of gender may affect the child by exploring what is known about the impact of the overall maternal representational world on the child.

### The Impact of Maternal Representations on the Child's Development

Both qualitative research reviewed earlier (e.g., Slade & Aber, 1986; Slade & Cohen, 1996) and clinical case studies (e.g., Cramer & Stern, 1988; Fraiberg, 1980) repeatedly have documented the impact of the maternal representational world on the mother-child relationship and on the child's subsequent development and functioning. A growing body of research in the field of attachment has documented the effect of overall representations of attachment (Benoit & Parker, 1994; Fonagy, et al., 1993; Fonagy, Steele, &

Steele, 1991; Main & Goldwyn, in press; Main, Kaplan & Cassidy, 1985; Steele, Steele & Fonagy, 1996; Zeanah, et al., 1993; see van IJzendoorn, 1992 for a review of select studies), and maternal representations of the child (Benoit, Parker, & Zeanah, 1997; Zeanah, et al., 1995) on the child's subsequent attachment relationship to the parent. Additionally, Benoit, et al. (1997) report that mothers of infants with clinical problems were significantly more likely to have "distorted" or "disengaged" representations of their infants, indicating a significant relationship between mothers' representations of their children and the presence of emotional or relationship problems in infancy. These results, together with research reporting significant stability in maternal representations from pregnancy to one year (Benoit, Zeanah & Parker, 1997) suggest the possibility, at least in some cases, that the distorted or disengaged representations existed prior to the development of clinical problems in the child, and furthermore that they may have had a hand in the development of these problems.

Despite considerable documentation of the impact of maternal representations on the child's subsequent development, the specific factors involved in this process remain unclear. Researchers in the area of attachment seeking to explain the concordance between adult and child attachment have focused on the idea that a mother's overall representation of attachment affects her ability to respond sensitively to her infants' attachment needs and behavior. The infant, in turn, shapes his or her behavior accordingly, leading over time to a concordance between parent and child attachment status (Fonagy, et al., 1993; Fonagy, Steele, & Steele, 1991; Main & Goldwyn, 1995; Main, Kaplan & Cassidy, 1985; Steele, Steele, & Fonagy, 1993). Many mechanisms have been proposed as fundamental in this process, including the role of defenses (Fonagy, et al., 1993), the regulation of affect (Cassidy, 1994; Cassidy & Kobak, 1988;

Kobak, 1987; Kobak & Sceery, 1988), and the role of such cognitive processes as "metacognitive monitoring" (Main, 1991) and "reflective self-functioning" (Fonagy, et al., 1993; Fonagy, et al., 1991).

Stern's (1985) work in the area of attunement may also provide some insight into this process. Stern argues that selective attunement serves as a bridge between the maternal representational world and the child's subsequent behavior and own representational world. Stern writes:

[t]hrough the selective use of attunement, the parents' intersubjective responsivity acts as a template to shape and create corresponding intrapsychic experiences in the child. It is in this way that the parents' desires, fears, prohibitions, and fantasies contour the psychic experiences of the child. (Stern, 1985, pp. 207-208.)

When parental attunement to specific states, aspects of self experience or behavior is relatively selective, the child learns not only that a specific state, experience or behavior is of particular importance to the parent, but also that it may be a special, or perhaps only means of connecting with them (Stern, 1985).

Several studies have documented a link between maternal representations of attachment and maternal attunement, sensitivity, and behavior, providing general support for the ideas noted above (Crowell & Feldman, 1988, 1989, 1991; Haft & Slade, 1989). Slade et al.'s (1997) findings (discussed in part above) have shed further light on these processes by documenting an important link between adult attachment, maternal representations of the child, and positive/negative mothering behavior. Prior studies had focused only on the impact of maternal attachment style on parenting behavior and attunement, and not on mothers' actual representations of their children as a potential mediating variable in this process. In looking at all of these variables together, Slade and her colleagues found that maternal representations of the child, in particular the

mother's capacity to represent pleasure and joy in her relationship with her child, were significantly affected by maternal attachment style and in turn had a significant effect on parenting behavior. Furthermore, maternal representations of the child had a much more significant impact on actual parenting behavior than adult attachment style; thus, it appears that adult attachment impacts parenting behavior mostly in an indirect manner, through its direct effect on maternal representations of the child.

Slade's study clearly highlights the importance and power of maternal representations of the child (as opposed to mothers' working models of attachment) and is the first to establish a link to actual parenting behavior. As a result we are one step closer to understanding how maternal representations of the child directly impact the child and aspects of the child's on-going development. In addition, while this study focused on one particular aspect of mothers' representations of their children, it suggests the possibility that other aspects of mothers' representations might also be significant enough to affect maternal behavior in meaningful ways.

#### The Effect of Maternal Representations of Gender on the Child's Gender-Role Development

Given the growing body of research and clinical work documenting the effects of maternal representations cited above, one might well anticipate that maternal representations of gender could have a direct impact on the child's experience of himself (or herself) in particular with respect to gender. For example, mothers for whom gender is a particularly salient construct might create such a charged atmosphere around issues of gender that it begins to affect their behavior toward their children around issues of gender in many subtle and not so subtle ways. Such attunement to issues of gender may create a charged

atmosphere around gender so that it begins to affect the child's own experience of gender, including the child's feelings about him or herself as a boy or a girl and the child's subsequent gender-role development. Bergman (1982) proposes a similar view supported by clinical case material which illustrated how a mother's attitude toward her own femininity as well as her daughter's significantly affected her daughter's expression and experience of her own femininity (as well as the young girl's reaction to the discovery of sexual differences).

In order to better understand how maternal representations of gender might affect the child's own experience of self with respect to gender and to determine when these effects may first appear, it is necessary to examine the literature on gender identity and gender-role development.

### Gender Identity and Gender-Role Development

It is commonly acknowledged in most cultures that boys and girls are treated differently by parents and others from the moment of birth. Furthermore, they are expected to have, or at least to develop, distinct abilities, interests and characteristics easily identified along gender lines. Yet, there is considerable debate in the literature as to how children develop an identity as male or female, and how they learn to discriminate and identify with various "masculine" or "feminine" characteristics, behavior and interests.

Psychoanalytic thinkers have largely focused on the role of a child's identification with the same-sex parent (Person & Ovesey, 1983) and although several modern analytic theorists (e.g., Chodorow, 1978; Fast, 1984) have recently reworked significant aspects of Freud's (1925) long-standing theories of gender identity development, the focus on the role of identification and its affective significance have remained central in this approach. Social learning theorists have emphasized environmental and socialization factors, with the child

playing a largely passive role in this process (Mischel, 1966). In contrast, cognitive developmental theorists have focused on the child as an active agent attempting to make sense of the social world around them. They argue that as children develop cognitively, they develop the ability to identify themselves as male or female, which in turn leads them to value their own gender and to adopt gender-congruent preferences, attributes, peers, etc. (Kohlberg, 1966).

Information processing models of sex-role development (e.g., Martin & Halverson, 1981) have focused on the development of gender schemas which significantly influence the adoption of sex-role stereotypic characteristics and behavior. In Bem's (1981, 1993) gender-schema theory she proposes that sex-typing results from the child's readiness to make sense of the world by actively taking in and categorizing information into related classes, in particular with respect to gender. She further argues that the salience of this category for children stems from the prominence society places on the differences between the genders and that children develop gender schemas that largely derive from the sex-typed practices and beliefs of the society at large. Bem also stresses, however, that individuals vary considerably in the degree to which gender schemas become salient organizers of experience. As a result, highly sex-typed people will view most situations through what she has called the "lenses of gender," while those who are less sex-typed are more likely to reject these culturally derived gender schemas and may actively oppose the adoption of such gender scripts.

Multiple factors are involved in this complex process and considerable research is required to resolve these debates. However, despite differences in theory, it is commonly agreed that between ages two and three children make significant advances in their understanding of gender, in their ability to label themselves and others according to gender, and in the acquisition of sex-typed

preferences and gender roles (Huston, 1983; Huston, 1985; Leinbach & Fagot, 1986; Thompson, 1975). As early as 26 months, sex-typed toy preference, and the ability to label oneself and others by gender are commonly observed (Weinraub, 1984). In fact, preferences for sex-typed toys are established by two years of age in the majority of children (Fagot, 1978; Fein, et al., 1975; O'Brien & Huston, 1985; Perry, White & Perry, 1984; Weinraub, et al., 1984) while by age 3 the majority of children display an awareness of differences in adult sex-roles (Weinraub, et al., 1984).

Money and Ehrhardt (1972) have argued that the period between 18 and 36 months functions as the equivalent of a "sensitive" or "critical period" in the development of gender identity, with gender identity becoming fixed and difficult to alter after that age. However, a recent follow-up report of a seminal case involving sex-reassignment following accidental significant injury to a boy's penis at 7 months of age questions the validity of the notion of a critical period in the formation of gender identity (Diamond & Sigmundson, 1997). Research in this area has clearly distinguished the term *gender identity* which refers to one's awareness of oneself as male or female, from *gender role* which refers to the external characteristics, behavior, interests, and roles which society attributes to each gender and which are often seen as manifestations of one's gender identity (Money, 1973). The development of sex-typed preferences and the adoption of sex-role stereotypic behaviors are initial steps in the young child's gender-role development with rapid differentiation occurring in the sex-typed play and behavior of boys and girls between the ages of two and three. Interestingly, while biological factors, usually the presence of male or female genitalia, determine the assignment of sex and gender, this is one of the last concepts children acquire in their understanding of gender. Prior to that children's conceptualizations of gender largely center around the social markers of gender,

e.g., clothing, hair length, and sex-typed preferences, behavior and roles (Bem, 1989; Kohlberg, 1966).

The acquisition of gender-labels for others has been identified as a significant factor accelerating the development of sex-typed behavior, play, the preference for same-sex peers (Fagot, 1985; Fagot, Leinbach & Hagan, 1986) and knowledge of sex-role stereotypes (Fagot, Leinbach, & O'Boyle, 1992). Fagot argues that gender-labeling signals a change from the child's "perceptual discrimination and tacit knowledge" of gender to a "conscious awareness of the separate categories and the ability to use this information deliberately" (Fagot & Leinbach, 1993, p.212). Although there is considerable variability in the age that children develop gender-labels, by 26 months the majority accurately assign the appropriate gender label to adults 97% of the time and to children 50% of the time (Leinbach & Fagot, 1986).

#### Sex-Typed Play and Toy Preferences

Sex-typed play and toy preferences appear to be one of the earliest elements of gender-role behavior to emerge, pre-dating the acquisition of gender-labels (Fagot, Leinbach & Hagan, 1986; Fagot, Leinbach, & O'Boyle, 1992; Weinraub, et al., 1984) and self-categorization by gender (Weinraub, 1984). As noted above preferences for sex-typed toys are established by two years of age in the majority of children (Fagot, 1978; Fein, et al., 1975; O'Brien & Huston, 1985; Perry, White & Perry, 1984; Weinraub, et al., 1984). In fact, differences in sex-typed toy preferences have been found as early as 13 to 18 months (Caldera, Huston, & O'Brien, 1989; Goldberg & Lewis, 1969; Jacklin, Maccoby & Dick, 1973; Smith & Daghlish, 1977) with substantial differences appearing between 18 and 20 months of age (Fein, et al., 1975; O'Brien & Huston, 1985). As a result, sex-typed toy preference represents an interesting avenue for

examining early gender-role development in young children. In addition, by observing the play of young toddlers one is not bound by the linguistic limitations of these young subjects in assessing early gender-role development.

Typically, research on sex-typed play and toy preference has found that boys play more frequently with blocks, tools and transportation toys, manipulate objects more frequently, and are prone to more active play, including a greater preference for rough and tumble play; girls play more frequently with soft toys and dolls, dress-up, dance, and ask for help more frequently (DiPietro, 1981; Fagot, 1978; Fein, et al., 1975; Goldberg & Lewis, 1969; O'Brien & Huston, 1985; Perry, White & Perry, 1984; Weinraub, et al., 1984). Sex-typed preferences tend to increase with age for girls, but not for boys for whom sex-typed preferences, once established, remain at high levels across all ages (Blakemore, LaRue & Olejnik, 1979; O'Brien & Huston, 1985).

#### Biological Influences on Sex-Typed Play and Behavior

For some time there has been considerable debate in professional circles as well as in neighborhood playgrounds as to what extent differences between the genders are driven by nature and to what extent by nurture. And while a handful of innate differences do appear to exist, these do not appear to be strong enough to account for all of the differences attributed to gender, implying that "nurture" and the meaning ascribed to gender plays a significant role in this process (see Coates & Wolfe, 1995). For example, one of the areas where innate differences appears to exist is in the activity level of young boys. Boys have been found to be bolder and more aggressive than girls, to explore their environment more actively and to show higher levels of rough and tumble play (DiPietro, 1981). While this may explain some of the findings regarding sex-typed play (i.e., boys' greater manipulation of toys), it does not explain, in

general, the differences in toy preferences found in most studies of sex-typed play. Interestingly, Melissa Hines has reported a preference among female monkeys to play with soft bunnies, suggesting a biological element in the related preference for girls to play with soft toys (Hines, 1995). However, the application of these findings to humans must be made with caution.

Regarding innate differences, another line of research has focused on the effects of hormones on sex-typed behavior (for reviews of these studies in human and non-human populations see Ehrhardt & Meyer-Bahlburg, 1981; Hines, 1982; Quadagno, et al., 1977; Zucker & Bradley, 1995). A variety of reports cite changes in gender-role behavior in girls with congenital adrenal hyperplasia (CAH), a disorder that causes excessive levels of androgens prenatally, and in girls whose mothers received androgenic progestins during pregnancy. These girls have been reported to be labeled by themselves and others as tomboys, to prefer boys' activities, to like boys' toys and clothing and to show high levels of rough and tumble play (Ehrhardt & Baker, 1974; see also reviews by Hines, 1982 and Zucker & Bradley, 1995). However, a variety of other explanations also have been supplied to explain the "masculinization" of the behaviors of these girls, including socialization effects and the impact on parenting behavior resulting from the masculinization of the genitals at birth, calling into question any conclusion that increased levels of androgens are the sole cause of these findings (see Hines & Kaufman, 1994; Hines, 1982; Quadagno, et al., 1977; and Zucker & Bradley, 1995).

Recent studies have sought to control for some of these factors, in particular potential socialization effects caused by the relative degree of genital virilization in CAH girls and boys; however, these studies (conducted with children ages 3-8) do not adequately control for socialization factors linked to parental behavior (Berenbaum & Hines, 1992; Hines & Kaufman, 1994).

Furthermore, these studies have found mixed results linking CAH in boys and girls to toy preference, rough and tumble play and peer preference. For CAH girls they found increased preference for male-sex-typed toys and masculine peers but no difference in levels of rough and tumble play. Among CAH boys they found no effect for sex-typed toy and peer preference but reduced levels of rough and tumble play. Hines and her colleagues pose several possible explanations to explain these mixed results noting that the timing of hormone exposure at different stages of fetal development may impact various gender-role behaviors differently, that hormonal influences may be counteracted by socialization factors, and that hospitalization might also have an impact on the development of various gender-role behaviors. Clearly, the process is a complex one and the role of socialization factors cannot yet be ruled out.

#### Parental Influences on the Development of Sex-Typed Play

Again, while there is interesting evidence pointing to the influence of hormonal factors on play, toy preference, and gender-role behavior, it appears that this influence is not straight-forward and likely does not exist outside the influence of other factors. In fact, this makes sense given the growing understanding of how biological and environmental factors interact in complex ways in many aspects of human development. Evidence that the acquisition of gender labels accelerates the development of sex-typed behaviors and preferences noted above (Fagot, 1985; Fagot, Leinbach, & Hagan, 1986; Fagot, Leinbach and O'Brien, 1992) further indicates at the very least that factors outside hormonal influence are also involved in the acquisition and shaping of sex-typed behaviors and implies that these behaviors take on considerable meaning in our gender conscious world. In fact, in interpreting some contradictory results found by Fagot (1985) and Fagot, Leinbach, and Hagan

(1986) regarding the effect of gender labels on sex-typed toy preference, Fagot and her colleagues (1986) suggest that "in a strongly sex-typed environment knowledge of gender labels may strengthen children's preferences for same-sex toys or, more likely, their tendency to avoid the toys and activities of the opposite sex" (Fagot, Leinbach, & Hagan, 1986, p. 443).

Additional findings have been reported by Fagot that also indicate the importance of parental reactions in the development of sex-typed play and toy preferences. In one study, she found that parents responded more positively when their children engaged in same-sex behavior and play, and more negatively when engaged in cross-sex behavior and play (Fagot, 1978). Further exploring parental reactions to sex-typed behavior, Fagot & Leinbach, (1989) found that parents who reacted to their children's sex-typed behavior at 18 months with more positive or negative responses, had children who developed the ability to label gender earlier than children whose parents had not responded with such affect to sex-typed behavior. In addition, although no differences in sex-typed behavior were found at 18 months between the children who were to become "early" and "late labelers" at 27 months, early labelers played significantly more frequently with sex-typed toys and by 4 showed a significantly greater awareness of sex-role stereotypes than late labelers. Interestingly, it appeared to be the parents' *affective* attention to sex-typed play and behavior at an early age that was the significant factor as parents in the two groups did not differ in terms of their "instructional" behavior toward their children in response to sex-typed play. In addition, by 27 months parents in both groups were equally likely to give positive feedback to their children's sex-typed play, further indicating that it is the parent's affective attention to gender issues *at an age prior to the period when sex-typed differences become significant* that impacts the pace of the child's adoption of sex-typed play relative to their peers.

Focusing on the effect of mothers' attitudes and behaviors on the development of their children's early knowledge of gender, Fagot, Leinbach, & O'Boyle (1992) found that the mothers of early labelers of gender responded more positively to their children's sex-typed play, initiated sex-typed play more frequently with their children, initiated opposite-sex play less frequently with their sons than with their daughters, and displayed more traditional beliefs regarding sex-roles than did mothers whose children did not pass the gender-labeling test. They also reported that early labelers of gender displayed significantly more awareness of gender stereotypes (although stereotype knowledge at this age was not considered strong -- subjects ranged in age from 24 to 36 months of age, with early labelers correctly assigning gender-stereotyped items only 68% of the time).

These studies indicate the important role parents play in their children's development of sex-typed behaviors and in the acquisition of gender-based knowledge. Furthermore, these studies imply that this role appears to be a complex one. In fact, earlier research by Fagot (1978) suggests that parents are themselves not entirely aware of how they socialize their children with regard to gender. She found that although parents responded much more positively when their children engaged in same sex-typed behavior, the children's specific sex-typed behaviors did not correspond directly to their parents' stereotypes about male and female behavior. That is, while boys were found to manipulate objects more frequently than girls and girls were found to ask questions more frequently, these behaviors were not specifically labeled by their parents as particularly masculine or feminine behaviors. Fagot concludes that parents appear to respond differentially not to the complex behaviors often identified by parents or researchers as sex-role stereotypic, such as exploration (associated with boys) or

dependence on adults (associated with girls), but to the simpler precursors to these behaviors, such as manipulating objects and asking for help.

Fagot's research suggests that parental socialization of gender appears to be a very subtle and complex process, driven more by feelings, preferences and expectations that may operate largely out of awareness than by gender stereotypes per se. Fagot's findings also supply evidence that gender and 'gender-congruent' behavior are more important to some parents than they are to others and in fact she argues that "some children more than others are faced with a world in which gender information is a salient aspect of everyday life" (Fagot, Leinbach and O'Boyle, 1992, p. 229). Furthermore, the evidence indicates that parental attention to gender-congruent behavior among these families in turn leads to the earlier development of sex-typed play, toy preferences and gender constructs in their children. These findings are important in that they imply that parents' attitudes, feelings, and experiences with respect to gender, i.e., their representations of gender, may affect children's gender-role development as a result of the parents' heightened responsiveness to early sex-typed behavior.

With respect to the proposed study, it is expected that women who have developed rigid, highly elaborate representations of gender with respect to their children during pregnancy will express their concerns or preoccupations with gender in their relationships with their children in various ways that call attention to the issue of gender in the first two years of their children's life. Consequently, as anticipated by Fagot's research, it is expected that children whose parents developed rigid, over-elaborated representations of gender during pregnancy are likely to display significantly more sex-typed play than children whose parents developed more flexible representations of gender with regard to their children. Furthermore, it is expected that these differences are likely to appear sometime after 26 months of age, the age when the early acquisition of gender labels and

an increase in sex-typed play and behaviors have been found in children whose parents were more responsive to sex-typed play at 18 months (Fagot & Leinbach, 1989). As a result, this study will assess the prevalence of sex-typed play at 28 months, an age when differences in sex-typed play might be expected to emerge in response to maternal gender representations first formed during pregnancy.

### Disturbances in Gender Identity and Gender-Role Development

While the majority of research noted above has addressed the acquisition of gender congruent sex-typed behaviors, there is a large domain of the literature that addresses atypical outcomes with respect to gender-role and gender identity development (e.g., Coates, 1990; Green, 1987, 1974; Stoller, 1985, 1975, 1968; Zucker & Bradley, 1995). This literature largely examines the etiology and development of gender identity disorder (hereafter, GID) which is characterized by a marked wish to be the opposite gender, a strong dislike of one's own gender and an on-going, pervasive preference for cross-sex activities, peers, attire and role-playing. GID is a rare disorder which typically develops between the ages of two to four when gender identity is forming. As such, it can be thought of as an atypical outcome in the process of gender identity formation.

GID involves multiple factors that occur together during this sensitive period in the development of gender identity including an anxious/sensitive temperament, difficulties in affect regulation in both parent and child, significant levels of anxiety and depression in the child, significant parental psychopathology, and the presence of significant stress and trauma occurring during the child's first three years of life often leading to the derailment of the parent-child attachment relationship (for details see Coates, 1990; Coates, 1996; Coates, Friedman and Wolfe, 1991; Coates & Wolfe, 1995; Zucker & Bradley, 1995). Coates has argued that the child defensively adopts a cross-gendered

identity that successfully serves to manage the child's significant anxiety and repair a derailed attachment relationship between mother and child during a period of development when gender stability and gender constancy have not been firmly established (for details on this and other etiological models see Coates, Friedman, & Wolfe, 1991; Coates & Wolfe, 1995; Stoller, 1968, 1975, 1985; Zucker & Bradley, 1995).

Research has not found a direct link between hormones or chromosomal abnormalities in the development of GID despite findings that girls with CAH show a preference for rough and tumble play and despite animal experiments that implicate the role of hormones in a variety of active and masculine behaviors (see Coates & Wolfe, 1995; Zucker & Bradley, 1995). Rather, Coates & Wolfe (1995) propose that it is indirectly, through the effect of hormones on temperament, that hormones may play a role in the development of GID. Preliminary research has found that in one sample of boys with GID, 69% were found to have a shy, inhibited temperament, a percentage that is four times greater than what would be expected in the general population (Coates, Hahn-Burke & Wolfe, 1994). Coates and Wolfe (1995) argue that temperament and an aversion to rough and tumble play may affect such variables as peer affiliation and play preference, which in turn may contribute to the development of GID. However, as Coates and Wolfe (1995) stress, neither temperament nor peer affiliation are on their own sufficient to cause GID, rather they are merely two factors among many that co-occur during a sensitive period of development that ultimately lead to the development of GID.

While many factors lead to the development of GID, considerable evidence has emerged recently indicating that parental attitudes, feelings and representations of gender are extremely important in the etiology of GID. Coates has reported that mothers of boys with GID frequently express marked fear,

anger and devaluation of men (Coates, 1990), while Coates, Friedman & Wolfe (1991) report that one-third of the parents in their sample of boys with GID had sub-clinical gender-confused representations on projective tests. Zucker and Bradley (1995) have also reported that mothers of boys with GID feel very threatened by male aggression, and hypothesize that this leads them to discourage "male-typical boisterous behavior" while encouraging female-typical behaviors which these women associate with nurturance (p. 261). Zucker and Bradley further report that children with GID typically see the opposite sex as safer, more secure, and more valued and note that these beliefs may derive as much from the child's identification with parental beliefs about gender as from the child's own experiences in the world.

It also has been suggested that maternal reaction to bearing a child of the non-preferred sex and the meaning ascribed to the particular sex preference may also be of etiological importance in the development of GID in some cases (Zucker, et al., 1994; Zucker, Bradley & Ipp, 1993; Zucker & Bradley, 1995, pp. 213-214). In fact, Zucker and his colleagues have reported that boys with GID are more likely to have significantly more older brothers than matched controls, providing some preliminary support for the clinical notion that parental reaction to bearing another boy may play a role in the etiology of GID in some cases (Zucker, Green, Coates, et al., 1995; Blanchard, Zucker, et al., 1995).

Most researchers studying the disorder have reported a strong element of parental encouragement or at least acceptance of the cross-gender symptoms in their children (Coates, 1995; Green, 1974; Zucker & Bradley, 1995). Coates (1995) has reported that children with GID typically have parents who are strongly committed to a non-sexist child rearing that is in itself highly stereotypic and rigidly implemented. That is, these parents in their commitment to avoid a highly sex-role stereotypic upbringing for their children, often push their

children toward adopting cross-sex typed behaviors that themselves are derived from very rigid and stereotypic notions about gender. Ironically, these parents are unable to develop a more "flexible" or "abstract" understanding of gender, a stance that would be more effective in achieving their goal of non-sexist child-rearing.

Coates (1995) has argued further that children with GID tend to come from families where gender is a construct that has been used to process a wide range of emotions and experiences and in particular where gender and trauma have become emotionally intertwined. She proposes that parents who felt traumatized by gender stereotypes in their past are particularly likely to conflate gender polarities and personal trauma and further suggests that parents of children with GID in general tend "to have organized unresolved traumatic experiences around gender content in a highly concrete way" (p. 5). In addition, particularly in families that are strongly patriarchal and hierarchical with respect to gender, gender may become conflated with other issues: notably power, ability, aggressiveness and privilege. Coates argues that gender then becomes rife with considerable meaning that carries the emotional valence of these early experiences. Parents who have not been able to make sense of these early experiences, or understand how gender has become conflated with them, create a highly charged atmosphere around gender that may have a significant impact on the child's own developing sense of gender, ultimately defining what are acceptable and unacceptable expressions of gender.

As the growing body of research on GID indicates, it appears that gender is a particularly salient construct for this group of parents, just as it is for the subset of parents whose children become early labelers of gender. The different outcomes between these two groups represented in the literature (with GID children displaying extremely elevated levels of cross-sex-typed play [among

other characteristics] and the early labeling children displaying elevated levels of same-sex-typed play) raise interesting questions as to their causes including the different meaning gender may hold for each of these groups. However, perhaps the most important implication of the GID literature for the study proposed here is the implication that parental representations of gender may indeed have the power to impact the child's developing sense of gender and gender-role development.

Whether or not maternal representations of gender and reactions to having a child of the non-preferred gender can affect sex-typed behavior and gender-role development in a cross-gendered direction ultimately remains an unanswered question as no empirical studies have documented a direct causal link to this effect. Hopefully, the current study will be able to shed some light on this process and on the factors leading to the adoption of cross-sex-typed play. Examination of any mother-child dyads in which the child displays significant amounts of cross-sex-typed play would be the first attempt to study the development of cross-sex-typed play prospectively.

### **SUMMARY AND RESEARCH AIMS**

Despite evidence that maternal representations of gender in utero can be rich and varied, limited research has examined these representations, the factors contributing to their development, or the impact of these representations on the child's development. However, the literature to date that has been reviewed above indicates that maternal representations of gender with respect to the child are likely to be profoundly impacted by a woman's early attachment history and her overall representation of attachment. Moreover, it is argued that gender is a construct that is given meaning in the context of one's history and emotional experiences with early attachment figures, and as a result it is expected that a

woman's experience, understanding and valuation of gender with regard to her child, (i.e., her representation of gender with respect to her child) is likely to be profoundly caught up in her early attachment-related experiences and her internal working model of attachment.

With regard to the impact of maternal representations of gender, the research and case literature on the effect of maternal representations of the child on the child's development, together with the research on gender-role development and the literature on the etiology of GID, suggest that maternal representations of gender may indeed have the power to affect related areas of the child's development -- specifically the child's own experience of gender and the development of sex-typed play. As sex-typed play is one of the earliest aspects of gender-role development to occur, it provides one of the earliest means of examining the effects of maternal gender representations on the child's subsequent gender-role development. Specifically, it is proposed here that women who have developed rigid and highly elaborated representations of gender during pregnancy are likely to call attention to the issue of gender in numerous ways during the first two years of their children's lives. As a result, it is anticipated that their children will display significantly more sex-typed play than children whose mothers maintained more flexible representations of gender during pregnancy.

In sum, this study aims to achieve the following:

1. To examine whether overall maternal representations of attachment are related in meaningful ways to maternal prenatal representations of gender.
2. To examine whether maternal prenatal gender representations are related in turn to the development of sex-typed play in the children at 28 months.

## CHAPTER TWO

### METHODS

#### I. SUBJECTS

All subjects for the proposed study were participants in the Pregnancy Project, a comprehensive, longitudinal study of mother-infant pairs conducted by Dr. Arietta Slade at The City College of New York. Women were recruited for participation in the Pregnancy Project during their third trimester of pregnancy from Lamaze Birth Preparation classes and obstetricians' offices in the New York City area and through advertisements placed in local parent newspapers. Participants were paid \$20 per visit to the laboratory. Subjects for this study include 34 mother-child pairs who completed their participation in the Pregnancy Project through the final visit when their children were 28 months old and for whom complete data required for this study was available.

The women who participated in this study were all first-time mothers living in the New York City area. Subjects were required to be between 25 and 40 years of age and to be in stable relationships with their husbands or partners at the time of recruitment into the study.

The children who participated in this study were all born to the women in this study. They were approximately 28 months old at the time the procedures relevant to this study were conducted.

#### II. SETTING

Data was collected on site at a laboratory at The City College of New York. The lab consisted of three adjoining rooms, one for interviewing the mothers, an adjoining room where the infants/toddlers were cared for by a

member of the Pregnancy Project Staff while their mothers were being interviewed, and a video room equipped with a one-way mirror for videotaping the children and their parents engaged in play. Age-appropriate toys were available in the child care room and as required by the relevant research protocol in the videotape room. Mothers and children were allowed to visit each other as needed during the mother's interviews.

### III. PROCEDURES

As noted, all subjects were participants in the Pregnancy Project which involved three visits during the pregnancy phase, a brief telephone interview postpartum, and five visits following the birth of the baby. Data for this particular study was gathered during two separate visits to the lab during the women's third trimester of pregnancy and during a third visit when their babies were 28 months old. Only visits during which data was collected for this particular study are described here. Maternal measures were gathered during the pregnancy phase and child measures were gathered during the final visit when the children were approximately 28 months old. An overview of the separate visits is presented below. Detailed descriptions of all measures, the free-play sequence, and all coding procedures will be described in the following section (Measures). Data was collected by members of the Pregnancy Project Staff who were all graduate students in psychology. Staff members and the investigator remained blind to the outcome of previous measures throughout the data collection process.

#### a. Pregnancy Phase

Data for the pregnancy phase of this study was gathered during two separate visits to the lab. During the first visit, Consent Forms were reviewed

and signed, basic demographic information was gathered, and the Pregnancy Interview (Slade, Grunebaum, Haganir, & Reeves, 1987) was administered. The Pregnancy Interview is a semi-structured interview which asks women to describe their overall experience of pregnancy and their representations of their babies and of themselves as mothers.

Subjects returned to the lab a few weeks later and the Adult Attachment Interview (George, Kaplan, & Main, 1985) was administered. The AAI is a semi-structured interview that is widely used to elicit information regarding adults' attachment-related experiences and to assess their internal working models of attachment.

#### b. 28-Month Visit

The mother-infant pairs returned to the lab for the final visit when the children were 28 months old. During this visit mother-child pairs were videotaped in two separate free-play conditions: 1) the mother-occupied condition when the child played alone as the mother filled out questionnaires, followed by 2) the mother-engaged condition when the mother and child played together.

### IV. MEASURES

#### a. The Pregnancy Interview and the Maternal Gender Representation Codes

The Pregnancy Interview (Slade, Grunebaum, Haganir, & Reeves, 1987) is a semi-structured interview that takes approximately one hour to conduct. It consists of 43 questions designed to assess the subject's overall experience of pregnancy, her representation of her baby, her thoughts about and knowledge of the gender of her baby in utero, and her representation of herself as mother. In

addition, women are asked about changes in their current relationships with their spouses and their mothers, and about changes in body image. Each question is followed by specified probes designed to elicit the desired information in an informal, conversational atmosphere. The interview is audio-taped and later transcribed for coding.

Although the Pregnancy Interview taps many aspects of a woman's experience during pregnancy, this study only addresses material regarding the mother's thoughts, feelings and knowledge of the gender of her child during pregnancy. (The complete text of relevant questions may be found in Appendix A.) This material is specifically elicited in response to direct questions as to whether the subject knows the sex of her baby and whether she has a preference or any feelings about the baby's sex. Additional information is also evoked often in response to questions designed to elicit information about the subject's overall representation of her baby, her feelings about becoming a mother, how she envisions caring for her child, her feelings about the early caregiving relationship, and her understanding of the impact of her own early experiences with her parents.

Subjects' responses on the Pregnancy Interview were scored using the Maternal Gender Representation Codes (Gibson, 1997, see Appendix A). This coding system was developed by the author in order to study various aspects of a woman's gender representations. The Maternal Gender Representation Codes consist of several separate scales that assess various aspects of mothers' representations of gender and gender preferences. The first of these scales is the Maternal Gender Representation (MGR) Scale. It assesses the degree to which each subject's thoughts and feelings regarding the gender of her child are developed and elaborated, and the degree to which gender has become a salient factor in the subject's developing representations of her baby. It is a 9-point

scale that ranges from low (1 - Little or No Elaboration), which represents women with little or no interest or ability to anticipate or think about gender in reference to their child, to high (9 - Over-Elaboration), which represents women for whom gender has taken on an excessively salient organizing role in how they think about their child and for whom concerns about the gender of their child represent an area of significant preoccupation. A score of 5 (Average Elaboration) represents the optimal score. At each defined scale point specific response variations are elaborated for subjects who know the sex of their child and for those who do not.

The next scale, Sex of Child records a mother's responses to questions about whether or not she was given information regarding the sex of her child during pregnancy. It is scored on a simple scale with the following scale points: 1 - Boy, 2 - Girl, 3 - Sex Unknown. When the sex of the child is known, the coder also records how this information was determined (e.g., sonogram, amniocentesis).

Material related to Maternal Gender Preference is scored in four related scales: a) Strength of Preference; b) Preferred Sex; c) Negative Feelings About Having a Boy; and d) Negative Feelings About Having a Girl. The Strength of Preference Scale is a 5-point scale that measures the strength of a woman's preference regarding the gender of her child. Scale points increase from low to high in terms of the strength of preference expressed. The scale points are as follows: 1 - No Preference, 2 - Fluctuating Preference, 3 - Minimal Preference and 4 - Strong Preference. A score of 5 - Not Scorable, is given when no information about gender has been elicited during an interview.

(It is important to note here that the Strength of Preference scale reflects the coder's assessment of a subject's strength of preference based on her complete narrative of her overall thoughts and feelings about her unborn child as well as

her responses to direct questions about gender. Earlier attempts at coding this data found that a majority of women in a sample of ten subjects answered direct questions about gender preference by denying any preferences regarding the gender of their children, at least nominally. However, closer examination of their responses found that although some women unequivocally declared that they had no gender preferences, many more qualified their denials with statements that indicated that they did indeed have mild to strong preferences regarding the gender of their children. Many of these women would begin by saying something like: "No, I don't really have a preference, but,..." and then would describe at length why they might really like to have a boy, for example. As a result, it was decided that the Strength of Preference scale would be based on the coders' assessment of each subject's complete narrative regarding gender and not solely on subjects' blanket admissions or denials regarding gender preference. For further details regarding this scale please refer to Appendix A).

The Preferred Sex Scale is a simple 4-point scale reflecting the subject's actual gender preference. This scale is also based on the coder's assessment of the subject's preference regarding sex. The scale points are as follows: 1 - Boy, 2 - Girl, 3 - No Preference, and 4 - Not Scorable.

The next two scales related to Gender Preference are titled: Negative Feelings about Having a Boy, and Negative Feelings about Having a Girl. These are two point scales with each subject receiving a score of 1 - Yes, or 2 - No, based on whether or not the subject expressed any negative feelings, thoughts, or beliefs about having a child of that gender.

The fourth and final scale of the Maternal Gender Representation Codes is the Predominant Gender of Representation Scale. This scale is used to score the predominant gender of the subjects' representations of their babies in utero. Scale points are as follows: 1 - Male, 2 - Female, 3 - Neutral/Mixed Gender.

(Of all the scales that comprise the Maternal Gender Representation Codes, only 2, the Maternal Gender Representation Scale, and the Strength of Preference Scale were used in statistical analyses in relation to the specific hypotheses of this study. The remaining scales were intended primarily for descriptive purposes and for use in qualitative analyses of specific cases.)

All Pregnancy Interviews were coded by a member of the Pregnancy Project staff who was trained in to use the Maternal Gender Representation Codes by the investigator. The investigator served as the second coder, coding 25% of the sample for reliability purposes. Scales were developed, training was conducted, and initial inter-rater reliability was established using Pregnancy Interviews that were not part of the present study. Inter-rater reliability (statistics will follow below) was established on each of the scales of the Maternal Gender Representation Codes prior to scoring the study interviews. Interviews were coded independently by both coders and reliability was calculated based on a sample of ten interviews. Reliability checks were conducted periodically during the coding process. All discrepancies in the coders' scores were resolved in a conference with both coders prior to assigning final scores.

Interrater reliability for the Maternal Gender Representation Codes follow below. Interrater reliability for the Maternal Gender Representation Scale was calculated using the intraclass correlation (ICC) with a 95% confidence interval. ICC for training data was .98, and for study data was also .98. Interrater reliability for the Sex of Child Scale was assessed using Cohen's kappa. However, because of 100% agreement between raters on the training data, kappa was not calculable. Kappa for the study data was 1.0. Strength of Preference Scale reliabilities were calculated using the intraclass correlation coefficient using 95% confidence levels. ICC = .98 for training data and ICC = .81 for study data. Interrater reliability for the Preferred Sex Scale was assessed using

Cohen's kappa, with  $\underline{k} = 1.0$  for the training data and  $\underline{k} = .55$  for the study data. The kappa level for the study data reflects a moderate agreement between raters which ideally could be higher. However, it is important to note that raters on this scale agreed 70 % of the time, disagreeing on only three of ten subjects. Reliabilities for the Negative Feelings About Having a Boy Scale were calculated by Cohen's kappa, with  $\underline{k}=.62$  for training data and  $\underline{k}=.74$  for study data, reflecting substantial agreement for both sets of data. Reliabilities for the Negative Feelings About Having a Girl Scale were also calculated by Cohen's kappa. Kappa levels were 1.0 for training data, and 1.0 for study data. Finally, reliability rates for the Predominate Gender of Representation Scale were calculated using Cohen's kappa, with  $\underline{k} = 1.0$  for the training data, and  $\underline{k} = .62$  (substantial agreement) for the study data.

#### b. The Adult Attachment Interview

The Adult Attachment Interview (AAI) (George, Kaplan, & Main, 1985) is a widely used instrument developed by Mary Main and her colleagues to assess an adult's working model of attachment (Main, Kaplan & Cassidy, 1985). It is a semi-structured interview that assesses an individual's internal working model of attachment. The interview takes approximately one hour to administer and consists of 19 questions. Subjects are asked to describe their relationships and experiences with key attachment figures, probing first for brief descriptors and later for more detailed memories which support these descriptors. Subjects are also asked about specific experiences with separation, loss, and rejection, how they feel their early experiences have affected them as adults, how they understand or make sense of their parents' behavior, and the nature of their current relationships with their parents or other key attachment figures. If necessary, questions are followed by specific probes designed to elicit the

desired information. The interview is given in an informal, conversational atmosphere and is later transcribed and reviewed for coding and assignment of an adult attachment classification.

AAI's were coded using the Adult Attachment classification system developed by Main and Goldwyn (1988). Each interview is scored on several 9-point subscales which are used in later assigning the main attachment classification and sub-classification. Three of these scales, Loving, Rejecting of Attachment, and Role-Reversing/Involving, assess the individual's experience of his or her parents in childhood with separate scores given for the subject's experience with each parent and/or, if applicable, other attachment figures. An additional five subscales, Coherency, Idealization, Anger, Insistence upon Lack of Memory for Childhood, and Lack of Resolution of Mourning, assess various aspects of the individual's current state of mind with respect to attachment. Based on their scores on the various subscales, subjects are assigned to one of the three main attachment classifications: Autonomous/Secure (F), Dismissing of Attachment (D), Preoccupied/Enmeshed (E). When appropriate, individuals are classified Unresolved with Respect to Trauma (U) and are also assigned a best-fitting secondary classification of D, E, or F. A fifth category, Cannot Classify (CC) may also be assigned if appropriate.

AAI's were scored at the State University of New York at Stony Brook by Dr. Judith Crowell, Dr. Dominique Treboux, and Dr. Elizabeth O'Connor. Dr. Crowell and her colleagues have published numerous papers using the AAI and have established reliability in scoring AAI's with Dr. Mary Main.

### c. 28-Month Play Sequence

The 28-month play sequence is a 20 minute free-play sequence which involves two separate experimental conditions, "mother-occupied" and "mother-

engaged," each lasting 10 minutes. Both free-play conditions took place in a room with a one-way mirror. Two cameras were used for filming, alternating camera angle to best capture the child's activity. The main camera was behind the one-way mirror and was operated by one of the Pregnancy Project staff. The second camera was in the room with the mother and child and was pointed at a part of the room that could not be "seen" by the main camera. The room contained an adult chair, a child's chair and a variety of age-appropriate toys for the child to play with and explore.

Toys for the 28-month play sequence were not specifically chosen with the criteria of this study in mind, however, an approximately even number of male-stereotypic, female-stereotypic and gender-neutral toys were present. (See Appendix B for a list of toys and their sex-typing.) Sex-typed categorization of the toys present during the play sequence was determined following a review of previous research assessing sex-typed toy preferences in toddlers (e.g., Fagot, 1978; Maccoby & Jacklin, 1973; O'Brien & Huston, 1985; Smith & Daghli, 1977). Although not all studies categorize dishes, utensils and tea sets as female-stereotypic toys, many do. However, given that several of these toys were "feminine" in design (e.g, many of the dishes were pink or had floral designs), all play using these objects was classified as female-stereotypic.

Prior to beginning the free-play sequence the mother was informed of her role in both experimental conditions and of the signal indicating the transition between the two. Mother and child were then brought to the videotape room where they were left together for the duration of the free-play period. During the mother-occupied condition (MO), the mother was to help her child become engaged in solitary play and then to sit quietly in the chair filling out various forms for the remainder of the 10 minutes. She was to redirect her child's attention to the toys and to independent play if her child interrupted her or

otherwise tried to engage her. This condition was filmed for 10 minutes. At the end of the MO condition, a knock on the one-way mirror signaled the beginning of the mother-engaged condition (ME) and informed the mother that she was to join her child and play with him or her as she would at home. This condition was filmed for 10 minutes and ended when one of the experimenters reentered the room.

Videotapes were coded using the 28-Month Sex-Typed Play Coding Manual (Gibson, 1997) which was developed by this author for purposes of this study to assess sex-typed play (see Appendix C). Sex-typed play was scored using 5-second play intervals and the total number of intervals spent in same-sex stereotypic, cross-sex stereotypic, and gender-neutral play was determined based on the number of intervals each subject engaged in Male-Stereotypic (MS), Female-Stereotypic (FS) or Gender Neutral (GN) play. For each 5-second interval the coder determined whether the child engaged in MS, FS, or GN play based on the toys used, the roles enacted, or the function of the objects used in play. All play with the dishes and utensils was coded separately as "Dish" (D) play and later tallied as FS play.

To receive a score for a given 5-second interval, the child had to engage in MS, FS, GN, or D play for a minimum of 3 seconds during each 5-second interval. When appropriate, subjects received multiple sex-typed scores for any given 5-second interval. (For example, if during the same 5-second interval a child played simultaneously with a male-stereotypic and a female-stereotypic object for a minimum of three seconds each, the child would receive a score for both MS and FS play for that interval.)

The total number of intervals that each subject engaged in MS, FS, GN, and D play was tallied for each subject. To arrive at a final score for Female-Stereotypic play, the total number of intervals of Dish play that occurred when

the child was not already engaged in other female-stereotypic play were added to the scores for FS play. Final tallies for Male-Stereotypic (MS), Female-Stereotypic (FS) and Gender Neutral (GN) play were then translated into scores for same-sex stereotypic, cross-sex-stereotypic, and gender-neutral play based on each child's sex. Totals for each category of play were tallied separately for each experimental condition (mother-occupied and mother-engaged) as well as for the total 20 minute play sequence.

All videotapes were coded by the investigator and reliability was established with a licensed clinical psychologist trained in the proper coding procedures by the investigator. All training was conducted and revisions made to the scoring system using videotapes of the 28-month procedure that were not part of the study sample. Training reliability was initially established using a 15-second play interval (subjects needed 7 seconds of play to receive a score for each interval). Interrater agreement was assessed on a sample of five subjects using Cohen's kappa with  $k=.93$ , reflecting substantial agreement between raters.

After training reliability had been established it was decided to code the study data using a 5-second play interval (with a 3-second play criteria) to prevent inflated estimates of play. Ten videotapes (29% of the sample) were used to assess interrater reliability on the study data. Interrater agreement was again high with kappa =.94. Scoring discrepancies were resolved by conference when scoring differed by more than one interval. Differences of one interval were resolved by the investigator who was the principal coder. Coders remained blind to all other data pertaining to each subject throughout the coding process.

## V. HYPOTHESES

The appropriate statistics will be used to test the following hypotheses:

Hypothesis 1: Mothers' attachment classifications will be associated with maternal prenatal gender representations and preferences.

- 1a. Specifically, it is expected that women with secure attachment classifications as measured on the AAI will maintain fairly flexible representations of gender during pregnancy and will score in the middle range of the MGR scale. In contrast, dismissing women are expected to receive lower scores on the MGR scale, reflecting a more limited ability to think about gender with respect to their child. Finally, preoccupied women are expected to receive the highest MGR scores, reflecting a greater preoccupation with issues of gender and the development of more rigid, highly elaborated gender representations.
- 1b. Attachment status as measured by the AAI is expected to predict the strength of maternal gender preference as measured by the Strength of Preference scale. Securely attached women are expected to develop strong gender preferences significantly less frequently than preoccupied women. Dismissing women are expected to be the least likely to express a preference with regard to the gender of their child. As a result, it is specifically expected that preoccupied women will have significantly higher strength of preference scores than securely attached women, while securely attached women will have significantly higher strength of preference scores than dismissing women.

Hypothesis 2 Prenatal maternal gender representations will affect the development of sex-typed play at 28 months of age.

- 2a. Specifically, maternal gender representations as measured on the MGR scale are expected to correlate positively with the time spent in same-sex-typed play at 28 months, i.e., low MGR scores will be associated with low levels of same-sex-typed play and high MGR scores will be associated with high levels of same-sex-typed play.
  
- 2b. As children between the ages of two and three are more likely to engage in same-sex-typed play, a quantitative analysis of the effects of maternal gender representations on increased levels of cross-sex-typed play in the sample as a whole is not likely to result in any significant findings. However, if single cases with elevated levels of cross-sex-typed play occur, a qualitative exploratory analysis will be conducted to examine whether maternal gender representations affected the development of cross-sex-typed play in these cases. Extensive examination of the Pregnancy and Attachment Interviews and the free-play episodes will be conducted in order to determine, if possible, the factors affecting the development of play in a cross-sex-typed direction.

## **CHAPTER THREE**

### **RESULTS**

The data in this study were analyzed using both quantitative and qualitative methods. Quantitative results are presented in this chapter. Qualitative analyses of two mother-child dyads are presented in Chapter Four.

Statistical tests were employed to assess the hypothesized relationship between: 1) adult attachment status and maternal gender representation; 2) adult attachment status and strength of maternal gender preference; and 3) maternal gender representation and time spent in same-sex stereotypic play. Post-hoc analysis of the relationship between maternal gender representation and the balance of same-sex-typed versus cross-sex-typed play was also conducted. Descriptive statistics of the subject population are presented first, followed by the distribution of subjects on each of the variables and measures. Finally, the results of the statistical analyses of the hypotheses under investigation are reviewed, including the results of the post-hoc analysis.

### **QUANTITATIVE FINDINGS**

#### **I. Subjects**

##### **Ia. Mothers**

Of the 66 women recruited into the Pregnancy Project, 34 met the criteria for this study. The mothers ranged in age from 24 to 39 years old at the start of the study, with a mean age of 31.7 years ( $SD = 3.8$ ). Subjects were an average of 32 weeks pregnant upon entry into the study (range 27-37 weeks,  $SD = 3.2$ ). Despite efforts to recruit from a broad range of racial and socioeconomic groups, subjects were largely white (94 % Caucasian, 6% Black) and well-educated (47% completed all or some postgraduate training, 41% completed college, 12%

completed high school or some college). Mothers' occupations were listed as 44% professional, 26% skilled work, 24% creative, 3% unskilled work, and 3% students. Almost all of the mothers (94%) were working prior to pregnancy.

The majority of the women (94%) were married to their partners at the time of entry into the study and for 76% of these it was a first marriage. Those not married (6%) were living with their partners in a committed relationship. The length of time married or cohabitating varied widely from 9 months to 14 years, with a median of 3 years ( $skew = 1.7$ ). The husbands/partners (hereafter referred to as "husbands") ranged in age from 25 to 50, with a mean age of 35.0 years ( $SD = 6.4$ ). They were also a well-educated group (47% completed all or some post-graduate studies, 32% completed college, 18% completed high school or some college, 3% completed some grammar school). Husbands' occupations were listed as 35% professional, 21% skilled work, 32% creative, 9% self-employed, and 3% students. For 66% of the husbands this was a first marriage.

The majority of women in this study reported that this was a planned pregnancy (79%). Among these women there was considerable variation in how long it took to conceive, ranging from less than 6 months to 5 years, with a median of 2 years ( $skew = 4.7$ ). The majority of women (73%) reported no prior pregnancy complications (18% reported miscarriages or other complications, 6% reported prior abortion, and 3% reported both prior miscarriage and abortion). The majority of women (79%) reported no complications during this pregnancy. The majority (68%) also reported no stress or only mild levels of stress during the pregnancy (26% reported moderate stress, 6% reported severe stress).

### Ib. Children

Of the children born to the women in this study, 13 (38%) were girls and 21 (62%) were boys. At the time of the 28-month visit, the children ranged in

age from 27 months 19 days to 33 months 0 days, with a mean age of 28 months 21 days ( $SD = 1.02$ ;  $Mdn = 28$  months 15 days, skew = 2.32). The children weighed an average of 7.5 pounds ( $SD = 1.09$ ) and 97% were healthy at birth. Problems reported at birth included weight/feeding problems (7%), mucous (11%), rash (7%), jaundice (14%), jaundice and hernia (4%). The majority (73%) had a normal vaginal delivery (9% had a problematic vaginal delivery and 8% were delivered by C-section).

## II. Maternal Gender Representation Codes

General information gathered about gender during the Pregnancy Interview is reviewed here. The majority (79%) of subjects did not know the gender of their children during pregnancy, while 9% were expecting girls and 12% were expecting boys. All mothers who knew the sex of their children in utero delivered children of that sex. Generally, the predominant gender of the mother's representation of her child "fit" her knowledge of the gender of her child, i.e., of the 80% of women who did not know the gender of their babies in utero, 89% generally referred to their children in a gender-neutral fashion. All of the women expecting boys had predominantly male representations of their children and all but one of the three women expecting girls had predominantly female representations. Finally, it was found that 29% of subjects expressed negative feelings or thoughts about raising a male child, whereas only 12% expressed negative feelings or thoughts about raising a female child.

### IIa. Maternal Gender Representation (MGR) Scale

Maternal Gender Representation Scale (MGR) scores were evenly distributed over the 9 scale points ( $M_{MGR} = 5.029$ ,  $SD = 2.11$ , skew = -.041), reflecting that pregnant women do vary in the degree to which they think about

gender with respect to their child. The majority of women (56%) received scores in the mid-range of the scale while 18% scored in the lower third of the scale and 26% in the upper third.

### Iib. Strength of Preference Scale and Preferred Sex Scale

With regard to strength of preference, 41% of the women expressed strong preferences for children of a specific sex, 29% expressed minimal preferences, 18% reported fluctuating preferences, and only 12% reported no preference.

Specific preferences with respect to sex of the child were as follows: 47% indicated a minimal to strong preference for girls, while 24% indicated a minimal to strong preference for boys. When women reporting a fluctuating preference were included in the percentages for sex preference (scores were assigned based on subjects' current gender preferences), 53% reported a preference for a girl, 35% report a preference for a boy.

### III. Adult Attachment Interview (AAI)

Of the 34 women participating in this study, 9% were classified as dismissing, 62% were classified as secure, and 29% were classified as preoccupied using the 3-way classification system (see Table 1). The percentage of dismissing subjects in this study was unusually low; typically, the preoccupied category is the smallest category in most populations (van IJzendoorn, 1995). As a result it was necessary to drop the dismissing cases from all of the attachment-related analyses. The distribution of AAI classifications using the 4-way classification system is also reported in Table 1. Consistent with studies using the 4-way classification system, the majority of unresolved subjects in this study

were originally classified as preoccupied in the 3-way system (van IJzendoorn, 1995).

Table 1  
Distribution of AAI Classifications

	<u>Secure</u>		<u>Dismissing</u>		<u>Preoccupied</u>		<u>Unresolved</u>	
	<u>%</u>	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	<u>n</u>
3-way ( <u>n</u> =34)	62%	21	9%	3	29%	10	---	---
3-way (w/out Dis) ( <u>n</u> =31)	68%	21	---	---	32%	10	---	---
4-way ( <u>n</u> =34)	59%	20	6%	2	15%	5	20%	7
4-way (w/out Dis) ( <u>n</u> =32)	62%	20	---	---	16%	5	22%	7

#### IV. Sex-Typed Play

Summary information regarding sex-typed play is presented in two ways: the first compares male-stereotypic (MS), female-stereotypic (FS) and gender-neutral (GN) play across male and female subjects across the two play conditions (mother-occupied and mother-engaged); the second examines the balance of same-sex-typed and cross-sex-typed play across the two play conditions.

T-tests for independent samples were conducted comparing the mean length of time engaged in MS, FS, and GN play for both male and female subjects in order to determine whether the differences in sex-typed play reported in the literature (Fagot, 1978; Fein, et al., 1975; O'Brien & Huston, 1985; Perry, White & Perry, 1984; Weinraub, et al., 1984) were also found in this population. The findings of this study with respect to MS and FS play supported previous

findings: boys spent significantly more time engaged in male-stereotypic play than girls, and girls spent significantly more time engaged in female-stereotypic play than boys. This was true with respect to both the mother-occupied (MO) and mother-engaged (ME) play conditions. (See Table 2; one-tailed significance tests were employed consistent with trends found in previous research.)

Table 2  
T-tests for Sex-Typed Play Category by Sex of Child

	<u>Female</u>		<u>Male</u>		<u>p- value</u>
	<u>Mean</u> <sup>+</sup>	<u>SD</u>	<u>Mean</u> <sup>+</sup>	<u>SD</u>	
<b>MS-Play</b>					
MO	37.7	30.2	59.5	24.5	.014**1-tailed
ME	46.4	30.7	67.0	29.0	.029* 1-tailed
<b>FS-Play</b>					
MO	72.2	31.2	25.1	25.9	.000***1-tail
ME	78.4	36.9	40.7	24.1	.002**1-tailed
<b>GN-Play</b>					
MO	19.5	19.4	17.0	13.8	.668 2-tailed
ME	45.2	31.8	17.9	16.8	.011**2-tailed
<sup>+</sup> Mean values represent the mean number of 5-second intervals the subjects engaged in each category of play * significant at the $p < .05$ level ** significant at the $p < .01$ level *** significant at the $p < .001$ level					

With respect to gender-neutral (GN) play, in accordance with previous research there were no differences between male and female subjects in the amount of time spent in GN play during the mother-occupied condition.

However, during the mother-engaged condition, girls engaged in significantly more GN play than boys. In fact, although boys' GN play remained at the same level in both conditions, girls showed a dramatic increase in the amount of GN play once their mothers joined them in play (see Table 2; two-tailed significance tests were used as no differences had been expected).

Overall, the amount of time spent in each category of play for both boys and girls increased from the MO condition to the ME condition (with the exception of GN play for boys). However, the percent increase in each of the play categories from the MO to the ME condition varied considerably for boys and girls. Male subjects displayed an increase in MS play of 12.6% and in FS play of 62% with almost no change in the amount of GN play. Girls, on the other hand, displayed an increase in MS play of 23%, in FS play of only 9%, and in GN play of 132%.

In addition, MS and FS play scores were transformed into scores for same-sex-typed and cross-sex-typed play based on the subject's sex. The percent of time subjects spent in same-sex-typed and cross-sex-typed play (relative to the total time spent in play) in both play conditions is reported in Table 3. As expected in both conditions, subjects appear to engage in more same-sex-typed than cross-sex-typed play.

Table 3  
Same-Sex-Typed and Cross-Sex-Typed Play  
as a Percent of Total Play

	<u>MO</u>		<u>ME</u>	
	<u>Mean</u>	<u>SD</u>	<u>Mean</u>	<u>SD</u>
S-sex play	58%	.223	51%	.219
X-sex play	26%	.221	30%	.221

In addition, in order to determine whether the balance of same-sex-typed and cross-sex typed play was significantly different across the two play conditions, a t-test for paired samples was conducted comparing mean DIF scores (the difference between the percentage of time spent in same-sex-stereotypic and cross-sex-stereotypic play) in each play condition (see Table 4). No statistically significant differences were found between mean DIF scores across the MO and ME play conditions, indicating that the difference between the percentage of time spent in same same-sex-typed and cross-sex-typed play was essentially the same in both conditions. This indicates that mothers' physical engagement in play with their children did not significantly alter the overall balance of same-sex-typed and cross-sex-typed play. Finally, mean DIF scores for each play condition confirm that subjects engaged in a greater percentage of same-sex-typed play relative to cross-sex-typed play in both play conditions.

Table 4  
T-test for Paired Samples: DIF score by Play Condition

	<u>Mean</u>	<u>SD</u>	<u>t-value</u>	<u>df</u>	<u>2-tailed sig</u>
MO DIF	.326	.427	-1.23	33	p = .227 <sup>#</sup>
ME DIF	.205	.356			

Note: positive means reflect a greater percentage of same-sex-typed play relative to cross-sex-typed play, negative means reflect the reverse.  
# not significant

#### V. Hypothesis 1a

It was expected that dismissing women as measured by the AAI would score at the low end of the MGR scale while securely attached women would

score in the middle range of the MGR scale and preoccupied women at the high end of the MGR scale.

Given the low number of dismissing mothers in this sample (3 subjects), it was not possible to test the complete hypothesis stated above. To address this problem it was decided to drop the dismissing cases from the analysis, testing only the predictions made for the secure and preoccupied groups with MGR scores. It was decided not to collapse the dismissing and preoccupied groups into one insecure category because dismissing and preoccupied mothers were predicted to have MGR scores at opposite ends of the MGR scale; collapsing the categories in this manner might obscure the relationship between attachment and maternal gender representation and make the interpretation of any findings difficult.

A One-Way Analysis of Variance using a one-tailed significance test just missed significance ( $p = .08$ ), indicating a trend that women classified as preoccupied have significantly higher MGR scores than women classified as secure (see Table 5). Secure mothers received a mean MGR score of 4.62 ( $SD = 1.9$ ). This score falls in the mid-range of the scale indicating that securely attached mothers maintain generally flexible representations of gender with respect to their children prior to birth. Preoccupied mothers scored a mean MGR score of 5.8 ( $SD = 2.6$ ) which indicates that as a group preoccupied mothers have more elaborated representations of gender, indicating a greater interest in or preoccupation with gender with respect to their children during pregnancy. Although the results of this analysis did not reach significance at the  $p = .05$  level, the small sample size of this study suggests that the trends revealed in the data can be seen as providing preliminary support for the assumptions under consideration regarding maternal gender representations in securely attached and preoccupied women.

While the hypothesis under investigation made predictions about attachment status and maternal gender representations using the 3-way AAI classification system only, a 1-way ANOVA was also run comparing MGR scores across attachment classifications using the 4-way classification system. Again, because of the low number of dismissing women, these cases were dropped from the analysis, leaving only the secure, preoccupied and unresolved categories. Although it was still expected that preoccupied women would have higher MGR scores than secure women, no predictions were made with respect to the unresolved category. As a result, two-tailed significance tests were employed. The results of this analysis were not significant ( $p = .1137$ , 2-tailed; see Table 6); however, a comparison of MGR scores in the two analyses reflects a trend that may be important to future investigations and thus merits reporting.

With the addition of the unresolved category, the gap between the mean MGR score for the preoccupied and secure groups widened substantially in contrast to the 3-way analysis. Although the mean MGR score for secure women were essentially the same in the two analyses (3-way mean  $MGR_{sec} = 4.62$ ,  $SD = 1.91$ ; 4-way mean  $MGR_{sec} = 4.65$ ,  $SD = 1.95$ ), the mean MGR score for preoccupied women rose a whole point and the standard deviation became much smaller when the unresolved category was included in the analysis (3-way mean  $MGR_{preocc} = 5.8$ ,  $SD = 2.57$ ; 4-way mean  $MGR_{preocc} = 6.8$ ,  $SD = 1.3$ ). Apparently, the predicted relationship between maternal gender representations and the secure and preoccupied groups becomes more extreme when the unresolved group is included in the analysis. What likely keeps the results from reaching significance in the 4-way analysis is the fact that the mean MGR scores for the unresolved and preoccupied groups are very similar (mean  $MGR_{sec} = 4.65$ ,  $SD = 1.95$ ; mean  $MGR_{unres} = 4.57$ ,  $SD = 2.7$ ).

Table 5  
1-way ANOVA: Maternal Gender Representation x 3-way Attachment  
(Secure and Preoccupied Only) ( $n=31$ )

<u>Group</u>	<u>Mean</u>	<u>SD</u>	<u>F</u> <u>Ratio</u>	<u>df</u>	<u>F</u> <u>Prob</u>
Secure	4.619	1.910	2.07	1,29	$p=.08^+$ (1-tailed)
Preoccupied	5.800	2.573			

$+ p < .10$

Table 6  
1-way ANOVA: Maternal Gender Representation x 4-way Attachment  
(Secure, Preoccupied and Unresolved Categories) ( $n=32^*$ )

<u>Group</u>	<u>Mean</u>	<u>SD</u>	<u>F</u> <u>Ratio</u>	<u>df</u>	<u>F</u> <u>Prob</u>
Secure	4.65	1.954	2.345	2,29	.1137# (2-tailed)
Preoccupied	6.800	1.304			
Unresolved	4.571	2.70			

\* 1 case previously scored as dismissing was reclassified in the 4-way analysis as unresolved and is included in the analysis in this group.  
# not significant

The similarity between MGR scores for the secure and unresolved groups raises the question as to how similar these groups may be with respect to the development of maternal gender representations of the child during pregnancy. Although the mean scores suggest that the secure and unresolved groups might be very similar, there appears to be greater fluctuation in MGR scores for the unresolved group ( $SD=2.7$ ) than for either the secure ( $SD = 1.95$ ) or the preoccupied ( $SD = 1.3$ ) groups. This suggests that unresolved women are more

variable with respect to maternal gender representations than secure women, suggesting that there may be greater differences between these two groups than is initially apparent.

#### VI. Hypothesis 1b

Preoccupied women as measured by the AAI are expected to have significantly higher strength of preference scores than securely attached women, while securely attached women, in turn, are expected to have significantly higher strength of preference scores than dismissing women.

Again, as a result of the low number of dismissing mothers, it was not possible to test the complete hypothesis and all dismissing cases were dropped from the analysis. A One-Way Analysis of Variance using a one-tailed significance test consistent with the hypothesis under investigation confirmed that preoccupied women have significantly stronger gender preferences than securely attached women (results were significant with  $p = .045$ ; see Table 7). The mean strength of preference score for preoccupied women was 3.5 ( $SD = .97$ ) which falls between minimal and strong preference, while the mean strength of preference score for securely attached women was 2.81 ( $SD = 1.03$ ) which falls between fluctuating and minimal preference, indicating as predicted that securely attached women are significantly less likely to develop strong gender preferences than preoccupied women.

To further test the relationship between AAI classifications and strength of preference it was decided to conduct the analysis using the 4-way classification system as well. Dismissing cases were again excluded (except for one dismissing case reclassified as unresolved). It was expected that preoccupied women would receive higher strength of preference scores than secure women. No predictions were made regarding the unresolved group. The

Table 7  
1-way ANOVA: Strength of Preference x 3-way Attachment  
(Secure and Preoccupied Categories) (n=31)

<u>Group</u>	<u>Mean</u> <sup>a</sup>	<u>SD</u>	<u>F</u> <u>Ratio</u>	<u>df</u>	<u>F</u> <u>Prob</u>
Secure	2.81	1.031	3.150	1,29	p=.045* (1-tailed)
Preoccupied	3.5	.972			

<sup>a</sup> 1= No Preference, 2= Fluctuating Preference, 3 = Minimal Preference, 4 = Strong Preference  
\* p <.05 level

Table 8  
1-way ANOVA: Strength of Preference x 4-way Attachment  
(Secure, Preoccupied and Unresolved Categories) (n=32)<sup>b</sup>

<u>Group</u>	<u>Mean</u> <sup>a</sup>	<u>SD</u>	<u>F</u> <u>Ratio</u>	<u>df</u>	<u>F</u> <u>Prob</u>
Secure	2.8	1.056	3.071	2,29	p=.06+ (2-tailed)
Preoccupied	4.0	.000			
Unresolved	2.857	1.069			

<sup>a</sup> 1= No Preference, 2= Fluctuating Preference, 3 = Minimal Preference, 4 = Strong Preference  
<sup>b</sup> 1 case previously scored as Dismissing was reclassified in the 4-way analysis as Unresolved and is included in the analysis in this group.  
<sup>+</sup> p < .10

results of a One-Way Analysis of Variance using a two-tailed significance test just missed significance but revealed a trend concordant with the previous findings that preoccupied women have higher strength of preference scores than securely attached women (see Table 8). Mean strength of preference scores between the secure and unresolved groups were almost identical and likely kept

the results from reaching significance (mean  $SP_{sec} = 2.8$ ,  $SD = 1.06$ ; mean  $MGR_{unres} = 2.857$ ,  $SD = 1.07$ ). Again, as with the analyses involving MGR scores, the predicted relationship between strength of preference scores and the secure and preoccupied groups became more extreme when the unresolved group was included in the analysis (3-way mean  $SP_{preocc} = 3.5$ ,  $SD = .97$ ; 4-way mean  $SP_{preocc} = 4.0$ ,  $SD = 0.00$ ). In fact, once subjects were reclassified using the 4-way system, every subject in the preoccupied group received the highest possible score, reflecting uniformly strong gender preferences in this group.

## VII. Hypothesis 2a

Maternal gender representations as measured by the MGR scale were expected to correlate positively with the time spent in same-sex-typed play at 28 months, i.e., low MGR scores were expected to be associated with low levels of same-sex-typed play and high MGR scores were expected to be associated with high levels of same-sex-typed play.

In order to test this hypothesis, Pearson's  $r$  correlations were conducted between MGR scores and the total amount of same-sex-typed play in each play condition. One-tailed significance tests consistent with the hypothesis under investigation were employed. A weak positive correlation ( $r = .22$ ) revealed a trend at the  $p = .10$  level between MGR scores and the amount of same-sex play in the mother-occupied (MO) condition. However, no relationship between MGR scores and amount of same-sex-typed play was found for the mother-engaged (ME) condition (see Table 9).

Although the relationship between MGR and same-sex play during the mother-occupied play condition indicates only a trend toward significance with  $p = .10$  and the strength of the correlation itself is small, given the small sample size of this study it is important to take note of these findings. These results

indicate that women who are more preoccupied with gender with respect to their child during pregnancy have children who show higher levels of same-sex-typed play when engaged in play on their own but not when in engaged in play with their mothers.

Table 9  
Pearson's  $r$  Correlation: MGR x Amount of Sex-Typed Play

	<u>Same- Sex-Typed Play</u>		<u>Cross-Sex-Typed Play</u>	
	<u>MO</u>	<u>ME</u>	<u>MO</u>	<u>ME</u>
<u>MGR</u>	$r = .223$	$r = .085$	$r = -.0953$	$r = -.049$
	$p = .102^+$	$p = .317$	$p = .296$	$p = .392$
<u>Note: n =34 all correlations</u>				
<u>+ p = .10</u>				

Additional correlations were run to determine whether higher MGR scores would be related to higher levels of cross-sex-typed play. However, given that high levels of cross-sex-typed play are relatively rare in children of this age (Zucker & Bradley, 1995) it was not expected that such correlations would be found given a sample of this size drawn from the general population. Indeed, no such correlations were found (see Table 9).

### VIII. Post-Hoc Analysis

In reviewing hypothesis 2a and its results, it became clear that the conceptualization of this hypothesis did not adequately capture the complexity of the relationship between maternal gender representations and the development of sex-typed play. The following post-hoc analysis is based on the supposition that

higher MGR scores will be associated with more extreme displays of 'sex-typed play,'<sup>1</sup> regardless of whether this play occurs in a same-sex- or a cross-sex-typed direction. Specifically, this will be evident in an extreme disparity in the propensity to engage in same-sex-typed or cross-sex-typed play relative to the other. While the balance of same-sex-typed and cross-sex-typed play is already skewed at this age, it is hypothesized that over-elaborated maternal gender representations may result in more extreme imbalances in the expression of 'sex-typed play' than is typical (for example, with some children engaging almost exclusively in same-sex-typed play while rarely engaging in cross-sex-typed play, or vice-versa). It is important to reiterate that the direction of the imbalance in 'sex-typed play' is not at issue, but rather whether maternal gender representations skew the development of 'sex-typed play' in extreme directions.

### VIIIa. Post-Hoc Hypothesis 3

It was expected that mothers with higher MGR scores would have children with greater discrepancies than is typical in the percent of time spent in same-sex-stereotypic and cross-sex-stereotypic play as indicated by higher 'sex-typed play' discrepancy scores (DS scores).

DS scores are essentially difference scores that reflect how great the discrepancy between an individual's propensity to engage in same-sex-typed and cross-sex-typed play is relative to a score that represents the typical imbalance between same-sex-typed and cross-sex-typed play in this population. DS scores are calculated by subtracting DIF scores (the difference between the percentage of time spent in same-sex-stereotypic play and cross-sex-stereotypic play) for

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<sup>1</sup>The term 'sex-typed play' is used in a generic sense. It is not meant to refer only to same-sex-typed play as it is often used. To avoid any confusion, same-sex-typed play and cross-sex-typed play will always be identified using these full terms. Sex-typed play used in this ambiguous form will be referred to as 'sex-typed play.'

each subject from the median DIF score<sup>1</sup> for the group. The resulting DS score for each subject reflects how large or small the imbalance between same-sex-typed and cross-sex-typed play is relative to the typical imbalance found in this population.

Pearson's  $r$  correlations were conducted using one-tailed significance tests consistent with the hypothesis that MGR scores would be positively correlated with DS scores (see Table 10 for results). A positive correlation was found between MGR and DS scores in the MO play condition ( $r = .453$ ,  $p < .004$ ). This finding indicates that women with more over-elaborated representations of gender tend to have children with much greater discrepancies than is typical in the percent of time spent in same-sex-typed and cross-sex-typed play, in essence reflecting extremely skewed 'sex-typed play' patterns when the children are engaged in play on their own. In addition, a trend in the data was found reflecting a weaker correlation between MGR scores and DS scores in the ME play condition ( $r = .227$ ,  $p = .098$ ) providing only preliminary support for the hypothesis under investigation with respect to the ME condition. Once again, the relationship between maternal gender representations and sex-typed play seems attenuated when the mothers play together with their children.

Overall, the results of these correlations begin to show fairly strong evidence that maternal gender representations may impact the development of 'sex-typed play' in some interesting ways (especially when the child is playing alone and to some degree when the mother is engaged in play as well). Rather than predicting an increase in the amount of same-sex-typed play as first

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<sup>1</sup> The median DIF score was chosen as a measure of the typical discrepancy in the propensity to engage in same-sex-typed play versus cross-sex-typed play because 50% of the subjects in this study would have DIF scores above this number while 50% would have DIF scores below this number.

predicted, it appears that the impact of maternal gender representations is more complex, affecting the balance of same-sex- and cross-sex-typed play.

Table 10  
Pearson's  $r$ : MGR x 'Sex-Typed Play' Discrepancy Scores

	<u>DS Score</u> <u>MO</u>	<u>DS Score</u> <u>ME</u>
MGR	.453	.227
	$p=.004^*$	$p=.098^+$

Note:  $n = 34$  for both correlations  
 $^* p = .004$  (1-tailed)  
 $^+ p < .10$  (1-tailed)

## **CHAPTER FOUR**

### **QUALITATIVE FINDINGS**

In addition to the statistical analyses described in the previous chapter, qualitative analyses of two mother-child dyads from the data set were conducted not only to illustrate the statistical findings, but also to focus attention on the true complexity of the relationship between adult attachment, maternal gender representations, and the development of sex-typed play in the child at 28 months. To select cases for review, the data for all mother-infant pairs were examined. Summary data for the two cases are presented in Table 11. Interview and play data are described in detail for each dyad and the relationship between the mother's attachment status and her early attachment history, the development of her prenatal gender representations, and her child's sex-typed play is analyzed in detail.

It is important to highlight that neither of the cases presented here follows as direct a path connecting attachment, maternal gender representations and the development of sex-typed play as the statistical data would suggest. (These data would suggest that women whose children develop the most extremely divergent sex-typed play patterns would likely have the highest MGR scores and be classified as preoccupied on the AAI). Rather, the cases selected for review, as with many of the mother-child dyads in this data set, show variations from this pattern. (In fact, a review of the data found that four mothers classified as secure had high MGR scores of 7 or above and also had children with very high DS scores reflecting the presence of extremely divergent sex-typed play patterns. In other cases, women with high MGR scores had children where the imbalance in the expression of same-sex-typed and cross-sex-typed play was not as extreme as one might have expected.)

The cases presented here are meant not only to illustrate the ways in which the construct of gender may become caught up in the attachment system, but also how it is that the child's sex-typed play may begin to develop more in a same-sex-stereotypic or in a cross-sex-stereotypic direction, and how the expression of sex-typed play in the child may be used to regulate aspects of the relationship between mother and child. It is presumed that many factors related to a mother's early attachment history and the meaning she ascribed to gender will affect the expression of her child's sex-typed play and such factors will be explored in relation to each of the cases discussed below. Finally, a review of the data for all mother-child dyads in this study revealed that a child's propensity to engage in one particular category of sex-typed play relative to the other did not always remain static across the two play conditions (that is, in 38% of the cases, the imbalance in the expression of sex-typed play shifted from being predominantly same-sex- or cross-sex-stereotypic in the MO condition to the opposite in the ME condition). The factors involved in such shifts will also be addressed in the following case analyses.

#### I. Case #029 - Cynthia and John

Cynthia was classified as preoccupied as well as unresolved on the AAI and her narrative reflects a long history of abuse and upheaval. She lived at different times with her biological parents (who divorced at 3), her grandparents, and her mother and adoptive father (who divorced when she was 15). She was physically abused by both her mother and adoptive father, and was sexually molested by her father at 16. There is also evidence that Cynthia's mother did not respect appropriate body boundaries as well -- Cynthia reported that her mother would measure her breasts as a young adolescent (against Cynthia's wishes) in order to see how she was developing.

Table 11 - Summary of Data for Mother-Child Dyads Used in Qualitative Analyses

<b><u>Case 029: Cynthia and John</u></b>											
<u>AAI</u>	<u>MGR</u>	<u>DS</u>		<u>%s-sex</u>		<u>%s-sex</u>		<u>%x-sex</u>		<u>%x-sex</u>	
		<u>MO</u>	<u>ME</u>	<u>MO</u>	<u>ME</u>	<u>MO</u>	<u>ME</u>	<u>MO</u>	<u>ME</u>	<u>MO</u>	<u>ME</u>
Preoccupied /Unresolv.	9	<u>Score</u>	<u>Rank</u>	<u>Score</u>	<u>Rank</u>	<u>Score</u>	<u>Rank</u>	<u>Score</u>	<u>Rank</u>	<u>Score</u>	<u>Rank</u>
		.322	16th (greatest)	-.419	11th (greatest)	74%	10th (most)	38%	10th (least)	7%	9th (least)
										62%	1st (most)

<b><u>Case 058: Nicole and Alex</u></b>											
<u>AAI</u>	<u>MGR</u>	<u>DS</u>		<u>%s-sex</u>		<u>%s-sex</u>		<u>%x-sex</u>		<u>%x-sex</u>	
		<u>MO</u>	<u>ME</u>	<u>MO</u>	<u>ME</u>	<u>MO</u>	<u>ME</u>	<u>MO</u>	<u>ME</u>	<u>MO</u>	<u>ME</u>
Secure (earned)	9	<u>Score</u>	<u>Rank</u>	<u>Score</u>	<u>Rank</u>	<u>Score</u>	<u>Rank</u>	<u>Score</u>	<u>Rank</u>	<u>Score</u>	<u>Rank</u>
		.612	6.5 (greatest)	-.739	1st (greatest)	98%	2nd (most)	1%	1st (least)	2%	5.5 (least)
										57%	3rd (most)

Cynthia felt very rejected by her mother whom she characterized as distant, frightening and disturbed. She reports that her mother would go into "hysterical kinds of rages" and would chase after her and hit her. Cynthia has warmer feelings toward her adoptive father, although she acknowledges that she was also frightened of him (she reports that her adoptive father was able to stop himself when he hit her, whereas her mother seemed to lose all control). Cynthia has no memories of being held or soothed when hurt, although she notes "I know I must have been." Her warmest feelings were toward her grandmother whom she feels is the person who really raised her, although Cynthia was not always able to see her. Her grandmother died several years earlier and Cynthia's narrative was very disorganized when discussing this period. Currently, she has minimal contact with her mother, adoptive father and biological father. She wants no contact between her mother and her baby other than to have her mother meet him once "as a courtesy."

Cynthia's MGR score is a 9 which is assigned when a mother's gender representation is so over-elaborated, idiosyncratic, inflexible and derived from her own emotional needs that the baby seems to be defined almost totally by the mother's representation of gender. Her representation of gender includes the belief that she is having a son and that her child is a reincarnation of a boy from 15th or 16th century England who died when he was about 10 years old. (She cites this fantasy, rather than the results of her sonogram which indicated that the baby was male, as the reason why she believes that she is having a boy). Furthermore, she believes that having a boy rather than a girl would be easier because of the difficulties in her early relationship with her mother. Not surprisingly, she was scored as having a strong preference for a boy.

Cynthia makes many references to reincarnation in both the AAI and the Pregnancy Interview and it is evident that this belief system plays an important

role in her efforts to distance herself from her traumatic history. In fact, Cynthia rejects the notion that people are affected by their early experiences (a notion that is frightening as she prepares to give birth to her first child). Ironically, even as she rejects the notion that her past may have affected whom she is currently, she claims that all past life experiences exist as if they are occurring in the present.

I don't believe in tabula rasa, I believe in, um...I believe not in total fate, I know, I believe that each person has sort of an inner dimension, you know, I believe people are reincarnated and stuff like that. *And I think we have a personality that is there anyway which makes us better able or less able to cope with whatever* [italics added], you know, that's just what I believe, so, *I don't know if what I am as a person is really the result of experiences or a combination of factors at play* [italics added], you know, that it's what happened but it's also what didn't happen, it's also what happened some other time, you know, that there -- my conflict is, I mean, just if you want to hear this, but that there's no time, that it's all kind of -- we can't meld it, everything's just at the same [sic] but I think everything's at the same time but we just can't see it all and all of our lives and previous ties that are reincarnated in our souls, that we're all -- it's all happening now and we just can't tell. And so that there's a lot more going on than meets the eye. (Excerpt from Cynthia's Pregnancy Interview.)

Clearly, Cynthia has not been able to gain much distance or perspective from her past. Furthermore, it appears that her traumatic early attachment experiences have become encoded in terms of gender and that she is using both gender as well as the notion of reincarnation as a means of distancing herself from this past. Naively, Cynthia hopes that the gender of her child will provide a buffer that will protect her child from being affected by the damaging relationship Cynthia had with her mother. Although Cynthia reports that she was abused by both the male and female attachment figures in her life, she experienced her relationship with her mother as the most damaging. As a

result, it is her experiences with her mother that have come to be encoded along gender lines.

Well, I imagined from the past life [sic] that it was a boy that was lost so it would make sense that it was a boy that came back and I think it would be sort of, I don't know why but I think it would be easier for me because I had un I I [sic] felt like growing up with my mother was no party so I felt like having it be another gender other than my own might make it easier for me because then I wouldn't feel the exact same duplication of you know transference from my mother and my relationship exactly so readily as if it was a male child [sic]. (Excerpt from Cynthia's Pregnancy Interview.)

In fact, there is ample evidence that Cynthia's attachment experiences and her inability to distance herself from them have already begun to take their toll on Cynthia's developing relationship with her baby in pregnancy. Just as Cynthia's mother was distant, Cynthia has significant trouble imagining her future relationship with her child, stating "I imagine there will be a relationship, I have no idea." Moreover, Cynthia anticipates that her child will feel closer to her husband and notes that her baby probably knows her better at this point than she knows her baby.

An examination of Cynthia and John's interaction during the 28-month free-play sequence illustrates that Cynthia is extremely distant and disengaged from her son. Her affect is flat, she appears depressed, and she exhibits limited interest in her son's play. John often tries to engage his mother, particularly during the mother-occupied condition, but rarely is he successful. When playing with her son, Cynthia appears to be going through the motions. She interacts with him in a largely didactic manner, often supplying a narrative to the play that is devoid of any affect. In fact, she does not participate in the play so much as react to it (for example, when her son gives her some pretend cake to eat she tells him that he can eat it for her).

Although typically remaining distant, there are moments when Cynthia becomes more engaged, and others when she distinctly directs John's attention to particular toys. Her increased involvement occurs around shifts in the gender content of John's play, and it is in these moments that we see how gender and the echoes of Cynthia's early attachment history are played out in this dyad. Although John's sex-typed play discrepancy scores are only moderately to fairly high in both play conditions (given Cynthia's high MGR score, we might expect the discrepancy between same-sex-typed and cross-sex-typed play to be more extreme), the shift in the balance of sex-typed play from being predominantly same-sex-stereotypic when playing by himself to being predominantly cross-sex-stereotypic when his mother joins him in play is extreme. Cross-sex-typed play increases from 7% in the mother-occupied condition to 62% in the mother-engaged condition (see Table 11; this latter number represents the greatest proportion of time spent in cross-sex-typed play in the ME condition among all subjects). In fact, closer examination of this data illustrates how closely issues of gender and his mother's accessibility as an attachment figure are reflected in John's 'sex-typed play' patterns.

Both John and Cynthia are very attuned to the sex-typed classification of the toys during the mother-occupied condition; John expressly asks if the toy broom is for a girl or a boy, and his mother in response directs him to play with the blocks and the tools instead. John then plays briefly with the doll which he mislabels as a boy before turning to largely male-stereotypic play for the duration of the play condition. Throughout this play condition John declares his intent to play with various male-stereotypic toys, as if looking for approval or some sort of response from his mother. Despite these efforts, his mother responds with minimal affect. The one moment of intimacy that occurs during this play condition is when John exuberantly puts on some toy sunglasses and

looks up at his mother. He tells her that she looks nice and goes to bring the glasses to her. Cynthia pulls away, however, when John quickly grabs at her reading glasses and pushes the sunglasses on her face causing his mother to pull away. The intimacy is repaired, however, when his mother returns the toys glasses and smiles warmly as John happily puts them on himself.

Notwithstanding Cynthia's attempt to direct John to male-stereotypic toys during the mother-occupied condition, she has great difficulty joining her son in male-stereotypic play when the mother-engaged condition begins, and it is during this condition that the balance of John's sex-typed play shifts predominantly toward cross-sex-typed play. Initially intrusive, Cynthia seems unsure of how to play with John (who is playing with a fire engine when his mother joins the play) and often pulls back seeming bored and uninterested. Furthermore, it is only when John introduces a female-stereotypic object into the play (a barrette) that Cynthia becomes more actively engaged in play. Rather than redirect his attention to a male-stereotypic toy as she had done during the mother-occupied condition, Cynthia engages in play with John with the barrette and becomes very warm and responsive. She finds the other part of the barrette, finds some earrings that she thinks are part of the same "set" and explains that girls wear barrettes in their hair, that they are for long hair, etc. As the play continues, they attempt to put the barrette in John's hair (his mother comments more than once that she does not think his hair is long enough) twice causing John to grimace or yell "Ow!" when his hair has been pulled. From this point on, play is predominantly female-stereotypic and there is a much greater degree of give and take between the two with Cynthia saying things like "isn't that nice" when the two are playing with the dishes and the tea set. The warmest moment occurs when John gives his mother the baby doll to hold and Cynthia smiles broadly as she pats it briefly.

Finally, Cynthia's behavior in the transition between the mother-occupied and the mother-engaged play conditions should be noted as it provides an excellent example of the degree to which Cynthia is disengaged from her son. On hearing the knock that indicates that she is to join her son in play, Cynthia gets up from her chair without a word, walks to the door, and tells John that she will be back only as she is leaving the room. She barely pauses and does not acknowledge any reaction on John's part, who tracked his mother with his eyes all the way across the room and looked after her in a dazed fashion as she closed the door behind her. On returning within moments, Cynthia joins John in play as if nothing had happened and states flatly that she had made a mistake and that she was supposed to play with him. She does not acknowledge or even seem to notice John's apparent confusion over her rapid departure and return. John never protests his mother's departure, nor does he seek her out for reassurance on her return. Moments later, however, he enacts his distress in play crying out anxiously in reference to one of the toy figures "Man gone! Man gone! Man gone!" His mother matter of factly helps him find the figure but seems unaware of the connection of this play to her own departure.

## II. Case #058 - Nicole and Alex

Nicole was classified as Secure on the AAI despite a difficult early history which she has spent many years addressing in therapy; it is evident in her narrative that she has gained a fair amount of perspective on these experiences although some issues remain difficult for her to address. Nicole reported having significant separation reactions as a child. She also reported considerable marital tension between her parents who divorced when she was 16. A strict gender-based hierarchy existed in her family that idealized and

valued her father (he was a "genius" and the "most moral person") while devaluing her mother (she was "the butt of family jokes").

Nicole did not have a strong relationship with her mother as a child. She described her mother as extremely preoccupied, unhappy, and depressed, so much so that Nicole used to worry that her mother would forget her. Furthermore, Nicole felt that her mother was so "turned inward" that she was not aware of who her children were; she describes that her mother "projected" herself onto her children and that she "failed to distinguish the difference" between herself and her children. Nicole now has a close relationship with her mother and acknowledges an understanding of how her mother's unhappy marriage, depression, and feelings of worthlessness negatively impacted her emotional availability during this period.

In contrast, Nicole reported a very close relationship with her father, noting that she was his favorite, that he devoted a lot of attention to her, and that he made her feel adored. Though happy with her cherished position in the family, she was also uncomfortable with his lack of attention toward her mother and older brother, and as an adult came to understand that her father used his closeness with her as a "pawn" in his relationship with her mother. Although Nicole's portrait of her early relationship with her father remains idealized, she provides memories that represent why her early relationship with her father seemed so special.

Following her parents' separation and divorce, Nicole's relationship with her father changed dramatically and he significantly curtailed his contact with Nicole and her brother. She felt devastated and confused by the sudden switch in her father's behavior, reporting that he had "nothing but criticism and disapproval" for her after this point. Nicole likened the loss of her father in this way to the loss of a limb: "you don't die, but you don't get the limb back"

and speculates that her father experienced a "complete breakdown" following the divorce. Currently, she does not have much contact with her father (the last time she saw him was 5 years earlier at her wedding). Although the deterioration of this relationship was very traumatic for Nicole, she does not appear to be overly preoccupied by these events.

Despite Nicole's secure attachment status there is much in her history that predisposes her to a bifurcation of her experience along gender lines. These events include the overvaluation of her father and devaluation of her mother in the family, her father's abrupt departure from the family and subsequent devaluation of Nicole, her brother's subsequent struggles with mental illness and the more recent loss of her maternal grandfather and uncle. As a result of these experiences Nicole struggles with the feeling of having been abandoned by the males in her life.

I mean it seems like the . . . the males in our family have sort of gone to seek their ruin early, I mean, like there's this pattern that, I mean, it's not a real pattern, but it's a . . . it feels like a pattern of a . . . of [sic] male defection, I mean from my father, you know, to my brother's illness, I mean, he's not . . . you know, these are men that kind of be [sic] dependent upon to [sic] the death of my grandfather and the death of my uncle [sic], so that there aren't a lot of strong men in the family anymore. There aren't a lot of men in the family any more (chuckle) of any kind that one can depend on, so . . . um . . ., that's not such a great feeling. (Excerpt from Nicole's AAI.)

An examination of Nicole's maternal gender representation (she received an MGR score of 9 and was classified as having a strong preference for a girl) reflects that despite her secure attachment status, her prenatal gender representation of her child very much has been influenced by her experiences with her father and brother -- experiences that clearly have come to be coded along gender lines. Nicole knows she is having a boy and describes at length

her disappointment about not having a girl, her desire to have a girl in the future, her relief that she has had time to adjust to the knowledge of having a boy, and her fear that she will somehow communicate her disappointment to her son. Furthermore, Nicole describes her fear that her son will be damaged or incapacitated like her brother -- a fear that she does not associate with having a girl.

I think, I don't think, I know that I feel this apprehension that I'll have a child that's like [my brother] and I think my father has had, also, a history of mental problems as well. Not as severe as my brother's, in some ways 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 sort of . . . gut level [sic]. You can only [inaudible] is like someone with a lot of difficulty [sic] that I'm going to have to . . . handle and take care of . . . and I don't. . . I . . . ah, look for that . . . opportunity [sic]. 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 (chuckle) about girls, you know. They're the viability of the world. (Excerpt from Nicole's Pregnancy Interview.)

The degree to which Nicole has encoded critical attachment experiences along gender lines becomes even clearer as she articulates her fear that she will turn her son into a homosexual. In particular, she is preoccupied with the idea that if her son became a homosexual that it would be a reflection of her relationship with him and the fact that she was "such an abhorrent female that the poor thing could never bear another one again" (excerpted from the AAI). In this fantasy, Nicole has recreated the rejection and condemnation she experienced from her father. Given the content of Nicole's fears it also would appear that she has encoded her father's rejection not only along gender lines but also along sexual lines (recall that her father's departure from the family

ended her cherished relationship with him and her valued position in the family as the focus of his affections).

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, [inaudible] so smothering to him that, you know, that will [inaudible]. Ah, but [inaudible], you know, I really feel very concerned about it and um, I know in a way it's preposterous . . . . to think about it now and ah.[...] Um, but I feel like it would be a terrible accusation, you know, to me. You know, it would be my fault, it would be my fault, [sic] my responsibility and this indictment that I had made women so abhorring [sic] to him that he could never have ano [sic] . . . that he'd never want to be with another one. (Excerpt from Nicole's Pregnancy Interview.)

In many ways Nicole's Pregnancy Interview is similar to that of other securely attached women. She speaks easily and freely about her excitement in becoming a mother, and she is able to discuss without difficulty the times she will enjoy sharing with her child and the times she expects to be more difficult. Despite this, however, she has trouble imagining what her baby will be like and states flatly that "I can't imagine this. We'll hope he is a person." Nicole's extreme inability to imagine her child, coupled with the ease with which she projects her own fears onto him as seen above, bears a striking similarity to these characteristics that Nicole reports with respect to her own mother. In fact, Nicole worries that this is one of the ways that she will be like her mother as a parent.

. . . . so that even though [my mother] can be overly involved in my life at moments, you know, in another way, it's not . . . it's kind of not my life at all. It's like some extension of her life, do you know what I mean. So um, . . . . I hope I can be more clear about those things . . . in my own . . . with my own child. Do I

have any great hope of it being better? Not much, (chuckle), I mean to be honest with you, I, you know, I don't know that I'm much better, either that I'll be any better at any of this than she was or that anyone else is, but I'll try. (Excerpt from Nicole's Pregnancy Interview.)

Alex's play during the 28-month visit reflects a tremendous imbalance in the proportion of time he spends in same-sex-stereotypic and cross-sex-stereotypic play and his discrepancy (DS) scores are among the highest for both conditions (see Table 11). Note, however, that the balance of Alex's sex-typed play also flips from being predominantly same-sex-stereotypic in the mother-occupied condition to being predominantly cross-sex-stereotypic in the mother-engaged condition; a change that seems very much related to important aspects of his relationship with his mother.

On the surface Nicole seems very connected and engaged with Alex. Her mood is light, she responds readily to her son's comments and bids for attention, and it is evident that she enjoys being with her son. Despite this, Nicole does not really recognize or respond to her son as an autonomous individual. She has trouble acknowledging him and responding to his distress, nor does she accept what he says without having to confirm it for herself ("OH! You were right, it really is an 8 and a 2!" "I'm sorry, there was another man."). Throughout both play conditions, Alex is anxious and betrays significant concern about objects or people that are gone (e.g., the experimenter and a toy figure) or things that are broken (e.g., a necklace after he has taken the beads apart).

Alex's play is largely male-stereotypic (98%) during the mother-occupied play condition. However, he has considerable difficulty settling into play and spends a lot of time wandering about the room, on one occasion asking to leave. His mother tries to help him become more engaged in play by

drawing his attention to various toys, although she never comments on or suggest new ways to play with the toys he may already be holding. In fact, Alex has such difficulty playing on his own that his mother joins him on the floor earlier than the protocol demands so that he may feel comfortable enough to play. (Interestingly, Alex did not ask her to do this). The viewer is left with the feeling that Alex has trouble existing or experiencing any sense of agency apart from his mother's immediate proximity and engagement with him.

During the mother-engaged condition Alex has a much easier time staying involved in play although he continues to need his mother's support to sustain his activities. Nicole remains responsive and engaged as before, however, as the play continues it becomes evident that her interactions with Alex are intrusive and appear to be driven by her need to feel recognized by him. She frequently reaches out to stroke or pat Alex as if to soothe him, although these moments seem to derive more from her own need to physically connect with her son than from Alex's desire to be soothed or touched. Other times, she moves in close to Alex in ways that seem strikingly aggressive and out of context. In both situations Alex generally moves away in an apparent bid to regain his personal space and boundaries. In many ways Nicole responds to Alex not only as an extension of herself but as if he were a physical extension of her own body.

The content of Alex's play shifts significantly in a cross-sex-typed direction during the mother-engaged condition (57% of his play was cross-sex-stereotypic, the third highest percentage for this condition, as opposed to only 2% during the MO condition, see Table 11). Again, the moments of greatest intimacy between mother and child come during female-stereotypic play, and in particular in play that is connected to adorning or grooming, such as putting on a necklace or combing hair. In one piece of play mother and child spend

considerable time combing each other's hair. In another, Alex has been playing with a toy necklace which his mother then puts on while smiling flirtatiously at him. She again smiles tenderly when Alex then puts the necklace on. Despite these moments of connection, Alex seems oddly unrecognized by his mother. When combing his hair, there is no sense that she is truly looking at or responding to Alex as an independent individual, but rather that she is responding to her image of him. In fact, his mother moves from the hair combing play to doll play as if the doll were an extension of her son.

Throughout play during this condition, the theme of breaking apart and reparation is repeatedly enacted. On more than one occasion Alex takes the beads of the necklace apart, only to become extremely distressed, expressing concern about where the necklace went and whether it was broken. He cries to his mother to help him put it together again. This play is not only repeated with the necklace but also with larger pop-beads which are sometimes used to make a necklace and other times to make a circle or other objects. Alex's distress seems out of proportion and seems to reflect general anxiety about his relationship with his mother. Nicole on her part does not seem to recognize the depths of his distress and at one time postpones helping him because she was trying to put a toy earring on herself.

Although Alex initiated female-stereotypic play with the necklace, his mother joined him and actively helped to sustain this play and all subsequent female-stereotypic play. Despite his active participation in female-stereotypic play in the mother-engaged condition, at times Alex seems ambivalent or even distressed when engaging in this play. With the necklace play he tells his mother to take the necklace off when she is wearing it and when he wears it he asks his mother if he can break it apart. However, despite his ambivalence, Alex seems aware of his ability to engage his mother around this type of play.

For example, on one occasion when his mother yawned and briefly pulled back from the play, Alex immediately retrieved the doll's comb for his mother to comb his hair again. By doing so, Alex successfully reengages his mother and appears to be content for the moment to serve his mother's needs in this fashion.

## CHAPTER FIVE

### DISCUSSION

Gender is a powerful construct in the lives of most individuals and while it is not the prime determinant of all (or even most) aspects of behavior, it affects all of our lives in profound ways. Central in most individuals' identities is a sense of oneself as male or female, although what it means to be either male or female can vary dramatically for different individuals not only across cultures, but within the same society and social class. For some, gender is a very rigid construct that defines one's sense of self in a very concrete manner. While many of these individuals may adhere strictly to the gender roles ascribed by society, others may react rigidly against these roles while retaining a concrete understanding of gender (e.g., see Coates, 1995). However, for still others, gender is a more fluid construct and one's sense of identity as a male or female is not so concretely defined or shaken by a strict adherence to or rejection of the roles and characteristics ascribed to one's gender (see also Bem, 1993).

Why these different approaches to the construct of gender exist is an interesting question to consider that has not been adequately addressed by the sex differences literature or the on-going debate on nature versus nurture with respect to the origins of sex differences. While biology has been implicated in certain sex differences -- for example, the higher levels of rough and tumble play exhibited by boys in contrast to girls (DiPietro, 1981) -- the majority of sex differences do not appear to be biologically driven. In fact, parents, teachers and peers have been found to have a significant influence on sex-typed behavior in early childhood (Fagot, 1977; Fagot, 1978; Fagot & Leinbach, 1989; Fagot, Leinbach & O'Boyle; Fagot & Patterson, 1969; Lytton & Romney, 1991). This study is the first to examine the role attachment may play in the development of

sex-typed behavior in young children particularly as it influences the representations parents form of their children with respect to gender in pregnancy.

The findings of this study have been presented in two formats, with empirical findings articulating the main relationships between maternal gender representations and sex-typed play, and case material reflecting the complexity of the relationship between these factors. Both approaches to the data are important and necessary to understand fully how gender may become caught up in the attachment system and how this in turn may affect the child's subsequent gender-role development. The empirical findings will be discussed first followed by a discussion of the case material.

#### Discussion of Quantitative Results

Before turning to the major findings of this study, it is important to note that this study is the first to examine empirically in any detail women's representations of gender with respect to their children during pregnancy, and a brief discussion of the overall findings with regard to maternal gender representations will be discussed first. As expected, the results indicate that the majority of women think about gender in a flexible manner, neither dismissing the issue of gender nor developing over-elaborated representations of gender. These results support the accounts in previous research that indicate that the majority of women respond to their fetus with reference to gender (Condon & Dunn, 1988; Stainton, 1985). It also supports previous narrative accounts and case analyses that indicate that there is also a fair amount of variability in the degree to which women think about gender with respect to their children during pregnancy, with some women developing considerably more elaborated representations of gender than others (Rothman, 1986; Winestine, 1989)

The distribution of maternal representations of gender during pregnancy in this study is also notably similar to Benoit, Parker & Zeanah's (1997) findings with respect to the development of mothers' overall representations of their children during pregnancy as measured on the Working Model of the Child Interview. Benoit found that the majority of mothers (64%) developed "balanced" overall representations of their children during pregnancy, while 12% developed "disengaged" representations, and 24% developed "distorted" representations. (Roughly these categories reflect a similar degree of elaboration with the "disengaged" category being similar to low scores on the MGR scale where maternal gender representations are minimally elaborated, the "balanced" category being similar to the mid-range of the MGR scale where maternal gender representations are fairly flexible, and "distorted" representations being similar to the high range of the MGR scale where maternal gender representations are over-elaborated. The similarity in the distribution of MGR scores and mothers' overall representations of the child found by Benoit and her colleagues is not surprising as maternal gender representations are thought to be but one component of a mother's overall representation of her child.

Women's representations of gender were also examined with respect to the development of specific preferences regarding the gender of their children. Interestingly, this study found that a significant majority of subjects indicated a preference for girls. This finding is contrary to most previous research which indicates a greater preference for boys, especially with respect to first born children (Dixon & Levy, 1985; Williamson, 1976) and perhaps reflects that gender preferences have begun to shift in response to the significant changes in gender roles that have occurred over the last few decades. In fact, recent research conducted by Pooler (1991) found a similar shift in gender preferences among female college students. Pooler found in two separate samples that a

majority of female college students expressed a preference for a female child and that the majority stating a preference for a girl increased from 54% in 1985 to 58% in 1988. (Pooler also found that the majority of college men still expressed a preference for boys.)

It should also be noted that strength of preference scores were assigned based on subjects' total narratives about their feelings and preferences regarding the sex of their children and not according to responses on a checklist. Interestingly, when establishing the coding system it was found that a significant majority of subjects initially denied having any gender preference, a finding that supports a more recent trend in the sex preference literature reflecting a significant increase in the number of individuals who report no preference with respect to sex particularly for a first child (Pharis & Manosevitz, 1980; Steinbacher & Gilroy, 1985; Teichman, Rabinovitz & Rabinovitz, 1992; Uddenberg, Almgren & Nilson, 1971). However, when the total narrative of the responses regarding gender were considered, it appeared that a majority of subjects who initially reported no gender preference did in fact appear to prefer having a child of one gender over the other. Typically such a contradiction would take the form of "No, I don't really have a preference, but I really would like to have a boy, because...." This finding indicates that some women may feel reluctant to admit to having a gender preference, perhaps as a result of living in a culture that increasingly supports the view that gender should not matter. Furthermore, it highlights the need for future research to probe fully subjects' responses to questions regarding gender and gender preference.

Turning to one of the main questions of this study, why some women may develop more flexible representations of gender, while others may develop more rigid over-elaborated representations, and still others may dismiss the issue of gender with respect to their children with little or no thought, this study sought to

find some answers with respect to the variability in maternal gender representations in terms of attachment theory. It is a central tenet of this study that gender is a construct that may readily become caught up in the attachment system, especially as one's understanding of gender and the acquisition of gender-typed behavior and stereotypes largely takes place in the context of one's early life. It was predicted that women's attachment status would be related both to the development of their representations of gender with respect to their children and to the strength of maternal gender preferences formed in pregnancy.

In general, the analyses testing the relationship between attachment and maternal gender representation revealed a trend in the data providing preliminary support for a relationship between attachment and the development of maternal gender representations in pregnancy. Stronger support was found for a relationship between attachment and the strength of maternal gender preference as results reached significance using the 3-way classification system and just missed significance using the 4-way classification system. Given the small size of this study it is felt that these results are important and will be discussed in detail below. It should be understood that all discussion of the relationships between maternal gender representations and attachment reflect trends in the data and conclusions drawn about the relationships between these variables should be considered preliminary. Unfortunately, it was not possible to test any of the predictions made with respect to the dismissing attachment classification because of the unusually small number of dismissing subjects in this sample. As a result, findings will be discussed with respect to the secure, preoccupied and unresolved attachment classifications only.

Preliminary support was found for the hypothesis that preoccupied women develop more rigid highly elaborated representations of gender with respect to their children during pregnancy than securely attached women.

Although the mean MGR score for this group did not fall precisely in the upper range of the scale, it was higher than the mean MGR score for secure women, indicating a greater preoccupation with the issue of gender with respect to their children in pregnancy among preoccupied women. Furthermore, firm support was found for the prediction that preoccupied women develop stronger preferences for having a child of a particular gender than securely attached women (with mean preference scores indicating that preoccupied women develop minimal to strong gender preferences). These findings correspond to the findings of previous research that characterizes individuals who are preoccupied with respect to attachment as minimally able to respond or react to their infants as autonomous individuals (Cassidy & Berlin, 1994). In the context of gender representations, this takes the form of more elaborated representations of gender that are based on the mother's own beliefs and desires with respect to gender. The more elaborate these notions are, the less acknowledgment there is of the child's autonomy from his or her mother's representation of gender.

Securely attached women, in contrast, displayed a tendency to develop more flexible representations of their children with respect to gender during pregnancy, neither rigidly refusing to think about gender, nor becoming preoccupied by the issue of gender. This finding for greater flexibility in the maternal gender representations of securely attached women was supported by the even stronger finding that securely attached women developed fairly weak gender preferences (with mean scores indicating fluctuating to minimal gender preferences). Clearly, although securely attached women appear to develop preferences with regard to the gender of their children, as a group they appear to be more open to having a child of either gender. These findings fit with the characterization of securely attached women as maintaining a more flexible stance with respect to attachment and attachment relationships and as having a

greater capacity for responding to and supporting their children's autonomy (Slade & Aber, 1992). With regard to maternal representations of gender this flexible stance is reflected in representations of the child that are not so directly defined by notions of gender.

Although no previous research specifically has studied maternal gender representations with respect to attachment, the findings with respect to both the preoccupied and secure groups support more general qualitative research linking attachment to maternal representations of the child (Ammaniti, 1994; Slade & Cohen, 1996). These studies provide preliminary evidence that preoccupied women form more rigid and fixed representations of their children while securely attached women retain more flexible representations of their children. Furthermore, reflecting the pattern found in the data reported here, the preoccupied mother described by Slade & Cohen (1996) in their study was reported to have developed a specific gender preference with respect to her child, while the securely attached woman described in that report did not. Slade & Cohen further argue that issues from the past seem to dominate the representations and relationships insecurely attached women develop with respect to their children. With regard to the current study, it is presumed that the women who are classified as preoccupied on the AAI more frequently develop representations of gender with respect to their children that reflect important themes from their early attachment relationships that have become categorized in gender terms. A more detailed analysis of this process will be addressed below with respect to the two cases selected for analysis.

Some interesting patterns emerged when the data were re-analyzed using the 4-way attachment classification system. Again, these results only reflect trends in the data as they failed to reach significance at the  $p = .05$  level, and as a result the conclusions drawn here must be accepted with some caution.

Interestingly, when the unresolved classification was included in the analyses, the predicted relationship between the secure and preoccupied groups became more extreme with respect to both maternal gender representation and the strength of maternal gender preference. While the scores for the secure group remained essentially static, the scores for the preoccupied group using the 4-way classification system reflected a much greater preoccupation with the issue of gender which was indicated by significantly more rigid and more highly elaborated representations of gender and by uniformly strong gender preferences.

It is important to consider why the reclassification of subjects using the 4-way system affects the scores of the preoccupied group more than the secure group. In fact, the most likely explanation is that the vast majority of subjects reclassified as unresolved had previously been classified as preoccupied, a pattern that has been found in previous research involving the unresolved category (van IJzendoorn, 1995). The trend toward a significant increase in the maternal gender representation and strength of preference scores once the unresolved-preoccupied subjects are removed from the preoccupied group raises some interesting questions about how unresolved-preoccupied women differ from preoccupied women who have not been classified as unresolved with respect to loss or trauma. Clearly, something appears to prevent unresolved-preoccupied women from becoming as preoccupied with gender and from developing similarly strong gender preferences as other preoccupied women. One possible explanation for this may lie in the fact that unresolved-preoccupied women may be too involved in their past trauma to become as preoccupied with the issue of gender with respect to their children as readily as other preoccupied women. Just as unresolved individuals have been shown to demonstrate "frightened" behavior in the presence of their children that reflects the degree to which they remain caught in their past and unable to respond appropriately to the

present (Main & Hesse, 1990), we might also expect the unresolved-preoccupied women to remain stuck in the past and to be unable to attend to issues of gender with respect to their children.

A further issue to consider is why unresolved women, in general, seem to be quite similar to securely attached women with respect to both maternal gender representations and the strength of maternal gender preferences. Again, one explanation for these findings may be that unresolved women are too preoccupied by their past trauma to pay much attention to the issue of gender with respect to their children, leading to the ironic result that unresolved women appear to develop equally flexible representations of gender as securely attached women. These findings are particularly surprising in light of the fact that the secure and unresolved attachment classifications are thought to reflect significantly divergent stances with respect to attachment. Secure attachment reflects a clear, coherent state of mind with respect to attachment where access to memories and feelings with respect to attachment are not limited or restricted (Main, Kaplan & Cassidy, 1985; Main & Goldwyn, 1988). It is considered the optimal attachment classification and has been linked extensively to the development of secure attachment in children (e.g., van IJzendoorn, 1995). In contrast, unresolved attachment in adults reflects the lack of any sustainable organized stance with respect to attachment and is characterized by significant lapses in reasoning and monitoring in response to experiences of loss or trauma (Main & Goldwyn, 1988; Main & Hesse, 1990). It has been associated repeatedly with the development of a disorganized/disoriented attachment pattern in children (e.g., van IJzendoorn, 1995) and more recently evidence has emerged linking it to a vulnerability to dissociative disorders (Main & Hesse, 1992). Given these differences one would not readily expect securely attached women and unresolved women to develop similar representations of gender.

In fact, unresolved and securely attached women may not be as similar with respect to the development of maternal gender representations as the data initially suggest. Rather, it appears that there is greater variability in maternal gender representation scores among the unresolved group than among the secure group. One possible explanation for this is that subjects classified as unresolved initially may have been classified in any of the three standard categories, thus contributing to the variability in maternal gender representation scores. However, this does not seem to be the case as the vast majority of unresolved cases had been drawn from the preoccupied group with only one each being drawn from the secure and dismissing groups.

A more likely explanation for the greater variability in maternal gender representation scores of unresolved women is related to the fact that individuals classified as unresolved experience specific lapses in reasoning around the issue of loss or trauma, becoming disorganized in their narrative or having difficulty recalling events related to their trauma (Main & Goldwyn, 1988). One would expect unresolved mothers to develop very different representations of gender depending on whether or not the construct of gender has become conflated with their loss. In fact, if the construct of gender has become emotionally intertwined with the loss or trauma, a similar degree of disorganization should occur when addressing the issue of gender, both with respect to the past and with respect to how they think about their children. As a result, some might develop highly idiosyncratic, over-elaborated representations of gender with respect to their children, while others might be unable to address the issue of gender with respect to their children in any significant way. In contrast, if the trauma has not become organized around issues of gender, unresolved women, like securely attached women, may be able to develop more flexible gender representations -- just as the overall narratives of unresolved individuals may appear very similar to those

of secure individuals when they are not addressing issues related to their trauma (Main & Goldwyn, 1988; Hesse, 1996).

Coates has reported data with regard to the parents of boys with Gender Identity Disorder (GID) that provide partial support for this argument (in particular with regard to the possibility that unresolved individuals who have conflated their trauma with issues of gender may develop rigid or over-elaborated representations of gender with respect to their children). Preliminary results of an on-going study have found that the majority of parents of boys with GID are classified as unresolved with respect to trauma on the Adult Attachment Interview (Coates, personal communication, Sept. 1997). Furthermore, she has previously argued that the majority of these parents "have organized unresolved traumatic childhood experiences around gender content in a highly concrete way" (Coates, 1995, p. 5). She further reports that these parents are rigidly committed to non-sexist child-rearing and that they have created a highly charged atmosphere around the issue of gender that results in considerable pressure for the child to adopt highly stereotypic expressions of cross-sex-typed behavior. Clearly, these parents appear to have organized their trauma around gender content in a way that significantly affects how they see and respond to their children.

Given the small number of unresolved cases in this study, the issues raised here can be viewed as speculative only. Just how maternal representations of gender develop in unresolved women, whether their representations of gender are indeed more variable, and if so, what factors may lead to this variability remain avenues for further study. Furthermore, why some unresolved women conflate their trauma with gender issues while others do not is an important question that needs to be resolved in future research.

Prior to discussing the findings with regard to the effect of maternal representations on the child's subsequent development of sex-typed play, the findings regarding the overall expression of sex-typed play in this study will be reviewed. As expected, the results of this study supported previous findings with respect to male-stereotypic and female-stereotypic play: boys spent significantly more time engaged in male-stereotypic play than girls and girls spent significantly more time engaged in female-stereotypic play than boys (e.g., Fagot, 1978; Fein, et al., 1975; O'Brien & Huston, 1985; Perry, White & Perry, 1984; Weinraub, et al., 1984). However, although no differences were found between male and female subjects in the amount of time spent in gender-neutral play while subjects played by themselves, once the mothers became involved in play, girls spent significantly more time in gender-neutral play than boys. This result was surprising as it was expected that boys and girls would not differ in the amount of time spent in gender neutral play in either play condition. Many fewer studies have reported on the relative tendency of boys and girls to engage in gender-neutral play, although a few studies indicate that girls may engage in gender-neutral play slightly more frequently than boys (Caldera, Huston, & O'Brien, 1989; O'Brien & Huston, 1985).

It would appear that the extreme difference in gender-neutral play between boys and girls during the mother-engaged play condition can be attributed to the mother's engagement in play and suggests that their involvement affects the play of boys and girls differently. That mothers' involvement in play with their children alters their children's play is not surprising. Nor is it surprising that there was an overall increase in the amount time subjects spent in each category of play for both boys and girls (with the exception of gender-neutral play for boys). However, the different degree to which male-stereotypic, female-stereotypic and gender-neutral play increased among boys and girls

clearly suggests that a mother's presence in play seems to affect boys' and girls' play very differently.

One explanation for the dramatic increase in gender-neutral play among girls during the mother-engaged condition could be that mothers prefer to encourage their daughters' involvement in less sex-typed forms of play as a means of insuring their exposure to non-sex-typed activities and experiences -- in essence de-emphasizing the sex-typed training that many women have experienced in the past. This argument is further supported by the minimal increase in female-stereotypic play and the somewhat larger increase in male-stereotypic play that occurred when mothers joined their daughters in play. The absence of change in the expression of gender-neutral play coupled with the considerable increase in female-stereotypic play and a minimal increase in the amount of male-stereotypic play that occurred for boys indicates that other factors influence the change in the balance of sex-typed play when mothers join their sons in play. One possible explanation for this pattern of change is that mothers may pay relatively little attention to gender-neutral play among their sons, but rather support their engagement in same-sex-typed play while encouraging them to become more involved in activities and roles previously identified only with girls -- perhaps out of an acknowledged desire to broaden male gender roles or as a result of the mothers' own interest in engaging in female-stereotypic play herself. (This last idea is partially supported by Caldera, Huston, & O'Brien's (1989) findings that mothers were more involved than fathers with female-stereotypic and gender-neutral toys when playing with their children, while fathers were more involved with male-stereotypic toys than mothers). Clearly, these are factors that cannot be addressed by the current study but remain interesting questions for future research.

Turning now to the results linking maternal gender representations to the development of sex-typed play in the 28-month old child, there were some strong and very interesting results documenting the effects of maternal gender representations formed in pregnancy on the development of same-sex-stereotypic and cross-sex-stereotypic play. Some preliminary support was found for the prediction that more rigid, highly elaborated representations of gender are associated with an increase in the overall level of same sex-typed play when the child is engaged in play alone. However, post-hoc analysis of the data indicated that the relationship between maternal gender representation and sex-typed play is much more complex. A re-analysis of the data was conducted based on the theory that rigid, highly elaborated maternal gender representations could result in the elevation of either same-sex-stereotypic or cross-sex-stereotypic play relative to the other as a result of various factors in each individual's history. In fact, results provide support for this theory as a highly significant relationship was found between maternal gender representations and the discrepancy in the percent of time spent in same sex-stereotypic play versus cross-sex-stereotypic play when the children were engaged in play on their own (regardless of which category of play was predominant in a given individual). A weaker relationship was found that narrowly missed significance when the mothers joined the play and as a result this finding must be considered as providing only preliminary support. The ensuing discussion of the relationship between maternal gender representations and the balance of sex-typed play largely refers to the effect of maternal gender representations when the children are engaged in play alone.

Specifically, this relationship suggests that women who were more preoccupied by the notion of gender with respect to their children during pregnancy and who developed more rigid, idiosyncratic and over-elaborated representations of gender, had children who exhibited more extreme imbalances

in the proportion of time spent in same-sex-stereotypic and cross-sex stereotypic play than is typical, regardless of which category of sex-typed play was predominant. In contrast, women with less elaborated representations of gender had children who displayed more typical imbalances in the proportion of time spent in same-sex-stereotypic and cross-sex-stereotypic play.

In making sense of these findings it is important to note that children at this age typically spend more time in same-sex-stereotypic play compared to cross-sex-stereotypic play (Fagot, 1978; Fein, et al., 1975; O'Brien & Huston, 1985; Perry, White & Perry, 1984; Weinraub, et al., 1984). While the balance of sex-typed play is commonly skewed toward a greater propensity to engage in same-sex-stereotypic play even at this age (as was the case in this study) both boys and girls typically spend some time in cross-sex-stereotypic play. However, children whose mothers developed rigid and highly elaborated representations of gender during pregnancy exhibited much more extreme imbalances in sex-typed play than is typical. In fact, their play reflected either an exaggerated imbalance toward greater same-sex-stereotypic play (engaging in minimal amounts of cross-sex-typed play) or the reverse pattern where cross-sex-stereotypic play was predominant -- a pattern, it should be noted that reflects an even greater departure from typical sex-typed play patterns exhibited at this age.

As noted earlier, results were not as strong when the mothers and children were engaged in play together and the trend in the data reflected a weaker relationship between maternal gender representation and the balance of sex-typed play. This is an interesting finding that had not been predicted. In fact, some might expect that the impact of maternal gender representations would be greatest in the mother's presence when her behavior could be seen as directly driving the play. However, the stronger results linking maternal gender representations and the development of extremely divergent sex-typed play

patterns when children are playing alone indicates that the impact of mothers' gender representations formed in pregnancy already has been incorporated into their children's on-going play patterns; ironically, the mother's participation in play seems to interfere with the expression of these patterns. In fact, when the mother and child play together, the child's play reflects not only his or her own interests, but also various factors related to their interaction as well (Hinde & Stevenson-Hinde, 1987; Maccoby & Jacklin, 1974). As a result, play during the mother-engaged condition most likely represents a distortion of the child's current preferences and interests in play. For these reasons it can be argued that the relationship between maternal gender representation and sex-typed play is likely never to be as strong when the child is engaged in play with mother as when the child is playing alone, as indeed the results of this study have shown. (In fact, the findings discussed earlier regarding how the mothers' involvement in play affects boys and girls play differently provides further support for this argument.)

This study is the first to document the effects of the mother's representational world per se (specifically her representations of gender with respect to the child) on the development of sex-typed play patterns, and as a result the findings cannot directly be compared to previous findings in this area. However, these findings provide support for prior research linking themes in the mother's representation of the child to the presence of related behavior in the child (e.g., Fraiberg, Adelson & Shapiro, 1975; Slade & Cohen, 1996; Stern, 1995). Furthermore, they also provide support for Bergman's (1982) clinical observations documenting the impact of a mother's feeling about her own and her daughters' femininity on the daughter's experience and expression of gender.

Although no research to date has assessed the impact of maternal gender representations on the development of sex-typed play directly, previous research

has focused on differential socialization and parental responsiveness to sex-typed play, and also has focused on the effects of parental attitudes or stereotypes (see Lytton & Romney, 1991 and Maccoby and Jacklin, 1974 for reviews; see also Fagot, 1978; Fagot & Hagan, 1991; Fagot & Leinbach, 1989; Fagot, Leinbach & O'Boyle, 1992). The results reported here both support and extend the findings of this body of research which suggest that parents who are more preoccupied by issues of gender with respect to their children tend to have children who are more sex-typed than their peers. In a particularly relevant study, Fagot and Leinbach found that parents' affective attention to sex-typed play and behavior at 18 months, an age when most parents are not particularly reactive to issues of gender in their children's play, was associated with an early awareness of gender labels at 27 months, elevated levels of same-sex-typed play at 4 years, as well as an increased awareness of sex-role stereotypes at age 4. In studies such as Fagot and Leinbach's (1989), parents' preoccupation with the issue of gender can be presumed through their attentiveness to gender issues, but it is usually parental behavior that has been a focus of study.

Furthermore, by documenting the effects of maternal gender representations first formed in pregnancy there remains little question as to the fact that maternal beliefs, ideas, and preoccupation with issues of gender with respect to their children impact the development of sex-typed play in their children. Prior to this study no research had assessed parental variables in the development of sex-typed play prior to the birth of the child, leaving open in the past the argument that parental attitudes and behavior may have been influenced by the child's behavior and not vice-versa. Rather, just as it is presumed that maternal representations of attachment drive maternal attitudes, reactions and behavior toward the child in ways that ultimately affect the child's subsequent attachment behavior (e.g., van IJzendoorn, 1995; Fonagy, et al., 1993), it appears

from the findings presented here that maternal representations of gender drive maternal attitudes, reactions and behavior toward the child around issues of gender which in turn are thought to affect the child's subsequent gender-role development and the overall balance of sex-typed play.

Research on the development of the capacity to label oneself and others according to gender may provide a more concrete explanation as to how the presence of rigid, highly elaborated gender representations may result in extreme imbalances in the propensity to engage in same-sex-stereotypic and cross-sex-stereotypic play found here. The acquisition of gender labels has been identified as a significant factor that accelerates the acquisition of same-sex stereotypic behavior, play and peer preference (Fagot & Leinbach, 1993). Fagot's group has reported that the early acquisition of gender labels is associated with both greater parental attention to sex-typed play and greater parental endorsement of traditional sex-type roles (Fagot & Leinbach, 1993; Fagot & Leinbach, 1989). They argue that parental attention to gender issues "may sensitize the child to gender information and makes gender a more salient aspect of everyday life." This in turn results in a greater exposure to a sex-typed atmosphere and a greater opportunity for these children "to practice sex-typed behaviors and consolidate sex-typed knowledge and attitudes" (Fagot & Leinbach, 1993, p. 218). A similar process may be presumed to be mobilized when rigid, highly elaborated representations of gender are formed during pregnancy. In fact, it seems probable that the children of mothers with over-elaborated representations of gender also are likely to become early labelers of gender and that the early acquisition of gender labels further fuels the development of highly rigid gender schemas that guide subsequent sex-typed play behavior in these children (regardless of whether this occurs in a same-sex-stereotypic or a cross-sex-stereotypic direction).

The real importance of these findings connecting rigid, highly elaborate representations of gender with extremely divergent patterns of sex-typed play lies in the fact that the child's expression of gender can be significantly skewed by the mother's unconscious and specifically by her representations of gender that have been formed prior to the child's birth. While women who form more fluid representations of gender have children whose sex-typed play is no more skewed than most, women with over-elaborated representations of gender have children whose gender-typed behavior represents extreme distortions from the norm. It can be argued that this extreme distortion in the children's play reflects not only the mothers' extreme preoccupation with the notion of gender but also the development of a similarly rigid awareness of the construct of gender in the children as well. The lack of variability in sex-typed play reflects the degree to which these children have become alerted to the issue of gender as a central funnel for organizing behavior. For these children play has become so bifurcated along gender lines that engaging in one type of sex-typed play to a large extent precludes engaging in the other.

This study is also the first to examine the effect of maternal representations of gender on the development of extreme patterns of sex-typed play regardless of whether that play is predominantly same-sex-stereotypic or cross-sex-stereotypic. Typically, prior research has focused primarily on various factors associated with the development of either same-sex-typed play or cross-sex-typed play. Research in the first area has largely developed out of an attempt to better understand the development of sex differences in general, for example, why boys tend to play more with male-stereotypic toys and why girls tend to play more with female-stereotypic toys. Research in the latter area has focused more on the factors associated with atypical patterns of sex-typed play, often with the goal of understanding the impact of this type of play on the child's

relationship with others or in the context of research on the development of GID (e.g., Doering, et al., 1989; Fagot, 1977; Sandberg, et al., 1993; Zucker, et al., 1980; Zucker, et al., 1982; Zucker & Bradley, 1995). In contrast, this study seeks to unite these two lines of research to illustrate that extreme patterns of either predominantly same-sex-stereotypic or cross-sex-stereotypic play both develop out of an overall preoccupation with the issue of gender that has its origins in the mother's early attachment-related experiences.

### Discussion of Qualitative Results

What exactly causes the same-sex-typed/cross-sex-typed play balance to shift in one particular direction rather than the other is an important question that the quantitative analyses discussed above do not address. It was presumed that the content of a woman's gender representation, the specifics of her early attachment history, and factors related to any expressed gender preference are central factors affecting this process. As a result, a more extensive analysis of two mother-child dyads were reported in order to shed some light on these factors and to further examine the relationship between attachment, maternal gender representations and the development of extremely divergent sex-typed play patterns.

Before turning to a discussion of these cases, it is important to note that a review of the data across each of the mother-child dyads revealed that the pathway connecting attachment status, maternal gender representation and extreme imbalances in 'sex-typed play' within a given mother-child dyad is not always as direct as one might anticipate given the findings discussed above. For example, several securely attached women in this sample developed rigid, highly elaborated gender representations and each also had a child whose play reflected extreme imbalances in the proportion of same-sex-typed and cross-sex-typed

play, as was the case with Nicole and Alex. Such a pattern suggests that a secure attachment status may not always interfere with the development of rigid over-elaborations of gender and furthermore suggests that once such representations become established, issues in the relationship between mother and child may become reactive to the construct of gender regardless of the mother's security status. In addition, it was found that the direction of the imbalance of sex-typed play shifted from one category to the other in a surprising number of cases once the mothers joined their children in play. This finding highlights the fact that the primary effect of rigid maternal representations of gender is to elevate the construct of gender in and of itself as a mediator of experience for the child without regard to how gender is expressed in the child. It further suggests that for some dyads the expression of gender may be more readily co-opted in the mother's presence. This idea has particular relevance to the literature on the etiology of Gender Identity Disorder and will be discussed in greater detail following a more general discussion of the cases.

Of the two cases highlighted for analysis, both Cynthia and Nicole present histories of significant trauma and each for different reasons has appeared to conflate the difficulties in their early histories with the issue of gender. The focus of this analysis will be to highlight how attachment mediates the relationship between maternal gender representations and the development of sex-typed play patterns. Each of these cases also deviates somewhat from the expected path connecting attachment, maternal gender representations and sex-typed play and as a result allows us to better understand the vicissitudes and complexities in this process. Each case will be discussed separately below.

Despite Cynthia's great efforts to distance herself from her history of abuse and upheaval, she has gained little perspective on her past. Already during pregnancy the impact of her inability to address her past is evident in the extreme

difficulty she has imagining a relationship with her child; a difficulty that is also apparent 28 months later in her distant and disengaged interactions with her child. As with the mothers described in Fraiberg's paper "Ghosts in the Nursery" (Fraiberg, Adelson, & Shapiro, 1975), Cynthia seems doomed to repeat the past even as she tries through her belief in reincarnation to distance herself from it. Evidence that Cynthia's early unmetabolized history has begun to have a noticeable impact on her son is evident in John's attention to his mother and in his vigilant attempts to act in a manner that she would approve of: behavior that is reminiscent of the ways Cynthia tried to engage and please her own mother. Further evidence that perhaps other elements of Cynthia's history are being reenacted as well can be found in John's quickness to move away from his mother when she tells him not to bang a toy hammer on the wall and also in several bizarre movements and freezing postures exhibited by John during play (for example, when John stopped playing, looked out with a dazed and far-away expression, and proceeded to slowly pass his hand in front of his face in a downward motion). Such movements are associated with a disorganized/disoriented attachment status in the child and have been linked to children experiencing their primary attachment figures as frightened or frightening figures (Main & Solomon, 1986; Main & Solomon, 1990; Main & Hesse, 1990). Typically, children classified as disorganized/disoriented have mothers (or another primary attachment figure) who are classified as unresolved with respect to attachment (Main & Hesse, 1990) as is Cynthia.

Evidence as to the degree to which Cynthia's early history has become conflated with gender is found primarily in her almost desperate hope that her son's gender will prevent her from repeating the trauma of her early relationship with her mother. Cynthia's attentiveness to John's engagement in male-stereotypic play seems to be an effort on her part to bolster her identification of

John as male in her own mind in hopes of providing a stronger barrier against the repetition of her own early experiences with her mother. What results, of course, is a child who is extremely attuned to gender issues in play and whose expression of gender is significantly keyed to the meaning it holds in the mind and emotional world of his mother.

Unfortunately, Cynthia's attempts to encourage John's expression of same-sex-typed behavior in an effort to prevent the repetition of her traumatic relationship with her mother does not work very well; rather, it appears to lead to a repetition of the very disengagement and lack of emotional attention she experienced herself as a child. Ironically, Cynthia seems capable of relating to John only when he engages in female-stereotypic play that reflects her own interests and her desire to re-experience elements of her own early childhood in a more positive manner. Notably the content of this play revolves around the theme of being nurtured (grooming, feeding and holding) and as such can be seen as a direct attempt to re-experience (or experience for the first time) such moments through play with her son. It appears also to be the only forum in which Cynthia is capable of emotionally meeting and interacting with her son.

The distinct shift in play from same-sex-stereotypic to cross-sex-stereotypic play over the two play conditions reflects how gender has become a forum in this dyad whereby John either attempts to gain his mother's approval by engaging in same-sex-typed play, or attempts to gain her emotional involvement by engaging in cross-sex-typed play that meets his mother's emotional needs. Cynthia, on the one hand seeks to protect herself from re-experiencing the trauma of her past by encouraging her son to engage in male-stereotypic play when playing by himself, and on the other hand seeks to re-experience aspects of her early relationships in a more positive light by engaging in significant amounts of female-stereotypic play with her son. It is not likely that a mother's

engagement in play would be able to so radically shift the expression of same-sex-typed play in a child were gender not already functioning as a means of organizing the child's experience. Furthermore, it appears that John's expression of gender-typed behavior is being used to regulate the attachment relationship with his mother and repair the trauma in her past in the same way that boys with GID enact cross-gender symptoms as a means of both engaging a depressed mother and repairing a derailed attachment relationship (Coates, 1995; Coates & Wolfe, 1995; Coates, Friedman & Wolfe, 1991).

Somewhat surprisingly, the discrepancy between John's propensity to engage in same-sex-stereotypic and cross-sex-stereotypic play is not as extreme as one might anticipate given his mother's highly idiosyncratic over-elaborated representation of gender. One explanation for this seems rooted in Cynthia's extreme disengagement from her son which, respectively, seems related to her unresolved attachment status. Her extreme level of disengagement raises the possibility that she simply is not engaged often enough with her son for the full effects of her gender representation to be felt by him. Cynthia's interaction with John during both play conditions leaves the viewer with the impression that she does not engage in play with her son very frequently. She appears physically uncomfortable and largely unsure of what role to play. Furthermore, her behavior when leaving the videotape room between the two play conditions illustrates just how readily she can leave and disengage from her son and one is left with the impression that this may occur often at home (in fact, in viewing the tape it appears as if Cynthia almost forgot to tell John that she was leaving). As a result, it seems as if Cynthia simply does not allow John into her emotional orbit often enough to create the kind of constantly charged atmosphere around gender issues that might result in even more extremely imbalanced sex-typed play patterns in her son.

Turning to the case of Nicole and Alex, one of the many reasons this case was chosen for analysis was that despite the fact that Nicole was classified as secure with respect to attachment, she was extremely preoccupied with issues of gender with respect to her child during pregnancy. Furthermore, her son exhibited among the most extreme imbalances in sex-typed play in the sample and the third highest percentage of cross-sex-typed play during the mother-engaged condition. As a result, this case provides the opportunity to examine the ways in which gender may become an organizer of experience for both mother and child, despite a mother's secure attachment status. Moreover, it allows us to explore how issues in the relationship between mother and child may become reactive to the construct of gender once rigid, over-elaborated representations of gender are established regardless of the mother's current security status.

Nicole was formally classified as "F<sub>3</sub>" (earned secure) on the Adult Attachment Interview, a category that reflects the presence of a difficult early attachment history. Women receiving this classification typically present a very thoughtful understanding of their early history and the impact of these events on their lives (Main & Goldwyn, 1988). However, despite this level of thoughtfulness and understanding there are clearly aspects of Nicole's early history that remain difficult for her, in particular her relationship with her father. Nicole has retained her childhood view of her early relationship with her father even as she understands how her father used this relationship to balance difficulties in his marital relationship, and even as it stands in dramatic contrast to his subsequent behavior following her parents' divorce. Her brother's ongoing struggle with mental illness also remains an area of difficulty for her and these experiences with her father and brother appear to have become fused in Nicole's mind. Following her father's fall from grace, he becomes linked with her brother along gender lines, leading her to adopt the belief that the males in

her family are "damaged" -- a belief that extends itself to her son even prior to his birth.

That Nicole would come to make sense of these experiences along gender lines was likely influenced by the extreme gender-based hierarchy that existed in her family which included the extreme idealization of her father and devaluation of her mother. Goldner (1991) has argued that gender, along with generation, are two "fundamental, organizing principles of family life" (p. 44) that often result in the establishment and maintenance of highly patriarchal family systems. In Nicole's family, positions of power and individual value were very much bifurcated along gender lines and any child would have been hard-pressed not to be affected by such a system -- a system which could readily lead a child to make sense of his or her experiences in terms of gender. In fact, in addressing the ways in which the families of boys with Gender Identity Disorder use gender to process a variety of difficult experiences, Coates (1995) has argued that "gender is more likely to become the carrier of unresolved conflict in the family when gender roles are organized hierarchically and result in traumatic experiences in one parent or the other" (p. 15). This was clearly the case in Nicole's family.

Caught up in Nicole's fears of having a damaged son and/or causing him to become damaged herself is the fear that she will turn her son into a homosexual. Nicole fears that this would represent a condemnation of their relationship and of her as "such an abhorrent female" that her son would reject all future relationships with women. This fantasy clearly has its origins in her father's rejection and condemnation of her following her parents' divorce. In fact, there is evidence from Nicole's Pregnancy Interview that suggests that her strongest motivation for having a child was to repair this experience with her father which left her feeling unloved, alone and horrid. Nicole explains that she

wanted to have a child with her husband so she will have someone to be with after his death -- someone who also loved her husband and would understand and appreciate it when she shared her memories of him (Nicole's husband is older and she anticipates that he will die first).

During the free-play sequence, there is ample evidence that Alex is indeed becoming the difficult child that Nicole fears. Alex is anxious, easily distressed, and has great difficulty playing on his own. His play indicates a significant preoccupation with things that are lost, missing or broken; a theme that appears to reflect aspects of his troubled relationship with his mother. Furthermore, it seems that these difficulties are directly related to Nicole's difficulty in responding to her son as an independent individual. She does not acknowledge his independent activities or discoveries, she responds to him as an extension of herself, or as a doll or the girl she desperately wanted to have, and also turns to her son to recreate the intimate relationship she once shared with her father (recall her flirtatious behavior with Alex during the necklace play). Winnicott (1967) describes that the baby first discovers himself in the eyes of his mother. In Alex's case, it does not appear that Alex has found his true self reflected anywhere in his mother's eyes, and as a result he does not appear to be able to function well or play independently of his mother.

Clearly, despite Nicole's secure attachment classification, significant ruptures exist in her relationship with Alex -- ruptures that appear to be very reactive to issues of gender (recall that Alex's play shifted predominantly toward cross-sex-typed play when his mother joined him in play). The extent of these difficulties may seem very surprising in light of Nicole's secure attachment status, as securely attached mothers typically are thought to be able to respond to their children as autonomous individuals (see Slade & Aber, 1992), and as the research shows highly concordant patterns of attachment between parents and

children (Benoit & Parker, 1994; Fonagy, et al., 1993; Fonagy, Steele, & Steele, 1991; Main & Goldwyn, in press; Main, Kaplan & Cassidy, 1985; Steele, Steele, & Fonagy, 1996; van IJzendoorn, 1995; van IJzendoorn, 1992; Zeanah, et al., 1993). In fact, as part of the larger study from which this data was drawn, Alex was found to be securely attached to his mother at 14 months during the Strange Situation (Ainsworth, Blehar, Waters, & Wall, 1978), a widely used laboratory procedure designed to assess attachment in young children. By 28 months, however, the evidence is clear that something very significant has gone awry in this dyad. This raises the question as to whether these difficulties already existed at 14 months (and earlier) but were not reflected in Alex's behavior in the Strange Situation, or whether these difficulties began to surface later when issues of gender may have become more central in the relationship in reaction to the development of sex-typed preferences that typically begin to emerge by age two (Huston, 1985; see also Fagot, 1974, 1978; Fein, et al., 1975; Leinbach & Fagot, 1986; O'Brien & Huston, 1985; Perry, White, & Perry, 1984; Thompson, 1975; Weinraub, et al., 1984). Regardless, these difficulties seem to be very much related to Nicole's own early attachment experiences (despite her secure attachment status) and to the fact that Nicole appears to have made sense of these experiences along gender lines.

An explanation as to how this might have occurred may be found in Peter Fonagy's work on reflective-self functioning (Fonagy, et al., 1994; Fonagy, et al., 1993; Fonagy, et al., 1991). Reflective-self function is defined as the ability to recognize in oneself and others that mental states are subjective. Individuals with the capacity for reflective-self function are able to hold in mind that one's own and others' behavior may be substantially affected by one's state of mind and that this will affect how people behave, leading individuals to react very differently to the same situation. Furthermore, reflective-self functioning

involves the capacity to hold in mind an awareness of another's mental state and/or motivations in understanding their actions.

Not surprisingly, it has been found that the capacity for reflective-self functioning is one of the primary mechanisms involved in the intergenerational transfer of attachment patterns, in that the ability of parents to hold in mind their infants and the needs of their infants as separate from their own leads to a greater capacity to acknowledge and respond appropriately to those needs (Fonagy, et al., 1991; Fonagy, 1993). Moreover, the capacity for reflective-self function has been implicated in parents' capacity to work through their traumatic early history so as to prevent the repetition of trauma in their relationships with their own children. The capacity to hold in mind both their own and their parents' state of mind with respect to the events of their own early childhood has been found to be crucial insofar as it allows parents to maintain these experiences separate from their children, thereby preventing the repetition of the trauma in the ways first described by Fraiberg (Fonagy, et al., 1991; Fonagy, et al., 1993; Fonagy, et al., 1994; Fraiberg, Adelson, & Shapiro, 1975).

Clearly, Nicole exhibits some capacity for reflective-self functioning in that she has been able to gain considerable perspective on and understanding of her past. No doubt this has been hard won in the many years she acknowledges having spent in therapy. However, her capacity for reflective-self functioning seems to break down in particular around her relationship with her father. Furthermore, because this trauma remains conflated with the issue of gender, Nicole's relationship with her son becomes vulnerable not only to the difficulties Nicole experienced in her relationship with her father but also to issues of gender. In fact, Coates (1996) has argued that individuals from families such as Nicole's that are extremely patriarchal and hierarchically organized may lose the capacity for reflective-self function particularly around the issue of gender. In

Nicole's case, her secure attachment status is not enough to protect her from a failure in her capacity for reflective-self functioning with respect to her father, and as a result gender remains an active medium for making sense of her trauma and becomes central in both her representation of and relationship with her child. Subsequently, Alex develops extremely bifurcated sex-typed play patterns that also reflect the significant degree to which the construct of gender has become a central means of organizing his experience in relation to others.

Both of the cases highlighted for discussion involve dramatic shifts from predominantly same-sex-typed play when the child is playing alone to predominantly cross-sex-typed play when the mother joins her child in play. However, many other cases could have been presented that would have illustrated the reverse pattern or the development of extreme patterns of same-sex-stereotypic or cross-sex-stereotypic play that did not vary across the two play conditions. What is important to highlight regardless of the variations in the relationship between attachment, maternal gender representations and the development of sex-typed play, is that the child's expression of gender may become vulnerable to the attachment system, to the mother's representational world, and furthermore may be used as a means of modulating a troubled relationship between mother and child.

Finally though, because the cases presented above did reflect a significant shift toward cross-sex-stereotypic play when the mothers became engaged in play, they provided a unique opportunity for examining the ways in which cross-sex-typed play in particular may be adopted by the child as a means of gaining access to the mother and repairing a troubled attachment relationship. This is one of the central mechanisms that Coates proposes is involved in the development of GID in childhood and as a result this study provides preliminary support for this argument by documenting the existence of this process (Coates,

1996; Coates 1995; Coates & Wolfe, 1995; Coates, Friedman & Wolfe, 1991). To be clear, neither Alex nor John had been presented for evaluation or treatment of GID, and in fact the presence of high levels of same-sex-typed play when playing on their own indicates that neither child appeared to have developed persistent or pervasive cross-gender behaviors which must be present before a diagnosis of GID can be made (DSM-IV, American Psychiatric Association, 1994). However, both of these cases represent the kind of background that is almost a necessary requirement for GID to develop and are the first to highlight prospectively how these processes develop within particular mother-child dyads.

### SIGNIFICANCE AND LIMITATIONS

This study examined many facets of the relationship between attachment, maternal gender representation and the development of sex-typed play, and the findings suggest that a mother's representation of gender with respect to her child, first formed in pregnancy and having its roots in her own early attachment history, has the power to alter and affect significantly the balance of her child's sex-typed play. While previous research and clinical case material have documented the effects of parental attention to issues of gender, none has examined empirically the impact of maternal gender representations per se and this study is the first to document the effects of the mother's unconscious on the child's experience of his or her own gender and on the expression of sex-typed play. In addition, the case studies discussed in detail above highlighted how the issue of gender can become co-opted to repair a troubled attachment relationship between mother and child. Furthermore, they documented how particular aspects of a mother's own history may dramatically shift the balance of the child's sex-typed-play in a cross-sex direction.

Certainly there are many limitations to this study, beginning with the fact that many of the results regarding maternal gender representations and attachment did not reach significance and only indicated significant trends in the data. Furthermore, because of the unusually small number of dismissing women in this sample, none of the hypotheses and supposed relationships between maternal gender representation and the dismissing attachment category could be tested. The results regarding maternal gender representations and the development of sex-typed play when the child is engaged in play alone, however, were very strong and the conclusions drawn can be accepted with confidence. In addition, further research is needed to assess aspects of the reliability and validity of the scales and coding procedures developed for the purposes of this study to measure maternal gender representations and to assess the development of sex-typed play. While additional research is necessary to replicate these preliminary findings, given the relatively small size of this sample the results are sufficiently impressive to warrant further examination of this line of research.

In addition, while research has shown that the role of the father is important in the child's gender-role development and in the adoption of sex-typed play, fathers did not participate in the larger study from which the data for this study was drawn. Future research should examine the effect of internal working models of attachment on paternal representations of gender, the impact of paternal representations of gender on the adoption of sex-typed behavior, and any interaction effects between paternal and maternal representations of gender on the child's subsequent gender-role development and the expression of sex-typed play.

Moreover, while attachment is clearly related to the development of maternal representations of gender, other factors also appear to be involved in the development of rigid, over-elaborated representations of gender. Future

research would likely benefit from an examination of the capacity for reflective-self functioning on the development of maternal representations of gender and the child's subsequent sex-typed play patterns.

Finally, the homogeneity and specific characteristics of the subject pool (a predominantly white, middle-class, highly-educated sample) necessarily limit the generalization of these findings to other ethnic and social class groups. In addition, the balance of male and female children participating in this study was highly skewed, despite the fact that the balance of boys and girls born to the mothers recruited into the larger study from which this data was drawn was nearly equal (51% were girls, 49% were boys). Many subjects were lost to this study because they did not continue in the larger study through the 28-month visit. Others were lost as a result of missing data. It is not known whether the greater number of boys in this study affected the results in any significant way. Hopefully, future studies with a more balanced subject pool will resolve this issue.

**APPENDIX A****MATERNAL GENDER REPRESENTATION CODES\***

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Revised: March, 1997

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This coding system was influenced by the Pregnancy Interview Coding System (Slade, Dermer, Gibson, Graf, Grunebaum, Reeves & Sitron, 1994) and has been immeasurably improved by the comments and guidance of Arietta Slade, Ph.D. The author also wishes to acknowledge the guidance of Susan Coates, Ph.D. whose work led to the inspiration for this project.

\*For use with the Pregnancy Interview (Slade, Grunebaum, Haganir, & Reeves, 1987)

PREGNANCY INTERVIEW\* QUESTIONS  
USED IN SCORING THE  
MATERNAL GENDER REPRESENTATION CODES

8. When would you say you first really believed there was a baby growing inside you? How did this affect you?
9. Would you say you have a relationship with your baby yet? How would you describe it?  
  
 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?
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?

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\* Slade, A., Grunebaum, L., Haganir, L., & Reeves, M. (1987). The Pregnancy Interview. Unpublished Manuscript, The City College of New York.

15. When you think of your baby's earliest months what do you imagine will be the most pleasurable times with your baby?
16. What do you imagine will be the most difficult times in your relationship with your baby?
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?

## **MATERNAL GENDER REPRESENTATION CODES**

Gender is a powerful construct construed with multiple, often highly personalized meanings. It is expected that women think about gender with respect to their children during pregnancy just as they think about other aspects of their unborn babies. During the prenatal period (or some portion of it) the gender of one's child is unknown; this allows a host of thoughts, feelings, speculations and beliefs about gender to develop and become part of the mothers' representations of their babies before birth. Few pregnant women have not thought about the issue of gender or wondered whether they will be welcoming a boy or girl into their family. Even fewer have not been asked whether they want to have a boy or girl. Some remain undecided while others clearly have no preference; still others develop strong feelings and preferences about the gender of their children. Many mothers, whether they state a gender preference or not, describe thoughts and feelings about gender with respect to their children that may reflect societal attitudes toward gender or that may appear to stem from their own gender-based experiences.

The Maternal Gender Representation Codes assess various aspects of women's representations of gender with respect to their babies during the last trimester of pregnancy. For each subject, the coder will read questions 8-12 and skim questions 13-16 and 20-22 of the Pregnancy Interview (Slade, et al., 1987). Pay special attention to question 10 and its probes. The coder will assign scores for each of the following scales which are described in detail in the sections that follow.

- I. Maternal Gender Representation Scale
- II. Sex of Child
- III. Maternal Gender Preference Scales
  - a) Strength of Preference Scale
  - b) Preferred Sex
  - c) Negative Feelings About Having a Boy
  - d) Negative Feelings About Having a Girl
- IV. Predominant Gender of Representation Scale

### I. MATERNAL GENDER REPRESENTATION SCALE

This scale will measure the degree to which subjects' thoughts and feelings regarding the gender of their children are developed and elaborated on, and the degree to which subjects are concerned with or preoccupied by issues of gender during pregnancy. It will not measure the strength or absence of any

gender preference. Rather it will assess the degree to which gender is a salient factor in the developing representations of their babies. Furthermore, this code will assess how important issues of gender are for each of these women, whether concerns or preferences about gender are minimized or made to seem unimportant, or whether beliefs regarding gender with respect to their children take on an importance that outweighs the individuality of their children.

At the low end of the scale women display a remarkable lack of interest and ability to think about gender in reference to their children. At the high end of the scale gender is more significant and provides an increasingly salient organizing role in how women think about or imagine raising their children. The scale ranges from 1. Little or No Elaboration, to 9. Over-Elaboration. Scale point 5, Average Elaboration represents the optimal scale point. Scale points 1, 3, 5, 7, & 9 are described in detail, with the different manifestations that may occur when women know the gender of their children and when they do not. The overarching characteristics of each scale point, however, do not vary for these two groups of women. Subjects may also be assigned scores of 2, 4, 6, & 8 if they appear to fall between the highlighted scale points.

### **1. Little or No Elaboration**

Women at this scale point say very little regarding their thoughts or feelings about gender with reference to their children. Generally, their responses to questions or probes about their thoughts or preferences regarding gender are brief, vague and poorly elaborated, if they are elaborated at all. Their responses are likely to feel constricted, cut-off, or even defensive, as if they wish to avoid thinking about gender at all. The vague way these women respond to questions and probes about gender reflects that they have not been able to or have not allowed themselves to think about or develop ideas about their unborn children as boys or girls. Instead, many will stress the lack of importance they place on gender in reference to their children.

#### **1a. When Gender is Unknown:**

When asked about gender, many women at this scale point will clearly state that they have no gender preference and that they do not care at all about gender, perhaps stressing that a healthy baby is more important (mothers at other scale points may make similar statements about health). They are likely to adhere strongly to the use of gender neutral pronouns or nicknames for their children. Reasons for choosing not to know the gender of their children during pregnancy, if raised at all, will reflect the lack of importance they place on the issue of gender and their inability to think about or speculate about gender in any detail. These women may appear to actively avoid the issue of gender, as in the case of

one woman who chose not to know the gender of her baby in utero because she felt this information would make her baby seem more real.

Some women at this scale point may actually acknowledge a gender preference or may state that they wonder about the gender of their children, however, there is little or no elaboration of these thoughts and their overall attention to the issue of gender remains minimal, cursory and vague. While stating a gender preference may reflect that these women have given some thought to the issue of gender, their inability to elaborate on their preferences reflects the more significant lack of focus or importance these women place on gender. In fact, what remains salient and makes a much greater impression on the coder is their lack of elaboration and fierce unwillingness to attend to issues of gender despite acknowledging a gender preference.

#### **1b. When Gender is Known:**

When the sex of the baby is known, there may be a slightly greater recognition of the issue of gender and a slightly greater response to questions about gender than there is among women who do not know the gender of their children in utero. They may have slightly more to say precisely because they know the gender of their children, and as a result this information must be acknowledged. However, the lack of elaboration and the lack of importance ascribed to the meaning and impact of gender on their children's lives remain striking. Thoughts or feelings reported in reaction to the knowledge of their children's gender remain poorly elaborated even if subjects reported feeling very emotional when informed of their children's sex.

Although they know the sex of their children, many women at this scale point will deny or dismiss having had any real interest in obtaining this information, noting perhaps that their partner wished to know, or that they felt they should know the gender if it was known by others (e.g., a subject's doctor). Reflecting the degree to which their representations of their children along gender lines remain vague, women at this scale point may continue to use neutral pronouns or may use several different pronouns despite the fact that they know the gender of their children. They may also state that they remain prepared to give birth to a child of either gender. While such fluctuations may occur at other scale points as well, what is unique about this phenomenon at this scale point is the degree to which their representations of their children remain genderless.

### **3. Minimal Elaboration**

Women at this scale point are somewhat able to discuss their thoughts and feelings about gender with reference to their children. They do not appear to be completely cut-off from or actively avoiding the issue of gender as at the

previous scale point. Although they still do not elaborate to any great degree when asked about their thoughts and feelings regarding gender, these women display a capacity to think about gender in relation to their children, albeit briefly. Their statements are likely to reflect fairly general ideas, perhaps mentioning characteristics of boys or girls that they might anticipate or like, noting activities that they might enjoy doing with children of one gender, or briefly discussing whether they prefer or anticipate having children of a particular gender and why. What differentiates women at this scale point from those higher up the scale is that despite their capacity to think about and elaborate on some of their thoughts about gender with reference to their children, they simultaneously minimize the importance of gender or any gender preference (for example, emphasizing that gender is not a "big deal," that they would be happy to have a child of either gender, etc.). The coder's overall impression is that these women have not allowed themselves to develop their thoughts or fully acknowledge their feelings about the known, preferred or imagined gender of their children.

### **3a. When Gender is Unknown:**

Women who do not know the gender of their children may briefly elaborate on their preferences for a given gender, may cite different characteristics of boys and girls that they like or dislike, or may briefly discuss their fluctuating preferences. However, despite this ability these women, whether they articulate a preference or not, will minimize the importance of gender and may clearly state that they do not think of their children in terms of gender. They may use a variety of pronouns when speaking about their children and it will appear that they have not allowed themselves to fully explore their thoughts or preferences about gender in reference to their children. Rather, it will seem that these women are holding back, perhaps for fear of becoming too invested in thinking of their children as one gender or the other, perhaps to prevent later disappointment if their children are not the sex they prefer, or perhaps because they are uncomfortable about categorizing their children by gender. Whatever the source, the hallmark of this scale point is the degree to which the importance of gender and any gender preferences are minimized and the degree to which subjects' thoughts and feelings about gender do not appear to be fully acknowledged or developed.

### **3b. When Gender is Known:**

When women know the sex of their children they are still likely to minimize gender and to emphasize the relative lack of importance of this information to them. Despite knowing the sex of their children, women at this scale point do not appear to have fully incorporated this information into their representations or feelings about their babies. While able to articulate what they

like, imagine or anticipate about having children of the known gender, they are likely to state that they would have been equally happy having children of either gender and to emphasize that other factors, such as health are more important to them. Even though they know the sex of their children, they may reflect doubt regarding the sex, for example, noting that sonograms can be wrong. Their vacillation seems to reflect more of an inability to fully allow themselves to think about the implications of this information, rather than a realistic acknowledgment that errors are made in the prenatal assessment of sex. In addition, unlike women who do not know the sex of their children, these women may be struggling to mask or deal with the disappointment of not carrying children of the preferred sex and this may interfere with their ability to allow themselves to elaborate on or think about their children in definitive gender terms.

### **5. Average Elaboration**

Women at this scale point can easily imagine and elaborate on their thoughts and feelings regarding gender. They are clearly aware of and have allowed themselves to develop their thoughts and feelings without having to hold back, dismiss or otherwise minimize the issue of gender with respect to their children. They report several ideas, thoughts, beliefs and even dreams about gender that clearly reflect their capacity to develop their ideas about their children as boys or girls. At the same time, however, what distinguishes these women from those higher up the scale is that gender does not become an overarching issue or concern. They do not seem to be trying to resolve or rework past difficulties they may have experienced with regard to gender, nor has gender become such a salient issue that it takes on excess importance as a defining attribute of their children. The negative thoughts or feelings they may have regarding one gender or the other do not appear to be an overarching issue for these women. Furthermore, they may even speak about these feelings with a sense of humor that reflects a measure of distance from these views. For these women gender is one component among the many they think about with respect to their children. It does not take on a life of its own as occurs at higher scale points.

#### **5a. When Gender is Unknown:**

The narratives of women at this scale point usually reflect several ideas, thoughts, or feelings about having either boys or girls, what they might like, what might be more difficult, etc. These women do not have difficulty discussing their preferences, their different reasons for wanting either boys or girls, their uncertainty about their gender preferences or the evolution of their thoughts on these matters. Although gender remains unknown, they may frequently use gender specific pronouns, particularly when addressing their gender preferences,

or when discussing what they imagine about their babies as boys or girls. However, the use of neutral pronouns remains quite common. Often women at this scale point will cite personal experiences or societal ideas about gender that have influenced their own feelings about gender with respect to their children (For example, "I would like to have a boy first because I always wanted an older brother," or "Girls are easier." ) They might report a growing desire to know the gender of their children as the pregnancy has progressed. Furthermore, they may believe that their thoughts and feelings about their children might be more developed at this point were they to know the gender of their children. At this scale point the emphasis will be on wanting to expand their thoughts and feelings as they are influenced by gender, rather than on holding back or minimizing them as occurs at scale point 3.

#### **5b. When Gender is Known:**

When women know the sex of their children their representations of their children clearly reflect and incorporate their knowledge of the gender. In addition, there should be a much greater incidence of using the correct pronoun to refer to their children. The women will easily articulate their thoughts about what they imagine it will be like, or what they will enjoy or feel nervous about having children of the known gender. They may also discuss the evolution of their feelings about the gender of their children, acknowledging any initial preferences or disappointments they felt with respect to the actual gender of their children. If disappointed, the narratives of these women may reflect somewhat less clarity around the issue of gender, but if so, these women will be aware of their difficulty around this issue. Furthermore, the coder will feel that these women are actively struggling with their disappointment in ways that does not minimize or overemphasize their feelings in reaction to their knowledge of gender. They may, in fact, appropriately address their feelings of loss about not having children of the preferred gender. However, their mourning of these losses does not interfere with their capacity to develop a growing appreciation of and attachment to the children they are carrying (such interferences are more likely to occur at higher scale points).

#### **7. High Elaboration**

Gender carries a great amount of meaning and influence for women at this scale point. The concept of gender becomes more significant in women's representations of their babies and the subjects' own gender-based experiences and beliefs become more prominent not only in determining gender preferences but also in their reactions to their children based on gender. Unlike women at the previous scale point, the thoughts and feelings of women at this scale point about the gender of their children are not restricted to general feelings or beliefs

about what they might like, be worried about, or look forward to with regard to having sons or daughters. Rather, women at this scale point express strong feelings per se about gender that directly influence their preferences and their thoughts about their children. More strongly negative experiences, firm ideologies and negative stereotypes about gender appear at this scale point and these take on a central role in shaping the women's thoughts and plans for raising children of a particular gender. In reading the narratives of women at this scale point, the coder will have a limited sense that the subjects experience their children as individuals who will exist apart from their gender or apart from the subjects' own feelings and beliefs in reaction to their children's gender. Rather, the children may seem to function as a means of helping the subjects repair or undo their own gender-based experiences or may appear to provide the means for the subjects to implement their own strongly held beliefs and ideologies about gender (which may often develop from their desire for greater social change with respect to gender and gender roles). An excellent example of this scale point is found in the narrative of the following woman who does not know the gender of her child:

...for some reason we want a boy. I mean if we had a girl that's fine. Um, I think my reason for originally wanting a boy is there are not as many decent men in the world and I'd really like to bring up a boy to be like as decent...you know what I mean. It's easier to bring up like women, there are all kinds, but men -- so many of them are such jerks. I'd like to have a decent man grow out of our little baby -- I don't know where I got that idea.

#### **7a. When Gender is Unknown:**

Women at this scale point who do not know the sex of their children in utero clearly state how their beliefs about gender or their own past gender-based experiences (i.e., how they feel they have been treated as women, how they feel about men or women as a group, etc.) directly influence how they feel about having children of a particular gender and how they wish to raise their children. When they talk about having children of a given gender, their narratives may reflect an ideological flavor about what they want women or men to be like or how they believe women and men are. These women are also likely to state a clear preferences for boys or girls based on these beliefs or on their own past experiences. However, some women may hold back from declaring a preference, perhaps because of their own discomfort or perhaps because their ideology or beliefs about gender preclude such a focus (as with women who may feel strongly about raising their children in an androgynous manner). Others may state their gender preferences, but may acknowledge that they are open to the idea of having children of the non-preferred gender, perhaps declaring equally

strong ideological beliefs or feelings about that gender. Regardless, what remains most salient is the strength of their opinions and gender-based ideology and the limited degree to which these women are able to view their children separate from their own gender-based ideologies and beliefs.

#### **7b. When Gender is Known:**

Women at this scale point who do know the gender of their children will express strongly held beliefs about gender that actively shape how these women think, feel, and respond to their children based on a function of their gender. Women at this scale point may be noticeably relieved or disappointed regarding their children's sex and may be actively struggling to reconcile their strongly held ideologies and gender-based experiences with their knowledge of the gender of their children. They are likely to refer to their children's gender extensively, addressing the implications of this for themselves and their relationships with their children. When they carry children of the non-preferred sex, many women at this scale point may seem to have trouble reconciling the gender of their children with their expressed gender ideology. Some may attempt to resolve this issue, for example, by questioning sonogram results, or by deciding to raise gender non-conforming children. Again, what will remain salient is the degree to which their relationship to their children will seem dictated and driven by their gender-based ideologies and experiences.

### **9. Over-Elaboration**

A scale point of 9 will be assigned when women express an overwhelming preoccupation regarding the gender of their children and describe such over-elaborated notions about their children with respect to gender that it appears to the coder that the children do not exist separate from their mothers' over-elaborated beliefs and ideas with regard to gender. In contrast to women at the previous scale point who also present strong beliefs and highly elaborated notions about their children with respect to gender, women at this scale point are likely to express more elaborate, unrealistic, and highly individualistic feelings and beliefs about their children's gender that seem over-determined and highly inflexible. The rich and highly individualistic notions they espouse about their children with respect to gender may seem very odd or unusual and will appear to have taken on a life of their own. These beliefs and notions will no longer feel ideological, rather they will seem specific to the women who hold them and it may appear to the coder that these representations of their children with respect to gender stem from the women's own imaginations or emotional needs. Like women at the previous scale point, women at this scale point may be attempting to undo or repair a particular experience that has come to be understood in gender terms. What distinguishes these women from women receiving a score of

7, is the odd, highly idiosyncratic, overly personalized quality of their beliefs and ideas with respect to gender and the greater degree of preoccupation with respect to gender that are expressed at this scale point (including possible concerns regarding the repetition of gender-based experiences from their own lives).

Women at this scale point may describe at some length their concerns and preoccupations with respect to gender, reflecting the degree to which their thoughts and concerns about gender remain uppermost in the minds of these women. The narrative of other women at this scale point may be somewhat more concise but will reflect the presence of one or more over-elaborated, highly idiosyncratic notions about gender that in and of themselves reflect a similar degree of preoccupation with gender. Some examples of such over-elaborated representations of gender that would warrant a score of 9 on this scale include: 1) a women who was distressed by her disappointment about having a boy and her fears that her son will be homosexual, and 2) a women who discusses at length her belief that she is going to have a boy because she imagines her child is the reincarnation of a boy from another century.

#### **9a. When Gender is Unknown:**

Given the level of preoccupation women at this scale point have with regard to gender, it seems unlikely that many will choose not to know the gender of their children in utero. However, it is certainly possible that this may occur, perhaps because a spouse felt strongly about not knowing the gender of the child, perhaps because a subject felt the need to preserve her strongly held beliefs about the gender of her child without risking disappointment prior to the birth of the baby, or perhaps because a subject felt so certain about the gender of her baby that she felt no need for external confirmation of her beliefs.

#### **9b. When Gender is Known:**

At this scale point when subjects know the gender of their children (as we would expect to be the case for most women at this scale point given their extreme investment in or preoccupation with issues of gender) what will remain most salient and striking is not so much the women's knowledge that they are having boys or girls, but the particular notions and beliefs that these women develop about the gender of their children. The overvaluation of their own ideas with regard to their children's gender may completely overshadow any information they receive from outside sources regarding gender, i.e., from an amniocentesis or sonogram. In fact, some women may appear to ignore this source of information, focusing only on their own idiosyncratic beliefs about gender or noting that they remain uncertain about the gender of their children despite the results of any tests. Other women may appear totally absorbed by their disappointment and may be unable to reconcile or resolve their feelings

about not having children of the gender they had hoped for or previously envisioned. These women may be unable to imagine children of that gender or may express tremendous shame over their difficulty in accepting the gender of their children. Others may staunchly maintain their previous beliefs, ignoring any test results about gender altogether. Again, what remains salient is the degree to which their own ideas, fears or feelings about gender remain rigidly maintained and uninfluenced by other factors or information regarding the actual gender of their children.

## II. SEX OF CHILD

The coder will check the appropriate box for boy or girl when the sex is known. When the sex is known, the coder will also indicate how this was determined, (for example, sonogram or amniocentesis). When the subject does not know the sex of the child, it is recorded simply as 'unknown'.

## III. MATERNAL GENDER PREFERENCE SCALES

Maternal gender preference will be scored along four separate dimensions to be described below.

- a) Strength of Preference Scale
- b) Preferred Sex
- c) Negative Feelings About Having a Boy
- d) Negative Feelings About Having a Girl

### IIIa. STRENGTH OF PREFERENCE SCALE

This five point scale measures the strength of women's preferences regarding the gender of their children. This scale takes into account not only a subject's specific statements or denials regarding any preference for a child of a particular gender, but also the coder's assessment of whether or not the subject appears to prefer one gender over the other. In fact, it is the coder's assessment of the subject's preference that is the primary focus of this scale. The reason for this approach results from the fact that while some women clearly and unequivocally state or deny a preference, many others will clearly articulate feelings that indicate a preference although they simultaneously deny having any gender preferences (for example, "No I don't really have a preference, but I always really wanted to have a girl because...").

As a result, this scale will focus on the coder's assessment of a subject's gender preference based on her narrative and specifically based on her responses to questions about her baby, its gender and direct probes about gender preference. The coder will attend to the totality of a subject's statements pertaining to preference and her feelings, thoughts or concerns about raising a child of a particular gender, as well as her overall statements about each gender and any statements about what gender she believes her child to be. The scale points are as follows and will be described in detail below: 1 - No Preference, 2 - Fluctuating Preference, 3 - Mild Preference, and 4 -Strong Preference. A score of 5 - Not Scorable will be assigned when the subject was not asked about preference, feeling, beliefs or concerns about gender and when she does not raise these topics herself. In addition, the coder will jot down any particularly interesting or unusual statements made by subjects regarding gender preferences so they may be reviewed in greater detail at a later date.

Please note that for the most part during the Pregnancy Interview women who do not know the sex of their baby in utero are asked if they have a preference for children of a particular gender. Women who know the sex of their babies are generally asked how they feel about having children of that gender. Typically considerable information related to preference is elicited even among women who know the sex of their children, making it more than possible for the coder to form an opinion of the subject's gender preferences.

In assessing a woman's gender preference, the coder should pay particular attention to the following factors: Does she provide support for her statements about her feelings about having a child of a particular sex? Does she contradict herself in ways that call into question her stated feelings about or preference for a child of a particular gender? Does she have strong feelings about what gender she thinks the child is but never say anything directly about a preference? Does she say that she is really happy to have a boy, for example, but then say only negative things about raising a boy, or talk only of the things that she would like to do if she were to have a girl? By attending to these factors the coder will be able to judge whether or not she agrees with the subject's own statements as to whether or not she prefers one gender over the other, and in so doing the coder will arrive at her own assessment of the subject's gender preference.

**N.B.** Very often a woman's preference for a child of a particular gender may be made most clear as much by her negative statements about having a child of the non-preferred gender as by her positive statements about having a child of the preferred gender. For example, the coder should be cautious about assigning a gender preference for a boy to a woman who states that she wants a boy but says only negative things about actually raising or living with a boy.

## 1. No Preference

Women who receive a score of "No Preference" must themselves clearly state that they have no preference. This statement will not be qualified by phrases like "not really," or "no, but I really wouldn't mind if I had a ..." (such women should be assigned higher scores on this scale). The coder will see no evidence that a woman may have stronger feelings about one gender over the other. Her denial of a preference rings true and the coder will definitely agree from the totality of the subject's statements about gender that she really does not appear to have a gender preference. Women who receive this score may focus quite believably, for example, on the fact that they prefer to think about having healthy babies. If a subject's lack of preference seems to feel somewhat defensive, the coder will still not detect any particular preference, only a lack of willingness to even consider the issue of gender. Women at this scale point who already know the sex of their babies will likely discuss their feelings about having children of the known gender in a very limited way. They may report neither enthusiasm nor disappointment when told the sex of their children and may state, for example, "It's fine," or "Either way would have been fine with me" when asked how they feel about the gender of their children.

**N.B.** If a woman reports that sometimes she prefers one gender and sometimes another but has no real preference, score this at the next scale point as a Fluctuating Preference (provided, of course, no other information precludes assigning that score).

## 2. Fluctuating Preference

Fluctuating preference is scored when women report having changed their feelings about what gender they would prefer on at least one occasion. Often they report this as "At first, I wanted a boy, because..., but now I think I want a girl because...." Women who already know the gender of their babies may report the period of time right after they were told the sex of their children as a moment when their preferences changed. To receive a score of fluctuating preference it must seem that a subject's feelings about having a boy or a girl are of largely the same intensity, only that one is more ascendant at times than the other (as in the case of a woman who describes how she initially wanted to have a girl because they are cute and easy to take care of, but more recently has begun to think that she would rather have a boy because there's more pressure to have a son and because she thinks her husband would rather have a son).

**N.B.** If the subject reports fluctuating preferences but provides significantly more details and feelings about one of her preferences, do not score

this as a fluctuating preference. Here, the greater intensity of feelings and greater material provided about her preferences for one gender require that the subject be scored at one of the next two scale points, indicating either a Minimal or a Strong Preference.

When a fluctuating preference is scored, the coder should score the subject's current preference when scoring "Preferred Sex," (Scale IIIb). In addition, the coder should note on the coding sheet if the subject cites a particular event as causing her shift in gender preference (e.g. finding out the actual sex of the fetus: "I always wanted a girl, but now that I know I'm having a boy, I really want to have a boy.")

### **3. Mild Preference**

Women who receive a score of "Mild Preference" will appear to prefer one gender over the other, but may not have strong feelings about their preference or about the preferred gender. They may have less to say about their preference and certainly their narrative will lack the intensity of feelings that are expressed at the next scale point. Subjects' gender preferences are scored as mild when they describe their preferences as mild, minimal, not strong, etc. Mild preference is also conveyed when a woman states her preference with qualifiers such as, "I guess," or "sort of" (e.g., "I guess I have a preference. I sort of would like to have a girl as my first child."). In general, women at this scale point may appear somewhat flexible about their preferences even though they appear to desire children of one gender more than the other. They are also likely to appear more open regarding the possibility of having children of the non-preferred gender.

**N.B.** If a woman describes strong feelings about having a child of a particular gender, but ends her narrative by saying that it would be okay to have a child of the other gender, do not score this as a mild preference. The strength of her statements about preferring to do various things with a child of a particular gender carries more weight in determining her score than a comparatively mild statement of openness to having a child of the non-preferred gender. In this instance the woman should be scored at the next scale point as having a Strong Preference. In addition, if a woman describes mild feelings indicating a preference for a child of a particular gender and describes at length strongly negative feelings about having a child of the non-preferred gender, consider assigning a score of Strong Preference. In this instance, the strength of a woman's preference is being defined by the strength of her negative feelings about having a child of the non-preferred gender.

#### **4. Strong Preference**

Women at this scale point have strong feelings about raising children of a particular gender and clearly have strong gender preferences. These feelings may be expressed as either strong positive feelings regarding a particular gender, or particularly negative feelings about having children of the non-preferred gender, or both. A subject may report, for example, that she has always wanted a boy (or a girl), and may note that she will be extremely disappointed if she has a child of the non-preferred gender. Women at this scale point are also less likely to report any feelings of ambivalence about having children of the preferred gender, and if expressed at all, their ambivalence will seem quite mild and almost incidental (or defensive) compared to the strength of their feelings about having a child of the preferred gender. In addition, women at this scale point may express very strong negative feelings about raising children of the non-preferred gender.

**N.B.** If women report strong positive feelings about having boys or girls that seem equal in strength so that neither one is reduced in strength by any negative feelings or ambivalence relative to the other, consider assigning a score of Fluctuating Preference. Although strong feelings about gender preferences are expressed, in this instance the subject does not appear to have formed greater feelings about having a child of one gender over the other. If, however, the feelings expressed about having a child of one gender indeed seem stronger relative to the other, reconsider giving a score of Strong Preference.

#### **5. Not Scorable**

This scale point is assigned when the subject was not asked about preference and the remainder of the subject's narrative does not reveal any feelings, thoughts or fantasies about having a child of a particular gender. Such cases should be rare.

#### **IIIb. PREFERRED SEX**

For each subject the coder will note the actual gender of the subject's gender preference. This scale is really a subscale of the Strength of Preference scale. It is also scored based on the coder's assessment of a subject's gender preference based on her narrative and specifically based on responses to questions about her baby, its gender and direct probes about gender preference. The coder will attend to the same information used in assigning Strength of Preference scores. The scale points are as follows and are described below:

1 - Boy, 2 - Girl, and 3 - Not Applicable (No Preference). A score of 4 - Not Scorable is assigned when no information about preference and no feelings, beliefs or concerns about raising a child of a particular gender have been elicited during the interview.

### 1. Boy

The coder will assign this scale point whenever the subject's complete narrative indicates a preference for a boy. In the case of a fluctuating preference the coder will assign this score if the subject indicates that her current preference is for a boy.

### 2. Girl

The coder will assign this scale point whenever the subject's complete narrative indicates a preference for a girl. In the case of a fluctuating preference the coder will assign this score if the subject indicates that her current preference is for a girl.

### 3. Not Applicable (No Preference)

A score of "Not Applicable" is assigned when subjects have received a score of "No Preference" on the Strength of Preference Scale (Scale IIIa).

### 4. Not Scorable

A score of "Not Scorable" is given when there is not enough information to code this scale, for example, if the subject was not asked about preference and the remainder of the subject's narrative does not reveal any feeling, thoughts or fantasies about having a child of a particular gender. Such cases should be rare.

## IIIc. NEGATIVE FEELINGS ABOUT HAVING A BOY

The coder is asked to mark the appropriate box on the coding sheet (1- Yes, 2 -No) indicating whether the subject expressed any negative feelings, thoughts or beliefs about having a boy. **N.B.** It is possible for a subject to note negative feelings about both genders and such expressions should be recorded for each gender.

### III. NEGATIVE FEELINGS ABOUT HAVING A GIRL

The coder is asked to mark the appropriate box on the coding sheet (**1- Yes, 2 -No**) indicating whether the subject expressed any negative feelings, thoughts or beliefs about having a girl. **N.B.** It is possible for a subject to note negative feelings about both genders and such expressions should be recorded for each gender.

### IV. PREDOMINANT GENDER OF REPRESENTATION SCALE

This scale is scored based on the coder's assessment of the gender the subject primarily assigns to her child during pregnancy. The reader may determine this by attending to the pronouns the subject predominantly uses to represent her child, or by attending to the degree to which the subject elaborates her thoughts or fantasies about having a child of a given sex. This scale attempts to capture the predominant gender of a subject's representation of her child. Therefore, a woman who predominantly refers to her child as "he" and describes her reasons for wanting a boy, may also more briefly address her feelings about raising a girl. Despite such references, this woman predominantly thinks of her fetus as a boy and the Predominant Gender of her Representation should be scored as male. Scale points are described below.

#### 1. Male

Subject's representations of their babies are predominantly male.

#### 2. Female

Subject's representations of their babies are predominantly female.

#### 3. Neutral/Mixed Gender

A subject is scored as having a neutral or mixed gender preference if she refers to her child as predominantly as "it," "he/she," "the baby," or if references to gender appear evenly split between male and female. If a subject refers to her fetus in predominantly neutral terms (saying, "he or she," "it," "the baby," etc.) but on one or two occasions refers to her child, for example, as "he," the predominant gender should still be scored neutral or mixed since this remains predominant means of referring to her child. When this occurs the coder may put male (or female) in parenthesis to note the occasional use of the male (or female) pronoun.



**APPENDIX B****SEX-TYPED CLASSIFICATION OF TOYS**

<u>Male Stereotypic</u>	<u>Female Stereotypic</u>	<u>Gender Neutral</u>	<u>"Dish"</u>
Dump Truck	Baby Doll and Accessories	Large Multicolor Connecting Beads	Flowered Dish Set
Fire Engine -2 firemen -fire hydrant	-2 baby bottles -yellow brush -pink comb -blue comb	Phone	Orange Tea Set
Fireman's Hat		Ring of Shapes	Assorted Utensils
Tool Box -red level -blue wrench -red hammer -yellow screwdriver -green Phillips screwdriver -tape measure -blue ruler	Dress-up Accessories -high heel shoes -2 necklaces -2 barrettes	Multicolor Sticks with shapes	
	Mop	Multicolor stacking donuts of descending size with stacking stick	
	Broom	Sunglasses	
	Stuffed Bunny	Small Folding Mirror	
		Child's chair	

**APPENDIX C****28 MONTH SEX-TYPED PLAY****CODING MANUAL**

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Revised: June, 1997

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The author wishes to acknowledge the helpful thoughts and comments on earlier drafts of this manual by Dr. Jeannette Maluf and by members of the Pregnancy Project Staff: Sharon Bergner, Jennifer Gerber, Francoise Graf, Juanita Guerra, Annelie Hartmann, and Nancy Segal. Portions of this coding system were influenced by the Dyadic Symbolic Play Scales (Hartmann, Slade, & Picchi, 1993) and the author wishes to thank Annelie Hartmann in particular for her feedback regarding many aspects of the general coding procedures described in this manual. The author especially wishes to acknowledge the ongoing guidance and support provided by Dr. Susan Coates and by Dr. Arietta Slade whose comments and guidance helped shape this document from its inception.

## SEX-TYPED PLAY CODING MANUAL

Between the ages of 2 and 3, children are rapidly acquiring a greater understanding of gender. During this period the majority correctly learn to label their own and others' gender. They also develop a preference for playing with sex-typed toys, playing with same-sex peers and engaging in stereotypically male or female activities with increasing frequency. This coding scheme is designed to assess the presence of male-stereotypic, female-stereotypic, and gender-neutral play in children engaged in unstructured free-play at 28 months of age. In addition, it yields scores for same-sex-stereotypic, cross-sex-stereotypic and gender-neutral play.

### Play Procedure

Sex-typed play is assessed during 20 minutes of free play. This play is broken into two consecutive experimental conditions: mother-occupied (MO), followed by mother-engaged (ME). Both experimental conditions are videotaped from behind a one-way mirror. An approximately equal number of male-stereotypic, female-stereotypic and gender-neutral toys (see list at the end of this manual) are set out on the floor for the child to explore and play with as he or she chooses. The same toys are used in both experimental conditions. The first experimental condition is the MO condition. During this condition the mother and child are left alone in the videotape room. The mother is told to direct her child's attention to play with the toys while she is asked to fill out various pen and paper measures. She remains thus occupied throughout the MO condition. Ten minutes later a knock on the one-way mirror indicates to the mother the beginning of the ME experimental condition. During this condition the mother is to play with her child as she would at home. The ME condition ends when the experimenter enters the room.

### Overview

Sex-typed play is scored using 5-second play intervals. The total number of intervals spent in same-sex stereotypic, cross-sex-stereotypic, and gender-neutral play is determined based on the number of intervals the subject engages in Male-Stereotypic (MS), Female Stereotypic (FS), and Gender Neutral (GN) play. All dish/tea party/eating/cooking play is tallied in a separate category referred to as Dish (D) play (these scores are later combined with the scores for FS play). Sex-typed play scores are based on the toys used, roles enacted and function of the objects used in play. To receive a score for a particular category of sex-typed play, the child must engage in that category of sex-typed play for a

minimum of 3 seconds during a given 5-second play interval. A subject may receive multiple sex-typed play scores for each 5-second interval (for example, when a child plays simultaneously with a male-stereotypic and a female-stereotypic object).

Specific details regarding the complete scoring system follow below. The manual is divided into the following sections.

- I. General Coding Procedures
- II. Scoring Sex-typed Play Using the 5-Second Time Intervals
- III. Identifying Male-Stereotypic, Female-Stereotypic, Gender-Neutral, and "Dish" Play
- IV. Sex-Typed Classification of Toys

### **I. General Coding Procedures:**

1. Always score the mother-occupied (MO) condition followed by the mother-engaged (ME) condition. Begin scoring the MO condition at the first full minute or at the first 15, 30, or 45 seconds after the mother and child enter the room. That is, if the timer reads 1:04:06 when mother and child enter the room, begin scoring at 1:04:15. If the mother plays with her child before sitting down on her chair, indicate the precise time that the mother sits down.

The ME condition officially begins at the beginning of the first 5-second interval following the knock on the one-way mirror that indicates to the mother that she is to join her child in play. Code all play on the videotape even if it exceeds the 10 minutes allotted to each play condition. The coder should also write down the precise time that the mother actually joins her child on the floor to play. (N.B. There is considerable variability in how quickly mothers join their children in play following the knock on the one-way mirror.)

2. Begin by scoring sex-typed play using the 5-second time intervals. Record this data on the Main Coding sheets. Brief descriptions of the toys used and interactions between mother and child may be indicated in the Comments section of each Main Coding sheet.

3. Please note that the coder is to attend to and score the child's play and behavior, not the mother's. During the mother-engaged condition, a mother may be engaged in different play than her child. Other times the child may be watching the mother's play without engaging in the activity herself. Be sure to assign scores based on the child's activity and involvement, not the mother's.

4. Record any unusual occurrences or breaks in the play sequence or procedure (i.e., the mother or child leave the room prior to the end of the procedure, the protocol is cut short, etc.) in the Comments Sections on the Main Coding Sheets. Be sure to record the time that these events occurred.

## **II. Scoring Sex-Typed Play Using the 5-Second Time Intervals**

1. Videotapes are reviewed in 5-second time intervals.

2. Play is assigned sex-typed play classifications (MS, FS, GN, and D, see Section III for definitions) whenever the child engages in any type of play, including holding, walking around with, wearing, exploring, or playing with a toy or set of toys. Scores are also assigned when the child is engaging in a role-play, or any form of fantasy play. A child must engage in a particular category of sex-typed play for a minimum of 3 seconds to receive a score for a given 5-second interval. If no sex-typed play occurs for the duration of a 5-second interval a score of No Sex-Typed Play (NSTP) is assigned.

3. Sex-typed classification of the child's play is based on the sex-typed classification of the toys used, the overall play theme and the role-play or fantasies enacted. Generally, traditional sex-typed classification of toys and traditional sex-role stereotypes determine whether the play is scored as MS, FS, or GN. *For example:* truck, car, transportation, tool, male-superhero play, etc. is considered MS play; doll play, vacuuming, sweeping, use of female dress-up clothes, etc. is considered FS play; stacking, sorting, mirror, telephone play, etc. is considered GN play. All dish/tea party/cooking/eating play is scored in a separate category called "Dish" (D) play.

For specific details in identifying and scoring MS, FS, GN, and D play, the coder is to refer to Section IV, which identifies the sex-typed classification of the toys used in this study, and Section III, which defines male-stereotypic, female-stereotypic, gender-neutral, and "dish" play in greater detail.

4. A child may be engaged in more than one category of sex-typed play at the same time, depending on the toys used, how they are used, the play theme that develops, and/or the roles enacted by the child. Subjects are scored for each category of sex-typed play that lasts for 3 or more seconds during each 5-second interval. At times it may be necessary to review a portion of the tape several times for accurate scoring when a child is engaged in more than one category of play at the same time.

*For example*, if a child is playing with a female stereotypic object (e.g., the doll) while enacting a male-stereotypic role (e.g., a fireman), the child would receive scores for FS and MS play for every 5-second interval he or she engages in that play for 3 or more seconds. If the fireman play continues after the doll play has stopped and no other FS play is begun, the coder continues to score only MS play for each interval in which this play lasts for 3 seconds or more. A child would also receive dual FS and MS scores for using a high-heeled dress-up shoe as a hammer. For details see Section III.

5. In scoring 5-second time intervals for sex-typed play it is sometimes necessary to determine exactly when a particular instance of sex-typed play began or ended so as to determine whether or not a child engaged in that particular category of sex-typed play long enough to meet the 3 second rule for a particular 5-second interval. Sometimes it is necessary to review a portion of the videotape several times, or view it frame by frame to determine when a child first picks up or drops a given object.

5a. Guidelines for determining when to begin scoring a category of sex-typed play:

- When a child engages in a new category of sex-typed play, the coder should begin to calculate the 3 second criteria from the moment that the child engages in that behavior. The coder will assign a sex-typed score for that play for the first interval (as well for as all subsequent intervals) that the child engages in that play for a total of 3 or more seconds. The introduction of a new category of sex-typed play would occur, for example, following a break in play where no sex-typed play was being scored, or following the introduction of a new object, role-play or activity that receives a different sex-typed play score from any ongoing play already being scored. *For example*, when a child incorporates a gender-neutral object into ongoing MS play, or if ongoing play with one object is used in a new manner that yields a different sex-typed play score, as when ongoing play with the dress-up shoe (FS play) shifts so that the child uses the shoe as a hammer (FS and MS play).

- Generally, the introduction of a new-category of sex-typed play is begun from the moment a child physically engages in play. If a child verbally indicates the desire to play with an object, begin scoring only when the child physically engages with that object.

- However, if the child begins to enact a verbal role-play, score the play from the moment the child articulates the fantasy or enacts the role, whether or

not the child ultimately incorporates any toys into his or her role-play. *For example*, if a child states "I'm going to be a princess," and then goes to get the dress-up shoes which the child uses in the role-play, score FS play from the moment the child articulated the intent to be a princess. However, if a child says "Where's the cup?" and then goes to get it, score this only from the moment the child picks up the cup as there is no indication from the child's verbalizations that he or she was clearly enacting a role.

- In addition, if the mother suggests an activity, holds a toy out to her child or introduces any fantasy or role-play that is not directly related to the child's ongoing play, the play is not scored until the child physically engages in the play. Again, if the child begins to engage in a verbal role-play in response to the mother's overtures to play, then score from the moment the child verbally responds and engages in the fantasy play whether or not the child physically engages with the toys. *For example*, if the mother says "Do you want to play house?" and the child replies "Yes, I'm the Mommy," score from the moment the child indicates the choice of role. Finally, do not score if a child merely answers a mother's questions without entering into the fantasy or otherwise joining the mother's play, even though the child may be attending to the mother's play or activity.

5b. Guidelines for determining when to stop scoring a category of sex-typed play:

- The coder is to stop scoring a particular category of sex-typed play when the child is no longer playing with any toys, engaging in any role or fantasy play, or using a toy as a substitute for another object that would be scored in that category of sex-typed play. In other words, all play of that sex-typed category would need to have stopped. *For example*, if the child is playing with the fire truck and the tools together (MS play) and the child stops playing with the truck but continues to play with the tools, the coder continues to score MS play until play with the tools ends. If another MS object is incorporated into the play as well, MS play will continue to be scored until all on-going MS play has ended.

- If a child stops engaging in a particular type of sex-typed play in a particular 5-second interval prior to meeting the 5-second criteria, but later in the interval resumes that type of sex-typed play with different objects or activity, the child would receive a score for that category of sex-typed play for that interval if the total time spent in that category of sex-typed play lasted more than 3 seconds.

- **N.B.** If the child momentarily stops playing and returns to the same play (that is, the child returns to play with the same objects or returns to the same

play theme), score the sequence as an on-going occurrence of the initial play. This accounts for the momentary distractions that occur as a child plays. If however, the child has engaged in a search through other toys or engaged in other play prior to returning to the initial play theme, code them as separate occurrences with the first ending when the child shifts her activity to the search and the second beginning when she reengages with the toys. Do the same whenever a child returns to the same play theme after a lapse of 5 seconds.

6. At times the child may move completely or partially out of view of the camera or the child may play with his or her back to the camera. When this occurs, it is sometimes possible to infer a child's actions from the child's verbalizations, various sounds, or from the preceding and following pieces of play. If it is possible to determine the child's behavior well enough to continue to code their play, continue to assign sex-typed play scores (see guidelines below). When it is not possible to infer the child's activity when out of view of the camera, the coder will assign a score of Unscorable (US).

Guidelines for scoring sex-typed play when the child or toys being used are momentarily out of full view of the camera:

6a. Watch to see if the child is still holding or playing with the same toy or toys when the child reemerges into full view. When the child's back is to the camera pay attention to the child's arm and body movements. End scoring if it becomes clear that a child has stopped playing with a particular toy.

6b. Listen for sounds that indicate whether the child is still playing with the same toys or engaging in the same role play (*for example*, if you continue to hear the child playing with the fire engine, or if the child continues to verbalize his or her activities or fantasy play). Also listen for sounds that indicate that the child may have dropped the toy or toys used. If the child does not reemerge in view with the same toy or toys in hand stop, scoring the moment it sounded like the child dropped the toy(s).

6c. Stop scoring when it is no longer clear whether the child is still playing with the same objects or engaging in the same role play.

6d. If the child is out of the camera's view for an extended period of time and reemerges with the same toy or engaged in the same play, score only as long as it is clear that the child continued to be involved in the same play while he or she was out of view.

6e. If the child reemerges into full view of the camera with a new toy or engaged in new play and it is not clear from other cues when the child began to play in that manner, score the new play from the moment the child reemerges into full view of the camera.

7. When the mother and child are playing together during the mother-engaged condition there are moments when they engage in interactions where the child may not necessarily be touching or physically engaged with a given toy but may nevertheless still be engaged with his mother in the play. Other times the child may be watching the mother's activity only and may not be engaged in the play at all. Use the following guidelines to determine when it is appropriate to assign a score for sex-typed play during these moments and when it is more appropriate to assign a score of NSTP (No Sex-Typed Play).

Guidelines for scoring sex-typed play during the Mother-Engaged condition:

7a. If a mother initiates play or introduces a new toy or play theme into ongoing play do not assign a score for the new sex-typed play category until the child physically engages in the activity or begins to engage in the play verbally with the mother. (*For example*, if the mother and child are pushing the dump truck back and forth and the mother starts to fill it with pop-beads as the child watches, do not score the pop-beads until the child begins to engage with them as well, i.e., by putting some in the truck himself. See section II.5a.)

7b. If the mother and child are handing toys back and forth to each other assign sex-typed play scores even when the child is not physically engaged with a toy.

7c. If the mother and child have been playing together and the child pauses briefly to watch the mother and then returns to the play himself, assign scores for the period of time while he was engaged in watching the mother play. Also assign scores if the child briefly gives the toy to the mother to fix or to have her demonstrate something and if the child continues to play with it once it is returned. Also assign scores if the mother takes the toy away to show the child something, as long as the child continues to watch the mother and reengages in play with the toy when it is returned. Be cautious in assigning scores when the child is watching the mother for periods of more than 10 seconds when the child is not physically engaged in the play. Signs that the child is still engaged in the play include: the child's laughter, smiles or other verbal engagement, and the child's body language; *for example*, the child is reaching for or leaning toward

the mother or the toy, or the child's gaze seems intent on the mother and her activity.

7d. Do not assign sex-typed play scores if during play with the mother, the child gives the mother the toy (or for some other reason is not physically engaged in the play) and does not appear to be interested, engaged, or involved in the play or in watching what the mother is doing. Be particularly cautious about assigning sex-typed play scores when the child is not physically engaged in the play for periods of 10 seconds or longer. Signs that the child is not engaged in the play or is not watching the mother as part of their play include evidence that the child is looking around the room, staring off into space, etc. If it is difficult to determine whether or not the child seemed engaged in the play, err on the side of not assigning a score.

7e. If the child and mother have been playing together and the child stops playing, no longer has possession of the toy and does not return to this play either with the mother or by him or herself, stop scoring when the child no longer has possession of the toy. If the child continues to watch the mother play before turning away, assign a score only if the child clearly seems very engaged in the mother's ongoing activity. However, most of the time when the child does not return to the play after giving up possession of a toy, scoring should end when the child gave up possession of the toy.

7f. If the child has not engaged in his mother's play but begins to direct her play, assign scores from the time the child began to tell his mother what to do. If, however, the child directs the mother to do something but does not watch or otherwise show that he or she is still engaged in the activity, do not assign sex-typed play scores.

## 8. Recording Sex-Typed Play Using 5-Second Time Intervals

8a. Record all data using the Main Coding Sheets. Each sheet records 3 minutes of play. Indicate the Subject's ID#, Sex of Child, Play Condition, and Page # in the appropriate spaces. Write the starting time of the relevant play episode in the appropriate space.

8b. The coder is to write the exact time of the knock that indicates the switch from the MO to the ME condition. Draw a straight vertical line through boxes where sex-typed play is scored at the precise time of the knock.

8c. For each 5-second time interval, score the presence of MS, FS, GN, and D play. Score NSTP if no sex-typed play occurs during a given interval. Score US

if the nature of the play is unscorable (*for example*, if the coder cannot tell what object a child is playing with), if the child is out of the view of the camera (see section II.6), or if for some other reason the play is unscorable.

8d. Record any interesting or unusual behavior or play in the "Comments Section." This is also the place to note if there are extraneous noises that seem to be bothering the child, to make note of how a child is dressed, if they seem anxious, and any interesting dialogue or exchanges between mother and child, etc. Also note here if any play was particularly difficult to code, if the play was prematurely interrupted for any reason, or if either of the experimental conditions was not recorded for the full 10 minute period, etc.

8e. If the coder is uncertain about scoring a particular piece of play, score it as best as possible and add a question mark (?) following the scoring. These intervals will be reviewed and scoring questions resolved before a final score is assigned. The coder should make as many relevant comments as possible, adding other scoring options if appropriate (e.g., score D if this is a knife, score FS if the child is holding the barrette).

### III. Identifying Male-Stereotypic (MS), Female-Stereotypic (FS), Gender-Neutral (GN), "Dish" (D) Play

#### 1. Male-Stereotypic (MS) play

Male-stereotypic play is defined as:

- 1a. Play with exploration, or holding any of the male sex-typed toys (see toy list at the end of this manual). This shall include merely holding an MS toy, general exploration of an MS toy, use of an MS toy in its intended function, use of an MS toy as a substitute for another object, and use of an MS toy in various forms of pretend or fantasy play. (Note that when an MS toy is used to represent a non-MS toy, the sex-typed category of the toy or object being evoked is also scored.)

*Examples:* Exploring the fire engine, driving the fire engine, using the fire engine as a cement mixer, and symbolic play involving the fire engine and other related objects such as the firemen are all scored for MS play. Using the fire engine as a telephone would be scored as both MS and GN play.

- 1b. Any fantasy play or role play reflecting a male sex-role stereotype or male character. Where no toys are involved the child would need to verbalize or otherwise clearly enact a role or activity that is stereotypically male. (If non-MS toys are used during MS role-play also score FS, GN or D according to the toy used).

*Examples:* Pretending to shave the face without using any props, identifying the self as a fireman, or as a Daddy would receive scores for MS play. Using a tea set spoon to pretend to shave the child's own face would be scored as MS and D play.

- 1c. Use of female-stereotypic or gender-neutral toys, or toys classified in the "Dish" category in a male-stereotypic manner. In some instances, gender-neutral, female-stereotypic, or "dish" toys may be substituted for or used as a male sex-typed toy or object. Such play should be coded as male-stereotypic and would also be coded according to the category of the actual toy used.

*Examples:* Using the large multicolor connecting beads as a steam shovel (score as both MS and GN play); using the mop as a fireman's hose (score as both MS and FS play).

## 2. Female Stereotypic (FS) play

Female stereotypic play is defined as:

- 2a. Play with, exploration, or holding any of the female sex-typed toys (see toy list at the end of this manual). This shall include merely holding an FS toy, general exploration of an FS toy, use of an FS toy in its intended function, use of an FS toy as a substitute for another object, and use of an FS toy in various forms of pretend or fantasy play. (Note that when an FS toy is used to represent a non-FS toy the sex-typed category of the toy or object being evoked is also scored).

*Examples:* Examining the baby bottles or using the female dress-up accessories on the self or on the baby doll would receive scores for FS play. Using the barrette as a screwdriver would receive scores as both FS and MS play.

- 2b. Any fantasy or role play reflecting a female sex-role stereotype or female character. Where no toys are involved the child would need to verbalize or otherwise clearly enact a role or activity that is stereotypically female.

(If non-FS toys are used during FS role-play also score MS, GN, or D play according to the toys used).

*Examples:* Identifying the self in a female role such as "Mommy," or pretending to be a ballerina or a princess would be scored as FS play. Using the fireman's hat as a princess' crown while pretending to be a princess would be scored as FS and MS.

- 2c. Use of male-stereotypic and gender-neutral toys, or toys classified in the "Dish" category in a female-stereotypic manner. In some instances gender-neutral, male-stereotypic, and "dish" toys may be substituted for a female sex-typed toy or object. Such play should be coded as female-stereotypic (and would also be coded according to the category of the actual toy used).

*Examples:* Using the large multicolor connecting beads as a necklace (score both FS and GN); using a fireman figure as another baby (score both FS and MS).

### 3. Gender Neutral Play (GN)

Gender Neutral play is defined as:

- 3a. Play with, exploration, or holding any of the gender-neutral toys (see toy list at the end of this manual). This shall include merely holding a GN toy, general exploration of a GN toy, use of a GN toy in its intended function, use of a GN toy as a substitute for another toy, and use of a GN toy in various forms of pretend or fantasy play. (Note that when a GN toy is used to represent a non-GN toy the sex-typed category of the toy or object being evoked is also scored).

*Examples:* Exploring the telephone, building with the shapes and/or sticks, using the ring of shapes as keys would all be scored as GN play. Using one of the sticks as a sword for fighting would be scored as both GN and MS play.

- 3b. Any fantasy or role play that reflects gender-neutral roles or characters. When no toys are involved the child would need to verbalize or otherwise clearly enact a role or activity that is considered gender-neutral. However, if a child enacts a gender-neutral activity (e.g., running in a race) but clearly identifies their role as male or female, code this

respectively as MS or FS role-play. (If non-GN toys are used during GN role-play, also score MS, FS, or D play according to the toys used).

*Examples:* Going to work, or pretending to be a store clerk would be scored as GN play. If, however, the child enacts the fantasy of Superman going to work, score this as an MS role-play. Pretending to be a store clerk and using the dishes as props in this play would be scored as both GN and D play.

- 3c. Use of female-stereotypic and male-stereotypic toys or toys classified in the "Dish" category in a gender-neutral manner. In some instances female-stereotypic, male-stereotypic, and "dish" toys may be substituted for a gender-neutral toy or object not available. Such play should be coded as gender-neutral (and would also be coded according to the category of the actual toy used).

*Example:* Using the doll's comb as a magic wand (score both GN and FS); using a fork from the tea set as a telephone (score both GN and D).

4. Dish/Tea Party/Cooking/Eating ("Dish" or "D") Play

"Dish" play is defined as:

- 4a. Play with, exploration, or holding any of the dishes, utensils or tea set toys classified in the "Dish" category (see list). This shall include merely holding a D toy, general exploration of a D toy, use of a D toy in its intended function, use of a D toy as a substitute for another toy, and use of a D toy in various forms of pretend or fantasy play. (Note that when a D toy is used to represent a non-D toy the sex-typed category of the toy or object being evoked is also scored).

*Examples:* Examining the cups and saucers, pouring juice, eating a "sandwich" off one of the plates would all be scored as D play. Using a saucer as a Frisbee would be scored as both D and GN play.

- 4b. Any eating, cooking, or tea party fantasy play. Where no toys are involved the child would need to verbalize or otherwise clearly enact this type of play. (If non-D toys are used during D fantasy play, also score MS, FS, or GN play according to the toys used).

*Examples:* Feeding the mother or the self using the cups and plates, or cooking soup using the utensils and the plates would be scored as D play. Feeding the baby doll using the plates, cups and utensils would be scored as both D and FS play.

- 4c. Use of male-stereotypic, female-stereotypic and gender-neutral toys to represent objects needed in any "Dish" play. In some instances male-stereotypic, female-stereotypic and gender-neutral toys may be substituted for objects not available. Such play should be coded as D play (and would also be coded according to the category of the actual toy used).

*Examples:* Using the large multicolor connecting beads as potatoes when cooking soup (score as both D and GN play); using the folding mirror as a "sandwich" that gets "eaten" by the child (score as both D and GN play).

## 5. Specific Rules and Guidelines in Scoring Sex-Typed Play:

5a. Generally follow traditional sex-role stereotypes and refer to the Sex-Typed Categorization of Toys List (see Section IV) when assigning gender categories. *For example:* truck, car, transportation, tool, male-superhero play, etc. is considered MS play; doll play, vacuuming, sweeping, use of female dress-up clothes, etc. is considered FS play; stacking, sorting, mirror, telephone play, etc. is considered GN play. All dish/tea party/cooking/eating play is scored in a separate category called "Dish" (D) play.

If uncertain as to the scoring of a particular piece of play place a question mark (?) after the score, or make a notation in the Comments section of the coding sheet. If unable to determine what object a child is playing with, score as US (Unscorable) and again make a note of this in the Comments section. These intervals will be reviewed and questions regarding object and activity clarified, if possible. If necessary, additional coding guidelines will be developed so that similar play will be scored in a uniform fashion. When it is not possible to determine the child's activity, the object held, or the role enacted, a final score of Unscorable (US) will be assigned. (If, however, over time it becomes clear what play the child is engaged in, score from the first moment the child engaged in that play or activity.)

5b. Code general "going to work" play when the child does not specifically indicate the nature of the job or work, as GN.

Code role plays involving various work roles and jobs using traditional sex-role stereotypes (e.g., score construction work and astronaut play as MS, housekeeper as FS, store clerk as GN).

If the child identifies the gender of the character he or she is role-playing that is different than the sex-typed nature of the work or job enacted, code both categories of play, (e.g. I am a fireman. My name is Linda: code as both MS and FS play). However, when scoring fantasy play involving GN work-roles or jobs, if the child identifies the gender of the character as male or female, code respectively as either MS or FS play only (for example, code fantasy play as a check-out clerk at the supermarket as FS if the child refers to themselves as a "check-out lady."

5c. Code any play with the baby bottle as FS, including the child's own pretend use of the bottle, or the child's attempts to feed the bottle to the mother.

5d. Code all play with the combs and brush as FS as these are clearly accessories for the doll and not full size combs and brushes. When the child uses the comb or brush to comb their own hair score as both GN and FS. Be careful to assign scores of FS only at other times, as when the child is brushing the mother's or the doll's hair.

Code all play involving hair cutting as GN. (Be sure also to score the appropriate sex-typed category of the object the child uses as a substitute.)

5e. Code use of the ruler or measuring tape as MS (these items are clearly part of the tool set and thus are scored MS). However, code both MS and GN when these items are used to measure the child or the mother (i.e., in measuring the foot, seeing how tall the child is, etc.) If the tape measure is used for measuring involved in sewing score as MS and FS.

5f. Do not code a child's use of the chair unless the child clearly uses it as a prop or substitute for something else in a role play. Use of the chair in play is scored as GN. (*For example*, if the child is using the tools to "fix" the chair, score as GN and MS.) Do not assign a sex-typed score if the child is just sitting in the chair.)

5g. Code "writing" play as GN. Be sure also to code the appropriate sex-typed category of the toys used as props in this play.

5h. Code "going to the playground," "going to a party," or "going for a walk" play as GN. Be sure to also code the appropriate sex-typed category of the toys used as props in this play.

5i. Code "fishing" play as MS. Be sure to also code the appropriate sex-typed category of the toys used as props in this play.

5j. Code "Ring around the rosy" type games as GN.

5k. Score play when the child "dresses" or in any way grooms the mother as FS play. The exception to this would be when the child puts the fireman's hat on the mother's head (score as MS).

5l. If the child does not engage in any sex-typed play during a given 5 second interval, assign a score of No Sex-Typed Play (NSTP).

5m. Do not assign any sex-typed play score if the child is merely picking up and dropping toys in succession without really engaging in play. Also do not score if the child begins to push around the toys in a haphazard or aggressive fashion. Score these behaviors as NSTP.

5n. At times, children will bring their own toys to the videotape room and will play with them along with the other toys. The coder should assign a sex-typed play score to these toys making reference to the rules and guidelines established in this section.

#### IV. Sex-Typed Classification Of Toys

<u>Male Stereotypic</u>	<u>Female Stereotypic</u>	<u>Gender Neutral</u>	<u>"Dish"</u>
Dump Truck	Baby Doll and Accessories	Large Multicolor Connecting Beads	Flowered Dish Set
Fire Engine -2 firemen -fire hydrant	-2 baby bottles <sup>1</sup> -yellow brush <sup>2</sup> -pink comb <sup>2</sup> -blue comb <sup>2</sup>	Phone	Orange Tea Set
Fireman's Hat		Ring of Shapes	Assorted Utensils
Tool Set -red level -blue wrench -red hammer -yellow screwdriver -green Phillips screwdriver -tape measure <sup>3</sup> -blue ruler <sup>3</sup>	Dress-up Accessories -high heel shoes -2 necklaces -2 barrettes	Multicolor Sticks with shapes	
	Mop	Multicolor stacking "donuts" of descending size with stacking stick	
	Broom	Sunglasses	
	Stuffed Bunny	Small Folding Mirror	
		Plastic Chair <sup>4</sup>	

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<sup>1</sup> See Section III.5c for special scoring rules.

<sup>2</sup> See Section III.5d for special scoring rules.

<sup>3</sup> See Section III.5e for special scoring rules.

<sup>4</sup> Do not score if the child is only sitting in the chair. Score only if the chair is used for play. See Section III.5f for details.

Main Coding Sheet - 28 Month Sex-Typed Play

Subject # \_\_\_\_\_  
 Sex of Child: \_\_\_\_\_  
 Condition: \_\_\_\_\_

Coder: \_\_\_\_\_  
 Starting Time: \_\_\_\_\_  
 Page #: \_\_\_\_\_

	00	05	10	15	20	25	30	35	40	45	50	55	00
M/C	-	-	-	-	-	-	-	-	-	-	-	-	-
MS	-	-	-	-	-	-	-	-	-	-	-	-	-
Play	-	-	-	-	-	-	-	-	-	-	-	-	-
M/C	-	-	-	-	-	-	-	-	-	-	-	-	-
FS	-	-	-	-	-	-	-	-	-	-	-	-	-
Play	-	-	-	-	-	-	-	-	-	-	-	-	-
M/C	-	-	-	-	-	-	-	-	-	-	-	-	-
GN	-	-	-	-	-	-	-	-	-	-	-	-	-
Play	-	-	-	-	-	-	-	-	-	-	-	-	-
M/C	-	-	-	-	-	-	-	-	-	-	-	-	-
Dish	-	-	-	-	-	-	-	-	-	-	-	-	-
Play	-	-	-	-	-	-	-	-	-	-	-	-	-
M/C	-	-	-	-	-	-	-	-	-	-	-	-	-
RT	-	-	-	-	-	-	-	-	-	-	-	-	-
Play	-	-	-	-	-	-	-	-	-	-	-	-	-
No	-	-	-	-	-	-	-	-	-	-	-	-	-
STP	-	-	-	-	-	-	-	-	-	-	-	-	-
US	-	-	-	-	-	-	-	-	-	-	-	-	-

Comments:

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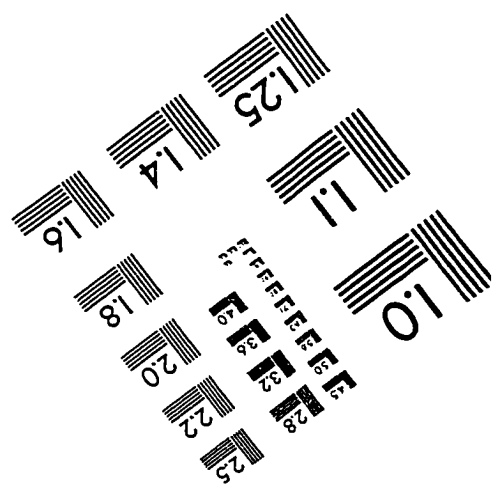
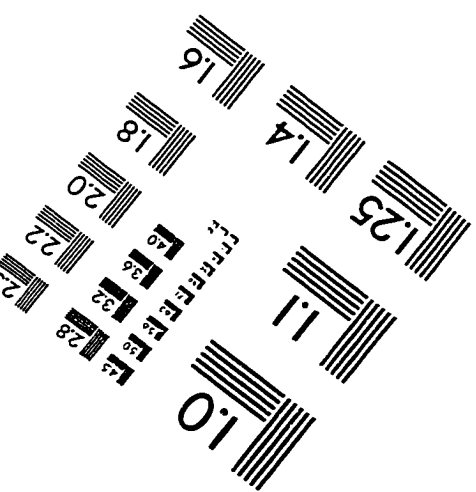
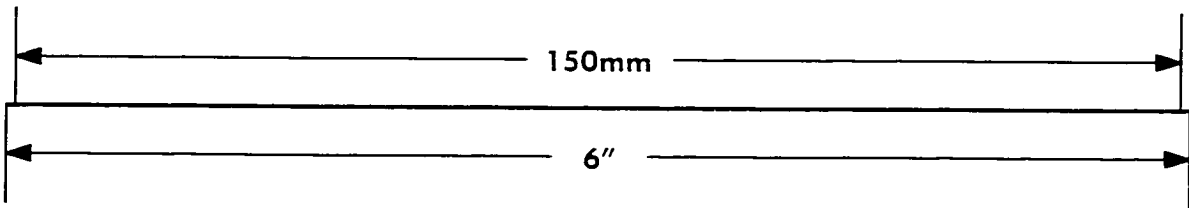
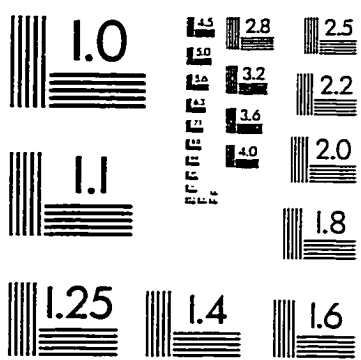
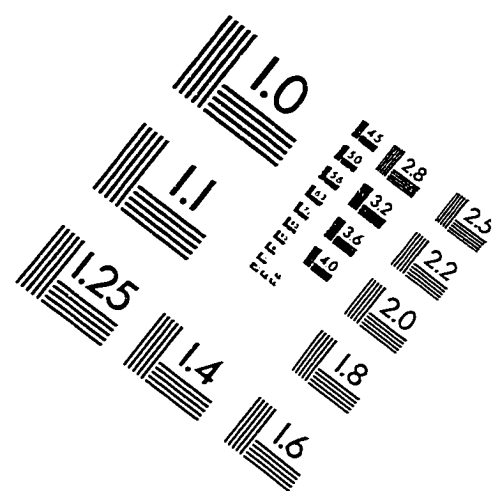
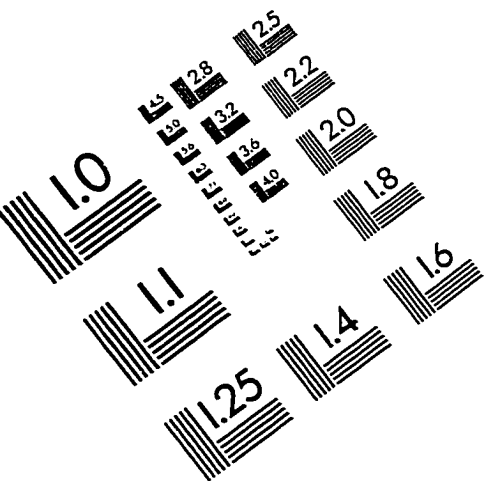
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