

ABSTRACT

Title of Dissertation: PREDICTORS OF PARENT AND CHILD BEHAVIORS
DURING DAILY SEPARATIONS AND REUNIONS AT
DAYCARE

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To test a model which describes the factors expected to predict parent and child behaviors in separations and reunions in daycare, 88 dual-career mothers ($n = 54$) and fathers ($n = 34$) were observed during interactions with their infants and toddlers in this context. Simultaneous regression analyses and path analyses provided mixed support for the model. In general, separation behaviors were predicted better by the model than reunion behaviors. At separation, parent sensitivity was predicted by parent gender and increased levels of child distress was predicted by lower levels of parental involvement in child-care and increased parental separation anxiety. Parents who were less involved in their children's daily care had children who were more distressed at separation as did parents who were anxious about the effect of separation. At reunion, parent sensitivity was predicted by separation anxiety. Parents who were more anxious about employment-related separations were more sensitive in their interactions with their children. Child happiness at reunion was not predicted by any variables included in the model. There were

mean differences between mothers and fathers on a number of variables including parent sensitivity (mothers were more sensitive), involvement in child-care (mothers were more involved), and anxiety about employment-related separations (mothers were more anxious). There were no significant differences in regression coefficients between mothers and fathers suggesting that the model held equally well for mothers and fathers. The results are discussed in terms of their support for the model and attachment theory.

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DAILY SEPARATIONS AND REUNIONS AT DAYCARE

by

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Introduction

As more mothers of young children enter the work force, an increasing number of children will spend a considerable part of the day separated from their parents. These separations are important to examine for two reasons. First, adaptation to separation from the parent is an important step in the development of the child. How well children cope with separations is thought to have implications for later social competencies (Ainsworth, Blehar, Waters, & Wall, 1978; Bowlby, 1973). The second reason to study these naturally occurring separations is because separation situations provide a significant context for observing parent-child interactions. Separation situations enable the researcher to observe parents' behaviors which indicate the quality of their parenting (such as sensitivity to the child's communication) as well as a means to observe the child's reaction to the separation.

Researchers have studied in great detail children's reactions to very brief separations that last only a few minutes, such as the separation episodes in the Strange Situation (Ainsworth & Wittig, 1969). Most of the separations that children experience today are very different than this. Children's separations from their parents while at daycare are considerably longer than a few minutes and do not involve being left in a strange place with a stranger. Another difference between contemporary families and the traditional families that served as the basis for attachment theory is that fathers are now more involved in their children's lives generally and in separation situations.

Therefore, the main goal of the present study is to examine naturally occurring separations between dual-career parents and children at daycare, taking into account characteristics of the parent and child which influence their behaviors in these contexts. A second goal of the study is to examine more closely gender differences

between contemporary mothers and fathers in the separation context. Since this is a special population of parents, the results of this study may not be applicable to traditional families. However, the present study seeks to provide a description of parent-child interaction in contemporary dual-career families. The study is unique in that it examines dual-career mothers' and fathers' interactions with their children in the context of real-life separations and reunions, and in that it examines several factors which may influence those interactions.

The introduction to the present study is organized into four main sections. The first section will provide the theoretical assumptions about parenting that guide the study. The second section reviews the literature on the various parental and child characteristics that are thought to influence parenting behavior generally. These characteristics include gender differences in parenting, parents' involvement in child-care, marital satisfaction, child temperament and child gender. Then because the separation-reunion context is not influenced by only these factors, the literature concerning the characteristics and attitudes that influence parents and children within the separation context (parent gender, parental separation anxiety, parental involvement in child-care, and child temperament) will be reviewed in the third section. The fourth section will set forth the primary goals and hypotheses of the study.

Theoretical Approaches to Parent-Child Interactions

Before reviewing the variables that influence parent-child interactions, it is necessary to review the theoretical background guiding the study. Attachment theory has drawn attention to the importance of separation behaviors as an indicator of the quality of mother-child interactions. Briefly, attachment theorists believe that

attachment is an ethological-evolutionary system in which the infant is motivated to maintain proximity to the attachment figure for protection (Bowlby, 1969). Mother-child attachment begins as a biological bond, which serves to protect the child from harm. Attachment is mediated by several instinctive behaviors such as crying, calling, smiling, clinging, non-nutritional sucking and following on the part of the infant (Bowlby, 1969). These behaviors are activated when the child feels threatened (i.e., when left alone or with a stranger). These behaviors in turn activate the attachment figure's response and thus serve to gain or maintain proximity to the attachment figure.

The attachment relationship is established in the first year of life as a result of the history of interaction between caregiver and child (Ainsworth, 1979; Bowlby, 1960, 1969; Bretherton, 1985; Sroufe & Waters, 1977). Through interactions with the attachment figure, the child gains an opportunity to build up expectations of the mother, and eventually develops a working model of her as more or less responsive (Ainsworth, 1979). The child learns to discriminate which adult will serve as a secure base from which to explore based on how the adult has responded to his or her cues in the past. Therefore, attachment theorists claim that the type of attachment relationship that develops depends on the behaviors of the attachment figure (Ainsworth, 1979).

Ainsworth and her colleagues (Ainsworth, 1979; Ainsworth & Bell, 1970; Ainsworth, Blehar, Waters, & Wall, 1978) have provided much information about the different patterns of attachment by examining mother-child interactions in the home and during the Strange Situation. The Strange Situation (Ainsworth, Blehar, Waters, & Wall, 1978) involves a series of three minute episodes which take place in a room that is unfamiliar to the child. First, the parent and child enter the room and engage in free play. A stranger enters the room and moves progressively closer to the child. Then the parent leaves

the child alone with the stranger. The parent returns after three minutes or less if the child is extremely stressed and comforts the child if necessary while the stranger leaves. The parent leaves again, leaving the child alone in the room. The stranger re-enters and attempts to comfort the child and then the parent returns again.

The entire procedure is observed through a one-way mirror and the child's behaviors, especially during reunion with the parent, determine the child's attachment classification. Specifically, the observer watches for the child's proximity to parent and stranger, contact seeking and maintaining behaviors, whether the child actively greets the parent on her return, whether the child ignores the parent's returns, and how difficult the child is to comfort. On the basis of this observation, the child is classified as having one of three types of attachment relationships: Secure (B), Avoidant (A) or Resistant (C).

The categories also include eight sub-categories of the attachment relationship. Securely attached children tend to warmly greet their parents upon reunion and use their parents as a secure base from which to explore the environment. Within the Secure (B) category are four sub-categories: B1 -- these children tend to greet their parents warmly at reunion, exhibit low to moderate levels of proximity seeking behavior upon reunion and low levels of crying at separation and reunion; B2 -- these children also are happy to see their parents at reunion yet tend to exhibit low to moderate levels of crying at separation; B3 -- this category is characterized by high levels of proximity seeking and contacting maintaining behaviors at reunion, and moderate to high levels of crying at separation; and B4 -- this category is characterized by similarly high levels of proximity seeking and maintaining, with high levels of crying at separation and low to moderate levels of crying at reunion. Children classified as B3 and B4 are considered to be more distressed than other securely

attached children, but still have secure attachments.

There are two insecure attachment categories: Avoidant (A) and Resistant (C). Avoidant children tend to ignore their parents at reunion and interact with the stranger as much as with the parent. There are two sub-categories of the Avoidant category: A1 -- these children exhibit high levels of proximity avoiding, and low levels of contact and proximity seeking; and A2 -- these children also alternate between high proximity avoiding and moderate to high levels of proximity seeking. Resistant children tend to be upset by the situation, yet they are not easy to console. They tend to approach parents for comfort, but consoling does not calm these children down. The Resistant category also consists of two subcategories: C1 -- these children exhibit high levels of proximity seeking, and contact maintaining and resisting behavior at reunion and crying at separation and reunion; and C2 -- these children act much in the same way as children classified as C1 but exhibit lower levels of proximity maintaining and seeking.

As a result of observing mothers and children in the home and in the Strange Situation, Ainsworth (1979) found that different patterns of interactions were associated with different attachment relationships. Mothers of securely attached infants responded more sensitively to their infants' signals than mothers of the anxiously attached infants. The mother's responsiveness enables the child to represent the mother as someone who is accessible and responsive to him or her. Mothers of insecurely attached children, on the other hand, are less responsive to their children's cues and their children are often anxious as they do not know what to expect from their mothers. The key to adaptive behavior on the part of the child is parental responsiveness to the child's signals. This responsiveness includes a sensitivity to the child, a lack of interference on the mother's part, acceptance of the child, and accessibility to the child

(Ainsworth, Bell, & Stayton, 1971).

The attachment relationship is important to the child's development for several reasons. In the short term, a secure child is better able to tolerate short separations from the parent (Jacobs & Wille, 1980). The child's attachment relationship also has an impact on later social development as the relationship serves as a model for later social relationships (Bretherton & Waters, 1985).

The behaviors of parents and children described in attachment theory are the focus of this study. Parent sensitivity at separation and reunion will be rated. Parent sensitivity reflects the parent's ability to perceive and interpret the child's cues accurately and respond to them in an appropriate and timely manner. Sensitivity as measured in the present study is thought to reflect the quality of parenting the child receives at home. In addition, the present study will rate child distress at separation from the parent and the happiness with which the child greets his/her parent at reunion. Based on attachment theory lower ratings of child distress and higher ratings of child happiness will be related to higher ratings of parental sensitivity.

To summarize, while attachment theory provides a detailed description of positive and negative parent-child interactions and children's behaviors in a separation context, it's scope is too limited. First, attachment theory has focused mainly on the maternal behaviors that impact the child's reaction in the separation context without examining paternal characteristics. In this age when fathers are more involved in caring for the child and more involved in interactions in the separation context, it is crucial to include fathers in any study of separations. Second, separations in the Strange Situation are different from daycare separations in terms of duration and in degree of stress to the child. In the Strange Situation, the child is left alone or with a stranger in an unfamiliar

place. While at daycare, the child is left with alternate caregivers and peers in a very familiar place. The present study will, therefore, focus on father-child interactions as well as mother-child interactions, and on the characteristics of parents and children factors that influence these interactions.

Since characteristics of mothers, fathers and children will be examined, the theoretical model for the study is broader than that offered by attachment theory. This model resembles the broad parenting perspective which has been proposed by others (Belsky, 1984; Cowan & Cowan, 1987; Grossman, Pollack, & Golding, 1988) which acknowledges that to understand dimensions of parenting, one needs to examine the influence of different types of variables including aspects of the parent and the child. The present study will attempt to tap into these various influences on parenting by focusing on several characteristics and attitudes of the parents (gender, involvement of the parent in child-care, marital satisfaction, and feelings of separation anxiety), and the child (gender and temperament).

Factors that Influence Parenting Generally

Parent Gender Differences in Parent-Child Interactions

Many researchers have focused on the way that the parent's gender influences the parent-child relationship. Before the 1970's, most studies of parenting were focused on mothers. The lack of interest in the father's role in separations and reunions is understandable given the history of the paternal role. Traditionally fathers have been responsible for providing financial support for their children, while mothers have been responsible for caring for the children. As a result, the mother-child relationship has generally

been considered more important than the father-child relationship. Attachment theory, which has influenced many theorists views on parent-child relations, has taken focused on the importance of the mother-child relationship. This theory views the mother-child relationship as unique and necessary for normal child development (Bowlby, 1982), while the father-child relationship is viewed as secondary.

However, families today are different than they have been in the past. Because society's attitudes toward the fathers' role in child care has changed, fathers are expected to take a more active role in caring for their children (LaRossa, 1988). Also, more mothers are returning to work when their children are still young (Dawson & Cain, 1990; Willer, 1992), which has created a need for fathers to become more involved in the care of their children (Barnett & Baruch, 1987; Baruch & Barnett, 1981; Crouter, Parry-Jenkins, Huston, & McHale, 1987; Leslie & Anderson, 1988; McBride, 1991; Presland & Antill, 1987; Volling & Belsky, 1991). With fathers becoming more involved in their children's lives, it is important to examine father-child relationships and the factors which influence their interactions. This is especially true for dual-career families in which the father is more likely to be more involved in caregiving than fathers in traditional families where wives still have primary responsibility for the child care. It is also especially important to examine separations and reunions in dual-income families because these parents often share the responsibility for transportation children to and from child care (Fish, New, & van Cleave, 1992). Since mothers and fathers from dual-income families are part of the separation context, they should both be included in any study of separations and reunions.

Many early studies of parent-child interactions focused on these gender differences. These studies generally suggest that fathers are capable of sensitive interactions and caring for their children

(Barth, 1991; Parke & Tinsley, 1981; Ricks, 1985), but that on a daily basis they interact with their children less often and in different ways than mothers (Power & Parke, 1983). Studies further suggest that father's involvement is more related to play behavior than child-care (Belsky, 1979; Belsky & Volling, 1987; Clarke-Stewart, 1978; Lamb, 1977 & 1980; Parke & Sawin, 1980; Stuckey, McGhee, & Bell, 1982). Because the studies do not attempt to examine the reasons behind the apparent gender differences in parent-child interactions, the assumption can be made that the explanation for the differences is due to inherent differences between the sexes. Some researchers even propose that the differences are due to gender differences in sensory modalities (Rossi, 1984). These biological predispositions, such as the females' greater sensitivity to sound and touch and their greater ability to pick up nuances and sensitivity to context, are viewed as making it easier for women to be sensitive parents than men.

Parental Involvement in Child-care

Another explanation for these apparent gender differences is that mothers and fathers have traditionally assumed different roles with their children and that it is this difference that accounts for differences in parent-child interaction. Historically, mothers have been responsible for the care of children while fathers were responsible for providing financial support for the family (Ahrentzen, Levin & Michelson, 1989; Clarke-Stewart, 1978; Biernat & Wortman, 1991; Booth & Edwards, 1980; Leslie & Anderson, 1988; Moen & Dempster-McClain, 1987; Presland & Antill, 1987). These differences in amount of involvement in child-care may be related to different styles of interaction. Unfortunately, gender and involvement in child-care are confounded in traditional families, so it is impossible to disentangle the influence of gender and involvement on parent-child interactions. Either could be responsible for the differences in mother-child and

father-child interactions. In order to isolate gender and parental involvement, one needs to examine families in which the typical confounding of gender and involvement does not apply.

Nontraditional families.

Studies of nontraditional families provide some support for the notion that parental involvement in child-care, not the parents' gender is responsible for differences in interactions. These studies suggest that differences between mothers' and fathers' interactions with their children might reflect the fact that fathers spend less time interacting in general with their children than mothers. Also, when fathers do interact with their children, they do so under different circumstances than mothers.

Several studies have examined nontraditional families to assess the relative importance of parental involvement and gender differences on parent-child interaction. Field (1978) observed fathers who were either primary or secondary caregivers and mothers who were primary caregivers interacting with their children. She found that both types of fathers (primary and secondary caretakers) engaged in less holding of their infants' limbs, more game playing, and more poking than mothers. There were also differences between primary and secondary caregivers. Primary caretaker fathers and mothers exhibited more smiling, imitative grimaces, and high-pitched imitative vocalizations and less laughing than did secondary caretaker fathers. Field suggested that the primary caretakers exhibited more of these behaviors because they had learned through experience with their infants that their infants enjoyed these behaviors. She concluded that the differences between mothers and fathers are not necessarily intrinsic, but may derive from the differential amount of experience parents have with their infants.

Lamb and his colleagues (Lamb, Frodi, Hwang, Frodi, &

Steinberg, 1982) observed Swedish couples and their first born infants. The series of studies conducted by this group of investigators took advantage of the Swedish government policy which provides nine months of guaranteed paid sick leave to any parent who remains at home to care for a newborn. This paid leave can be divided among the parents in any way they wish, enabling the researchers to make comparisons between traditional families and families in which fathers were highly involved in the care of their infants. The studies found some gender differences between mothers and fathers: mothers displayed more of some behaviors (affection, vocalizing, smiling, tending to the child, and holding the child) than fathers regardless of the fathers' involvement in child-care. There were also some differences between involved and less involved fathers. Less involved fathers engaged in more play than involved fathers, while involved fathers held their children for affection more than less involved fathers.

The researchers concluded that gender has a more important influence on parental behavior than does the caregiving role and that mothers and fathers behaved in characteristically different ways regardless of their relative involvement in caregiving. They suggested that interaction styles are not easily altered by changing the traditional parental roles and responsibilities as these styles may be internalized at early age or may be biological in origin.

The gender differences in parental interactions with children found in these studies may be due to the way nontraditional families were defined. Families were deemed "nontraditional" if the fathers had spent one month at home alone with the child acting as primary caregiver. The problem with this model is that the fathers may not have been consistently involved in child care after the first month. It is unlikely that one month of primary caregiving, even with some later involvement, is enough to change the role and interaction style

of a parent. These parents may also have reverted back to a traditional pattern after the first few months. Since these "involved" fathers may not have been involved in child care at the time of the study, one would not expect them to behave any differently than traditional fathers. The fact that the involved fathers exhibited some behaviors that resembled mothers (i.e., holding the child for affection), suggests that the increased involvement in child-care might be a first step in making these fathers more sensitive parents.

Russell (1982a) compared traditional Australian families with families in which the fathers were highly involved in the care of their children. While shared caregiving fathers spent more time taking sole responsibility for their children than their spouses, mothers still spent slightly more time overall on child care tasks than fathers (10.9 hr/wk vs 8.1 hr/wk). When both parents were home, mothers were more likely to perform child care tasks and to play with children. There were also some differences between highly involved and less involved fathers, however. Two-thirds of the nontraditional fathers reported that their relationship with their children had become closer as a result of their adopting the nontraditional family pattern. A significant number of mothers and fathers reported that fathers had become more sensitive and understood their children better after becoming more involved. Highly involved fathers were also more likely than traditional fathers to say that they enjoyed the love and affection they shared with their children, the stimulation and fun they had together, and the satisfaction of watching their children grow. While these results are self-reported and may reflect the parent's rationalizations for choosing the roles they did, it suggests that they were receiving some psychological benefit from their increased role in child-care. However, without the observing the father-child relationships to determine whether the self-reported

increases in sensitivity and understanding, the results of this study are limited.

The reason for adopting the nontraditional family pattern was not the same for all of the highly involved fathers. The following reasons were given for adopting the nontraditional pattern: seven of the 71 fathers were out of work, 24 families sought to increase their income, 16 wives wanted to pursue their careers, and 24 chose the shared roles because they held egalitarian beliefs about child care and gender roles. The results of the study were not systematically related to the reasons for choosing this lifestyle, but it is possible that some effects may have been masked due to the lack of power of an analysis with such a small number of subjects per cell. It is likely that the reason for adopting the nontraditional lifestyle would be likely to influence the parent-child interactions. One would expect different types of interactions from families choosing the lifestyle and those who were forced to do so for financial reasons.

These studies suggest that while there are some differences between mothers' and fathers' interactions with their children regardless of the parent's involvement, there are also differences between parents that are related to their involvement in the child-care. It is interesting to note that the only study conducted in the United States found that involved fathers were more similar to mothers than less involved fathers (Field, 1978). It is therefore possible that the results from studies conducted outside the United States may not be applicable to American families.

While studies of nontraditional families provide a way to separate the effects of gender and parental involvement, these families are not very common. It is still rare for the father to take the primary responsibility for the care of the child. This is evidenced by the overwhelming number of nontraditional families who resorted to the traditional family pattern after two years (Russell,

1982b). Therefore, studies of these types of families may not be very useful when examining parent-child involvement.

Role-sharing couples.

Only recently have researchers begun to focus on the division of child-care responsibilities in dual-income families. Researchers have found that families vary in the degree to which they share the child-care role. In some families, fathers are more involved in the daily care of the child than in others (Carlson, 1984; Fish, New, & van Cleave, 1992; Gilbert, 1985). The studies also suggest that there are positive results associated with the shared caregiving role. In dual-income families in which the parents share the caregiving role, fathers reported feeling closer to their children (Gilbert, 1985) and were rated as more nurturant than traditional fathers (Carlson, 1984).

These studies suggest that some differences in the interactions of parents and children are related to degree of parental involvement in child-care. However, these studies do not rely on observations of parent-child interactions, and they also do not focus specifically on separations and reunions which is an important context for these dual-income families. The present study will provide some of the missing pieces of the puzzle by observing dual-income couples interacting with their children during separations and reunions at child care. The first goal of this study, therefore, is to examine the extent to which the gender of the parent and parental involvement influences the behavior of parents and children in a separation situation.

Parental involvement in child-care can be measured in several ways. Time use phone calls in which parents are called on several occasions to determine what tasks they have performed with their child in the past 24 hour period, provide more valid estimates of time use than other estimates such as asking parents how many hour per week

they engage in various activities (Robinson, 1985). The present study assessed parental involvement in child-care with four time use phone calls.

Marital Satisfaction

The marital relationship is also a powerful predictor of parenting behaviors (Belsky, 1981; Belsky, Youngblade, Rovine & Volling, 1991; Crouter, et al., 1987; Feldman, Nash, & Aschenbrenner, 1983; Goldberg & Easterbrooks, 1984; Isabella, 1994; Levy-Shiff & Israelashvili, 1988; Nugent, 1991; Volling & Belsky, 1991). The quality of the marital relationship influences both the quality and the quantity of parenting. Goldberg and Easterbrooks (1984) found that fathers who experienced marital harmony provided more emotional support and higher quality assistance to their children during a laboratory task than fathers who experienced less marital harmony. Volling and Belsky (1991) found that men who reported loving their wives and who reported attempting to enrich their relationship before the birth of their child were more affectionate and stimulating fathers when seen three months after the child's birth. Dickstein (1991) also found that fathers who were satisfied with their marriages were more interactive with their infants and generated more joyful, positive and synchronous affect in interactions with their infants. Feldman and colleagues (1983) found that the father's playfulness in interactions with his child was predicted by an absence of marital problems. Levy-Shiff and Israelashvili (1988) also found that happily married fathers were more playful and showed more affiliative behaviors with their children. Brody, Pelligrini, & Sigel (1986) found similar results with older children. Fathers who were content in their marriages provided their school-aged children with more positive feedback and attempted to take over less often in parent-child interaction task than fathers who were slightly discontent with

their marriages. Studies also find that mothers' marital satisfaction influences the quality of interactions with their children as happily married mothers are more sensitive mothers (Brody, Pelligrini, & Siegel, 1986; Cox, Owen, Lewis, Henderson, 1989; Isabella, 1994; Stevenson-Hinde, Shouldice, 1995).

It is possible that a happy marriage provides support for the parents and encourages adaptation to their roles. Cox, Owen, Lewis, & Henderson (1989) have found that fathers who were involved in a close marriage had a positive attitude toward the infant and his role. It is unclear whether the parent's attitude toward the marriage may carry over into interactions with the child, or if a poor relationship with the child results in a negative perception of the marriage. It is also possible that fathers who experience a warm satisfying marriage may want to help their wives more with the child care tasks and as a result they may enhance the father-child relationship. Regardless of the nature of influence, marital satisfaction is a factor that may influence parent-child relationships.

Marital satisfaction also predicts fathers' involvement in the care of the children. Nugent (1991) found that Irish fathers who reported high levels of marital satisfaction were more likely to be involved in child-care when the child was one month old and still more involved when the child was one year old. Crouter and colleagues (1987) also found that marital negativity was strongly related to paternal involvement in child-care. Levy Shiff and Israelashvili (1988) found that happily married fathers were more involved in the care of the children.

Child Characteristics

The parent is only one participant in the parent-child interaction. The characteristics of the child also play a role. Several different characteristics of the child have been identified to

influence parent-child, especially father-child interactions. The present study will focus on two child characteristics: temperament and gender.

Child temperament.

There is accumulating evidence that the temperament of the child may be related to the parent-child interactions. Researchers suggest that the child's temperament influences parental involvement with their children (Frodi, Lamb, Frodi, Hwang, Forsstrom, & Carry, 1982; Nelson & Simmerer, 1984; Redina & Dickerscheid, 1976). These researchers have found that parents are less involved with temperamentally difficult children.

Child gender.

Studies that examine interactions between parents and their children also suggest that the child's gender influences the way parents, especially fathers, interact with their children. Studies have found that fathers were more responsive to their sons (Cox, Owen, Lewis, & Henderson, 1989), make themselves more salient to their sons (Lamb, 1980), and look at and provide more stimulation for their sons, are more playful with sons (Feldman, Nash & Aschenbrenner, 1983; Levy-Shiff & Israelashvili, 1988), but they snuggle and hold their daughters closer (Parke & Sawin, 1980) and show more affection to daughters (Noller, 1978). Child gender also impacts mothers' behaviors. Mothers had more positive attitudes toward their sons (Cox, et al., 1989) and snuggle and hold their sons closer (Parke & Sawin, 1980), but pay more attention to their daughters (Parke & Sawin, 1980; Stuckey, McGhee, & Bell, 1982). The child's gender has also been found to influence parental involvement in child-care (Barnett & Baruch, 1987; Redina & Dickerscheid, 1976). Because parents' behaviors appear to be influenced by the gender of the child, the present study will also include child gender as a predictor of parent behavior at separation and reunion and as a predictor of

involvement.

Factors that Influence Parent-Child Interactions
in a Separation-Reunion Context

Parental Gender Differences

Several studies have focused on the impact of fathers and mothers on child behaviors at separation and reunion. In one of the first studies to examine the separation and reunion behaviors of children and their parents, Weinraub & Frankel (1977) found that fathers made significantly more statements to infants as they were preparing to separate from their children in a lab situation than mothers did. Noller (1978) examined the behavior of mothers and fathers from different families as they dropped off and picked up their children at child care. She found that mothers showed more affection than fathers.

More recently, Field and her colleagues (Field, Gerwitz, Cohen, Garcia, Greenberg, & Collins, 1984) observed the separation and reunion behaviors of children and their parents at child care. At separation, mothers were more likely to move toward children's activities, talk to the child, engage in more distracting and they showed longer latency to leave the center than fathers. At reunion, mothers chatted more than fathers.

There is some evidence that children react differently at separation and reunion depending on who picks them up. Field and her colleagues (1984) found that children dropped off by mothers showed more attention-getting behavior and more crying than children dropped off by fathers. Also children who were picked up by their fathers continued to play more than those picked up by their mothers.

These studies suggest that there may be some gender differences in parent-child interactions at separation and reunion; however, each study contains several flaws that limit their usefulness in

understanding parent-child interactions. First, while they suggest that there are differences in the way that mothers and fathers interact with their children in a separation situation, they do not provide any information about why these differences might exist. These researchers also recorded parent and child behaviors by using live coders. It is more reliable to videotape the separations and reunions and to train observers to code these tapes later. The major advantage of using video recordings of behavior is that videotapes can be reviewed frame by frame, and replayed many times if the coder has any question regarding the behavior that is occurring. Since the video recording can focus on one parent-child interaction at a time, the coder will also be exposed to less distracting information than would be present in live observations. The present study will attempt to remedy these problems by examining the characteristics of mothers and fathers that are thought to influence parent-child interactions and by video-taping these interactions.

Separation Anxiety

Another factor which has been found to influence mother-child interactions at separation is the mothers' separation anxiety. The anxiety the mother feels over leaving the child in the care of someone else is thought to influence mothers' behaviors at separation and reunion. Traditionally, there has been cultural pressure on mothers to stay home to raise her children. When mothers work, they have to deal with the pressure of balancing their roles of mother and employee. As a result of this conflict between the culturally accepted role of mother and the role of working woman, mothers often feel anxiety about separating from their children (Hock, DeMeis, & McBride, 1988).

Hock and her colleagues have defined the concept of maternal separation anxiety as the "unpleasant emotional state tied to the

separation experience: it may be evidenced by expressions of worry, sadness, or guilt" (Hock, McBride, & Gnezda, 1989). They have also developed a scale which assesses the degree to which mothers experience anxiety over separations from their children (DeMeis, Hock, & McBride, 1986; Hock, et al., 1988; Hock, et al., 1989). This scale includes three subscales. The Maternal Separation Anxiety subscale consists of 21 items and represents a mother's level of worry, sadness and guilt when separating from her infant, beliefs about the importance of the exclusivity of maternal care, and beliefs about the child's ability to adapt to nonmaternal care. A high score on this subscale indicates more anxiety due to separation and stronger feelings about the value of exclusive maternal care. The Perceptions of Separation Effects on the Child subscale consists of seven items which assess the degree to which a mother feels separations have negative or positive effects on her child. A high score on this subscale indicates that the mother feels that her child does not benefit from nonmaternal care. The Employment-related Separation Concerns subscale also contains seven items and assesses a mother's attitudes about balancing the maternal role and career investments. A high score on this subscale indicates that the mother is anxious about leaving her child while she works. This scale was modified for use with mothers and fathers in the present study.

Several studies have found that separation anxiety influences mothers' behaviors at separation from their children (Hock, et al., 1989; Ridley-Johnson & Penati, 1991). Hock and her colleagues (1989) found that women who experience low levels of separation anxiety took little time to comfort their infants, and appeared to have little concern about leaving their child at separation. Mothers who expressed high levels of separation anxiety, on the other hand, showed a great deal of concern about the child's comfort, had prolonged interactions at separation and made many reassuring comments prior to

leaving. At reunion, mothers who expressed low levels of separation anxiety were likely to ignore their children and did not interact very much with the child, while mothers expressing high separation anxiety were likely to comfort the child even if the child was not distressed and to make comments such as "did you miss me?"

Ridley-Johnson & Penati (1991) also found differences in the separation and reunion behaviors of mothers who express different levels of separation anxiety. They found that mothers who expressed higher levels of separation anxiety also displayed higher levels of verbal affection than mothers expressing less anxiety. At reunion, anxious mothers engaged in more affectionate behaviors than mothers who expressed less anxiety.

While not examining separation anxiety, per se, Melson and Kim (1990) examined the relationship between parents' ideas about separation and the separation and reunion behaviors with children in nursery school. They found that when parents expected their children to exhibit distress at separation, they showed the children more affection and took longer to leave the child than parents who did not expect distress.

The literature on separation anxiety lacks any detailed discussion of the way that mothers' behaviors at separations influence the way that children react to the separation. Several studies do suggest that the maternal behaviors at separation are related to children's behaviors. For example, children whose mothers give brief explanations prior to leaving (Adams & Passman, 1981) and linger shorter amounts of time before leaving the setting (Adams & Passman, 1983) play longer than children whose mothers provide long explanations. These studies suggest that children may adapt better to separations from their mothers, if the mothers exhibit less anxiety in their departures. However, McBride and Belsky (1988) examined the relationship between separation anxiety and children's attachment to

their mothers and obtained slightly different results. They found that mothers who expressed a moderate amount of separation anxiety had children who were securely attached, mothers who expressed more separation anxiety had children who were avoidant, and those mothers who expressed the least separation anxiety had children who were resistant.

Although there is certainly less cultural pressure on fathers to be responsible for the care of their children, fathers who do decide to share the child care role, may be likely to express some concern about separations from their children. No study has examined fathers' anxiety over separation from their children. This is probably due to the fact that traditional fathers are not thought to experience the conflict between work and parental roles. In fact, as mentioned above, Weinraub and Frankel (1977) found that 40% of the mothers and none of the fathers reported spontaneously that they were worried about their child's impending response to the separation. When asked, 75% of the mothers and 35% of the fathers reported being worried. However, these families were primarily traditional families. Only 6 of the 40 fathers in this study shared the child-care role. The situation may be very different for fathers who are involved in the care of their children. Therefore, the present study will assess fathers' separation anxiety as well as mothers' separation anxiety.

Parental Involvement in child-care

Few studies have actually examined the effect of parental involvement in child-care on children's separation behaviors. However, one study (Spelke, Zelazo, Kagan & Kotelchuck, 1973) examined fathers who spent different amounts of time interacting with their children on a daily basis and their children in a separation context in the lab. They found that children who cried the most when their fathers left the lab situation, were children who experienced low

levels of paternal involvement. These results were surprising to the researchers, but are expected when considered from the perspective of attachment theory. According to attachment theory, children who experience low levels of interaction with their parents are expected to show more distress at separation because they have not established a relationship of trust that would lead them to expect that the parent will return.

Child Temperament

The child's temperament has been found to influence their behaviors in a separation context. Difficult temperament is associated with more avoidant behavior or ignoring of the parent during reunion episodes in the Strange Situation (Calkins & Fox, 1992; Crockenberg, 1981; Lewis & Feiring, 1989; Miyake, Chen, & Campos, 1985; Sagi, Lamb, Lewkowicz, Shoham, Dvir & Estes, 1985; Thompson, Connell, & Bridges, 1988). Temperament is also related to separation distress. Children classified as "difficult" exhibit more distress at separation from the parent (Vaughn, Lefever, Seifer, & Barglow, 1989; Thompson, Connell, & Bridges, 1988). Since temperament influences both parent-child interactions generally and child behaviors at separation and reunion it was included as a predictor variable in the present study.

Purpose

The major purpose of this study is to investigate the nature of parent-child separations in dual-career families. The overall model guiding the research is depicted in Figures 1-3. The model suggests that parent and child behaviors at separation and reunion will be influenced by various characteristics of the parent and the child. Three main stages can be detected in the model. The first stage, involves predicting parental sensitivity at separation and reunion. Parental sensitivity is thought to be influenced by parental characteristics (parental involvement in child-care, separation anxiety, and marital satisfaction) and child characteristics (temperament and gender). The second stage involves predicting child behaviors: child distress at separation and happiness at reunion. Parental sensitivity is thought to have a direct effect on the child behaviors. In addition, the characteristics of the parent and the child are thought to have an indirect effect on the child's behavior. The third stage involves interrelations among the predictor variables, specifically involvement in child-care and separation anxiety. In all stages, parental involvement in child-care is expected to be a significant predictor, while parent gender is not expected to predict any behaviors. The hypotheses stated below specify in greater detail the nature of the relationships between the variables in the model.

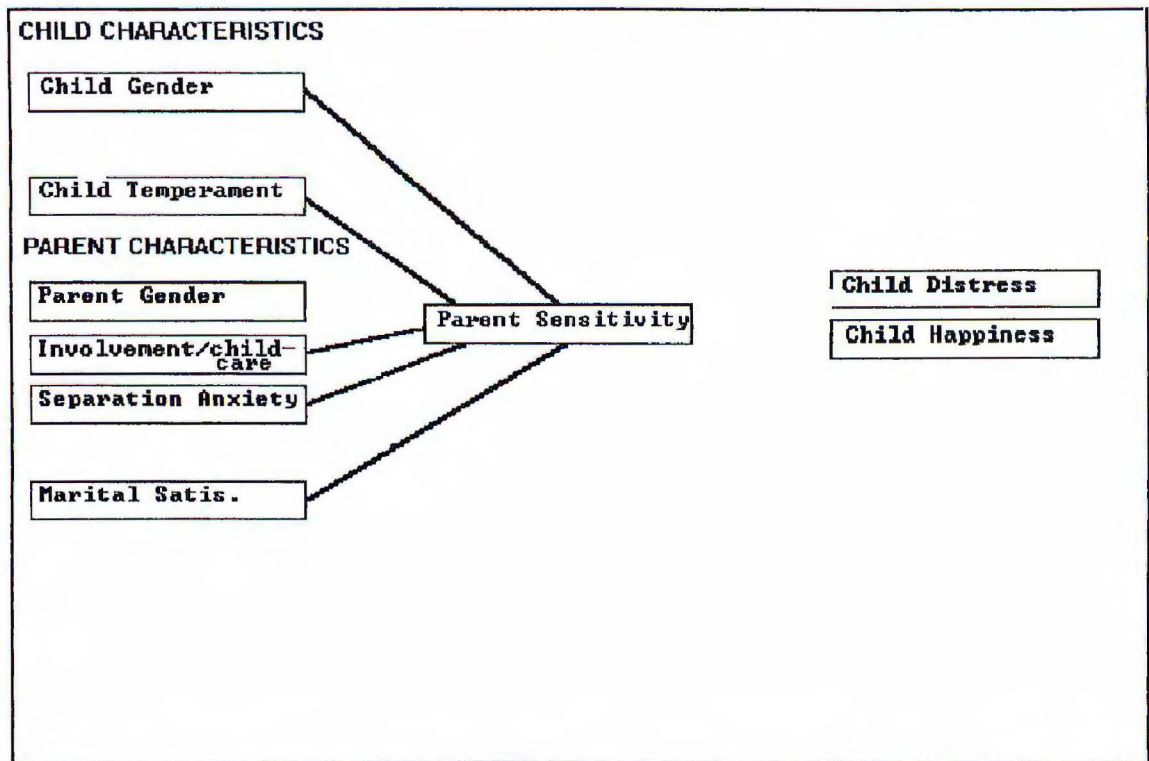


Figure 1 Stage 1: Predicting Parent Behaviors

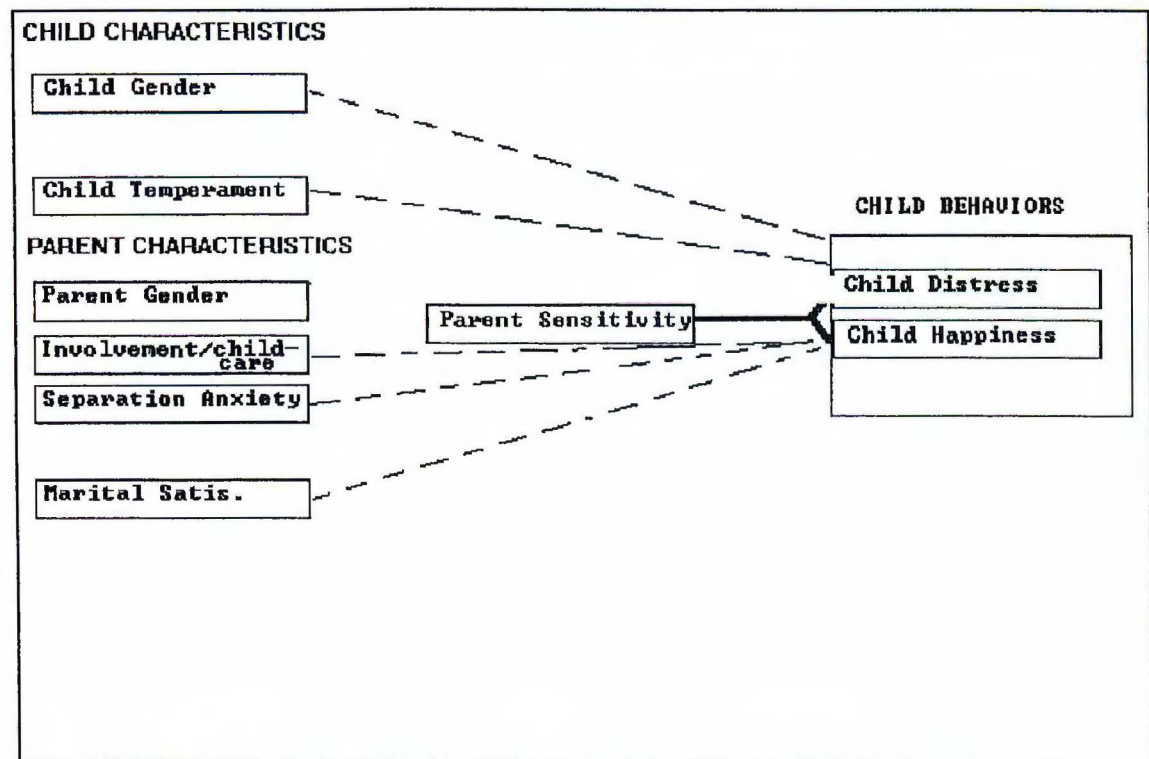


Figure 2 Stage 2: Predicting Child Behaviors

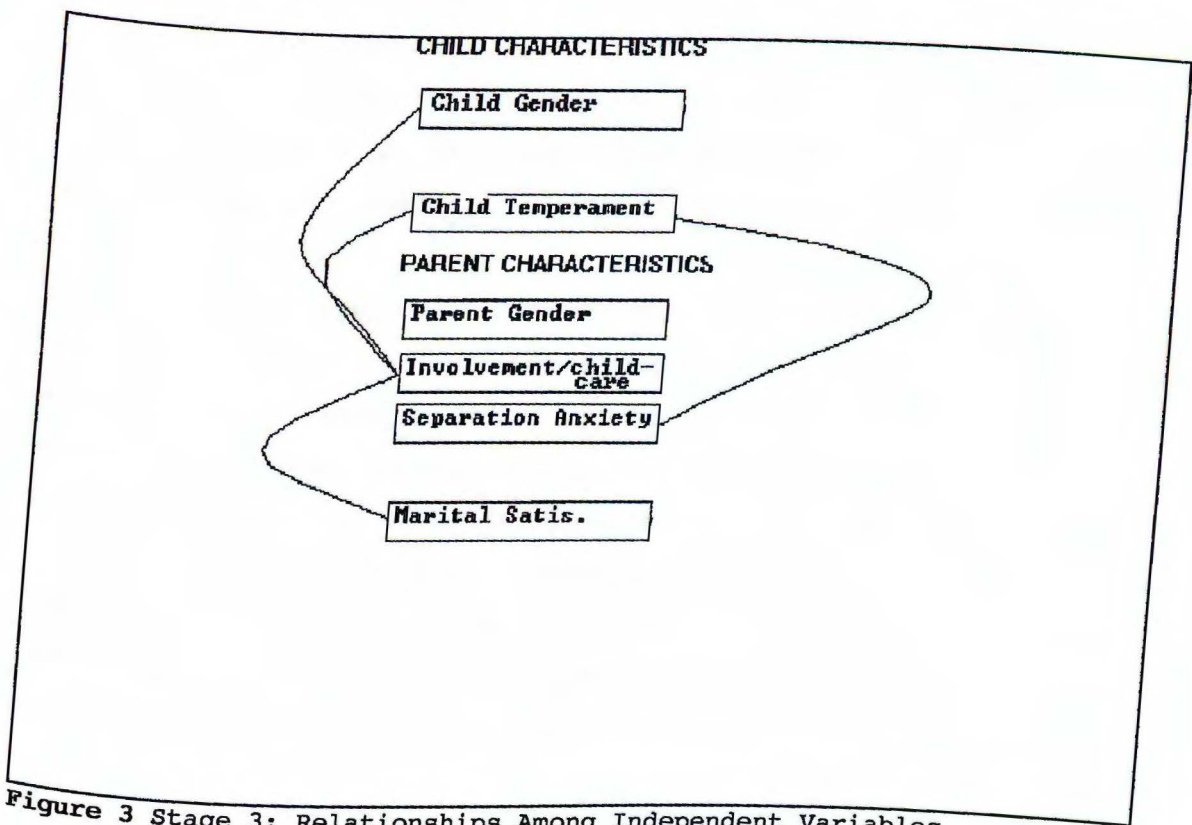


Figure 3 Stage 3: Relationships Among Independent Variables

Hypotheses

Major hypotheses

The first set of hypotheses pertain to testing the direct and indirect effects of the variables contained in the model in Figures 1 - 3. The secondary hypothesis deals with gender differences.

1. Higher levels of parent sensitivity at separation and reunion will be predicted by: (a) higher levels of involvement in child-care, (b) lower levels of separation anxiety, (c) marital satisfaction, (d) easy child temperament, and (e) child gender. Parent gender will not be a significant predictor of sensitivity once the effect of involvement in child-care has been controlled.

2. Lower levels of child distress at separation, which indicates a better quality relationship with the parent, will be affected by: (a) higher ratings of parental sensitivity at separation. Lower levels of child distress will also be predicted by: (b) higher levels of parental involvement in child-care, (c) lower levels of parental separation anxiety, (d) marital satisfaction, (e) an easy temperament on the part of the child, and (f) child gender. Parent gender will not be a significant predictor of child distress once the effect of involvement in child-care has been controlled.

3. Child happiness at reunion, which also indicates a better quality relationship with the parent will be affected by: (a) higher ratings of parental sensitivity at separation and reunion. Higher levels of child happiness at reunion will also be predicted by: (b) higher levels of parental involvement in child-care, (c) lower levels of parental separation anxiety, (d) marital satisfaction, (e) an easy temperament on the part of the child, and (f) child gender. Parent gender will not be a significant predictor of child happiness

once the effect of involvement in child-care has been controlled.

4. Higher levels of parent involvement in child-care will be predicted by: (a) marital satisfaction, (b) easy temperament, and (c) child gender.

5. Higher levels of parental separation anxiety will be predicted by: difficult temperament.

Secondary Hypotheses

1. Once the effect of involvement in child-care has been controlled for, gender will not affect parent sensitivity at separation and reunion, child distress at separation or child happiness at reunion.

Method

Participants

Sixty-six dual-career families were recruited from eleven high quality daycare centers in the Metropolitan Washington D.C. area. All but one of the centers were on-site daycare centers caring for the children of parents who worked in nearby government or private work-places.

The children spent an average of 41.83 hours (range 27-50) in daycare each week. The children had been at their present center for an average of 11.57 months (range 1-27). They were an average of 20.87 (range 7-37) months old at the time they were observed. There were 31 girls and 35 boys and 76% were only-children.

The families were predominantly white (60 white, 3 black, and 3 hispanic). The mean age of mothers was 34.43 years (range 25-50 years) and the mean age of fathers 35.50 years (range 35-55). The parents were highly educated: 34% completed college and an additional 60% had earned an advanced degree. The parents worked an average of 41.50 hours per week (range 25-55). Mothers worked an average of 40.60 hours (range 25-50) while fathers worked an average of 42.93 hours (range 35-55). These statistics reflect the parents who were observed. See Table 1 for a comparison of the parents who were observed and those who were not.

Insert Table 1 here

Procedures

There were five types of data collected from the participants: demographic questionnaires, observations at separation and reunion at daycare, observational scales used to code the videotaped separations and reunions, and time use phone calls.

Demographic Questionnaire

After obtaining permission to contact the parents from the center directors, parents were contacted by a letter which explained the project (see Appendix A) and asked to complete a short questionnaire which assessed their drop-off and pick-up patterns and their perceptions of their involvement in child-care tasks. The questionnaire also asked for information about the parents (age, education, hours spent at work), and the child (age of entry into present center, age of entry into child-care, and previous child-care arrangements). The parents were asked to return the questionnaires to the child-care facility whether or not they wished to participate so that a base rate of father participation could be obtained. Very few parents (10%) who were not interested in participating in the study returned the questionnaire. Approximately 30% of the families who were contacted agreed to participate. The parents who participated were promised and given a small toy for their child when they completed the study.

Behavioral Observations

There were three types of families classified by responsibility for daycare transportation: Mother only ($n = 22$), father only ($n = 11$) and shared ($n = 34$)¹. Whenever possible the parents were videotaped twice at separation and twice at reunion. Not all parents were available for videotaping. Table 2 contains the missing data classified by group.

¹ Family type was defined by which parent typically transported the child to and from daycare. One father in a mother only family and one mother in a father only family who normally did not transport their children to daycare, but who did so occasionally while their spouse was out of town, were included in the sample.

Table 2 here

At separation, the parents and children were videotaped as soon as they entered the classroom area. The recording stopped a few seconds after the parent left the room unless the child was crying at that time. If the child was crying, they were videotaped for a few minutes to determine how long they continued to be distressed. At reunion, the camera-operator began taping as soon as the parent entered the room in order to capture the child's initial reaction to the parent's return and ended after the parent and child left the child's room. If the reunion took place on the playground, which was sometimes the case, the parents were videotaped until they left the center, even if they returned to the child's room first to retrieve personal articles.

Behavioral Coding

The videotapes of separations and reunions were later coded by four research assistants. The coders rated three behaviors: parent sensitivity at separation and reunion, child distress at separation and child happiness at reunion.

Parent sensitivity. The scale is based on the System for Rating Maternal-Care Behaviors (Ainsworth, 1976). Parent sensitivity reflects the parent's ability to perceive and to interpret the child's cues and respond to them appropriately. Parent's sensitivity has four components: (a) awareness of the signals; (b) an accurate interpretation of them; (c) and appropriate response to them; and (d) a prompt response to them. The scale assesses overall sensitivity with which the parent interacts with the child on a five point scale.

(5) Highly sensitive: This parent is exquisitely attuned to baby's signals and responds to them promptly and appropriately. This type of parent can see that the child is upset and needs to be held even if the child is not crying. This type of parent is attentive and responsive to the child even if engaged in other activities (unpacking or talking to the teacher). This type of parent also takes the time to respond to the child when the child seeks attention from the parent, even if only to acknowledge the child.

(4) Sensitive: This parent also interprets the child's communications accurately, and responds to them promptly and appropriately -- but with less sensitivity than the parents with higher ratings. The parent may be less attuned to the child's more subtle behaviors or may be less skilled at dividing his/her attention between the child and competing demands. This parent may exhibit less responsiveness while he/she is doing some other task, but is still somewhat in tune with the child even when otherwise occupied.

(3) Inconsistently sensitive: Although this parent can be quite sensitive on occasion, there are some periods when he/she is insensitive to the child's communications. This type of parent may ignore the child while he/she is unpacking or unpacking the child's gear or signing the child in for the day, but is very responsive when he/she is finished with the other tasks. This parent is more sensitive than insensitive in his/her responses.

(2) Insensitive: This parent frequently fails to respond to the child's communications appropriately and/or promptly. This parent may be preoccupied with other things and therefore be inaccessible to the child's signals and communications, may miss the child's signals or misinterpret them due to his/her own preoccupation. This type of parent may also understand what the child is communicating, but does not give the child what he/she wants because it is inconvenient.

(1) Highly insensitive: The extremely insensitive parent seems geared almost exclusively to his/her own wishes and activities. The parent might respond to a very intense signal on the part of the child, but usually after some delay or after repeated signals. Thus, when the parent does respond to the child's signals it is characteristically inappropriate. For example, this type of parent might ignore the child's pleas to stay or leave. This type of parent is also likely to say things like "I have to go," "I'll be late" while the child remains upset. This type of parent may also misread the child's state i.e., comforting a child about his/her return when the child is not upset.

The variable used in the analyses reflected the average of the two sensitivity ratings at separation and the average of the two sensitivity ratings at reunion.

Child distress at separation. The central issue addressed in this scale is the child's degree of distress or discomfort at the impending separation with the parent and the degree of distress that the child exhibits as the parent leaves. The three point scale included the following ratings:

(3) Not distressed: The positive end of the scale reflects a child who is comfortable being left at the center. This type of child will tend to leave the parent's side as soon as he/she enter the room and head toward the teacher, other children, or some activity or will do so easily when prompted to. Children who cannot yet walk or crawl, might struggle to get down out of the parent's arms or to get out of the stroller in order to play with someone or something. The child may also appear excited to see the teacher and indicate that he/she wants to interact with that teacher. He/she does not pay much attention to what the parent is doing but instead pays attention to his/her own activities. When the parent gets ready to leave this type

of child may say good-bye and/or wave. It is also possible that he/she might not acknowledge the parent's departure at all.

(2) Mildly distressed: A child who is mildly distressed is less comfortable with separation than the children described above. This type of child may follow the parent around initially or keep an eye on the parent when they are in the room together, but when it is time for the parent to leave, this type of child says good-bye without a tear and is ready to join in some activity if he isn't already so engaged.

(1) Distressed. A child who is distressed at separation will likely cling to the parent, follow the parent, or at least keep the parent in sight after entering the room. The child may cry for part of the time, or plead with the parent not to leave. The child may continue talking to the parent as the parent attempts to leave in an effort to delay the parent's departure. This type of child may be upset (even very upset) when the parent leaves.

Child happiness at reunion. The manner in which a child reunites with the parent has been used by psychologists as a way of examining the parent-child relationship. This scale also consists of three ratings designed to describe the degree of happiness children exhibit at reunion with their parent at the end of the day:

(3) Happy Greeting: A child who is rated as extremely happy to see the parent will likely drop what he/she is doing when he/she realizes that the parent is in the room. The child will smile upon seeing the parent. This type of child will run up and hug and/or kiss the parent or approach the parent very enthusiastically. Children who cannot yet walk or crawl will show other signs of excitement such as a squeal of delight, flailing of the arms, bouncing up and down, or other signs of general excitement. The child may call to the parent or call the parent over to show the parent what he/she is doing. This child actively seeks contact with the parent upon the parent's

entrance and is obviously happy about the parent's return.

(2) Acknowledgement: This type of child will acknowledge the parent by saying "hi" and/or smiling at the parent when the parent enters the room. But this type of child will usually continue with their own activity after acknowledging the parent. The child may hug or kiss the parent if the parent approaches, but will not actively seek out the parent in order to shower the parent with affection.

(1) No greeting/Avoid: This type of child will ignore the parent's return to the room, by continuing with his/her activities after the parent arrives. This child may even avoid contact with the parent. This child will probably be reluctant to leave the center and may ignore the parent's attempts to get him/her ready to leave. The child may even become upset over having to leave for the day. See Appendix B for more detailed information about the coding scales.

The research assistants who performed the coding were trained by the author. In order to begin coding, the coders were required to achieve .75 exact agreement with the master coder on another set of videotaped separations and reunions. Percent agreement was used on these global ratings because there was not much variability in the scores, therefore, the interclass correlation underestimated the reliability. Reliability was assessed by having the author code every tenth separation and reunion session. Coder's percent-agreement ranged from .76 to .95 on the three behavioral codes (see Appendix C for more details about coder reliability).

Time Use Phone Call

Parental involvement was assessed through the use of time use phone calls. Parents were called on approximately four week day evenings ($M = 3.4$) to determine the number of child-care tasks each parent performed with the target child on that day. The parents were asked who (mother, father, both or neither) had performed a list of 14

child-care tasks with the target child in the past 24-hour period. The list of child-care tasks was based on the list used in Fish et al. (1992): bath, bedtime, dressing, disciplining, feeding, food preparation, nighttime care, nurturing, outings, playing, diaper changing, skill teaching, cleaning up, and planning activities.

An attempt was made to speak to both parents if possible, but many parents made specific requests about whom and when to call for this information. The families were also asked whether this was a typical day for the family in order to ensure that the information was representative of what usually happens in the home. Dependent t-tests showed no significant differences between typical and nontypical information ($t[87] = -.04$, $p > .10$ for total involvement; and $t[87] = -2.03$, $p > .01$ for solo involvement), therefore the analyses contained the information based on all the phone calls.

Two variables were calculated from this information. Total parent involvement was calculated by dividing the average (over the four phone calls) number of tasks performed by each parent by the average number of tasks performed within the family. Solo Involvement was calculated by dividing the average number of tasks the parent performed alone by the average number of tasks performed within the family. Both variables were included in the regression analyses as they were expected to have different predictive power.

Questionnaires.

Parents were asked to complete a three-part questionnaire. Questionnaires were distributed to the parents at the child-care facilities after the parents had been observed in two separations and two reunions and after the phone contacts had been made. Parents who were not observed in the separation-reunion context were asked to complete the questionnaires and their responses are included in analyses that do not require observational data. The parents were

asked to answer the questionnaires separately without consulting their spouses.

Parental Separation Anxiety Scale (PSAS). Separation anxiety was assessed using a modified version of the Maternal Separation Anxiety Scale (Hock, McBride, & Gnezda, 1989). The language of the scale was changed to be used for fathers (the word "parent" was substituted for "mother" in all items). Both mothers and fathers were asked to complete the PSAS individually, without consulting their spouses regarding their responses.

This scale includes three subscales. The Parental Separation Anxiety subscale consists of 21 items and represents a parent's level of worry, sadness and guilt when separating from the infant, beliefs about the importance of the exclusivity of parental care, and beliefs about the child's ability to adapt to nonparental care. A high score on this subscale indicates more anxiety due to separation and stronger feelings about the value of exclusive maternal care. The Perceptions of Separation Effects on the Child subscale consists of seven items which assess the degree to which a parent feels separations have negative or positive effects on his/her child. A high score on this subscale indicates that the parent feels that his/her child does not benefit from nonparental care. The Employment-related Separation Concerns subscale also contains seven items and assesses a parent's attitudes about balancing the parental role and career investments. A high score on this subscale indicates that the parent is anxious about leaving his/her child in order to work. Parents' scores on each of the three subscales were used in the regression analyses.

Marital satisfaction (MSAT). Marital satisfaction was assessed using the Kansas Marital Satisfaction Scale (Schumm, Paff-Bergen, Hatch, Obiorah, Copeland, Meens, & Bugaighis, 1986). This three-item scale correlates with two longer measures of marital satisfaction (Spainer's Dyadic Adjustment Scale (1976) and Norton's Quality

Marriage Index (1983)). The parents were asked to rate how satisfied they were with their marriage, with their relationship with their spouse, and with their husband/wife as a spouse on a seven-point scale where a rating of 1 indicates very dissatisfied and a rating of 7 indicates very satisfied. The average response to these three questions was used in the regression equations.

Toddler Temperament Scale. The child's temperament was assessed by having each parent complete the Toddler Temperament Scale (TTS) (Fullard, McDevitt, & Carey, 1984). The scale was standardized on children one to three years in age. Dr. Carey recommended extending the TTS scale to children as young as seven months rather than using the Infant Temperament Questionnaire (Carey & McDevitt, 1978) which was developed for children four to eight months old.

Missing questionnaires scores were replaced by the mean of each questionnaire. Ten percent of the parents failed to complete the PSAS, and eleven percent of the parents failed to complete the TTS and MSAT questionnaires.

Results

The results are presented in three main sections. The first section defines the variables used in the analyses. The second section deals with the major hypotheses related to predicting separation and reunion behavior of the children and their parents and testing the model proposed above. The third section relates to the secondary hypotheses concerning gender differences.

Variable Definitions

Dependent Variables

Parent sensitivity. Measures of parent sensitivity at separation and reunion are based on the average rating of sensitivity for the two separations and two reunions respectively. A higher score on the five point scale indicates more sensitive behavior. This is a composite measure, so each parent receives one score.² See Table 3 for the means and standard deviations for all dependent and independent variables. The parents' ratings of sensitivity at separation was not related to their rating of sensitivity at reunion ($r(86) = .24$, $p > .01$) (see Table 4 for zero-order correlation coefficients for observational data).

Tables 3 & 4 Here

Child distress at separation was based on the average rating of child distress with one parent. The scale consisted of three points in which a higher rating reflects a child who was not at all

² There were 54 parents who shared transportation responsibility (32 mothers and 22 fathers), 22 mother-only parents (21 mothers 1 father), and 12 father-only parents (11 fathers and 1 mother). The mother in the father-only family and the father in the mother-only family were parents who normally did not transported their child but did so occasionally when their spouses were out of town.

distressed by the separation and a lower score reflects a child who is extremely distressed by separating from the parent. There was no significant relationship between ratings of distress at each separation ($r(79) = .21, p > .01$).

Child happiness at reunion was assessed by coders' ratings of children's happiness at reunion with their parents. This scale also consisted of three points where higher ratings indicated more happiness at reunion. The children's happiness at reunion was not significantly related to child distress at separation ($r(86) = .20, p > .01$), nor were the two reunions related to each other ($r(80) = .03, p > .10$).

Independent Variables

Total involvement in child-care was based on information obtained in the four time use phone calls. This variable reflects the average number of child-care tasks a parent performed out of the total tasks performed within the family and was calculated by dividing the average number of tasks performed by each parent over the four phone calls by the average number of tasks performed within the family over the four phone calls. The number of tasks performed within the family was chosen as the base rather than the total number of tasks assessed on checklist because the hypotheses refer to involvement in the child's care within the family, not compared to other families.

Solo involvement in child-care. This variable reflects the average number of child-care tasks that a parent performed alone based on the time use phone call. It was calculated by dividing the average number of tasks the parent performed alone by the average number of tasks performed within the family.

Both total involvement in child-care and solo involvement in child-care were included in the regression analyses as they were expected to have different predictive power.

Parental Separation Anxiety Scale (PSAS). The PSAS is a 35 item scale in which parents rate their agreement with the items on a five point scale. A rating of "5" reflects strong agreement and a rating of "1" reflects strong disagreement. The scale includes three subscales which were each individually used in the regression analyses. If any item was not rated, the rating was replaced by the mean response to the items on the particular subscale. Descriptions of the three subscales follow.

Parental Separation Anxiety. The score on the Parental Separation Anxiety subscale of the MSAS is based on the total ratings for 21 items, divided by three (in order to balance the two shorter subscales). A high score on this subscale indicates more anxiety due to separation and stronger feelings about the value of exclusive parental care.

Perceptions of Separation Effects on the Child. The score on this subscale of the PSAS is based on the total ratings of seven items which assess the degree to which a parent feels separations have negative or positive effects on the child. A high score on this subscale indicates that the parent feels that his/her child does not benefit from non-parental care.

Employment-related Separation Concerns. The score on this subscale is also based on the total ratings of seven items which assess a parent's attitudes about balancing the parental role and career investments. A high score on this subscale indicates that the parent is anxious about leaving his/her child in order to work.

Marital satisfaction. Marital satisfaction is based on the Parents' scores on the Kansas Marital Satisfaction Scale (Schumm, Paff-Bergen, Hatch, Obiorah, Copeland, Meens, & Bugaighis, 1986). The parents were asked to rate how satisfied they were with their marriage, with their relationship with their spouse, and with their husband/wife as a spouse on a seven-point scale where a rating of "1"

indicates very dissatisfied and a rating of "7" indicates very satisfied. The average response to these three questions was used in the regression equations.

Child temperament. The child's temperament was assessed by having each parent complete the Toddler Temperament Scale (TTS) (Fullard, McDevitt, & Carey, 1984). Based on parent's ratings of the frequencies of 97 behavioral descriptions, the child is classified as easy, intermediate-low, intermediate-high, slow-to-warm-up, or difficult. This scale was treated as a continuous variable. The Correlation between mothers' and fathers' ratings of their children was significant ($r(64) = .38, p < .01$) (see Table 5 for zero-order correlation coefficients for mothers and fathers in the same families). While mothers rated their children as more difficult than fathers, the difference was not significant ($t(65) = 1.52, p > .10$).

Table 5 here

Predicting Separation and Reunion Behavior

Simultaneous multiple regression analyses were used to predict parent sensitivity at separation and reunion, child distress at separation, and child happiness at reunion. The regression equation was considered to be significant if the test reached $p < .01$, to control for the family-wise error rates. Individual predictors were also determined to be significant at $p < .01$.

Parent Sensitivity at Separation

The following variables were added simultaneously to a regression equation to predict parent sensitivity: child age, child temperament, child gender, parent gender, total involvement in child-

care, solo involvement in child-care, all three subscales of the PSAS, and marital satisfaction. These variables accounted for 23% of the variance in parents' sensitivity ($F[10,77] = 2.36, p > .01$). Parent behaviors were predicted only by the parents' gender. Mothers were more sensitive than fathers at separation (see Table 3 for means and Table 6 for unstandardized regression coefficients, semipartial correlation coefficients, and t values).

Table 6 here

Child Distress at Separation

The following variables were entered into simultaneous regression equation to predict child separation distress: parent sensitivity, child happiness at reunion, child age, child gender, child temperament, parent gender, total involvement in child-care, solo involvement in child-care, marital satisfaction and all three subscales of the PSAS. All of the variables discussed above accounted for a total of 29% of the variance in child distress at separation ($F[11, 76] = 2.77, p < .01$). The child behaviors were significantly predicted by parental total involvement in child-care tasks and parental anxiety over the effects of separation on the child. Specifically, parents who were more involved in caring for their child on a daily basis had children who showed less distress at separation. Parents who were more concerned about the effects of separation on the child had children who were more distressed at separation. No other variables contributed significantly to predictions of child distress (see Table 7 for unstandardized regression coefficients, semipartial correlation coefficients, and t values).

Table 7 here

Parent Sensitivity at Reunion

The analysis for parent sensitivity at reunion was conducted in parallel with the parent sensitivity at separation. Therefore, the same variables used to predict sensitivity at separation were used to predict sensitivity at reunion by using simultaneous regression. These variables included: child age, child temperament, child gender, parent gender, total involvement, solo involvement, all three subscales of the PSAS, and marital satisfaction. These variables accounted for 26% of the variance in parents' sensitivity ($F[10,77] = 2.67, p < .01$). Parent sensitivity at reunion was predicted by different variables than sensitivity at separation. These behaviors were predicted by the parents' employment-related separation concerns. Parents who were more anxious about employment-related separation were more sensitive in their interactions with their children (see Table 8 for unstandardized regression coefficients, semipartial correlation coefficients, and t values).

Table 8 here

Child Happiness at Reunion

Analysis for child reunion behaviors paralleled the analyses for child separation behaviors. Therefore, the following variables were added to the simultaneous regression equation to predict child happiness at reunion: child gender, child age, child temperament, parent gender, parent total involvement, parent solo involvement, all three subscales of the PSAS, marital satisfaction, parent sensitivity and child behavior at separation. The predictor variables failed to produce a significant regression equation ($R^2 = .21; F[11,76] = 1.81, p > .05$ (see Table 9 for unstandardized regression coefficients, semipartial correlation coefficients, and t values).

Table 9 here

Predicting Involvement in Child-care

The secondary hypotheses involved predicting parental involvement in child-care tasks. Both involvement variables were examined: the percentage of child-care tasks a parent performed out of the family total ("total involvement") and the percentage of child-care tasks that the parent performed by themselves ("solo involvement"). These two variables are conceptually different as a parent who is very helpful in doing tasks with their spouse may not be as involved in performing tasks alone. While these two variables were related ($r(87) = .61, p < .001$) they provide different information about the division of labor in the family. Because there was no theoretical rationale for entering variables into a regression equation in a particular order, simultaneous multiple regression was used to predict involvement. To test the hypotheses about involvement the following variables were included as predictors: child gender, child temperament and marital satisfaction. In addition, several demographic variables thought to influence involvement in child-care were also included: parent age, parent education (high school, college or advanced degree), family type (based on who transports the child to daycare: mother-only, father-only, or shared), child age, number of siblings, and parent work hours.

The variables accounted for 41% of the variance in total involvement in child-care ($F[12,75] = 4.40, p < .001$). Total involvement was significantly predicted by parent gender. Mothers were more involved in the daily care of their children than fathers. The variables accounted for 47% of the variance in solo involvement ($F[12,75] = 5.61, p < .001$) and once again gender predicted solo involvement. Once again, mothers were more involved in solo child-

care than fathers. See Table 10 for significant regression coefficients, semipartial correlation coefficients and t values, and Table 3 for the means.

Table 10 here

Predicting Separation Anxiety

The same variables used to predict involvement were used to predict the all three subscales of the PSAS. The predictor variables failed to produce a significant regression equation for Parental Separation Anxiety ($F[11,76] = 2.11, p > .02$). However, child temperament significantly predicted separation anxiety as expected. The predictor variables also failed to produce a significant regression equation for the Perception of Separation Effects subscale ($R^2 = .09; F[11,76] = .69, p > .10$). The variables predicted 38% of the variance in the Employment-related Separation Concerns subscale ($F[11,76] = 4.15, p < .001$). This subscale of the PSAS was not significantly predicted by any of the variables. See Table 11 for significant regression coefficients, semipartial correlation coefficients, and t values.

Table 11 here

Path Analyses

Path analyses were conducted to test the model depicted in Figures 1-3. Briefly, the first stage involves predicting parental sensitivity at separation and reunion. The second stage involves predicting child behaviors: child distress at separation and happiness

at reunion. The final stage involves interrelations among the predictor variables, specifically involvement in child-care and separation anxiety. See Figures 4 and 5 for the path coefficients for the models of separation and reunion. Inspection of the figures suggest that the proposed model for separation might be supported as several variables predicted parent and child behaviors at separation. However, parent gender which was expected not to predict behaviors did predict parent sensitivity. was not supported by the study. In fact, the test of goodness of fit showed that the model was not supported ($\chi^2 = 9.17, p < .01$)³. The model for reunion was supported ($\chi^2 = 2.92, p > .10$), however upon closer inspection, it is clear that the goodness of fit test indicted a good fit because the model was similar with and without the presence of gender in the model.

³To test the goodness of fit for the model, the overall R^2 for separation including parent gender as a variable was compared to the R^2 for separation without parent gender as a variable. The same procedure was followed for reunion predictions. The resulting statistic is χ^2 . A χ^2 value of 0 indicates a perfect fit for the model.

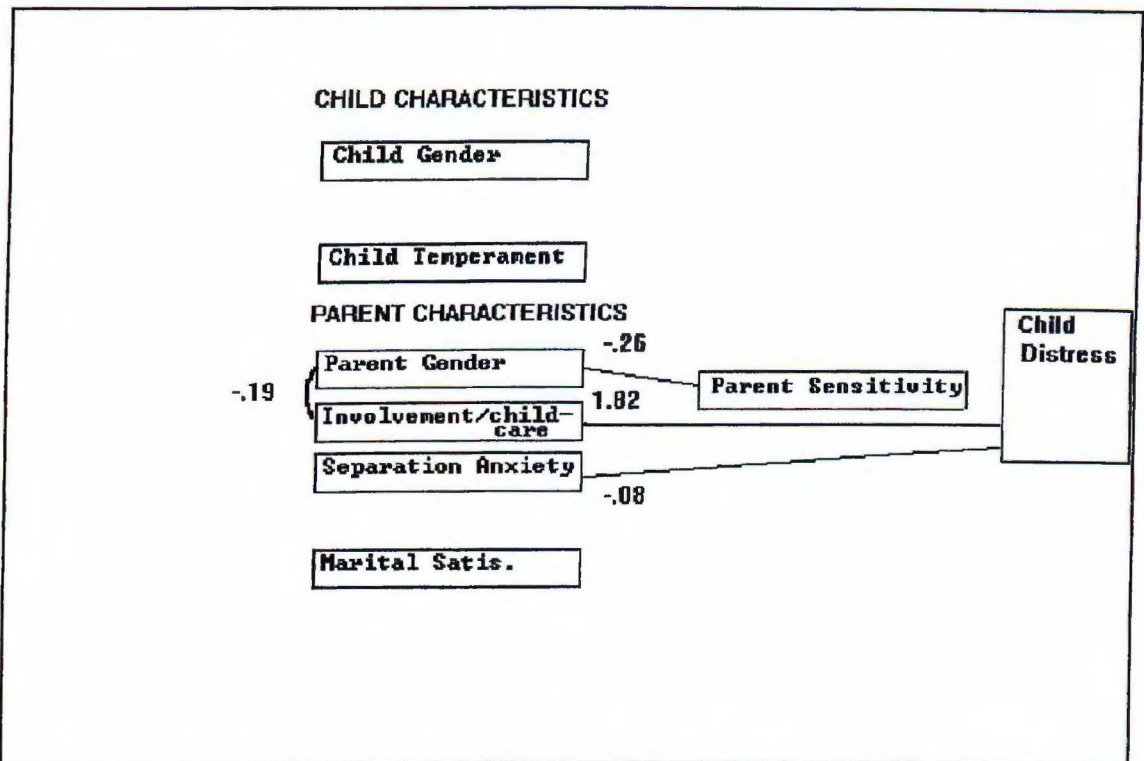


Figure 4 Significant Unstandardized Path Coefficients for Separation Model

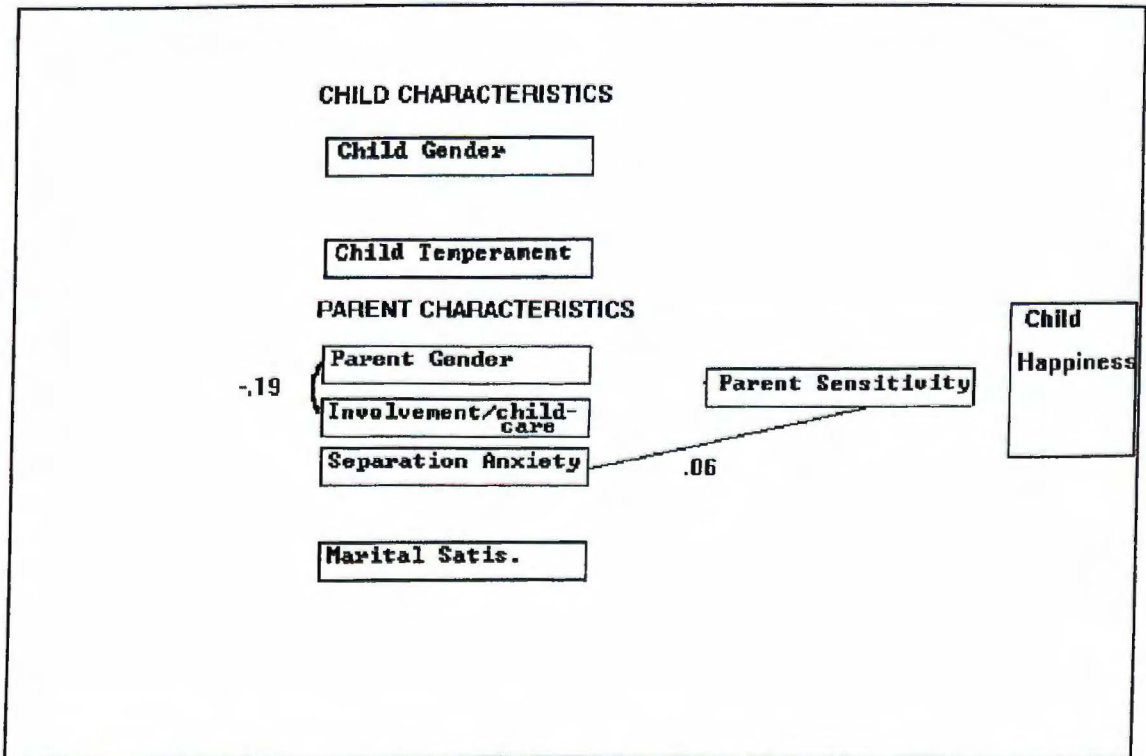


Figure 5 Significant Unstandardized Path Coefficients for Reunion Model

Gender Differences

The secondary hypothesis that gender differences would not be a significant predictor of child or parent behaviors at separations or reunions was tested in the above regression equations, and by testing the differences between regression equations for mothers and fathers. As described above, mothers and fathers differed only in their sensitivity at separation and in total and solo involvement in child-care. In addition, while parent gender was not a significant predictor of Employment-related Separation Concerns, t tests showed that mothers were more anxious about these separation concerns than fathers ($t[86] = 3.07, p < .01$). None of the differences between regression correlations were significant.

In sum, support for the overall models of separation and reunion behaviors was mixed. Separation variables were predicted better by the model than reunion behaviors. Parent sensitivity at separation was predicted by parent gender. Child distress at separation was predicted directly by parental total involvement in child-care and separation anxiety and indirectly by parent gender. Parent sensitivity at reunion was predicted by separation anxiety. Child happiness at reunion was not predicted by any variables. Involvement in child-care was predicted by parent gender as mothers were more involved in their children's care. In terms of gender differences, there were mean differences between mothers and fathers on parent sensitivity, total involvement in child-care, solo involvement in child-care, and employment-related separation concerns. There were no significant differences in regression coefficients between mothers and fathers suggesting that the regression equations held equally well for mothers and fathers.

Discussion

The following chapter provides a discussion of the results of the study as they relate to the proposed model. The chapter is organized into four main sections. The first section will provide a brief summary of the method and analyses to help orient the reader to the salient aspects of the study. The second section discusses how the results fit with the proposed model by examining each of the three stages of the model. The predictors of child behaviors (stage 2) will be discussed first, followed by a discussion of the interrelationships between independent variables (stage 3). The discussion of predictors of parent sensitivity at separation and reunion (stage 1) will be presented last. The third section describes the limitations of the study by examining some faulty assumptions of the study, uncontrolled variables which might have influenced the dependent variables, flaws in the design of the study, and problems with certain instruments. This section also describes some of the practical problems encountered while conducting this type of field research. The fourth section will set forth the implications of this study as well as recommendations for future research.

Summary

In order to examine the factors which influence parent and child behaviors at separation and reunion, 88 dual-career parents whose children attended daycare centers in the Washington D.C. area were observed in this context. Parents were videotaped as they dropped off their children twice and as they reunited with their children twice. Videotapes were later coded to assess parent sensitivity, child distress at separation and child happiness at reunion. Parents were called four times to assess their degree of involvement in the care of their children. They were also asked to complete a series of questionnaires which assessed their separation anxiety, their marital

satisfaction and the temperament of their child.

Simultaneous regression analyses and path analyses were used to determine the predictive power of the various independent variables on parent sensitivity, the child's distress at separation and the child's happiness at reunion and to test the model proposed in Figures 1-3.

Discussion of Results

Predicting children's behavior at separation and reunion

The second stage of the model involves predicting the children's behaviors at separation and reunion. This stage encompasses the third and fourth hypotheses which together state that low levels of child distress at separation and high levels of happiness at reunion will be predicted by the following variables: high levels of parent sensitivity, high levels of parental involvement in child-care, marital satisfaction, low levels of parental separation anxiety, an easy child temperament and child gender. Parent gender is not expected to predict these child behaviors once the effect of involvement in child-care has been controlled. The results indicate that parental involvement in child-care and parental anxiety about the effects of separation predicted child distress at separation. These results are consistent with attachment theory.

Children whose parents were more involved in caring for them on a daily basis showed less distress at separation. Attachment theory predicts that children who have established secure attachment relationships their parents, based on a history of sensitive interactions, would show less distress when the parents leave because they trust the parents to return to them. While the involvement variables do not assess the quality of the interaction in daily child-care, they do provide support for the idea that parents at minimum have to be involved in the children's care in order to build this trusting relationship.

Parental separation anxiety was also related to child distress at separation. Children whose parents were more concerned about the effects of separation on the child were more distressed at separation. Once again this result is consistent with attachment theory. Bowlby (1973) suggested that early attachment relationships serve as the model for all later social relationships including relationships with one's own children. Therefore, parents anxious who are about separations due to insecure attachment relationships with their own parents (Lutz & Hock, 1995) are likely to pass their insecure model of interacting with others on to their children. Attachment theory predicts that parents who are more anxious about separation would have children who are more anxious in that situation and who are less able to tolerate separations from the parent. This is exactly what the present study found. This is also consistent with a study by Stifter, Coulehan and Fish (1993) which found that employed mothers who were very anxious about separating from their children had children who were insecurely attached to them. There is another possible explanation for these results. It may be that parents who know that their children will be upset by the separation from past experiences, will also become more anxious about separating from the child.

While the relationships between child distress and these two variables (involvement in child-care and separation anxiety) were consistent with attachment theory, several other hypotheses following from attachment theory were not supported. Reunion behaviors are critical for judging the quality of children's attachment relationship in the Strange Situation. However, none of the variables contained in the model predicted children's reunion behaviors in the present study. The failure to support the model with respect to the prediction of child reunion behaviors may reflect the fact that there was little variability in children's reunion behaviors. Most of the children were very happy to see their parents at the end of the day. A very

powerful effect would have been necessary to predict a variable with so little variance.

The second major problem with the second stage of the model was that parent sensitivity did not predict children's behaviors at separation or reunion. According to attachment theory, a child who has experienced an history of sensitive interactions with the parent will establish a trusting and secure relationship with that parent. The securely attached child will be able to tolerate a separation from the parent and will also be happy when reuniting with the parent after that separation. Therefore, attachment theory predicts a strong relationship between sensitivity and child behaviors at separation and reunion. The present study did not reflect a significant relationship between sensitivity and child behaviors. This may be due to the fact that the sensitivity measure might not have accurately reflected the sensitivity of parent-child interactions in the home. (See page 62 for a detailed discussion of the problems with this rating scale).

Interrelations Among Predictor Variables

In order to discuss the effects of the other variables on child behaviors, results pertaining to the third stage of the model will be presented next. The third stage of the model involves the relationships among the predictor variables, namely involvement in child-care and separation anxiety. Involvement in child-care was expected to be predicted by marital satisfaction, child temperament, and child gender. Instead, involvement in child-care (both total and solo involvement) was predicted by parent gender. Mothers were more involved in the daily care of their children than fathers.

While consistent with other research (Biernat & Wortman, 1991; Booth & Edwards, 1980; Fish, New & van Cleave, 1992), this was an interesting finding considering the nature of the sample. The parents in the study were highly educated professionals chosen to provide

variability in the division of child-care responsibilities. These parents were expected to have less traditional roles with regard to child-care tasks and to share the child-care responsibilities more equitably. However, this was not the case. The traditional division of labor with regard to child-care remained. It may be that mothers who work all day feel the need to spend time with their child in the evenings and the father yields to the mother's wishes as was suggested by one study of dual-income families (Zaslow, Pedersen, Suwalsky, Cain, & Fivel, 1985). However, as there was no measure of satisfaction with the division of labor in the household it is impossible to determine whether the mothers were taking primary responsibility for the child by choice or by default.

In sum, the portion of the model which predicts child behavior at separation was fairly well-supported by the results. However, there were some problems with this part of the model as well. Child reunion behaviors were not predicted by the variables included in the model. Sensitivity which was expected to predict child behaviors was not related to child behaviors at separation or reunion. Also the ancillary variables such as the child characteristics that were included in the model were not useful predictors of child behaviors.

Predicting parental behavior at separation and reunion

Stage one of the model involves predicting parent behaviors at separation and reunion. Hypotheses one and two together state that parent sensitivity at separation and reunion would be predicted by higher levels of involvement in child-care, lower levels of separation anxiety, marital satisfaction, easy temperament, and child gender. This hypothesis was not supported in the study. While parent gender was not expected to predict either parent behaviors at separation or reunion, it was in fact the only significant predictor of sensitivity at separation even after involvement in child-care was controlled for.

Mothers were rated as more sensitive than fathers.

Parents' Employment-related Separation Concerns significantly predicted parents' sensitivity at reunions. Previous studies have also found that higher levels of separation anxiety is related to maternal behaviors at separation and reunion (Hock, et al., 1989; Melson & Kim, 1990; Ridely-Johnson & Penati, 1991). This subscale of the Parental Separation Anxiety Scale measures parents' feelings about balancing work and the parenting role and asks the parents to rate items such as "I would resent my job if it meant I had to be away from my child" and "If I could choose between working full-time and staying home with my child, I would want to stay home". Parents who scored higher on this subscale may be less focused on their careers and be more oriented toward their children. It seems reasonable that parents who are anxious about these issues and are more oriented toward their children might be more sensitive in their interactions with their children after being separated from them all day. While there were gender differences on this subscale of the Parental Separation Anxiety Scale, parent gender was not a significant predictor of this type of separation anxiety in the regression equation.

The model clearly did not work well in predicting parent behaviors at separation and reunion. The model assumed that parent sensitivity at separation and reunion would reflect the sensitivity with which parents have interacted with their child at home since their child's birth. Sensitivity as measured in the separation and reunion context may not be a good measure of sensitivity more generally because the context is too constrained in terms of the time available to interact and the behaviors that are exhibited. In addition, parents' sensitivity ratings at separation and reunion were not related. This also indicates a problem with this assessment of sensitivity as parent sensitivity should be similar at separation and reunion.

Full Model

Overall, the results of the study provided mixed support for the model. Stage one of the model which predicted child behaviors was supported for separation behaviors, however many links in the model were missing. Stage two of the model clearly was not supported by the data as only parent gender, which was expected to have no effect predicted sensitivity at separation. Parent sensitivity at reunion was only predicted by separation anxiety. Closer inspection of the model reveals that some variables did not predict parent or child behaviors and should not have been included in the model.

Child characteristics of gender and temperament were not expected to carry as much predictive power regarding parent behaviors and they were not related to many parent or child behaviors at separation or reunion. Child temperament only influenced the Parental Separation Anxiety subscale of the Parental Separation Anxiety Scale. Parents who rated their child as temperamentally difficult were more concerned about separating from them. Since difficult children do not adapt well to new situations, their parents are likely to be more concerned about how these children will adjust. This finding is consistent with the results a recent study by Fein, Gariboldi, and Boni (1993a) who found that difficult temperament predicted maternal separation anxiety. However, this subscale did not predict parent or child behaviors.

Previous studies that have found that temperament influenced parent behaviors did not examine parent-child interactions at daycare. It is possible that interactions at daycare have become somewhat routine for parents and children and even the most temperamentally difficult children do not act differently than other children and also do not elicit different behaviors from the parent. Had the study been conducted when children first entered care, the influence of temperament may have been more pronounced (Fein, Gariboldi, & Boni,

1993b). The study was also conducted in high quality day care centers which have staff who would attempt to ease the separation difficulties of children with difficult temperaments. Therefore, high quality daycare might mitigate the effects of temperament on separation distress.

In addition, child temperament assessed in the present study was unidimensional as it measured temperamental difficulty. It may be that other dimensions of temperament such as irritability, adaptability, or activity level might be more useful in predicting parent and child behaviors than the easy-difficult dimension.

Marital satisfaction also had no impact on any of the variables. However, the parents in this study were all relatively happily married. This lack of variability in marital satisfaction may have been responsible for its failure to predict child or parent behaviors.

Gender Differences

The secondary hypothesis stated that parent gender would not have an effect on parent or child behaviors once the effect of involvement in child-care was controlled. This hypothesis was not supported. Gender had a direct effect on parent sensitivity at separation and on involvement in child-care and feelings of anxiety about employment-related separations. Gender also indirectly affected child distress at separation. There were no significant differences between the regression coefficients for mothers and fathers suggesting that the models predicting separation and reunion behaviors hold equally well for mothers and fathers. However, it is important to realize that power to detect these differences was low due to the small number of fathers observed in the study and the models did not hold particularly well in general. Despite the fact that the parents in this study were well-educated, dual-career parents, parent gender was a powerful predictor of the behaviors of parents and children in

the separation context.

A major hypothesis was that parent gender would not have an effect on parent behaviors once the effect of involvement in child-care was controlled. However, neither estimate of involvement in child-care was related to parent sensitivity. This could reflect problems with the sensitivity measure or it may be that the quality and quantity of parenting are not related. Several studies have found no relationship between quality and quantity of fathering (Easterbrook & Goldberg, 1984; Feldman, Nash & Aschenbrenner, 1983; Grossman, Pollack, & Golding, 1988; Radin & Sagi, 1982). Studies examining the effects of maternal employment on mothers' sensitivity with their children tend to find no differences in quality of interaction between mothers who spend all day at home with their child and those who work during the day (Caruso, 1989). Attachment theory assumes that a certain amount of interaction is necessary to learn to interpret the child's cues and respond appropriately, but there is no proscribed amount of time that is defined as enough time for this learning to take place. It may be that a moderate amount of interaction enables parents to interact with their child in a sensitive manner.

Limitations and Lessons

In sum, support for the model proposed to explain child and parent behaviors at separation and reunion was mixed. While some of the predicted paths were significant, examination of Figures 4 and 5 clearly indicate that the variables contained in the model are not sufficient for explaining parent and child behaviors at separation and reunion. The following section will attempt to suggest further explanations for this lack of support by examining the major assumptions of the study, possible design problems, and instrument problems.

A basic assumption of this study was that it is possible to assess the quality of parent-child relationships by examining parent and child behavior in a separation and reunion context at daycare. As discussed above, this assumption may be flawed. Sensitivity as measured in the present study may not reflect the quality of parent-child interactions. Also children's reunion behaviors which have served as the basis for assessing the quality of the parent-child relationship in the past, were not predicted by any variables in the present study. Therefore, using children's reactions to separations in daycare may not be a useful method for assessing the parent-child relationship (Ragozin, 1980). The goal of the Strange Situation was to stress the child in order to elicit attachment behaviors. Separations from the mother and being left with a stranger while in a strange place would be a stressful situation for a child cared for by the mother in the home. Today's children in dual-career families are accustomed to daycare and are less likely to be distressed by the daycare separation in which they are left with a familiar caregiver in a familiar setting. If the child is not stressed by the situation, the child would not be expected to exhibit the attachment behaviors that define the different attachment classifications and were assessed in the present study.

There is further evidence of this flaw in reasoning about using real life separations and reunions to assess the quality of parent-child relationships. While reunion behaviors were not predicted well in the present study, separation behaviors which are not emphasized in attachment theory were related to several predictor variables. Children's separation behaviors might reflect parental characteristics rather than the quality of the parent-child relationship. Attachment theorists control for this possibility as parents are instructed how to separate from their child in the Strange Situation. In real life separations, parents are free to behave as they wish when separating

from their children. Any anxieties parents have about separating from the child could influence the child's behavior. This is consistent with the results of this study as parent characteristics (involvement in child-care and separation anxiety) were more predictive of child behaviors at separation than child characteristics. Real life separations and reunion may not assess the quality of the parent-child relationship as the Strange Situation does.

While separations and reunion at daycare may not useful indices of the quality of parent-child relationships in today's dual-career families, it is still important to examine these separations and reunions. If predictors of distress could be identified, children who do not adjust well to the separations and show distress day after day could be helped adapt to the separations. For example, if parents understand that their anxiety over separations is related to child distress, the parents could attempt to work through their anxiety or try to prevent their children from detecting the anxiety.

Another major problem for the study was a lack of variance in several of the variables measured including parent sensitivity, child happiness at reunion, and marital satisfaction. The majority of parents were rated as sensitive in their interactions with their children. One might expect this group of highly educated professionals to interact sensitively with their parents but there are several other explanations for these generally high ratings. First, these parents were being videotaped and might have been on their best behavior. Second, as mentioned previously, the sensitivity measure might not have been a good measure of sensitivity in general as it was based on relatively short observations.

Most of the children observed were very happy to see their children at the end of the day. There are several explanations for the lack of variability in child reunion behaviors. It may be that these children who have well-educated, sensitive parents and are in

high quality daycare may just be well-adjusted children who have a good relationship with their parents. Or it may be that reunion behaviors in daycare do not provide a good assessment of the quality of the parent-child relationship. Ragozin (1980) found that children's reunion behavior at daycare was not related to the parent-child relationship as assessed by the Strange Situation. Attachment behaviors are not exhibited unless a child is distressed. If a child is not distressed by the separation in the daycare context, one would not expect to observe attachment behaviors that were assessed in the present study.

Another reason for the lack of variability in children's reunion behaviors may be that all the centers included in the study were very high quality centers. Children may react differently at reunion with their parents when they have been left in poorer quality centers all day. In fact, attendance in low quality daycare is seen as a stressor for already troubled parent-child relationships (NICHD study of Early Child Care, in press).

A potential design problem may also have contributed to the lack of variability in the child variables. Children whose mothers and fathers shared the transportation of the child were both observed with the same child. This limits the variability of the data because, the information collected from these mothers and fathers (i.e., child temperament, separation anxiety) pertain to the same child.

The lack of variability of these variables may also reflect the nature of the sample. The parents observed in the study were very similar in terms of their age, education, professional status, family size and ethnicity. One might, expect this very highly educated groups of professionals with similar backgrounds to be fairly homogeneous with regard to several variables (i.e., sensitivity and marital satisfaction) and they were.

The lack of support for the model may also reflect a problem

with the assessment of several of the variables including the sensitivity rating, child happiness at reunion rating, involvement in child-care and the time use phone call. As stated previously, sensitivity as measured in the present study may not accurately reflect the history of interactions between the parent and child. Separation and reunion contexts are constrained in terms of time available for interaction and the types of behaviors parents are likely to exhibit. There is not much opportunity for interaction as parents are often in a hurry to get to work or return home at the end of the day. Even if there was more time to interact, many parents probably do not view separations and reunions as a an opportunity for quality interactions with their children and therefore would not interact with a child as they might at home. If the sensitivity measure did not reflect the history of interaction between the parent and child, one would not expect it to predict child behaviors at separation and reunion.

There was also a potential problem with the rating scale used to assess children's happiness at reunion. Children who were clinging and ambivalent in their reunion behaviors would have been grouped with children who were avoidant as neither would have shown a happy response to the parents' return. One might expect different characteristics to predict the behavior of ambivalent and avoidant children, however, the rating scale used in the present study did not differentiate these two types of insecure reunion behaviors.

There are also problems associated with the time use phone calls used to assess parents' involvement in child-care. The measure only assessed the number of tasks that a parent has performed, not the number of times the parent performed that task or how well they did so. For example, a father who changed four diapers in the course of a twenty-four hour period would appear the same as a mother who changed only one diaper. Use of a more detailed time use methodology such as

a baby diary in which the parent would record any contact with the child would yield a more sensitive measure of involvement in child-care. Another problem associated with the time use phone call was that mothers and fathers were not always questioned together. Some parents requested that one or the other be called in the work-place or that the calls be made at specific times and to specific parents. If only one parent was contacted, that parent's responses would reflect his or her knowledge of the spouse's interaction with the child. Since spouses probably are not aware of each other's activities all day, parental involvement of the parent who was not contacted may have been underestimated. Also, the phone calls reflect involvement in child-care during the week only. Total involvement may appear different when weekends are also included.

In order to understand the complex behaviors of parents and children in real-life settings such as separations and reunions in daycare, one needs to observe families in their natural settings. By entering the real-life setting, the control researchers have in the laboratory is lost. There are several uncontrolled sources of variance associated with this type of research including variability of the centers, variance due to the time in which the interaction take place.

Centers vary in ways that could impact the results of a study of separations and reunions. For example, centers may have different policies regarding to parent and child responsibilities at separation and reunion. Some centers encourage the parents to interact with the teacher in the morning while filling out information about the child (i.e., last bottle or meal, sleeping habits) and putting the child's personal belongings away. While other centers encourage the parent to drop off the child while the teacher is responsible for storing the child's belongings. This can impact the amount of interaction between the parent and child and could impact results if interaction time is

examined.

There may also be differences in separation and reunion behaviors based on the time of day parents pick-up or drop-off their children. Children who are dropped off early in the morning before their peers arrive may be more distressed to see their parents leave them as they may be less distracted. One might see different types of reunion behaviors after outdoor play than after nap-time or snack-time in which the child is likely to be less excited. Also children who are picked up later in the evening have seen other children reuniting with their parents all afternoon and might anticipate their parent coming with more excitement. These children would also have less to distract them as their peers would be gone. The first few children to be picked up might act differently because the rest of the children are still engaged in activities.

Other types of problems also arise when attempting to conduct this type of research project. One of the largest problems in studying contemporary dual-career families is that these families are extremely busy trying to balance their career and family responsibilities and do not have much free time to participate in studies. While recruitment is a problem, there are some ways to facilitate recruitment. Since parents often receive more information than they have time to read, it is very helpful to meet with them face-to-face in the centers. It is also very helpful to have the director write a letter of introduction about the researcher and the study. Center directors often feel strongly about participating in research and can be helpful advocates by relaying their enthusiasm to the parents.

Implications and Recommendations for Further Research

One important result of the study was the optimistic picture it portrayed of dual career families. The results suggest that children

in these high quality daycare centers have sensitive parents and are happy to see their parents at the end of the day. It also suggested that while mothers were more involved in the care of the child, fathers are more involved in the care of their children than in the past. Despite this optimistic picture of dual-career families portrayed by the study, many of the questions concerning the prediction of parent and child behaviors at separation and reunion remain. The first goal of the study was to try to disentangle the effects of gender and involvement in child-care in order to determine what influenced parent and child behaviors in the separation context. In the end, it was impossible to untangle gender from involvement in child-care even in a highly educated dual-career family sample. Mothers were more involved in the care of their children even though they were employed full-time. It seems as though the traditional division of child-care labor in which the mother bears most of the responsibility for child-care exists even in contemporary dual-career families.

Several of the variables associated with attachment theory are promising variables to include in the any model predicting child behaviors at separation and reunion. Parents' involvement in child-care and their separation anxiety both predicted child distress and separation anxiety also predicted parent sensitivity at reunion. It would not be prudent to discard the sensitivity from the model as a result of the present study as there were problems associated with the sample and the measure of sensitivity which might have tainted the results. More support for the model might be found if a larger sample of parents who had varied educational backgrounds had been observed. Also use of a better assessment of sensitivity such as observing parent-child interactions in the home or even in a laboratory setting might provide support for the model.

Any future examination of the question of what factors predict

separation and reunion behavior in daycare should also include daycare centers of varying degrees of quality as most children in the United States are not cared for in the high quality daycare centers that were examined in this study.

Conclusions

The results of this study were mixed with regard to support for the hypotheses. The attachment-related variables of involvement and separation distress predicted child separation distress. The ancillary variables included in the model to predict these parent and child behaviors were not very useful predictors. Parent involvement in child-care was expected to have considerable power in predicting children's behaviors at separation and reunion, however it was only predictive of children's distress at separation. Parent gender, which was not expected to play a role in predicting any of the parent or child behaviors, did contribute uniquely to the prediction of parent sensitivity and involvement in child-care tasks, and also indirectly influenced parent sensitivity at reunion and child distress at separation. The model was not very successful in predicting reunion behaviors or parent sensitivity in part due problems with the sensitivity measure and to the homogeneous nature of the sample.

APPENDIX A

October 13, 1995

Dear Parents,

As a doctoral student in the Applied Developmental Psychology Department of the University of Maryland, I am currently in the process of collecting data for my dissertation which will focus on dual-income families. Most of the previous research regarding families has examined families in which the mother stayed home with the children while the father worked. This research does not provide an adequate description of today's family and ignores the importance of the father. My study will provide a more contemporary picture of family life today by examining how dual-income families juggle the demands of their career and their children and how juggling these roles influences the child.

Participation in the study requires minimal effort on your part. The following is all that is involved:

(1) I will videotape when you bring your child to child care two times and when you pick him or her up on two occasions;

(2) I will ask you a few very short questions (it takes approximately 2 minutes) over the telephone on four occasions; and

(3) I will ask you and your spouse to complete a short series of questionnaires (a total of 9 pages). (Note: The videotapes and your responses to all the questionnaires will be kept totally confidential.)

As a token of my appreciation for your participation, I will provide your child with a small toy when all of the information has been collected.

If you are not willing to participate, it would still help me if you would please complete the short questionnaire and return it to the center. If you are willing to participate, please complete the questionnaire, sign the consent form that is attached, and return everything to the center director. After I receive your questionnaire, I will contact you to discuss the study in more detail.

I will be at the center Wednesday, October 18th from 4:00 pm to close if you would like to ask me any questions about my project. Also please feel free to call me at home (703)237-0638. Thank you for all your help and I hope that you decide to participate in my study. Your input could help answer some questions about how dual career families deal with their double roles and how this influences the child.

Sincerely,

Karen A. Livesey, M.A.

Questionnaire

Child's name _____ Telephone numbers (home) _____
 Mother's name _____ Telephone number (work) _____
 Father's name _____ Telephone number (work) _____

Please complete each question. * Note all responses will be kept completely confidential. Thank you for your help!

1. What is your child's birthday? _____
2. At what age did your child enter the current child care setting? _____
3. How long has he/she been at the center? _____
4. How many hours per week does your child spend at this child care setting? _____
5. Does he/she attend any other types of child care? yes ____ no ____
 If yes: for how many hours per week? _____
6. Was your child in child care previously? yes ____ no ____ If yes:
 What type? _____ For how long? _____
7. At what age did he/she enter this care? _____
 Would you prefer to be called at home ____ or work ____.

Mother and fathers questions:

	Mother	Father
1. Age	_____	_____
2. Education (high school, B.A., M.A., M.B.A., Ph.D. M.D., etc.)	_____	_____
3. Hours spent at work each week	_____	_____
4. How many times do you take your child to the center each week?	_____	_____
Which days?	_____	_____
Approximately what time?	_____	_____
5. How many times do you pick your child up from the center each week?	_____	_____
Which days?	_____	_____
Approximately what time?	_____	_____
6. What percentage of the child care tasks are you responsible for?	_____	_____
7. Would you be interested in participating in this study?	_____	_____

Consent Form

1. I have freely volunteered to participate in this experiment.
2. I have been informed in advance as to what my tasks would be and what procedures would be followed.
3. I have been given the opportunity to ask questions, and have had my questions answered to my satisfaction.
4. I am aware that I have the right to withdraw consent and discontinue participation at any time, without prejudice.
5. My signature below may be taken as affirmation of all the above, prior to participation.

Signature _____

Print Name _____

Signature _____

Print Name _____

APPENDIX B

Coding Scheme

A. Preparation

Before you start coding, you will need to have the following items: tape, coding sheet, a copy of the coding scheme to refer to, and the index to the tapes which tells you where segments are located on the tapes and provides the ID number for the subject. For reliability reasons you will only code the child or the parent in one viewing of a tape (you'll go back to code the other participant later), so you will need the instructions from me as to who you are to focus on for coding at the present (these instructions will be provided later).

After making sure you are ready to start, fill in all the information you can on the coding sheet:

Name/ID -- found on the index. The ID consists of four digits. The first two represent the family ID and the second two indicates whether you should code the mother (01) or father (02). Note: this is especially important to notice for certain families who always pick up and drop off their children together. To help you figure out who you are coding, the index provides a list of the children's names by family ID.
Segment number -- from the index.
Your initials
Separation/Reunion -- from the index. Important for determining which ratings to use for the child after the behavioral coding.
Start time -- this information is also contained on the index.

Now you're ready to start the coding.....

Global Ratings

Global ratings Definitions:

Child's Distress at separation

The central issue addressed in this scale is the child's degree of distress or discomfort at the impending separation with the parent and the degree of distress that the child exhibits after the parent leaves. Not all children react to separation in the same manner. Some degree of separation distress on the part of the child is to be expected. Most children between the ages of 8 months and three years exhibit some distress when separated from their parent (Weinraub & Lewis, 1977). The actions on the part of the parents as well as characteristics of the parent-child relationship and characteristics of the child all play a role in determining how a child adjusts to separation from the parent.

Enthusiastic

Some children are perfectly comfortable with their parents leaving them at the center. This type of child will tend to leave the parent's side as soon as they enter the room and head toward the teacher, other children, or some activity. Children who cannot yet walk or crawl, might struggle to get down out of the parent's arms or to get out of the stroller in order to play with someone or something. The child may also appear excited to see the teacher and indicate that he/she wants to interact with that teacher. He/she does not pay much attention to what the parent is doing but instead pays attention to his/her own activities. When the parent gets ready to leave this type of child may say good-bye and/or wave. It is also possible that he/she might not acknowledge the parent's departure at all. They are

perfectly comfortable and enthusiastic about being left at the center.

Not distressed/Hesitant

A child who is hesitant is not distressed, but does not enter the center with the same enthusiasm as the child rated as a "enthusiastic." This child is very comfortable with being in the room, but does interact more with the parent. This type of child will probably join some activity on his own or will do so when prompted to, but will not run/crawl right over to them as a child rated "enthusiastic" would. This child will also usually say good-bye or hug the parent before the parent leaves. A younger child who cannot walk or crawl would not protest when the parent put them down or removed them from the stroller to place them somewhere in the room.

Mildly distressed

A child who is mildly distressed is less comfortable with the separation than a child rated as less distressed. This type of child may follow the parent around initially or keep an eye on the parent when they are in the room together, but when it is time for the parent to leave, this type of child says good-bye without a tear and is ready to join in some activity if he isn't so engaged already.

Distressed

A child who is distressed at separation will likely cling to the parent, follow the parent, or at least keep the parent in sight after entering the room. The child may cry for part of the time, or plead with the parent not to leave. The child may continue talking to the parent as the parent attempts to leave in an effort to delay the parent's departure. The child will not be overly upset, however, when the parent does leave. This type of child may be initially upset (even very upset initially) but then settles down as the parent leaves. Often, children who are distressed at separation are left with the teacher while the parent departs. These children may be crying after the parent leaves, but they can be calmed and comforted by the teacher.

Very Distressed

Similar to the child described as "distressed" this child will likely cling or follow the parent as they enter the room. This child will very likely be crying, screaming, calling to the parent, or asking the parent not to leave. This child will resist attempts made by the teacher or parent to calm him or her. This child will be visibly upset from the time they enter the room, to the time the parent leaves the room, and will remain upset after the parent leaves regardless of the teacher's efforts to calm or distract him/her.

Child's Happiness at reunion

The manner in which a child reunites with the parent has been used by psychologists as a way of examining the parent-child relationship. Children do not react to the return of the parent in the same manner either. Some children are all smiles and drop everything that they are doing when the parent comes in order to greet them. Other children may ignore the parent's return or even avoid the parent when the parent attempts to make contact.

Extremely Happy Greeting

A child who is rated as extremely happy to see the parent, will likely drop what he/she is doing when he/she realizes that the parent is in the room. The child will smile upon seeing the parent. This type of

child will run up and hug and/or kiss the parent or approach the parent very enthusiastically. Children who cannot yet walk or crawl will show other signs of excitement such as a squeal of delight, flailing of the arms, jumping up and down, or other signs of general excitement. The child may call to the parent or call the parent over to show the parent what he/she is doing. This child actively seeks contact with the parent upon the parent's entrance and is obviously affectionate with and enthusiastic about the parent's return.

Happy Greeting

A child who is happy to see the parent will acknowledge the parent's return by a smile or by saying "hello," and may approach the parent, but this type of child will not generally run up to the parent with as much enthusiasm as a child rated a "extremely happy." For a child who is not yet walking or crawling, behavior indicating a rating of "happy" would include a big smile on the part of the child, some signs of excitement, but not as marked as a rating of "extremely happy." This child will talk with the parent and/or tend to keep close contact (nonwalkers may just keep the parent in sight and/or indicate that they want to be picked up) with the parent after the parent's entrance.

Acknowledgement

This type of child will acknowledge the parent by saying "hi" and/or smiling at the parent when the parent enters the room. But, this type of child will usually continue with their own activity after acknowledging the parent. He may hug or kiss the parent if the parent approaches him, but he will not actively seek out the parent in order to shower the parent with affection. This child will cooperate with the parent when it comes time to leave the room.

No greeting

This type of child will ignore the parent's return to the room, by continuing with his activities after the parent arrives. Be careful to determine whether the child knows that the parent has returned (you see him see the parent or the parent says something to the child, that is clearly audible to the child). This child will probably be reluctant to leave the center and may ignore the parent's attempts to get him/her ready to leave. The child may even become upset over having to leave for the day.

Avoidance

This type of child will actively avoid the parent's attempt to make contact by turning away from the parent or even running in the opposite direction. This child will also likely avoid or ignore the parents attempts to get the child ready to leave. This child is not unhappy, but is just NOT HAPPY to see the parent. This child will also probably be reluctant to leave the center, putting up a fight when the parent tries to get him ready to leave.

TROUBLE-SHOOTING

The child is restricted in some way (in crib, in high chair) when the parent returns. If this happens, look for the child's facial expressions and for any indication that they want to approach the parent despite their confinement. Carefully watch the behaviors of

the child as the parent approaches (if this happens) to get a feel for how excited/happy the child is at the parent's return. Also watch for the child's behavior after being released from the confinement.

Initial reaction of the child is not captured on the film. When the child's initial reaction to the return of the parent is not captured on the film, look for other clues as to his reaction. Listen carefully to determine whether the child is beckoning the parent, squealing with delight, calling to the parent etc. You will be able to determine the child's reaction when you can see the child even if it is a few seconds after the initial reaction, by observing the child's behavior for the rest of the reunion episode.

Parent's Sensitivity vs. Insensitivity

This variable deals with the parent's ability to perceive and to interpret accurately the signals and communications implicit in the infant's behavior, and given this understanding, to respond appropriately and promptly. Thus the parent's sensitivity has four essential components: (a) awareness of the signals; (b) an accurate interpretation of them; (c) and appropriate response to them; and (d) a prompt response to them.

The parent's awareness of the baby's signals and communication has two aspects. The first is the issue of accessibility. The parent must be reasonably accessible to the baby's communications before he/she can be sensitive to them. Accessibility is a necessary condition for sensitive awareness. It is not a sufficient condition, however, for a parent must maintain the baby in his/her field of awareness without fulfilling the other condition of sensitive awareness. The second aspect of awareness may be described in terms of "thresholds." The most sensitive parent -- the one with the lowest threshold -- is alert to the baby's most subtle, minimal, understated cues. Parents with higher thresholds seem to perceive only the most blatant and obvious communications. Parents with the highest thresholds seem often oblivious, and are, in effect, highly inaccessible. This second aspect is very closely related to the question of interpretation of the baby's signals, for usually the parent who is alert to minimal cues also interprets them correctly. This is not invariably the case, however. For example, some parents are alert to the slightest mouth movements, and sometimes incorrectly interpret them as hunger -- or they notice minimal tension or restlessness and incorrectly interpret them as fatigue.

The parent's ability to interpret accurately the baby's communications has three main components: (a) awareness, as previously discussed; (b) freedom from distortion; and (c) empathy. An inattentive, "ignoring" parent is, of course, often unable to interpret correctly the baby's signals when they break through her obliviousness, for he/she has been unaware of the signs and of the temporal context of the behavior. But even a mother who is highly aware and accessible may misinterpret signals because her perception is distorted by projection, denial, or other marked defensive operations. Mothers who have distorted perceptions tend to bias their "reading" of their babies according to their own wishes, moods, and fantasies. For example, a mother not wishing to attend to her baby might interpret his fussy bid for attention as hunger and ask the teacher to feed the child.

The parent must also be able to empathize with the baby's feelings and wishes before he/she can respond sensitively. The parent

may be aware of and understand accurately the baby's behavior and the circumstances leading to the baby's distress or demands, but because she is unable to empathize with him -- she may tease him back into good humor, mock him or laugh at him or just ignore him.

The quality of the parent's interaction with the child is probably the most important index of his/her sensitivity. It is essential that the parent's responses be appropriate to the situation and to the baby's communications. The sensitive parent acknowledges the baby's wishes even though he/she does not unconditionally concede to them. The chief point is that a sensitive, appropriate response does not invariably imply complete compliance to the baby's wish. The appropriate action should be well-resolved and completed. For example, when the baby seeks contact the sensitive parent holds him long enough to satisfy him, so that when he is put down he does not immediately seek to be picked up again. When he needs soothing, the parent soothes him thoroughly so he is quite recovered and cheerful.

The last issue is of the promptness of the response to the baby's communication. A response, however appropriate, which is so delayed that it cannot be perceived by the baby as contingent to his communication cannot be linked by him to his own signal.

In summary, highly sensitive parents are usually accessible to their infants and are aware of even their more subtle communications, signals, wishes, moods and rhythms. In addition these parents accurately interpret the infants' cues and show empathy with the infant. The sensitive parent can time her interactions well and deal with her baby so that the interactions are appropriate in kind and quality. In contrast parents with low sensitivity are not aware of much of their infant's behavior either because they ignore the baby or they fail to perceive the more subtle and hard-to-detect communications. Through a lack of empathy or understanding parents with low sensitivity improperly time their responses and often have inappropriate responses in kind as well as quality.

Highly sensitive

This parent is exquisitely attuned to baby's signals and responds to them promptly and appropriately. He/she reads the baby's signals and communications skillfully and knows what the meaning is of even subtle, minimal, and understated cues. When she does not comply with the child's wishes she is tactful in acknowledging his communications and in offering an acceptable alternative. The responses are temporally contingent upon the child's signals and communications.

Examples:

This type of parent can see that the child is upset even if the child is not crying and needs to be held for a little while before leaving the room.

This parent responds to the child even when he/she is engaged in other activities (unpacking, talking to the teacher).

This type of parent takes the time to respond to the child when the child seeks attention from the parent, even if only to acknowledge the child.

If the child is demanding something that the parent can't do, this parent will explain in an appropriate manner why he/she is not able to comply with the child's requests.

Sensitive

This parent also interprets the child's communications accurately, and responds to them promptly and appropriately -- but with less sensitivity than the parents with higher ratings. The parent may be less attuned to the child's more subtle behaviors or she may be less skilled at dividing her attention between the child and competing demands. The parent may sometimes miss cues. The clear cues are neither missed or misinterpreted. The responses may not be as consistently prompt or as finely appropriate as the parents with higher ratings. Although there may be little mismatches, the parent's interventions and interactions are never seriously out of tune with the child's tempo or communications. This parent may exhibit less responsiveness while he/she is doing some other task, but is still somewhat in tune even when otherwise occupied.

Inconsistently sensitive

Although this parent can be quite sensitive on occasion, there are some periods when he/she is insensitive to the child's communications. Awareness may be intermittent -- often fairly keen, but sometimes impervious. Sometimes the parent may respond promptly and appropriately, other times inappropriate or slowly. On the whole, however, this parent is more frequently sensitive than insensitive. This type of parent may ignore the child while he/she is unpacking or unpacking the child's gear or signing the child in for the day during separation, but is very responsive when he/she is finished with the other tasks.

Insensitive

This parent frequently fails to respond to the child's communications appropriately and/or promptly. This parent may be too preoccupied with other things and therefore be inaccessible to the child's signals and communications, or she may misperceive the child's signals or misinterpret them due to her own preoccupation. This type of parent may also understand what the child is communicating, but is disinclined to give the child what he/she wants because it is inconvenient or it might "spoil" the child. This type of parent may also respond to the child's communication promptly and/or appropriately but break off the interaction before the child is satisfied.

Highly insensitive

The extremely insensitive parent seems geared almost exclusively to his/her own wishes, activities. The parent's interventions and initiations are prompted by signals within him/herself not the child. The parent might respond to a very intense signal on the part of the child, but usually after some delay or after repeated signals. Thus, when the parent does respond to the child's signals it is characteristically inappropriate in kind or fragmented and incomplete (child is left unsatisfied). For example, at separation or reunion, this type of parent might ignore the child's pleas to stay or leave. This type of parent is also likely to say things like "I have to go," "I'll be late" while the child remains upset. This type of parent may also misread the child's state i.e., comforting a child about his/her return when the child is not upset.

TROUBLESHOOTING

Sometimes it is difficult to make this rating when the child is not making any demands or requests of the parent. Remember that sensitivity is a combination of awareness, interpretation, and appropriate and prompt responses, so use any of these to make the rating. If at separation, the child happily starts playing as soon as they enter the room and does not interact with the parent again, code 0. Be sure that there is absolutely no interaction that could be coded before you use this code.

APPENDIX C

Coder Reliability Coefficients.

Coder Reliability	Coder 1	Coder 2	Coder 3	Coder 4
Separation:				
Parent Sensitivity ¹	.84	.78	.80	.90
Child Distress ²	.89	.81	.87	.95
Reunion:				
Parent Sensitivity	.76	.78	.88	.92
Child Happiness	.76	.89	.80	.92

¹ Both parent variables are based on exact agreement on a five-point scale.

² Both child variables are based on exact agreement on a three-point scale that was collapsed from a five-point scale.

Appendix D

Table 1

Means and Standard Deviations for Parents Who Were Observed and Those Who Were Not Observed

Variable	Mean for Observed Parents	Stand. Dev. for Observed Parents	Mean for Parents Not Observed	Stand. Dev. for Parents Not Observed	t value
Parental Separation Anxiety	21.48	3.32	20.83	4.06	-.98
Perception of Separation Effects	12.48	2.64	12.43	2.82	-.10
Employment-Related Separation Concerns	18.92	4.34	17.96	3.31	-1.29
Marital Satisfact.	6.11	.77	6.08	.69	-.23
Child Temperament	2.62	1.23	2.51	1.09	-.52
Parent Age	34.84	4.22	35.84	5.29	1.18
Parent Weekly Work Hours	41.50	5.11	46.97	10.28	4.09***
Total Involvement	.81	.15	.61	.22	-6.04***
Solo Involvement	.31	.20	.13	.11	-5.31***

*** $p < .001$

Table 2

Missing Observational Data by Family Type

Family Type	Missing 1 Sep or 1 Reun	Missing 2 Sep or 2 Reun	Missing 1 Sep & 1 Reun	No Missing Observ. Data	No Observat-ions ¹	Tot.
Mom Only	2			20	20	42 ²
Dad Only	2		1	9	10	22 ³
Share	14	8	3	37	6	68
Total	18	8	4	66	36	132 ⁴

¹ These were the parents who never transported their children to the daycare center. The six parents who normally shared the transportation but were not observed were either out of town during the videotaping or were missed consistently.

² One father who normally does not participate in the transportation of his child was videotaped several times when his wife was out of town on business.

³ One mother who normally did not transport her child to daycare was videotaped several times when her husband was out of town on business.

⁴ Out of the total 132 parents in the study, 96 were observed at separations or reunions, and 88 were observed in both separations and reunions.

Table 3

Means and Standard Deviations of Dependent Variables

Variables:	Mean Mother	Mean Father	Stand. Dev. Mother	Stand. Dev. Father	Mean Total	Stand. Dev. Total
Dependent Variables						
Child Distress at Separation ¹	2.48	2.52	.59	.72	2.49	.64
Child Happiness at Reunion	2.77	2.71	.39	.48	2.74	.42
Sensitivity: Separation	4.28	4.02*	.65	.60	4.18	.64
Sensitivity: Reunion	4.35	4.09	.57	.67	4.25	.62
Independent Variables						
Child temperament	2.71	2.48	1.35	1.02	2.62	1.35
Total Involv. in Child-care	.87	.71*	.11	.15	.81	.15
Solo Involv. in Childcare	.39	.18*	.17	.17	.31	.20
Parental Separation Anxiety	21.61	21.26	3.51	3.06	21.48	3.32
Perception of Sep. Effects	12.68	12.18	2.69	2.58	12.48	2.64
Employment- Related Sep. Concerns	20.00	17.21*	4.12	4.18	18.92	4.34
Marital Satisfact.	6.03	6.23	.83	.65	6.11	.77

* indicates a significant difference between mother and father means,
 $p < .01$

¹ Based on the 88 parents for whom there was separation and reunion data.

Table 4

Zero-order Correlation Coefficients for Observational Data

Variables:	Correlation Coefficient	Sample Size
Child Distress at Separation 1 and separation 2	.21	81
Child Happiness at Reunion 1 and Reunion 2	-.03	77
Parent Sensitivity at Separation 1 and Separation 2	.54*	81
Parent Sensitivity at Reunion 1 and Reunion 2	.17	77
Child Distress and Child Happiness	.20	88
Parent Sensitivity at Separation and Reunion	.24	88

* $p < .01$

Table 5

Zero-Order Correlation Coefficients for Mothers and Fathers

Variables:	Correlation between Mothers and Fathers	Number of Families
Parental Separation Anxiety	.32**	66
Perception of Effects of Separation	.24	66
Employment-related Separation Concerns	.25	66
Child Temperament	.38***	66
Marital Satisfaction	.56***	66
Parental sensitivity at separation	.32	27
Parental sensitivity at reunion	.17	25
Child distress at separation	.32	27
Child happiness reunion	.21	25

*** $p < .001$

Table 6

Unstandardized Regression Coefficients, t values, and semi-partial correlation coefficients for the Predictors of Parental Sensitivity at Separation

Predictors	Unstandardized Regression Coefficient	sr^2	t
Child Characteristics:			
Temperament	.00	.00	-.01
Gender	-.14	.01	-1.05
Age	-.02	.03	1.78
Parent Characteristics:			
Gender	-.26	.08	-2.88**
Total Involvement in Child-care	-.54	.01	-.93
Solo Involvement in child-care	-.74	.03	-1.66
Separation Anxiety:			
Parental Separation Anxiety	-.01	.00	-.30
Perception of Separation Effects	-.03	.01	-.97
Employment-Related Separation Concerns	.03	.03	1.74
Marital Satisfaction	.15	.03	1.74

** $p < .01$

Table 7

Unstandardized Regression Coefficients, T Values and Semipartial Correlation Coefficients for the Predictors of Child Distress

Predictors	Unstandardized Regression Coefficients	sr^2	t
Child Characteristics:			
Temperament	.02	.00	.28
Gender	-.19	.02	-1.45
Age	-.01	.01	-.99
Parent Characteristics:			
Gender	.11	.01	1.15
Total Involvement	1.82	.10	3.22**
Solo Involvement	-.78	.03	-1.78
Separation Anxiety:			
Parental Separation Anxiety	.00	.00	.07
Perception of Separation Effects	-.08	.09	-2.95**
Employment-Related Separation Concerns	.03	.03	1.72
Marital Satisfaction	-.06	.00	.28
Parent Sensitivity	-.06	.00	-.55

** $p < .01$

Table 8

Unstandardized Regression Coefficients, T Values, and Semi-Partial Correlation Coefficients for the Predictors of Parental Sensitivity at Reunion

Predictors	Unstandardized Regression Coefficient	sr^2	t
Child Characteristics:			
Temperament	.07	.02	1.29
Gender	-.27	.05	-2.19*
Age	.01	.01	1.06
Parent Characteristics:			
Gender	-.09	.01	1.08
Total Involvement in Child-care	.05	.00	.08
Solo Involvement in child-care	-.20	.00	-.47
Separation Anxiety:			
Parental Separation Anxiety	.00	.00	-.17
Perception of Separation Effects	-.01	.00	.38
Employment-Related Separation Concerns	.06	.10	3.10**
Marital Satisfaction	.08	.01	1.02

* $p < .05$

** $p < .01$

Table 9

Unstandardized Regression Coefficients, T Values, and Semi-Partial Correlation Coefficients for the Predictors of Child Happiness at Reunion

Predictors	Unstandardized Regression Coefficient	sr^2	t
Child Characteristics:			
Temperament	.04	.01	1.13
Gender	.05	.00	.56
Age	-.01	.04	-1.95
Parent Characteristics:			
Gender	.04	.01	.72
Total Involvement	.50	.02	1.30
Solo Involvement	.29	.01	.97
Separation Anxiety:			
Parental Separation Anxiety	.04	.05	2.26*
Perception of Separation Effects	.02	.01	.86
Employment-Related Separation Concerns	-.02	.02	-1.47
Marital Satisfaction	.08	.02	1.36
Parent Sensitivity	.05	.00	.58

* $p < .05$

Table 10

Significant Predictors of Total and Solo Involvement in Child-care

Predictors:	Unstandardized Regression Coefficients	sr^2	t
Total Involvement			
Gender	-.19	.25	-5.45***
Solo Involvement			
Gender	-.19	.19	-5.87***

*** $p < .001$

Table 11

Significant predictors of Parental Separation Anxiety

Predictors:	Unstandardized Regression Coefficients	sr^2	t
Child Temperament	.91	.10	3.17**

** $p < .01$

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