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To the Graduate Council:

I am submitting herewith a thesis written by Ann Elizabeth Koelz entitled "A Closer Look at Maternal Directiveness During Toddlerhood in a Lower Socioeconomic Sample." I have examined the final electronic copy of this thesis for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Master of Science, with a major in Child and Family Studies.

Hillary Fouts, Major Professor

We have read this thesis and recommend its acceptance:

Rena Hallam, Mary Jane Moran

Accepted for the Council:

Carolyn R. Hodges

Vice Provost and Dean of the Graduate School

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A Closer Look at Maternal Directiveness During Toddlerhood
in a Lower Socioeconomic Sample

A Thesis Presented for the
Master of Child and Family Studies
Degree
The University of Tennessee, Knoxville

Ann Elizabeth Koelz

December 2007

Abstract

The current study describes the directive behaviors of seven mothers with their toddlers ranging in age from 12 to 35 months throughout the day. This study explores the behaviors of a sample with lower socioeconomic status without the use of unnatural measures or artificial environments that may enhance the likelihood of observing atypical behaviors and perhaps perpetuate a deficit-based interpretation of the poverty context. Nine hours of observation for each dyad were collected as part of a larger study concerning the daily experiences of toddlers with the exception of one participant who dropped out of the study after three hours of observation. The current study analyzed maternal behaviors while the mother was present with her toddler and the toddler was awake. Observations used in the current analysis lasted between 90 to 450 minutes for each participant. The importance of the extended observational protocol used in the current study was specifically investigated by comparing parenting behaviors that occurred during the first 45 minutes of observation to those which occurred during subsequent observational segments. This study also explored a more complete conception of directiveness in a lower socioeconomic context by defining two separate variables for responsive and adult-initiated directiveness. The situational contexts that influence mothers' directive behaviors were then examined. The results of the current study suggest that when mothers with lower socioeconomic status are observed for an extended amount of time they vary greatly in the amount of directiveness that they use with their children. These directive behaviors occurred at a much higher rate during the first segment of time mothers were observed. Directive behaviors did not cluster as either adult-initiated or responsive as expected. Rather, directive behaviors clustered according to the contexts of caregiving or play interactions. Only three toddlers

engaged in any structured activities while in the care of their mothers. Results of the current study challenge the methodology used in previous research that has resulted in the wide spread stereotype of parents with lower socioeconomic status parenting in a harsh and deficient manner. Implications for family functioning assessment and intervention are also discussed.

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Introduction

The toddler period of human development demands a great amount of parental interaction. Parental interactions with infants and toddlers in distressed and non-distressed situations establish response patterns that shape the relationship between parent and child (Ainsworth, 1973). Responsive and nonrestrictive parental interactions with toddlers encourage healthy social, emotional, and cognitive development (Bornstein, Tamis-LeMonda & Haynes, 1999). This maternal behavior is influenced by the availability of psychological and physical resources to the mother (Belsky, Garduque & Hrncir, 1984). Previous research alerts that poverty may impede maternal sensitivity and the ability to provide environmental resources, such as stimulating toys and books (Bakermans-Kranenburg, van IJzendoorn & Kroonenberg, 2004; Huang, Caughy, Genevro, & Miller, 2005; Jackson, Brooks-Gunn, Huang, & Glassman, 2000; Kotchick, Dorsey, & Heller, 2005; Lareau, 2003; McLoyd, 1998; Mistry, Vandewater, Huston, & McLoyd, 2002). Child development scholars also conclude that children who grow up in poverty, especially in infancy and toddlerhood, are at high risk for cognitive, social, and emotional difficulties.

Previous literature has explored poverty's effect on differences in parental sensitivity and interactions with semi-structured assessments such as the HOME inventory (Bakermans-Kranenburg, van IJzendoorn, & Bradley, 2005; Huang, et al., 2005; Jackson, et al., 2000). Researchers using the HOME inventory collect data in one 45-90 minute home visit observing interactions in a semi-structured context and collecting information from primary caregivers using a restricted interview. Child development scholars have also relied on maternal report from checklists and questionnaires about their own parenting behaviors and their children's typical behaviors (Fox, Platz, & Bentley, 1995; Kazura, 2000). Such measures limit maternal report to

past behaviors they are able to recall from a limited list of prefabricated answers that may not capture relevant variables outside of a mainstream context. Many studies have used lab and semi-structured home settings to assess parental directiveness and other interactive behaviors for a short period of time while parents are asked to play with their child or teach them to complete a particular task (Huang, et al.; Kazura; LeCuyer-Maus, 2000; Mistry, et al.; Rose-Krasnor, Rubin, Booth, & Coplan, 1996). Lareau's (2003) ethnographic work suggests that these setting and structures may elicit particularly unnatural behavior from participants living in poverty. Such participants may be especially distrustful of researchers. Lareau explains that this discomfort may stem from past experiences, language differences, and role definitions. The first purpose of this study is to describe mother-child interactions throughout the day in a sample of lower SES families without the use of unnatural measures or artificial environments that may enhance the likelihood of observing atypical behaviors and perhaps perpetuate a deficit-based interpretation of the poverty context. The current study will specifically address maternal directive behaviors. Previous literature has found directiveness to relate positively to poverty and negative child outcomes; however most studies have not clearly delineated between responsive and adult-initiated directiveness (Eamon, 2001; Gmitrova & Gmitrov, 2003; Hughes, et al., 1999; Kazura, 2000; McLoyd, 1998; Moore & Saylor, 1998; Rose-Krasnor, Rubin, Booth, & Coplan, 1996; Stilson & Harding, 1997). These studies have predominantly used both measures of sensitivity and measures of directiveness, relating them individually to poverty and child outcomes. Most have not considered the sensitivity of the directive acts themselves. The second purpose of the current study is to gain a more complete understanding of directiveness in a lower socioeconomic context by considering responsive and adult-initiated directiveness separately.

Literature Review

Theoretical perspectives

The current study applies Sameroff and Chandler's (1975) transactional perspective to understand mother-infant interactions in conjunction with Bowlby's (1969) attachment theory and Bronfenbrenner's (1979) ecological theory of human development. The transactional theory of development considers the individual characteristics of both the mother and the child that are brought to interactions. These characteristics are suggested to mingle during parent-child interactions and influence both parent and child to change, therefore creating a new combination of characteristics for future interactions (Sameroff and Chandler). According to this view, the mother-child relationship is continually influenced by interactions. Interactions are shaped by individual characteristics as well as the relationship history. This theory contributes to understanding not only the mother's or infant's behaviors, but the connection between their behaviors and the resulting relational effects. The transactional perspective will be used in the current study to understand toddler-mother interactions as functions of individual characteristics and patterned relationship histories that contribute to future individual and relational characteristics. Mother-toddler interactions will serve as windows into mother-child relationship patterns as well as reflections of maternal characteristics, such as those effected by poverty. This perspective is employed in the current study to suggest that the cognitive and psychological poverty effects on the mothers such as stress and lower self efficacy influence their interactions with their children and create readily observed behavior patterns such as directiveness. These behavior patterns shape the mother-child relationship (Sameroff and Chandler).

Bowlby's theory of attachment suggests that mother-infant interactions should be

addressed in terms of their effects on infants' internal working models of their environments and relationships with their mothers (Ainsworth, 1973; Bowlby, 1969). Attachment according to Bowlby and Ainsworth is understood as a social phenomenon that ideally establishes a secure base in the primary caregiver or mother from which the infant can comfortably explore their environment. Bowlby believed that sensitive, responsive caregiving during infancy and toddlerhood is essential to the establishment of a secure attachment. The quality of maternal sensitivity in daily care shapes the quality of the child's attachment (National Institute of Child Health and Human Development, 2006; Posada, et al., 2002; Vondra, Shaw, & Kevenides, 1995). Toddlers use attachment bonds to form expectations about their environment and how they should behave in relationship to it such as whether to trust new stimuli or explore beyond their typical limits. Therefore, this attachment sets the tone for the child's later social interaction (Ainsworth, 1973; Bowlby, 1969). Attachment theory guided the selection of relevant variables for the current study. It is used to understand the important components of mother-child responsive interactions and relate them to the child's socioemotional development.

Bronfenbrenner (1979) defines human development as a significant change in the way that a person perceives and manages his or her surroundings. His emphasis on the influence of subjective perception rather than objective reality questions the reliability of participants' laboratory behaviors as reflections of their behaviors in natural settings. Bronfenbrenner understands children as members of numerous systems in their environment made of the people that they come in direct contact with and also many people who they never even meet. He speaks of the environment as a set of nested systems. These systems include a child's immediate surroundings such as home and childcare, relationships and interactions between these settings

such as a mother's approval of the child's teacher, settings that affect the child's immediate situation such as a mother's workplace, and cultural ideologies that influence the child's environment. His ecological theory of development emphasizes changes in perceptions as functions of experiences with the environment. Bronfenbrenner's ecological theory will be employed in the current study to understand the impact that lower socioeconomic status has on the behaviors of mothers and their toddlers. It contributes by explaining how increased economic stress effects mother-child interactions and interactions with authority figures such as academic researchers. Bronfenbrenner's work guides the suggestion that lower socioeconomic samples may be particularly misrepresented in previous literature concerning directiveness.

Mother-Toddler Interactions in Poverty Contexts

Poverty has shown detrimental effects on maternal responsivity to children's social and emotional cues. Bakerman-Kranenburg, van IJzendoorn, & Kroonenberg (2004) used the Attachment Q-sort and three 15 minute video tapes of mothers engaging in free play at home or in a lab setting and engaging their child with a provided set of toys to explore the difference in European American and African American children's attachment security. The authors found that the relationship between ethnicity and attachment was actually mediated by income and variation in levels of sensitivity. African Americans in their sample were disproportionately represented in the poverty context, and African Americans showed less sensitive responses to children and lower levels of secure attachment styles. Because of the disproportionate numbers of African Americans in the poverty context, the authors concluded that poverty rather than ethnicity impedes maternal sensitivity.

According to the family stress model many authors argue that the most influential effects

from poverty come from the negative psychological strain poverty causes to parents (Bakermans-Kranenburg, et al., 2004). Jackson, Brooks-Gunn, Huang, and Glassman (2000) explored the factors influencing outcomes of preschoolers who lived with their single, African American, mothers with low incomes. They concluded that negative outcomes most likely resulted from a path that related financial strain through maternal depressive symptoms to poor quality parenting behaviors. Similar findings were made by Kotchick, Dorsey, and Heller (2005) in their longitudinal work that also involved single, African American mothers with low incomes. These researchers found that neighborhood stress related to psychological distress in mothers that influenced them to use less positive parenting 15 months later. They also suggested that social support may be used to moderate this effect. A similar pattern has been observed with a sample differing in ethnicity and age. Mistry, Vandewater, Huston, and McLoyd (2002) studied a sample of 419 ethnically diverse mother-child dyads of elementary aged children. They concluded that the children in this sample were also affected by low income through a path involving maternal psychological well being and parenting behaviors. Other scholars have observed significantly negative relationships from financial strain and neighborhood stress leading to negative parenting behaviors (Jackson, et al., 2000; Kotchick, et al., 2005; Mistry, et al., 2002). These factors are logically related through parental stress.

Some argue that the most influential parental behavior that lower SES impedes is the ability to purchase beneficial materials and services for their children. The HOME inventory is a frequently used measure of parent-child interaction that focuses heavily on environmental provisions. Huang Caughy, Genevro, and Miller (2005) found a significant negative correlation between poverty and total scores on the HOME inventory. They studied the relationship between

maternal knowledge of developmental milestones when her child was 2-4 months and parenting behaviors at 16-18 months and 34-37 months in an ethnically diverse sample. They measured parenting behaviors with the infant/toddler version of the HOME inventory, the parent/caregiver involvement scale (P/CIS), and the teaching scale score of the nursing child assessment by satellite training (NCAST). These measures rated maternal behaviors during a 15 minute session of video taped free play with a provided set of toys and a session in which the mother was asked to teach her child a task that they had not yet mastered. The researchers found that poverty correlated negatively to all their measures of parental behaviors. They also found that knowledge and teaching behaviors related in a counterintuitive way for their sub samples of African American and Hispanic mothers but not for Caucasian Americans. Mothers who were more accurate in their knowledge of developmental milestones were less sensitive to their toddlers during teaching interactions (Huang et al.). This finding could be used to question the importance or benefit of formal knowledge of child development or it could suggest that these measures of sensitivity used in a highly directive situation are not appropriate for the sub samples. Because of the higher proportion of African and Hispanic Americans living in poverty, one may wonder whether these findings also held true for variations in poverty. The authors neither explored whether this relationship varied according to poverty status nor reported poverty statistics by ethnicity.

Regardless of whether lower SES affects children because of its effects on parental behaviors or its effects on environmental provisions, child development scholars have consistently found negative relationships between lower SES and child development outcomes. Evans (2004) suggests that children living in poverty are exposed to multiple physical and

psychosocial risks that exacerbate the effects of single risk factors resulting in a more severe multiplicative effect on child outcomes. McLoyd's (1998) review highlights many of the causes and effects of poverty that are seen in the child development literature. Her research suggests that children who live in poverty are more likely to have perinatal complications, reduced access to resources, increased exposure to lead, less cognitive stimulation in the home, lower teacher expectations, harsh parenting, inconsistent discipline, and exposure to chronic stressors. McLoyd found that previous literature has linked these factors to poorer academic readiness, school achievement, and socioemotional skills. Fox and colleagues (1995) studied factors relating to behavior problems in children from one to four years with a sample of 1056 children. They did not use the HOME inventory to measure parenting behaviors, but did use a standardized checklist and questionnaire. The parenting behavior checklist and the behavior screening questionnaire were used to relate parents' nurturing and discipline behaviors to young children's behavior problems. The authors observed that younger, single, lower income, and less educated moms reported more behavior problems with their children. Jackson et al. (2000) found low income to relate to more behavioral problems and lower preschool abilities. Mistry (2000) suggests that lower income regardless of ethnicity correlates with more behavior problems.

Even though parents living in poverty tend to receive less desirable scores on standardized measures of parenting, the literature also suggests that the environments surrounding their children necessitate these parenting styles. Some have found negative environmental influences to be less influential on children living in poverty when combined with parenting that is less desirable for families with higher SES. McLoyd (1998) explains that the strict and directive parenting that is frequently associated with impoverished families positively

influences children's achievement by helping them resist environmental threats as long as it is accompanied by parental warmth. Eamon (2001) found the authoritarian parenting strategies that are commonly associated with poverty to protect against the environmental risks that are associated with antisocial behavior. Lareau (2003) suggests that parents living in poverty tend to use more directives rather than the explanations and reasoning that are more common among middle and upper class parents. She explains that this is due to the clearer boundary they perceive between adults and children.

Roopnarine, Fouts, Lamb, and Lewis-Elligan (2005) explored differences in parental availability, caregiving, and social interactions of African American parents from upper, middle, and lower socioeconomic statuses. The researchers observed parents and their three to four-month-old infants for a total of 12 hours in and around their homes and wherever the infant went. The extensive naturalistic methods used to observe these families yielded more heterogeneity in parenting behaviors in a low SES context than has been previously represented in the developmental literature. In fact, the low SES sample in this study showed the most within group variation of parenting behaviors. The researchers did not observe SES differences in availability, responsiveness, or most parenting behaviors. Differences were only observed in the styles of behaviors that were observed. Such difference included carrying the infant rather than holding the infant in a stationary position and more physical rather than verbal caregiving strategies used by parents with lower SES. Fouts, Roopnarine, and Lamb (in press) built on Roopnarine et al.'s study by including infant behaviors with all interactive partners rather than just parents in their analyses. The researchers observed infants' sleep cycles, caregivers' responses to distress signals, social interactions, and infants' social engagement using the same naturalistic protocol.

Once again differences were observed in styles of interactions rather than overall interactions such as shorter, but more frequent social interaction bouts in lower SES families. Infants in the lower SES group experienced social stimulation from the widest variety of people. Fouts et al. highlight the important role that extended kin play in the caregiving system of many infants in lower SES families that has been missed by the methodologies used in much of previous research. These studies suggest that extended, naturalistic observations provide a more detailed view of caregiving that may better represent the parenting behaviors used in lower SES contexts.

Mother-Toddler Play

Play dominates much of the non-distressed interaction between mother and child during the toddler period of development. By twelve months of age, toddlers and their mothers tend to engage in give-and-take and labeling games (Lockman & McHale, 1989). When not engaged in games, mothers tend to read to their toddlers and help them play with toys (Clarke-Stewart, 1978). Toddlers typically play with objects as they were designed to be played with, as well as combine objects in meaningful ways, and pair objects in unconventional ways. Therefore they may play in ways that their parents expect and identify as correct use of objects, or they may play in ways that their parents deem incorrect or chaotic. After recognizing their children's range of ability mothers, are possibly enticed with the opportunity to guide their toddlers toward more conventional rather than chaotic uses of objects and spaces. Dunham and Moore (1995) suggest that infants develop the capacity to maintain joint attention around 12 months of age. Ainsworth (1973) suggests that toddlers at this age are engaged in active proximity seeking. They purposefully evoke reactions from their caregivers. Therefore, play interactions around twelve months tend to include active engagement from both the mother's and child's perspective.

In line with the transactional perspective, child development literature supports a picture of mother-toddler interaction in which both parties influence the actions of the other and contribute to the changing of dyadic interactions. Toddlers' play activities are heavily influenced by maternal behaviors (Fiese, 1990; O'Connell & Bretherton, 1984). Fiese studied a group of mostly Caucasian mother-child dyads from middle to upper socioeconomic statuses living in the United States. She found that toddlers play at higher levels while playing with their mothers than they do while playing alone. O'Connell and Bretherton studied the play behaviors of thirty typically developing American toddlers. They observed an increase in play diversity when toddlers played with their mothers compared to solitary toddler play. Toddlers also influence the play behaviors of their mothers (Damast, Tamis-LeMonda, & Bornstein, 1996; Tamis-LeMonda & Bornstein, 1991). Damast, Tamis-LeMonda, and Bornstein observed healthy, middle to upper socioeconomic status, urban, American mothers and their toddlers during free play. They found that mothers tended to adjust their play to their 21-month-old toddler's play by playing at the same level as their toddler or at slightly higher levels. Tamis-LeMonda and Bornstein explored the longitudinal changes in mother-toddler play from 13 to 20 months of age with American families from middle to upper socioeconomic status. They found that changes in mothers' and toddlers' play sophistication correlated regularly, but also occurred independently of one another. Therefore mothers and toddlers influence dyadic play interactions independently and in response to one another. In the current study, maternal behaviors will not be interpreted as purely independent actions. Toddlers' cues and behaviors will be considered in order to interpret the significance of maternal behaviors.

Maternal Responsiveness

The amount of attention that toddlers typically demand from their caregivers causes maternal behaviors to frequently occur in response to toddlers' cues and behaviors. The importance of maternal responsiveness was brought to popular attention by Mary Ainsworth's work concerning attachment theory. According to Ainsworth (1973) infants are greatly affected by the way in which their primary caregiver responds to their signals. In order for an infant to establish and maintain a secure attachment with the primary caregiver, they must receive sensitive, contingent, and appropriate responsiveness to their cues. Infant and toddlers must be able to accurately predict the reaction that their signals will elicit from their primary caregiver in order for them to develop trust in their environments. This allows the child to branch out and explore with the knowledge that their primary caregiver serves as a secure base to which they can return to have their needs met. Support for the link between responsiveness and attachment style has been consistently found by child development scholars (De Wolff & van IJzendoorn, 1997). The literature also supports the association between Ainsworth's attachment classifications and a variety of child outcomes. The consequences of attachment reach far beyond the infancy period. Therefore it is particularly problematic that meta-analyses have found lower SES to relate to less secure attachments (Van IJzendoorn & Bakermans-Kranenburg, 1996). These classifications in early childhood have been shown to relate to infant exploration, later childhood peer interactions, and possibly to adult romantic attachments by shaping the infant's expectations of the environment (Connell, 1976; Waters, 1978; Berlin & Cassidy, 1999; Teti & Teti, 1996). Belsky, Garduque, and Hrcir (1984) observed a relationship between attachment security and toddlers' exploratory and social play with peers. Maternal responsiveness has not

only been supported in its relationship to attachment, but also as an important factor influencing children's cognitive, social, and play development (Lamb, Bornstein, & Teti, 2002).

Research has supported a strong link between maternal responsiveness during play in early childhood and child developmental outcomes. Toddler's cognitive development seems to be positively influenced by prompt, contingent, and appropriate responses from their mothers (Crawley & Spiker, 1983; Kelly, Brownell, & Campbell, 2000; Moore & Saylor, 1998; Smith, Landry, & Swank, 2006). Crawley and Spiker sampled two-year-old children with Down syndrome who ranged in socioeconomic status. They found maternal responsiveness during play positively correlate with children's Bayley MDI scores. Moore and Saylor studied longitudinal effects of maternal responsiveness on the cognitive development of children who were born preterm and whose families had a mean annual income \$21,764. They found that higher levels of maternal responsiveness in the second year of the child's life corresponded with higher scores on the Stanford-Binet test of intelligence. Smith, Landry, and Swank's research with over 300 children from six months to ten years old echoed the positive longitudinal effects of maternal responsiveness on intelligence scores through out a longer time period. They observed maternal differences in responsiveness by race and ethnicity. They found consistently high levels of responsiveness to be particularly beneficial to children's cognitive development (Smith, et al.).

Maternal responsiveness during play influences toddler's development beyond cognitive benefits. Research has supported positive longitudinal influences on children's social skills and behaviors from warm and appropriate maternal responsiveness specifically in early childhood. This association is specifically supported in populations with low socioeconomic status (Steelman, Assel, Swank, Smith, & Landry, 2002; Wakschlag & Hans, 1999). Steelman et al.

found that maternal responsiveness at one year directly effected children's social skills at 4 and a half years beyond the effect of discipline or concurrent maternal responsiveness in a sample of 360 families of low socioeconomic status. Wakschlag and Hans discovered that maternal responsiveness during infancy predicted behavioral problems at age 10 in a sample of 77 African American children with very low socioeconomic status. Mothers who were unresponsive to their children during infancy were much more likely to have children with disruptive behavior problems later in childhood even after concurrent parenting and risk factors were controlled for (Wakschlag and Hans).

Scholars have also studied the effect of maternal responsiveness on children's play development. Hughes, Dote-Kwan, and Dolendo (1999) investigated the effects of maternal responses in play on the development of 20 to 36 month old children with visual impairments. They observed a positive relationship between maternal responsiveness and children's exploration of their environments, a prerequisite for many forms of play. Tamis-LeMonda, Bornstein, Baumwell, and Damast (1996) explored the longitudinal effects of maternal responsiveness on toddlers' play development with a sample of well-educated, middle class mothers. They found that maternal responsiveness in play related positively to children's play development, specifically the amount of symbolic play in which the children engage. Bornstein and Tamis-LeMonda (1997) further supported the idea that maternal responsiveness relates specifically within domains of development. They studied the relationship between maternal responsiveness at five months in distressed and in nondistressed situations and development at 13 months. They observed a positive relationship between maternal responsiveness and toddler outcomes. They found that only maternal responsiveness in play activities related to toddler

attention span and play development.

Previous literature has related the observed variations in maternal responsiveness to factors such as maternal personality, family history and socioeconomic status (Clark, Kochanska, & Ready 2000; LeCuyer-Maus, 2000; Huang, Caughy, Genevro, & Miller, 2005). Many scholars have concluded that it is the variation in quality of responsiveness that significantly influences child outcomes (Bornstein & Tamis-LeMonda, 1997; Hughes, et al., 1999; Smith, et al., 2006; Steelman et al., 2002). The quality of maternal responsiveness that positively relates to desirable child outcomes echoes the quality of maternal responses that Bowlby (1969) and Ainsworth (1973) found to foster secure attachments. As mentioned previously, these responses are lead by sensitivity to children's cues. It is unfortunately this sensitivity that seems to be impeded by poverty (Bakermans-Kranenburg et al., 2004).

Maternal Directiveness

When mothers are engaged with, but not responding to their toddlers, they are likely directing them. Play provides a context in which mothers may use directives that are not meant to protect or discipline their children. As mentioned above, the range of play activities that toddlers typically engage in provides opportunities for mothers to guide toddler play from actions that the mother deems inappropriate to those that she finds more appropriate or beneficial, such as the intended use of an educational toy. Rubin, Fein, and Vandenberg (1983) proposed six foundational underpinnings of play. They suggested that children's acts should only be considered true play if they are intrinsically motivated, attending to means rather than ends, guided by the child rather than the object, focused on pretense, free from externally imposed rules, and are actively engaged in the activity (Rubin, et al.). Children's activities that are

directed by an adult generally do not meet these criteria. Directed acts violate the principles of intrinsic motivation and freedom from externally imposed rules, therefore one may deduce that they should not produce the favorable outcomes associated with play. Child development scholars have observed various unfavorable associations with adult directiveness in play such as less maternal sensitivity and responsiveness and poorer child cognitive, social, and emotional development (Gmitrova & Gmitrov, 2003; Guezell & Vernon-Fegans, 2004; Hughes, Dote-Kwan, & Dolendo, 1999; Kazura, 2000; LeCuyer-Maus, 2000; Moore & Saylor, 1998; Rose-Krasnor, Rubin, Booth, & Copan, 1996; Stilson & Harding, 1997).

Previous literature suggests negative correlations between parental directiveness and favorable parental interaction styles such as sensitivity, perceptions of efficacy, and responsiveness (Guezell & Vernon-Fegans, 2004; LeCuyer-Maus, 2000). Guezell and Vernon-Fegans explored the relationship between parental perceptions of infant difficulty, perceived caregiving efficacy, parental sensitivity, and parental directiveness. They observed free play involving the mother, father, and one year old infant in their home. Parents completed questionnaires pertaining to their child's characteristics, their knowledge of child development, their ideologies about child development, and their perceived control in determining outcomes of caregiving. Infant difficulty was measured with the Infant Behavior Questionnaire. The authors developed a measure to assess directiveness and sensitivity from video-taped play interactions. They coded any behavior that communicated an expectation to the infant as directiveness. Directive acts were labeled on a four-point scale from zero to three according to the intensity of the behavior. More intrusive directiveness was coded with higher levels. Sensitivity was coded when the parent was affectionate, encouraging, interested, or empathetic. Researchers used the

Parent Attribution Test to measure perceived control. This questionnaire asked parents to rate the influence that they have versus the influence that the child has on particular outcomes. Child development ideology and knowledge was measured with the Developmental Milestones section of the Infant Development Inventory. The Concepts of Development Questionnaire was used to assess the critical thinking level each parent used when considering child development. The researchers observed a negative relationship between sensitivity and directiveness for both fathers and mothers. Directiveness was associated with lower perceptions of efficacy, especially for fathers (Guezell & Vernon-Feagans).

LeCuyer-Maus (2000) took a different approach to exploring directiveness. She created lab conditions that required differing amounts of directiveness from all mothers. She measured the differences in mothers' sensitivity and responsiveness during interactions with their twelve-month-olds in these different conditions that varied in what she referred to as control-saliency. Sixty-one mother-child dyads involved in a larger study participated. The mothers were observed in play, snack, teaching, limit-setting, and toy clean-up episodes. LeCuyer-Maus measured maternal sensitivity and responsiveness with the Maternal Care Scales. This scale is made up of four subscales: *sensitivity vs. insensitivity*, *acceptance vs. rejection*, *accessibility vs. ignoring and neglecting*, and *cooperation vs. interference*. The author made special effort to incorporate aspects of sensitivity specific to emerging autonomy into the scale. Mothers' styles of limit setting were classified into indirect, teaching-based, power-based, or inconsistent using the Prohibition Coding Scheme. This measure classifies mothers' styles based on the frequency of five classes of directive behaviors. These classes are described as "verbal commands, physical directs, use of distracters, use of reasoning strategies/ information, and maternal responsiveness

that include appropriate responses to infant negative affect, infant initiation of alternate activities, and infant processing of the prohibition” (p. 125). Mothers were given the Paternal Bonding Instrument to assess their relationship histories with their parents. Results indicate that mothers as a group were significantly more sensitive when involved in activities such as play and snack that required less directiveness. Individual mothers who were rated higher on sensitivity and responsiveness in less directive situations were also more sensitive and responsive during more directive interactions. Power based limit-setting strategies were significantly more common among mother who rated lower on responsiveness and sensitivity overall and who recalled more negative relationships with their parents. Mothers with more positive relationship histories who displayed higher levels of responsiveness and sensitivity were more likely to use teaching-based limit-setting (LeCuyer-Maus).

Other scholars have explored the correlation between adult directiveness and child outcomes. Less favorable developmental outcomes have been found in both typically and exceptionally developing samples. Many researchers have linked adult directiveness to poor child developmental outcomes such as lower intelligence, less secure attachments, slower language and play development, and poorer social competence (Gmitrova & Gmitrov, 2003; Hughes, et al., 1999; Kazura, 2000; Moore & Saylor, 1998; Rose-Krasnor, Rubin, Booth, & Copan, 1996; Stilson & Harding, 1997).

Gmitrova and Gmitrov (2003) related classroom organization of play to children’s cognitive and emotional behaviors. They observed pretend play during teacher-directed activities in which the class all engaged and pretend small group play during which the children had control. They observed 51 children playing in two mixed-age classrooms. The children ranged

in age from 3 to 6 years. The researchers coded behaviors as either cognitive or affective according to Bloom's (1956) taxonomy of cognitive behaviors and Krathwohl's (1964) taxonomy of affective behaviors. They observed significantly more cognitive behaviors during child-directed play than teacher-directed play. Results also show less affective behaviors during child-directed play. Higher levels of cognitive and affective behaviors were observed in the child-directed context. The proportion of cognitive and affective behaviors was more balanced during child-directed play than during teacher-directed play. For direct application into classroom structure, this article suggests that teachers may better encourage development through play by facilitating small group play rather than directing the entire classroom from the front of the room (Gmitrova & Gmitrov).

Kazura (2000) explored similarities and differences in mothers' and fathers' involvement with their toddlers. Specifically Kazura studied the quantity of involvement, attachment, play, and social behaviors. The sample consisted of 14 male and 13 female toddlers and their parents. Toddlers ranged from 12 to 26 months old. Data was collected during an at home visit and two laboratory assessments. The same procedure was followed twice for each toddler to assess mothers' and fathers' involvement separately. The Parent-Child Caregiving Questionnaire was developed for this study to measure self-reported amount of involvement each parent has spending time, providing care, and playing with their child. Attachment was measured in the lab setting using Ainsworth's Strange Situation. The researcher used Belsky and Most's (1981) categories of play to assess play quality from video tapes of the dyads in the play lab. Using the Prelinguistic Infant-Parent Communicative Interaction Code, Kazura measured response contingency, directiveness, and facilitation from the parent and social initiation and participation

from the child. Directiveness was defined as the parent leading the play interaction. This opposes facilitation during which the toddler leads the play interaction with attention and withdrawal behaviors. Kazura found that paternal attachment security was significantly related to the level of play children engaged in with their fathers, while maternal attachment security correlated with the responsiveness, facilitation, and social interaction mothers engaged in. Therefore, directiveness was negatively associated with attachment, but only for mothers. The discrepancy suggests a gender difference in the importance of particular interactions for parental relationships (Kazura, 2000).

Rose-Krasnor, Rubin, Booth, and Coplan (1996) studied the effects of maternal directiveness and attachment security on 111 four year olds' social competence. Each participant, the mother of the participant, and a child paired for attachment were observed playing in a lab setting. They were observed during a block building session, free-play, a session in which the mother left and the children were presented with a new toy, and a reunion session in which the mother came back into the room. The researchers coded maternal directiveness during the block play and free play sessions according to the mother's goals and whether they were adult or child centered. Goals were coded as "beginning an action", "stopping an action", "continuing an action", or "information seeking" (314). They also coded directiveness according to how power-based the mother's strategy for attaining the goal was. Strategies were coded as "direct commands, indirect requests, questions, positive evaluations of the child, explanations, rules, negative evaluations, physical or verbal comforting, or physical restraint" (315). Children's problem solving was coded during the novel toy session without the mother. Similarly, problem solving interactions were coded according to the child's goals and who they benefited as well as

the amount of power and aggression asserted in the strategies they used in the interaction. An adaptation of Rubin's (1989) Play Observation Scale was used to code children's social engagement during the novel toy play segment. The child's behavior was classified and coded as positive, negative, or neutral. Attachment security correlated positively with social engagement. Results indicated that maternal directiveness correlated with more aggression and less sensitivity from the child in social problem solving (Rose-Krasnor et al.).

Moore, Saylor, and Boyce (1998) explored the effects of parental responsiveness and directiveness in a child's second year on the child's intelligence at five and a half years old in a sample of children who were born preterm and suffer from intraventricular hemorrhage. The dyads were videotaped at age two in a free play session. Researchers coded the video data using The Parent/ Caregiver Involvement Scale. This scale allowed the researchers to produce scores for the amount, appropriateness and quality of eleven behaviors from which they coded responsiveness and directiveness. Researchers also coded the video data with the Maternal Behavior Rating Scale. This scale was designed to be used with children with disabilities. It allowed the researchers to measure responsiveness by the appropriateness of the responses given to the child and directiveness by the intensity and frequency of control enforced by the parent. The researchers measured intelligence at five and a half years with the Stanford-Binet Scale of Intelligence. Higher scores for responsiveness correlated with higher scores for intelligence while more directiveness on both measures was associated with lower intelligence scores. Results also showed that the quality and appropriateness of directiveness correlated positively with mental development (Moore et al.).

Hughes and colleagues (1999) explored the effects of maternal directiveness and

responsiveness in free play on the mental development of young children with visual impairments. The sample consisted of ten Caucasian boys and seven Caucasian girls from 20 to 36 months old who were considered blind and their mothers. Data was collected in the children's homes. Mother-child interaction was coded from a 15 minute video tape of play with The Parent/Caregiver Involvement Scale. As mentioned previously, this scale allowed the researchers to produce scores for the amount, appropriateness and quality of eleven behaviors including responsiveness, control, goal setting, and directiveness. The researchers measured the mental development of the children with The Reynell-Zinkin Developmental Scale for Young Visually Handicapped Children- Part 1: Mental Development. This scale assessed the social adaptation, sensori-motor understanding, exploration of the environment, receptive language, expressive language, and pragmatic language of the children. The data revealed that children's language development was negatively related to the amount of control and directiveness mothers used in play. The researchers also observed that the quality of control and directiveness related positively to language development (Hughes et al.).

Many scholars have noted the importance of the interplay between sensitivity, responsiveness, and directiveness concerning their influence on child outcomes. Previous literature suggests that directiveness does not lead to such unfavorable outcomes when it is paired with favorable parental interaction styles (Adenzato, Ardito, & Izard, 2006; Crawley & Spiker, 1983; Hughes et al., 1999; Kelly, Brownell, & Campbell, 2000; Moore et al., 1998). Adenzato et al. provide support for this pattern from adults' retrospective perceptions of their parents' behaviors. They explored the effects of directiveness and overprotection in childhood on the personalities of adults with acquired blindness. Twelve adults participated in this study with a

mean age of 47.5 years. The researchers used the Adult Attachment Interview to assess aspects of the participants' mental state. The Involvement/ Role Reversing Scale was used to obtain self reported data on the participants' memories of how directive and overprotective their parents were during childhood. The researchers coded each participant as either remembering a low or a high degree of directiveness and overprotection. The researchers also assessed the participants' memories of how capable their parents were of providing love and security during their childhoods using the Loving Scale. The researchers coded each participant as either remembering a low or a high degree of love and security from their parents. Results indicated that even though half of the participants remembered high levels of direction and overprotection, the sample's mental health was comparable to the general population. Memories of high levels of love and security were strongly related to secure mental states in adulthood. The authors suggest that maternal love and security may be protective factors that prevent higher levels of directiveness in their sample from resulting in poor personality outcomes. They question the direct relationship between directiveness and poor personality outcomes presented in previous literature (Adenzato et al.).

Kelly, Brownell, and Campbell (2000) explored the difference between control that is intrusive and that which is gentle guidance. They studied the longitudinal effects of maternal control and evaluative feedback on their young children's motivation and self esteem. Seventy-five mother-toddler dyads that were part of a larger NICHD study participated. The researchers measured maternal feedback and control as the dyad engaged in a challenging task when the toddlers were two years old. Mothers were instructed to teach their child how to play with a puzzle/ shape-sorter for about 5 minutes while being videotaped through a one-way mirror.

Control was coded continuously from this interaction as either *intrusive control* in which the mother intrudes on the child's activity or *gentle guidance* in which the mother attempts to lead the child nonintrusively, without specific directions. Evaluative feedback was also coded from the teaching interaction. Feedback was coded as *positive feedback of person*, *negative feedback of person*, *positive feedback of product/action*, *negative feedback of product/action*, or *corrective feedback*.

A year later the dyads returned to the play lab. An experimenter engaged the child in a series of four tasks independent of the mother. Two of the tasks were designed to be easy, while the other two were designed to elicit failure. Mastery motivation measured in terms of persistence and avoidance. It was coded from the child's behaviors during the four tasks. The researchers rated persistence on a five-point scale only when the child faced difficulty completing the task. Avoidance was coded when the child physically or verbally attempted to escape from the task. Pride and shame were also coded from the child's behaviors during the four tasks. These were coded according to posture, facial expressions, other nonverbal communication, and verbalizations of success or failure. Kelly and colleagues found that maternal control and feedback at two years old predicted children's mastery motivation and shame at three years old. Negative evaluations led to shame, while positive feedback led to persistence. Autonomy-supporting control behaviors were found to reduce later avoidance behaviors (Kelly, et al.). These results suggest that when guidance is needed, it best benefits a child when paired with sensitivity.

Crawley and Spiker (1983) explored the interactional patterns of mothers and their two-year-olds with Down syndrome. They related these patterns to the mental development of the

toddlers measured by the Bayley MDI. The authors developed a series of rating scales to address the mothers', toddlers' and dyads' behavioral patterns. These scales included constructs such as directiveness, sensitivity, stimulation value, developmental appropriateness, and intrusiveness. The researchers coded the dyads' behaviors during a 20-minute videotaped play session. Contrary to Guezell and Vernon-Fegans (2004) finding, the results did not support a direct negative relationship between maternal directiveness and sensitivity. This discrepancy may be due to the difference in measures used in each study. Guezell and Vernon-Fegans coded directiveness higher on a four-point scale if it included intrusiveness. Crawley and Spiker's measures separated intrusiveness from directiveness. They found that mothers could be both sensitive and intrusive, but if mothers were insensitive, then they were always intrusive. They also found that mothers' directiveness and sensitivity correlated in four different patterns. Mothers who were sensitive were found to be either directive or nondirective. Mothers who were insensitive were also found to be either directive or nondirective. Crawley and Spiker observed negative social outcomes for children whose mothers were highly directive, but only if their mothers were also less sensitive. Mothers who were both directive and sensitive also scored highly on elaborativeness and stimulation value (Crawley & Spiker). It seems as though the behavior of those mothers is better placed in the positive construct of scaffolding rather than the negative construct of directiveness.

When directives are used in play, they may not violate Rubin et al.'s (1983) criteria when given in a sensitive and responsive manner. Responsive directives given in sync with a child's desires may be less like externally imposed rules and more like solicited help. Directiveness given by a mother who is sensitive to her child's communications may reflect the intrinsic

desires of the child that are just out of his/her developmental ability.

In summary, previous research has linked maternal directiveness to poor outcomes for mothers and their children. Some scholars suggest negative correlations between parental directiveness and favorable parental interaction styles such as sensitivity, perceptions of efficacy, and responsiveness (Guezell & Vernon-Fegans, 2004; LeCuyer-Maus, 2000). While others suggest less favorable developmental outcomes for the children of more directive mothers such as lower intelligence, less secure attachments, slower language and play development, and poorer social competence (Gmitrova & Gmitrov, 2003; Hughes, et al., 1999; Kazura, 2000; Moore & Saylor, 1998; Rose-Krasnor, Rubin, Booth, & Copan, 1996; Stilson & Harding, 1997). Many scholars have noted the importance of other maternal characteristics such as sensitivity and responsiveness when explaining the risk of maternal directiveness for child outcomes. This literature suggests that the children of directive mothers do not endure such high risk for unfavorable outcomes when their mothers tend to interact with them in child-centered ways employing sensitivity and responsiveness (Adenzato, Ardito, & Izard, 2006; Crawley & Spiker, 1983; Hughes et al., 1999; Kelly, Brownell, & Campbell, 2000; Moore et al., 1998).

Scaffolding

Bruner's (1978) theory of scaffolding emphasizes the cognitive developmental benefits of parental interactions. Bruner's theory refers to the mother as a tutor who scaffolds her child to higher levels of development. According to this theory, the mother ideally is sensitive to the child's developmental level and provides interactions that encourage the child to perform at a level slightly more advanced (Bruner & Garton, 1976). Scaffolding is characterized by responsive directiveness. Effective scaffolding requires a more skilled peer to be aware of a

child's zone of proximal development by sensitively interpreting the child's cues and initiatives and responding appropriately (Landry, Garner, Swank, & Baldwin, 1996). Scaffolding provides an example of beneficial directiveness. It is used in the current study to demonstrate the critical importance of considering responsiveness when studying directiveness. For example, it helps to identify the difference between instances of assisted toy manipulation and instances of instructed quiet time.

Scaffolding is widely used in early childhood education contexts as a developmentally appropriate practice (Chang, Austin, & Piercy, 2006). Mothers have been observed scaffolding their children as early as five months old. Findji (1993) observed the positive effect that maternal scaffolding had on infant attention at five and eight months in 30 middle and upper-middle class dyads. In 1984 Hodapp, Goldfield, and Boyatzis found that infants are more successful in games such as rolling a ball back and forth if their mothers scaffold their behavior. The literature has suggested that mothers who successfully scaffold their children also score higher on measures of sensitive and responsive parenting. Hustedt and Raver (2002) explored the teaching behaviors of 56 low-income mothers with their toddlers. They found that mothers who used more scaffolding to teach their toddler how to insert a straw into a juice box also engaged in more joint attention and reciprocity with their toddlers in play. Bigelow, MacLean, and Proctor (2004) highlighted the importance of joint attention in scaffolding with their work involving mother-infant play development at one year using a sample of middle class Caucasian families. They observed only the scaffolding that occurred along with joint attention to translate into advances in play development when the infant was alone. Conner and Cross (2003) emphasize the importance of sensitive responsiveness in scaffolding by studying scaffolding behavior in the light of Wood's

(1980) contingency rule. Wood suggests that the teacher should vary the amount of control they use while scaffolding according to the performance of the child in the current and past scaffolding sessions. Conner and Cross found that middle class, Caucasian mothers in their sample tended to follow the contingency rule more as their children aged from 16 to 54 months. They observed mothers and toddlers working together more successfully as time passed. They found that toddlers were more accurate in the tasks they learned as mothers used more contingent scaffolding (Conner and Cross). Coltman, Petyaeva, and Anghileri (2002) found support for the effectiveness of sensitive scaffolding in a sample of four to six year olds learning aspects of shape and space. They used scaffolding that was given in graded levels according to Bruner's 1990 work in their experimental sample and provided their control sample with only practice. The graded levels included contextualization, reflective observation, demonstration with a separate set of shapes, and direct demonstration of the task with the child's materials. They observed a 90 percent success rate in their experimental group compared to 33 percent success in their control group in tasks such as matching 2D outlines to 3D shapes, reorienting shapes, and constructing symmetry. The efficacy of scaffolding is so well accepted in the context of children's learning that Sheerer (1997) suggests using scaffolding for teaching adult employees. She argues that scaffolding is useful in an adult work environment because it employs joint problem solving, intersubjectivity, warmth, and responsiveness. Employees are benefited because it keeps them within their zone of proximal development and encourages self-regulation (Sheerer).

Child development scholars have also supported the developmental benefits for children of scaffolding mothers. Morelock, Brown, and Morrissey (2003) linked maternal scaffolding at

16 and 17 months during pretend play to IQ scores at four years. They found that the toddlers whose mothers scaffolded them at higher stages of pretend play tended to score above average for intelligence at four years old. This finding suggests that mothers' scaffolding in play supports cognitive development. This finding also suggests that the mothers of the gifted children in this study were able to recognize the advanced cues from their children and respond to them in above average ways that fostered advanced development (Morelock, et al.). Landry, Miller-Loncar, Smith, and Swank (2002) explored the longitudinal effects of verbal scaffolding at three and four years in a sample of 253 lower-middle and lower SES children. Maternal verbal scaffolding during daily activities and toy play at three years positively related to language skills and problem solving skills at four and six years. Scaffolding at four years did not significantly affect language or executive processing skills at six years. The results of this study emphasize the importance of parenting behaviors in very young children. They also suggest that scaffolding is most effective when it reaches a child who is in a sensitive period for rapidly developing the particular skill, reiterating the consequence of teaching in the zone of proximal development.

Measuring Mother-Toddler Interactions

Mother-toddler interactions are often coded for responsiveness, sensitivity, and directiveness with measures that create artificial environments and are at risk for capturing unnatural behavior such as the HOME inventory. The HOME inventory was designed to measure the quantity and quality of stimulation and support that is provided to a child in the child's home environment. Children are conceptualized as recipients of information from the objects and events occurring in their environments (Bradley, 1993). The HOME inventory is a frequently used measure that focuses intensely on environmental provisions that are less available in homes

with lower SES regardless of parental sensitivity, intent, or effort to cognitively stimulate their child. Bakermans-Kranenburg and colleagues (2005) present a meta-analysis of studies measuring parent-child interactions with the HOME inventory in which they include 47 samples that are classified as low SES. The HOME inventory is designed to rate children's environments by the quality and quantity of psychological stimulation and cognitive support a child can find within it. All the data that is used for the HOME is collected in one 45-90 minute home visit. The researcher conducts a semi-structured observation and interview with the primary caregiver. Many of the interview questions elicit a simple yes or no answer. The version of the HOME that is used with toddlers is made up of 45 items contained in the subscales of responsivity, acceptance of child, involvement, physical environment, learning materials, and variety of experience (Bakermans-Kranenburg, et al.).

Bradley, Corwyn, McAdoo, and Coll (2001) found a significant effect of poverty on what scores constitute average or typical behaviors and environments on the HOME-SF inventory. They found that the magnitude of this effect was higher than effects of ethnicity. Their meta-analysis also suggested that children's actual experiences of environmental variables differ by ethnicity and poverty. For example, Bradley and colleagues found that nonpoor children were more likely than poorer children to have a family member actually read the books that were available in their environment to them. Bakermans-Kranenburg and colleagues (2005) discovered that intervention studies did not find effect sizes for participants with lower SES as large as those observed for participants with middle and upper SES. This could be the result of interventions that are not appropriate for participants living in poverty, more variation in the lower SES samples, or it could be a reflection of the HOME inventory's inability to accurately

assess differences in the targeted interactions in this sample. Therefore, the HOME inventory may not reflect the actual experiences that children encounter in their daily lives as accurately in samples with lower SES.

Many studies that do not use the HOME inventory to assess mother-toddler interactions use equally intimidating questionnaires, structured situations, and lab settings that risk eliciting atypical behaviors (Bakermans-Kranenburg, et al.; Huang, et al.; Kazura, 2000; Kotchick, et al.; LeCuyer-Maus, 2000; Mistry, et al.; Rose-Krasnor, Rubin, Booth, & Coplan, 1996). All of the studies presented in the previous section concerning directiveness observe this variable in a short amount of time ranging from 15 to 45 minutes (e.g., Guezell & Vernon-Fegans, 2004; Hughes, et al., 1999; Kelly, et al., 2000; Moore, et al., 1998). The researchers create unnatural situations for the dyads by asking them to perform a specific task, such as teach a new skill or clean up toys, providing them with a specific set of toys to play with, bringing them into a lab setting, or simply asking them to play with their child in front of the researcher beginning and ending on the researcher's schedule. These situations may not be conducive to observing natural parent-child interactions. The observation time in the previously mentioned studies is quite short for the participants to become comfortable with their situation and the observer (e.g., Crawley & Spiker, 1983; Kazura, 2000; LeCuyer-Maus, 2000; Rose-Krasnor, et al., 1996). It is possible that participants in these studies were performing according to their perception of a socially desirable manner for the researchers through out the entire observation. The research environments used in many previous studies disallow scholars to consider behavioral differences across the variety of contexts within a day. The use of global ratings such as attachment quality, maternal responsiveness, or maternal directiveness leads to inferences about participants' specific

behaviors rather than a direct reflection of the behaviors. Much of the previous literature has also used observation protocols that produce observers' reflections of these global ratings without limiting the effects of their personal biases and interpretations of participants' behaviors (e.g. Crawley & Spiker, 1983; Gmitrova & Gmitrov, 2003; LeCuyer-Maus, 2000).

Leyendecker, Lamb, Schölmerich, & Fricke (1997) studied the impact of length and inclusion of varying contexts on observational data concerning caregiver-infant interactions. They observed 40 Costa Rican infants varying in socioeconomic status for twelve hours using an on-the-mark, focal child, naturalistic observational protocol. They found that data collected in 45-minute segments showed unstable individual differences. More stable differences were obtained when data was considered from longer lengths of the observations, especially when data was considered from the full observation period of twelve hours. The researchers suggest that short observations may be particularly vulnerable to extraneous variables limited to some contexts such as structured play sessions alone with the mother or feeding sessions. They also suggest that this is especially limiting for studies involving participants from different socioeconomic statuses. They concluded that individual and group differences in dyadic interactions can adequately be obtained only when observations cover more than one context (Leyendecker, et al.).

Similar observation procedures, patterned after the protocol developed by Belsky, Gilstrap, and Rovine (1984), have been utilized in a variety of cultural and socioeconomic contexts. Scholars have demonstrated the value of extended, naturalistic observations with samples including African American, Central American, European American, Canadian, German, and Central African families from lower, middle, and upper socioeconomic statuses

(Ahnert, Rickert, and Lamb, 2000; Fouts, Roopnarine, and Lamb, in press; Fracasso, Lamb, Schölmerich, & Leyendecker, 1997; Hewlett, Lamb, Shannon, Leyendecker, & Schölmerich, 1998; Leyendecker, Lamb, & Schölmerich, 1997; Leyendecker, Lamb, Schölmerich, & Fricke, 1997; Roopnarine, Fouts, Lamb, & Lewis-Elligan, 2005). These studies have yielded results that account for behavioral differences across contexts throughout the day. They present more complete pictures of natural interaction patterns with less cultural and observer biases than studies using measures such as the HOME inventory. As previously discussed, Fouts and colleagues (in press) and Roopnarine and colleagues (2005) used this approach for behavioral observation to question previous research reporting deficits in adult-infant interaction patterns in African American samples with lower socioeconomic statuses. Their findings of much heterogeneity among the low SES context were contrary to much of the previous literature. They argue that the extended naturalistic observations allowed them to capture behaviors that were more reflective of participants' natural behaviors that were not previously represented due to limited contexts and less natural research settings (Fouts et al.; Roopnarine et al.). Fracasso and colleagues (1997) discovered remarkable similarities between the child care patterns of European American and immigrant Central American families. The protocol allowed the researchers to observe behavior patterns with less bias toward western cultural norms than other protocols typically used, such as structured interviews. Their identification of substantial similarities contributes to breaking down stereotypes of deficient differences reported by measures laden with cultural bias.

Lareau's (2003) ethnographic study of social class and childrearing sheds light on how the structured, semi-structured, and short-lived measures used in much of the previous literature

on mother-child interactions may be particularly problematic when used with a lower SES samples. Lareau explains that poor and working-class parents are more likely to use caution and distrust when interacting with institutional authority figures such as teachers or doctors. Their low levels of comfort may be associated with differences in vocabulary, past negative experiences with poor quality institutions, or a clearer division that the parents see between the professional's responsibilities and efficacy and their own. When a mother from a lower SES participates in research, these effects translate into heightened discomfort with the researcher. Therefore, her behaviors are particularly unnatural. When measuring variables such as directiveness it is likely that researchers observe mothers' reactions to their presence in addition to mothers' interactions with their children. The varying conclusions about the nature and consequences of directiveness in lower SES samples that previous literature presents necessitates a closer examination of directiveness in different contexts. Much of the previous research concerning directiveness in lower SES samples has made conclusions based on artificial behaviors, poorly reflective variables, or limited contexts.

The current study will employ the extended, on-the-mark, naturalistic protocol previously mentioned (e.g. Fouts, et al., in press; Fracasso, et al., 1997; Leyendecker, et al., 1997; Roopnarine, et al., 2005). This protocol was adapted by Fouts and Hallam (nd) for the current sample. It will provide twelve hours of observational data allowing participants four hours per day on three different days to adjust to the observers' presence. This will minimize the effect that the observers' presence will have on participants' natural behaviors. Therefore, observers will be able to witness parent-child interactions that are more likely to reflect natural behaviors across all contexts typically occurring in a full day. The behavioral checklist used in this protocol was

designed based on fieldwork in non-western contexts and ethnically and socioeconomically diverse contexts within the United States to reflect parent and child behaviors that are not biased toward western cultural norms. The on-the-mark time sampling technique used with this protocol was designed to minimize observer influences on data by dictating instances every thirty seconds in which behaviors are recorded. This technique minimizes the observers' opportunities to bias their attention toward specific behaviors.

Hypotheses

I hypothesize that the naturalistic procedure used in the current study will yield greater variation between individuals in the amount of directiveness they use than has been reflected in the previous literature for samples with lower socioeconomic status. This hypothesis is supported by findings by Roopnarine and colleagues (2005) and Fouts, Roopnarine, and Lamb (in press) indicating greater variation in parenting behaviors in lower SES samples than previous literature has reflected.

I expect the first 45 minutes of each participant's observation to more closely reflect the adult-initiated, directive homogeneity reported in previous literature compared to the remaining hours of their observed behaviors. This hypothesis is supported by the combination of work by Lareau (2003) and Leyendecker, Lamb, and Schölmerich (1997). These studies suggest that parents with lower socioeconomic status may be particularly prone to unnatural behavior in settings such as those used in much of previous research (Lareau), while extended observation times across contexts may reflect natural behavior more closely (Leyendecker, Lamb, & Schölmerich).

I expect that mothers will differ in the proportions of time that they engage toddlers in a responsive versus adult-initiated manner and that the prevalence and type of directiveness that mothers use will be influenced by the context in which mothers and their toddlers are interacting. Specifically, in the structured contexts such as structured play, meal times, and nap times, I predict mothers will be more directive overall and use less responsive directives and more adult-initiated directives. I expect to observe directiveness less often in non-structured contexts such as free play and that the directive behaviors occurring in this context will be characterized by a

higher proportion of responsive directiveness. This hypothesis is supported by the expected high frequency of directiveness in this sample and poor outcomes associated with previous measures of directiveness collected in structured and semi-structured settings (Huang, et al, 2005.; Kazura; LeCuyer-Maus, 2000; Mistry, et al., 2002; Rose-Krasnor, Rubin, Booth, & Coplan, 1996; Lareau, 2003).

Method

Data for the current study was collected as a part of a larger study concerning the daily experiences of toddlers in lower socioeconomic contexts of East Tennessee (Fouts & Hallam, nd).

Participants

The current study included seven participants. Participants were recruited from Montgomery Village public housing development and the surrounding neighborhood. Residents in this area reported high levels of poverty in the 2000 U.S. census. The population is mostly European American with 10.5 percent African Americans and 4.5 percent residents of other ethnicities. 1111 members of this population live below the poverty line. The median annual household income for this area is \$20,775. My Village Child Development Center aided in the recruitment process for the current study. Participants were recruited by flyers at local community organizations and then contacted by phone. All families with a child between the ages of 12 and 36 months were eligible to participate. Each participant received \$50 in grocery gift cards and a digital photo of their child as incentives to participate. Mothers participating in the current study were between the ages of 19 and 37 with a mean age of 26.86 years. All participating families' income levels put them within 120% or less of the federal poverty line. Five mothers reported White ethnicity and having White or mixed ethnicity toddlers. The remaining two mothers were African American with African American toddlers. Four of the focal children were female toddlers and three were males. Toddlers ranged in age from 12 to 35 months with a mean age of 21.43 months. Four of the toddlers had older siblings, while the other two were the only children in their immediate family. One toddler had both an older and

younger sibling. Four toddlers were enrolled in group child care during business hours and three were cared for in their homes by a parent or relative.

Procedures

Focal-child naturalistic observations were conducted as the toddlers followed their normal daily routines for a total of 12 hours. The observations were conducted on three different days in four hour sessions. Trained graduate students made “on-the-mark” observations every 30 seconds when prompted by a digital player for four 45 minute segments with 15 minute breaks in between. Each participant was observed from 8:00 in the morning until 8:00 in the evening. Observers noted the presence or absence of child states, attachment behaviors, caregiver responses to the child, child play, and other caregiving and interactive behaviors with codes on the observational checklist. A separate observer simultaneously collected qualitative data using continuous logs of behaviors and context to support the quantitative data. The current study analyzed data from observations conducted while the focal child’s mother was present with him or her.

Measures

Guided by the dichotomy present in previous research between directiveness in general and scaffolding, two mutually exclusive variables were created for the current study. While scaffolding is not measured in the current study, it inspired the naming of responsive directiveness that is distinctly different from adult-initiated directiveness. Responsive directiveness is named purposely to represent directiveness that is lead by a child’s desires, needs, or cues. Adult-initiated directiveness represents directive acts that are lead by needs or desires outside of the child who is being directed. The work of researchers such as Adenzato,

Ardito, & Izard (2006), Crawley & Spiker (1983), Hughes et al. (1999), Kelly, Brownell, & Campbell (2000), and Moore et al. (1998) suggests that children of mothers who are directive and tend to be sensitive and responsive fare better than children of mothers who are directive and tend to be less responsive. Previous research concerning scaffolding such as that of Coltman, Petyaeva, and Anghileri (2002), Conner and Cross (2003), Landry, Miller-Loncar, Smith, and Swank (2002), and Morelock, Brown, and Morrissey (2003) suggests that directive acts in a learning context are more beneficial when they are given in a sensitive manner and in response to a child's cues. While such research suggests that sensitivity and affection also influence the impact of directive acts, it is beyond the scope of the current study to measure them separately from responsiveness due to the constraints of the coding definitions. This issue will be discussed further as a suggestion for further study. The current study expands on previous research by separating directive acts themselves into acts that are either responsive or adult-initiated in the context of normal daily interaction. The variables created for the current study do not describe a combination of maternal characteristics, but describe the frequencies at which two distinct events occur in regular mother-child interactions. Applying the transactional perspective, mothers' directive behaviors are understood to be the product of mothers' and toddlers' characteristics and relational histories. Even though dyadic transactions are not the unit of analysis in the current study, it is held as an underlying assumption that maternal behaviors are influenced by toddlers' behaviors and characteristics.

Behavioral Codes

Analyses for the current study will include the codes found in Table 1, defined by Fouts and Hallam (nd), which were used to create two new variables.

Table 1

Definitions of Behavioral Codes

Code	Definition
<i>I Conflict A.</i>	The focal child has a conflict with another child or adult. This is expressed through physical or verbal a contest over an object or an individual. This includes the focal child taking away an object from a child (object was not willingly given), blocking another child's path of travel or access to an object or individual. Conflict may also have been initiated by someone other than the focal child, for example another child takes away an object from the focal child, or blocks their path of travel or access to an object or individual. This may be coded in cases of escalated conflict involving aggression, in those cases also "I Aggressive A" and/or "J Aggressive I" should be coded. Continue to code conflict as the focal child continues their response to the episode.
<i>A Soothe Physical (P).</i>	An individual tries to physically quiet or calm the irritable or crying child; indicate which individual. This can include: rocking, patting, and swaying. Not to be coded simultaneously as affection. The variable "A Soothe Physical" is only coded while the child is irritable or crying. If the child calms for a complete 20 second period while the adult continues the same behavior, then it will be coded as "A Affect Physical." This may be coded with Modify or Scold.
<i>A Soothe Nonphysical (NP).</i>	Through verbal or visual expressions an individual tries to calm or quiet the irritable or crying child; indicate which individual. This can include vocalizations or verbal expressions intended to distract the child. If the attempt is verbal "A Vocalize" is coded simultaneously. The variable "A Soothe Non-Physical" is only coded while the child is irritable or crying. If the child calms for a complete 20 second period while the adult continues the same behavior, then it will be coded as "A Affect Non-Physical." This may be coded with Modify or Scold.

Table 1 (continued)

Code	Definition
<i>A Modify I – Physical (P).</i>	A caregiver modifies the focal child’s behavior in response to a conflict or in prevention of conflict, or an accident or prevention of an accident. The caregiver modifies the child’s behavior with positive or neutral affect using physical means such as distracting the child with gestures or presentation of an object, physically moving the child away from someone or something, or moving an individual or object away from the child. The child may be visibly upset or not. If child is visibly upset, also code Soothe. This should not be coded with Stimulate.
<i>A Modify – Nonphysical (NP).</i>	A caregiver modifies the focal child’s behavior in response to a conflict or in prevention of conflict, or an accident or prevention of an accident. The caregiver modifies the child’s behavior with positive or neutral affect using non-physical verbal means such as distracting the child with verbal cues (suggestion to engage in a different behavior). This should not be coded if the child has in some way requested assistance (A respond I and/or A assist I). The child may be visibly upset or not. If child is visibly upset, also code Soothe. This should not be coded with Stimulate.
<i>A Scold I – Physical (P).</i>	A caregiver modifies the focal child’s behavior in response to an irritable state (fuss, cry, tantrum), conflict or in prevention of conflict, or an accident or prevention of an accident. The caregiver modifies the child’s behavior with negative affect using physical means such as swatting the child, or roughly moving the child away, or placing the child in time-out (or equivalent scolding area). The child may be visibly upset or not, but it should be clear that the caregiver is attempting to discourage the child from an undesired behavior. This may be coded simultaneously with “A Scold I Non-physical.”
<i>A Scold I – Nonphysical (NP).</i>	A caregiver modifies the focal child’s behavior in response to an irritable state (fuss, cry, tantrum), conflict or in prevention of conflict, or an accident or prevention of an accident. The caregiver modifies the child’s behavior with negative affect using nonphysical verbal means such as talking sternly to the child, yelling or shouting at the child. The child may be visibly upset or not, but it should be clear that the caregiver is attempting to discourage the child from an undesired behavior. This may be coded simultaneously with “A Scold I Physical.” Scold should not be coded with “A Modify I.”

Table 1 (continued)

Code	Definition
<i>A Respond I.</i>	An individual responds to a child's positive social cue or request for assistance. This should never be coded simultaneously with "A Respond I – Chain."
<i>A Respond I-Chain.</i>	An individual responds to a child's positive social cue or request for assistance, as a result of another individual notifying them of the interest or need of the child. For example, the child shows a caregiver A that they need their nose wiped, that caregiver A tells caregiver B and caregiver B wipes the child's nose. Indicate who provides the direct response (caregiver B). This should never be coded simultaneously with "A Respond I."
<i>A Assist I.</i>	An individual gives solicited or unsolicited help to a task the focal child is already engaged in. Help may include aiding with a task, game or toy, climbing into a lap or chair or on an object, preventing a physical accident (cup tipping over, child falling down), or manipulation of an object (holding utensil). In order to distinguish between solicited and unsolicited help, solicited help should be coded simultaneously with "A respond I" or "A respond chain I" to indicate that the assistance was solicited by the child. When not coded with "A respond I" or "A respond chain I," it is assumed that the assistance was not solicited by the child.
<i>A Stimulate/ Arouse I.</i>	This variable includes any action on the part of an individual which intends to focus the child's attention on a specific event. It also indicates attempts to stimulate by poking, pulling on limbs, shaking, tickling, presenting interesting objects, etc. Identify the individual. This should not be coded with "A Modify I." Stimulate/Arouse should not be coded if the child is irritable.
<i>Structured Activity</i>	The focal child is engaged in an activity or game that has a set structure or rules that have been offered or directed by another individual. This includes playing next to another individual or with the individual. This may include being lead in a group song, or doing a crafts project that was initiated by a caregiver.

New Variables

Two new variables were created for the current study. Each new variable was defined by the combination of one or more codes (defined above) that occurred simultaneously.

Responsive Directiveness.

This variable is defined by the presence of any of the following three combinations of codes.

- 1) The mother may modify the child's actions while soothing the child (*A Modify I Physical or Nonphysical* concurrent with *A Soothe I Physical or Nonphysical*).
- 2) The mother may modify the child's actions while the child is in conflict (*A Modify I Physical or Nonphysical* concurrent with *I Conflict A*).
- 3) The mother may assist the child while responding to the child (*A Assist I* concurrent with *A Respond I* or *A Respond I-Chain*).

Adult-initiated Directiveness.

This variable is defined by the presence of any of the following four combinations of codes.

- 1) The mother may scold the child's actions or states (*A Scold I Physical or Nonphysical*).
- 2) The mother may assist the child without simultaneously responding to the child (*A Assist I* not concurrent with *A Respond I* or *A Respond I-Chain*).
- 3) The mother may modify the child's actions without simultaneously soothing the child when the child is not in conflict (*A Modify I Physical or Nonphysical* not concurrent with *A Soothe I Physical or Nonphysical* or *I Conflict A*).
- 4) The mother may stimulate the child (*A Stimulate/Arouse I*).

Analysis

Cross-tabulations and addition were used to compute the frequencies of responsive directives, frequencies of adult-initiated directives, and the total frequency of directiveness for all mothers. These frequencies were converted into rates according to the length of time that each child was awake while in the care of his or her mother. Descriptive statistics demonstrated variance in total directiveness, responsive directiveness, and adult-initiated directiveness that thereafter were broadly compared to the findings of previous literature. Analysis of qualitative continuous logs explored patterns and individual differences in the contexts of directive behaviors.

A first observation variable was created and coded as “present” during the first 45 minutes of maternal care and “absent” during the rest of the observation. Cross-tabulations produced frequencies of directiveness and proportions of responsive directiveness by “first observation” groups collectively and for each participant individually. A scatterplot of responsive and adult-initiated directiveness was divided into four quadrants according to the mean of each variable. Participant fit into quadrants was explored and described. Lines of best fit identified the emergence or absence of a pattern.

Structured Activity indicates the presence or absence of a structured setting such as a structured activity, snack time, meal time, nap time, bed time, or bath time. This context variable was layered in a cross-tabulation of directive behaviors to produce frequencies and rates separately for behaviors that occur in structured contexts and those that occur in unstructured contexts. These rates were explored collectively in context groups and individually for each participant.

Results

Child and Family Characteristics

Table 2 describes the family characteristics of each participant as well as the characteristics of their observations. As seen in Table 2 analyses of maternal behaviors were based on different amounts of time for each participant. Therefore, the raw frequencies reported in Table 3 are misleading comparisons of mothers' behaviors. Table 3 should be used solely for background information on each participant. Analyses in the current study are based on rates of maternal behaviors that compensate for the range in amount of time considered. The prorated data considers only behavioral tendencies that were possible such that maternal directiveness scores were not penalized for the absence of directive behaviors when the mother was not present with the toddler or the toddler was sleeping. Figures one through seven (found in the appendix) represent the data collected for each participant organized in the flow of a twelve-hour day. Data analyzed in the current study was collected at different times on three different days, but was meant to represent behaviors that occur throughout a typical twelve-hour day in the life of each family. Therefore these figures present participants' data in the context of the time flow in a day. Each figure is sectioned into the times periods in which the toddler was observed and presents his or her primary caregiver during each block of time. The figures also indicate within which time block each mother was initially observed interacting with her toddler as well as the location of this initial interaction. The figures present mothers' observed directiveness rates during each section of time as well as their directiveness during initial observations.

Table 2

Family Characteristics

ID	Focal Child Age in Months	Focal Child Gender	Maternal Ethnicity	Enrollment in Group Care	Intervals Home Awake w/ Mother	Intervals in Structure at Home	Time of 45 min. First Home Observation
1	26	Female	White	No	900	42	6:00-6:45
2	35	Female	African American	Yes	317	11	6:20-6:45 & 7:00-7:20
3	15	Female	White	Yes	240	0	5:15-6:15
4	27	Male	White	Yes	181	0	5:25-5:28 & 6:00-6:42
5	21	Male	African American	No	360	0	12:00-12:45
6	14	Female	White	No	390	116	12:00-12:45
7	12	Male	White	Yes	299	0	4:04-4:45 & 5:00-5:04

Table 3

Frequencies of Directive Behaviors

ID	Responsive Directives	Adult Initiated Directives	Initial Observation Responsive	Initial Observation Adult Initiated	Structured Activity Responsive	Structured Activity Adult Initiated
1	1	20	1	4	0	1
2	0	31	0	13	0	3
3	0	30	0	20	0	0
4	1	25	0	13	0	0
5	0	5	0	0	0	0
6	0	17	0	10	0	3
7	2	13	1	4	0	0
Total	4	141	2	64	0	7

Hypothesis 1: Heterogeneity in Directiveness

Descriptive statistics presented in Table 4 suggest that mothers' rates of directive behaviors vary greatly with a mean of 7.11 and a standard deviation of 5.10. Total directiveness rates, shown in Figure 8, range between individuals by 12.98 percent of the time mothers were present with their toddlers.

Hypothesis 2: Initial and Subsequent Observations

Descriptive statistics suggest that mothers tend to be directive most often during the first 45 minutes of observation. The mean total directiveness rate for mothers in the current sample was 10.48 % in the first 45 minutes they were observed and only 3.84 % during subsequent observations. Further, 83.54% of all directive acts observed occurred in initial observations.

Table 4

Rates of Directive Behaviors

ID	Total Directiveness Rate	Responsive Directiveness Rate	Adult Initiated Directiveness Rate	Responsive / Total Directives
1	2.33%	0.11%	2.22%	4.76%
2	9.78%	0.00%	9.78%	0.00%
3	12.50%	0.00%	12.50%	0.00%
4	14.36%	0.55%	13.81%	3.85%
5	1.39%	0.00%	1.39%	0.00%
6	4.36%	0.00%	4.36%	0.00%
7	5.02%	0.67%	4.35%	13.33%
Mean	7.12%	.19%	6.92%	3.13%
SD	5.10	.29	5.04	4.94

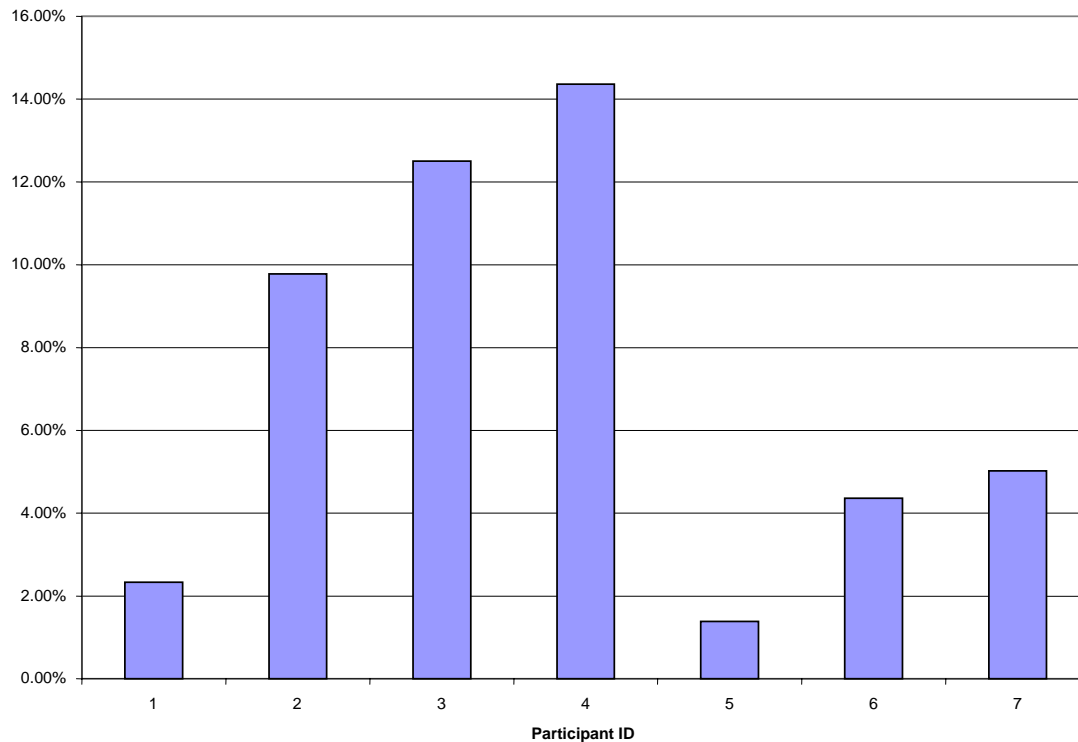


Figure 8. Total Directiveness Rates.

Figure 9 presents shows individual rates in initial and subsequent observations. The only mother who did not show a higher rate of directiveness during the initial observation was an extreme outlier in terms of her overall interaction with the focal child. The continuous qualitative logs report only 14 total interactions between this mother and her toddler, six of which are short-lived refusals of his requests or social bids such as pushing him away from leaning on her or telling him to be quiet. The observers indicated that this mother did not seem to be feeling well during the observation.

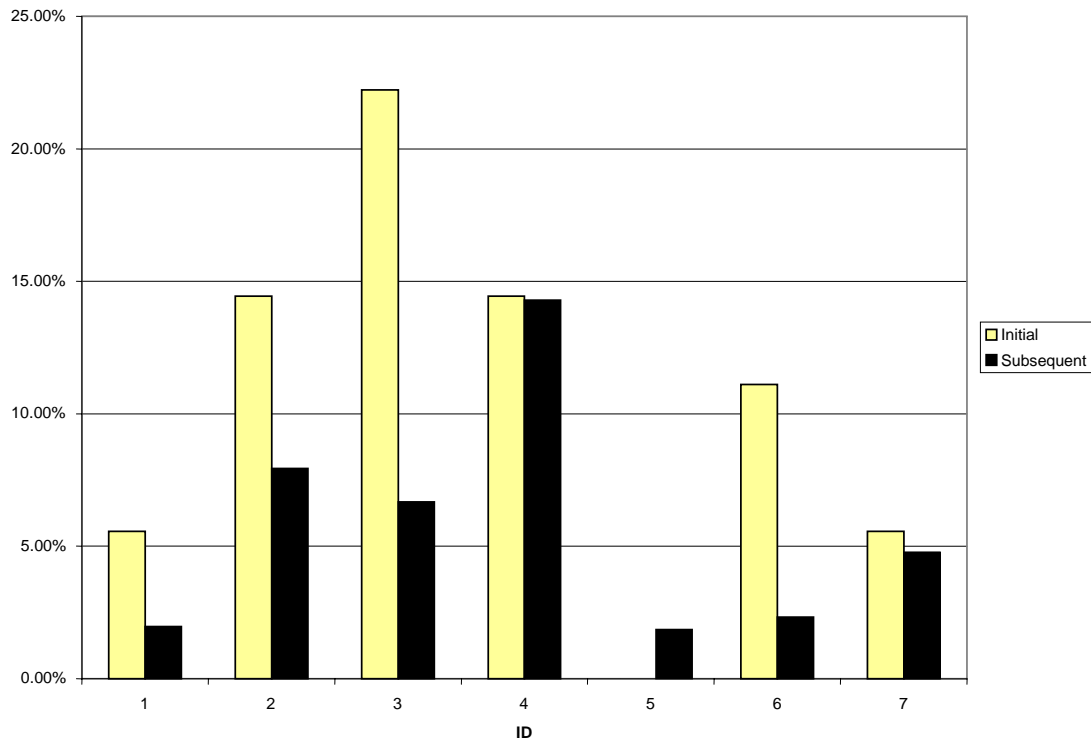


Figure 9. Initial and Subsequent Observation Directiveness.

Hypothesis 3: Separating Directiveness and Contextual Variation

The initial analysis plan called for an examination of maternal directive behaviors in and out of the context of structured activities. Only three toddlers engaged in any structured activities while in their mothers' care. According to the continuous qualitative logs, the mothers who engaged their children in structured activities only did so for meal times and bathing with one exception of a brief book reading episode. These logs indicate that the mothers who did not provide any structured activities allowed their toddlers to come and go to food that was provided without interrupting the toddlers' play activities. One such mother provided food for her son at McDonald's and occasionally asked him if he wanted a bite to eat as he ran back and forth between a large climbing structure and arcade games.

The initial analysis plan also called for an examination of responsive versus adult initiated directiveness in and out of the context of structure. Frequencies reveal only four total acts of responsive directiveness. Figure 10 displays directiveness in a scatter plot of mothers' rates of adult initiated directiveness and responsive directiveness divided into four quadrants by the mean of each variable. Mothers varied notably in the proportion of their total directive behaviors that were responsive from 0% to 13.33%. It is evident from this scatter plot that a pattern relating responsive directiveness to adult initiated directiveness does not emerge. The small number of responsive directives inhibits further analysis of responsive directiveness.

Therefore, the current analyses explore other contextual variables that may influence directive behaviors. Directive acts were located on the behavioral checklists and matched with the behavioral contexts that occurred simultaneously according to the continuous logs. These descriptions of the interactions occurring during directive acts were examined for trends. Reading analyses of the contexts surrounding maternal directive behaviors revealed that directive episodes occurred in the context of play. According to the continuous logs mothers directed their toddlers' behaviors in situations such as helping the toddler operate a toy that the child was not successful with alone, encouraging the toddler to continue riding a toy around the yard, and tickling the toddler. Furthermore, analyses of the qualitative logs revealed that mothers directed their toddler behaviors during episodes of caregiving. Mothers directed their toddlers while changing their diapers, putting their clothes on, and bathing them. Mothers were also directive during meal times. Another trend emerged that appeared to relate to the safety of the toddler. Mothers directed their toddlers' behaviors in situations such as the toddler was handling sharp nails, the toddler was attempting to climb onto the arm of a couch and the mother indicated that

she had fallen off the last time she did this, and the toddler was running toward the parking lot alone.

Descriptive statistics of the behavioral checklists also revealed that mothers directed their children’s behaviors at a higher rate when they were caring for their children outside of their homes, including in their yards, in a public place, or in another person’s home. The current sample’s mean directiveness rate reached 6.52% when mothers were outside of their homes, but only 2.38% when they were in their own homes. This result could be confounded with results from hypothesis two for participant number four. Participant number four’s initial observation occurred while the mother and toddler were in a relative’s home.

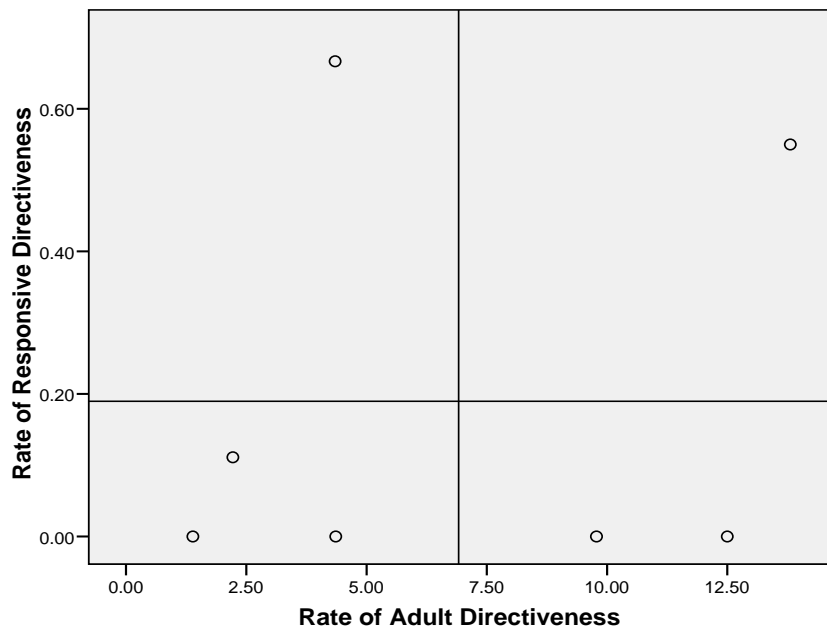


Figure 10. Responsive and Adult Initiated Directiveness.

Discussion

Summary of Findings

The current study explored lower income mothers' directive behaviors using extended observations in order to reflect naturalistic behaviors. Mothers varied greatly in the amount of directiveness they used to alter their toddlers' behaviors. These directive behaviors occurred at a much higher rate during the first segment of time mothers were observed. Directive behaviors did not cluster as either adult-initiated or responsive as expected. Rather, directive behaviors clustered according to the contexts of caregiving or play interactions. Only three toddlers engaged in any structured activities while in the care of their mothers, therefore structure was not analyzed further as a factor relating to directiveness.

Methodology

The most notable contribution of the current study is its exploration of methodology used to observe directive behaviors in a lower socioeconomic sample. Many previous studies have analyzed directive behavior as a single category of interaction and have done so using structured, semi-structured, and short-lived measures (Adenzato, et al., 2006; Crawley & Spiker, 1983; Gmitrova & Gmitrov, 2003; Guezell & Vernon-Fegans, 2004; Hughes, et al., 1999; Kazura, 2000; Kelly, et al., 2000; Moore & Saylor, 1998; Rose-Krasnor, et al., 1996; Stilson & Harding, 1997). The current study questions the validity of both tendencies by using an extended, on-the-mark, naturalistic protocol designed to be less bias toward Western cultural norms and by dividing directiveness into more than one overarching category of behavior. Nine hours of observation for each toddler was collected with the exception of one participant who dropped out of the study after three hour of observation. The current study analyzed maternal behaviors while

the mother was present with her toddler and the toddler was awake. The observations used in the current analysis lasted between 90 to 450 minutes for each participant. The results of the current study suggest that when mothers with lower socioeconomic status are observed for an extended amount of time they vary greatly in the directiveness that they use with their children. The impact of the methodology used on variation in directiveness is further supported by specific exploration into behaviors that occur in the first 45 minutes of observation contrasted to those that occur throughout subsequent observations. The first 45 minutes of observation for each mother reflects the environment observed by measures used in much of the previous literature, whereas subsequent observations demonstrate the difference in behavior that can be captured if observations are extended. Results offered additional support to the importance of extended observations indicating that mothers used considerably more directives in the first 45 minutes of observation. Though results of the current study do not support the expected separation of directive behaviors into responsive and adult initiated directiveness, analyses of qualitative logs offer an alternative division of the variable by the context of mothers' motivations. Results, indicating little structure observed during observations, suggest that studies using structured and semi-structured measures may be creating particularly unnatural environments for participants with lower socioeconomic status even though they may be observed in their own homes. Contributions made possible by the methodology used in the current study are discussed further in the context of testing each of the study's hypotheses.

Hypothesis 1: Heterogeneity in Directiveness

Mothers' rates of directiveness varied greatly between individuals supporting the work of Roopnarine and colleagues (2005) and Fouts, Roopnarine, and Lamb (in press) who used a

similar observational methodology and found greater variation in parenting behaviors in lower SES samples than previous literature has reflected. This leads to speculation that much of previous literature concerning patterns in parenting behaviors associated with socioeconomic statuses, such as Bakerman-Kranenburg, et al. (2004), McLoyd (1998), and Huang, et al. (2005), has too quickly used a deficiency model when considering lower socioeconomic samples. Such studies have approached between group differences as functional and dysfunctional behaviors in the context of the same environment rather than adaptations for thriving in different environments as recommended by Roopnarine et al. (2005). It is likely that the measures used in much of previous literature were not designed to accurately recognize differences among participants in lower socioeconomic statuses, only making distinctions between behavioral categories designed around norms for parents living in middle and upper income contexts. For example, the frequently used HOME inventory gives a score according to the number of books in a house which would lump parents who can not afford to provide their children with many books into one category of providing a less stimulating environment. This score would not take into account the difference between parents who have few books, but stimulate their children's language development with high levels of narration and conversation and parents who have few books, and do not offer much other verbal stimulation. The current findings challenge widespread stereotypes that lump lower income parents into a category of harsh and deficient parenting. Separating this socioeconomic group and identifying more specific risk factors that lead to dysfunctional parenting styles may improve the success of prevention and intervention services.

Hypothesis 2: Initial and Subsequent Observations

The importance of length of observation was emphasized by comparing directive behaviors during the first 45-minute segments mothers were observed to subsequent observations. Mothers' much higher rates of directiveness during their initial observation support the work of Leyendecker, et al. (1997) suggesting that extended observation times across contexts may reflect natural behavior more closely. Results further support Lareau (2003) who explains that mothers in a lower socioeconomic sample tend to be particularly prone to feel uncomfortable and therefore, behave unnaturally when confronted with a research environment.

Even though the current study avoided adding structure and minimized altering the dyads' environments, mothers' behaved differently during the first 45 minutes of being observed by directing their toddlers' behaviors at a much higher rate. These findings question the validity of methods used in previous research such as Kranenburg, van IJzendoorn, & Kroonenberg (2004), Jackson, Brooks-Gunn, Huang, and Glassman (2000), Jackson, et al. (2000), Kotchick, et al. (2005), Mistry, et al. (2002), McLoyd (1998), and Eamon (2001) that suggests mothers in lower socioeconomic samples exhibit poorer parenting behaviors. Inferred by the results of the current study, variances in parenting behaviors attributed to socioeconomic differences found in studies using short-lived, structured, or semi-structured measures may be partially due to lower income samples' tendency to require a longer adjustment period before exhibiting natural behaviors. Considering this finding, most any measure of parenting behavior, such as the HOME inventory, risks inaccuracy unless each family participating has had enough time and rapport built to adjust to the observers' presence and return to comfortable behaviors. The current study suggests that an observation lasting 45 minutes has not reached enough time to balance the

effects of unnatural initial behaviors. The current analyses were unable to identify the most appropriate amount of time for observations because only 45-minute time segments were included. Unfortunately this requires a much less convenient observational protocol for any study examining parenting behaviors in a lower socioeconomic sample. The current findings also recommend extended observation for any assessment of family functioning such as assessments used for intervention services or judicial decisions.

Hypothesis 3: Separating Directiveness and Contextual Variation

Descriptive analyses were used to examine maternal directiveness while the dyad engaged in a structured activity versus directiveness while the dyad was not engaged in structure. This analysis did not prove to be useful due to the insufficient number of dyads that engaged in any structured activities. This finding is consistent with the findings of Fouts, et al. (in press) who sampled across three socioeconomic groups of African American families and observed fewer sustained interactions between parents and their infants, such as those required for structure, in the lowest socioeconomic group. This pattern also supports Lareau's (2003) explanation that families in lower socioeconomic statuses tend to focus on providing basic needs rather than structured routines. This result may be interpreted as a reflection of mothers' priorities due to time constraints or deliberate parenting choices, or it may be interpreted as a weakness in the definition of structure used in the current study.

Time that mothers spend engaging their children in structured activities may be affected by the added stresses of poverty. Mothers living in lower socioeconomic status may not have the extra time to put toward sustaining a structured activity with their child. Added economic stresses may present mothers with the need to prioritize other activities. An excerpt taken from

the continuous logs provides the example of a mother who gave her child food for dinner but did not create the structured activity of dinner time. Instead the mother left the child to eat while watching television and playing with objects. The mother cleaned the kitchen while the child ate. One may infer that the mother did not provide structure during this instance because she prioritized maintaining cleanliness over providing structure due to time constraints that disallowed her to accomplish both. According to the transactional perspective this mother's behavior with her toddler is influenced by the characteristics of her toddler and the results of past interactions (Sameroff and Chandler, 1975). One may also speculate that the mother prioritized her toddler's independence or agreeability over a structured routine. It is possible that the mother chose to leave her child to eat at her leisure because the mother believes that the child would be bothered or upset by the imposed rules of a dinner time and that the benefits of structure do not outweigh the costs of disturbing her child's play. It is also possible that the mother does not perceive structure to have any benefit due to her parenting ideologies influenced by her upbringing, formal, and informal education.

Little structure found during long observation periods may also suggest that the definition used in the current study for structure is more limiting than expected. The "structured activity" variable was defined as part of a larger project designed for observations that occur in homes as well as formal child care settings. This definition seems to apply well in child care settings to activities such as circle time and art time. It may be too constraining when used in the context of a home observation. Mothers may not engage their children in activities with "set structure or rules that have been offered or directed by another individual" (Fouts & Hallam, nd) but they may have established daily routines that are meant to accomplish specific tasks without using

structure or imposing rules identifiable by an observer trained on the previous definition.

Mothers may have a different structure in which they engage their toddlers rather than a lack of structure.

The lack of structure as a norm to families in lower socioeconomic statuses is an important consideration for intervention focus and practice. Recent intervention literature stresses the importance of considering families' routines in assessing needs and implementing interventions (eg. Bernheimer & Weisner, 2007; McWilliam, 2001). This literature also suggests that intervention is less successful if it does not fit into families' natural daily habits (Lowe & Weisner, 2004). Findings from the current study suggest that structured routines rarely occurred even during such long observation periods. Intervention planning that assumes this type of structure may not be accurately capturing families' typical habits and therefore may be problematic to implement.

The current study was originally designed to divide directiveness into adult-initiated directiveness and responsive directiveness. These categories did not suggest two separate measures for the current sample as expected due to an insufficient frequency of responsive directiveness. The vast majority of directiveness for all mothers qualified as adult-initiated directiveness. This result can be interpreted in at least two ways. One may speculate whether the measure's division of directiveness was poorly designed or whether directive acts for the current sample tend to mostly be initiated by the mother rather than in response to the child's needs or social cues.

Qualitative analyses suggested that directive behaviors observed can be grouped according to the context of the interaction occurring around the directive behavior. My

impression is that there appears to be two dominant contexts surrounding directiveness. One dominant context surrounding directive behaviors is mothers caring for the physical needs or safety of their children such as instructing them to stop playing with a sharp nail or to stop moving while their diaper is being changed. The other dominant context of interaction that I identified is mothers playing with their children such as encouraging them to play their part in a game or helping them play with a toy that is difficult for the toddler to operate alone. These results lead to the speculation that directiveness may separate into independent measures according to maternal motivation for the interaction rather than who is the initiator of the interaction. Directiveness may be more successfully divided into that which is done in attempt to entertain a toddler (such as asking the toddler to roll a ball), that which is meant to care for the safety and physical well being of the toddler (such as instructing the toddler to put down a sharp object), and that which is not meant for immediate benefit to the child (such as instructing the child to behave in a socially desirable manner or preventing the child from damaging the property of others). Previous literature concerning scaffolding such as Landry, et al. (1996) leads to the speculation of an attempt to teach as a fourth motivational category for directive acts.

If the method of dividing directiveness used in the current study is not called into question, then results suggest that mothers in the current sample tend to direct their toddlers' behaviors without consideration for the child's needs or social cues. This explanation supports previous literature suggesting that mothers in lower socioeconomic samples tend to use poorer quality parenting strategies (Bakermans-Kranenburg, et al., 2004; Jackson, et al., 2000). This explanation inappropriately generalizes to a large population from a very small sample, perpetuating the deficiency model of differences and limiting the progression of measuring,

understanding, and interpreting parenting behaviors in varying cultural contexts.

Mothers in the current sample were overall less directive of their toddlers' behaviors when they were in the comfort of their own homes. Mothers attempted to control their children's behaviors more when they were outside of their apartments, in a public setting, or in another person's home. These results challenge studies such as Huang, et al. (2005), Kazura, 2000; Kotchick, et al. (2005), LeCuyer-Maus (2000), Mistry, et al.(2002), and Rose-Krasnor, et al. (1996) that have measured parenting behaviors in a lower socioeconomic sample solely in the context of a lab setting. Parenting behaviors in these studies may have been represented as more controlling than they naturally occur due to mothers' lack of comfort or control over the environment. One may speculate that mothers direct their toddlers' behaviors more in environments they are less accustomed to or have less control over for their toddlers' protection. This speculation is supported by the work of McLoyd (1998), Eamon (2001), and Lareau (2003) who suggest that more controlling parenting in lower socioeconomic samples is associated with protecting children from harm. The current study analyzed behaviors that occurred outside of families' homes in their own neighborhoods and behaviors that occurred outside of families' homes in public places such as McDonald's together. An important difference may exist between the two separate contexts for exploring explanations of parenting behaviors. Mothers may have been affected by the perception of judgment by other people in public places. Mothers may have interacted with their toddlers in a more directive manner in public places out of fear that others may be critiquing their parenting style. According to the qualitative continuous logs a mother whose child approached an adult male at McDonald's to examine his food directed the child to come back to her and away from the man. This directive act could be explained by the mother's

desire to protect her child from the stranger, but it could also be explained by the mother's desire to avoid having the stranger critique her for being too permissive with her child.

Limitations

The current study was limited by its small sample size. A larger sample size would have made inferential statistics possible. The variables used for analyses in this study were limited in that the observational tool was not designed to directly measure acts of directiveness. The analyses for the current study were also limited by the absence of a comparison group in regards to socioeconomic status. The current analysis would have benefited from including measures of toddlers' behaviors. The current results were merely the first step in examining the transaction taking place between the mother and child during acts of directiveness. The original design for dividing directive behaviors into more than one variable limited the results of the current study. Qualitative analyses revealed a better strategy for separating directive acts. Measuring directive behaviors using these categories may have increased the contribution this study could have made to the field.

Further Study

Further study of maternal directive behaviors should expand on the current research by exploring socioeconomic effects on directiveness using samples that vary in income level. Future samples should include a larger number of participants to allow for statistical hypothesis testing. Caregivers other than mothers should be included in future studies of directiveness. Further studies should explore mothers' motivations for directing their children's behaviors and create new divisions from which to study different types of directiveness. The results of the current study should be expanded upon by further studies teasing apart differences in directiveness

according to location. They should explore the effects of public places and the outside environment in one's own neighborhood separately. Future studies should attempt to develop a definition of structure that is relevant for a wider variety of contexts.

Even though 12 hours of observation is significantly longer than observations used for analyses in much of previous literature, they only represent one day in the life of a toddler and were collected within a week. Therefore future studies may benefit from observations representing longer amounts of time and spanning more days to control for irregular life events. Future studies should also investigate the time it takes participants to adjust to the presence of observers more specifically, comparing behaviors within a large sample using multiple time intervals.

The current study takes the first step in understanding the exchange between mother and child that occurs during directive acts. Future studies should explore children's behaviors surrounding maternal directive acts for patterns that lead to directive maternal behaviors. The influence that maternal directiveness has on children should be explored. These studies should divide directiveness according to the contexts of the interactions occurring between caregivers and children. Previous attachment literature suggests that affection may play an important roll in determining negative outcomes for children; therefore future studies should explore developmental effects of directiveness separated by the presence or absence of affection given with directives.

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Appendix

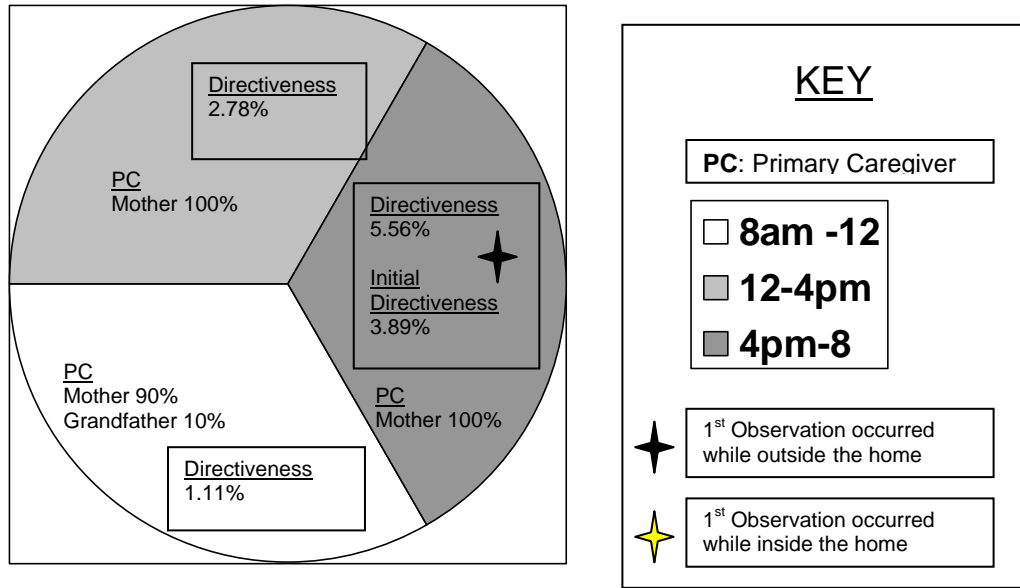


Figure 1. Participant One.

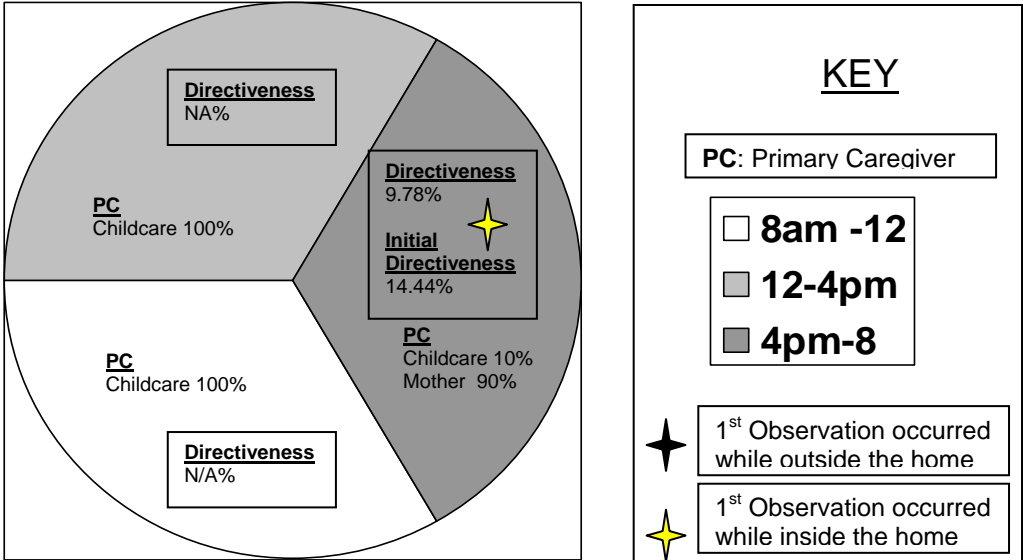


Figure 2. Participant Two.

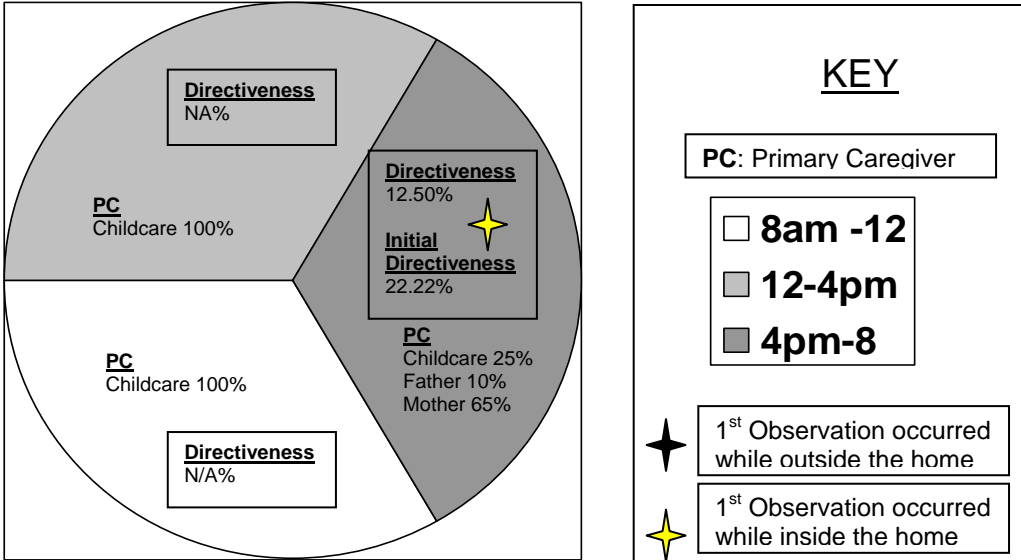


Figure 3. Participant Three.

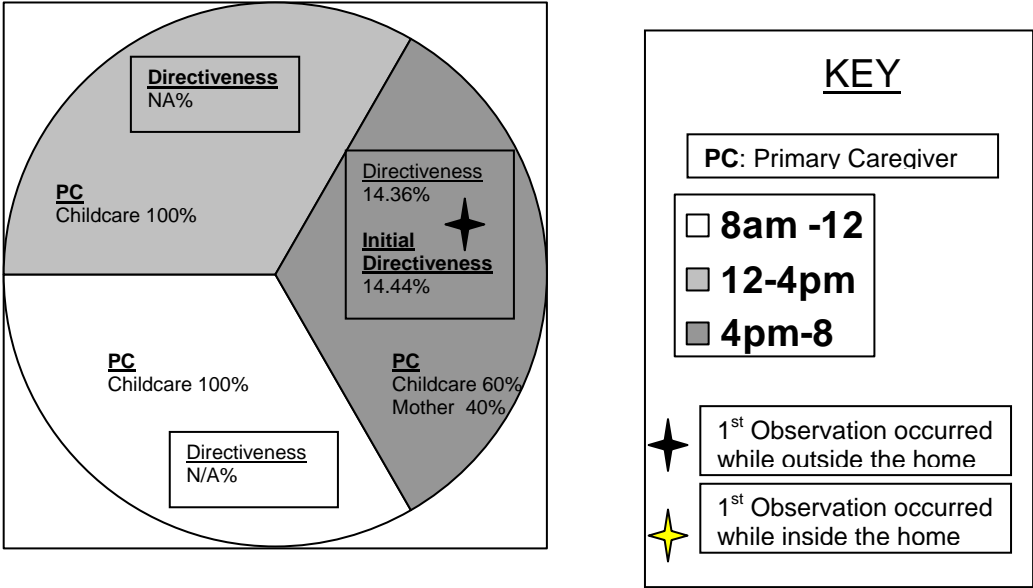


Figure 4. Participant Four.

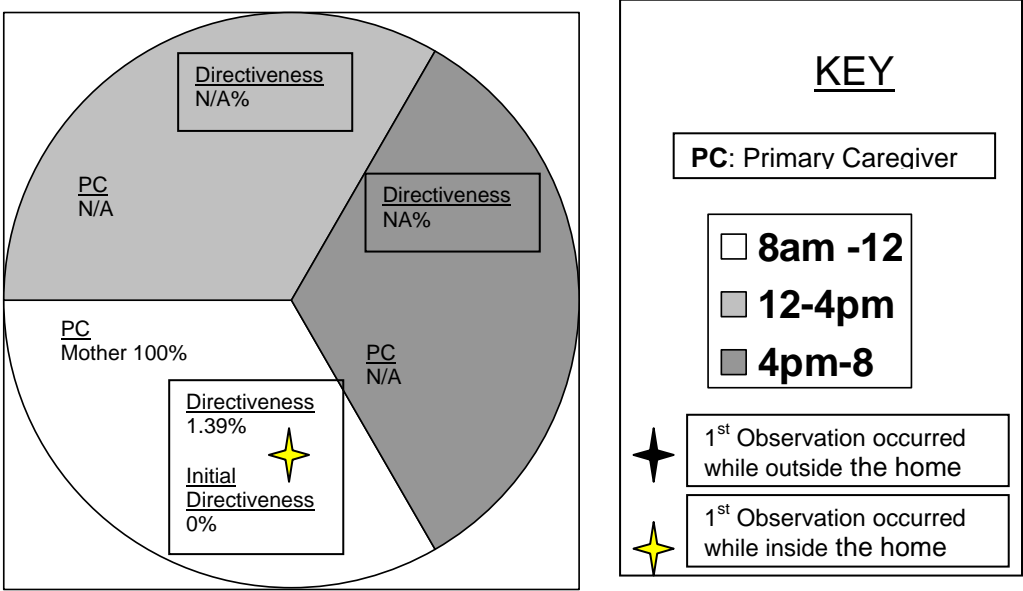


Figure 5. Participant Five.

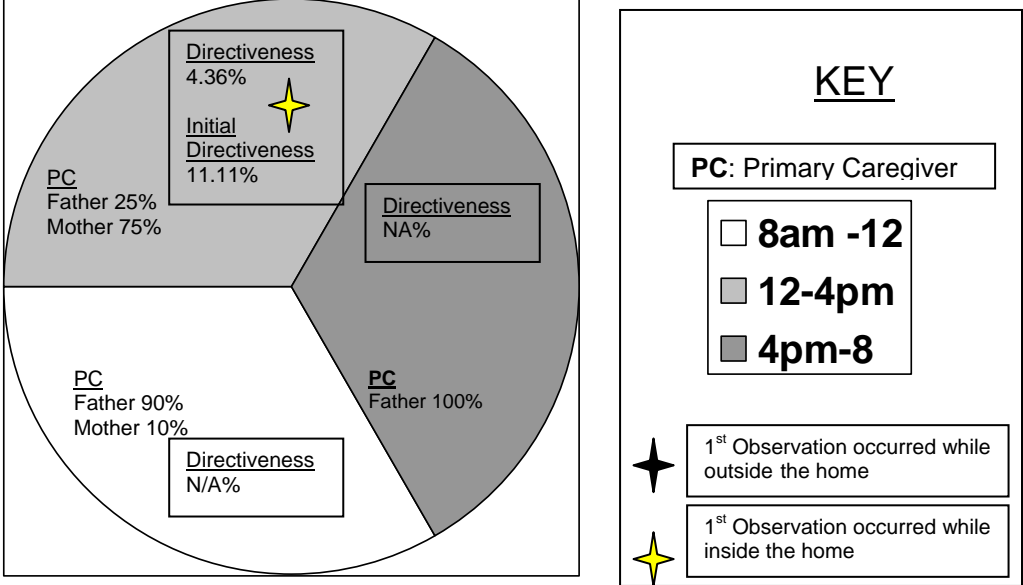


Figure 6. Participant Six.

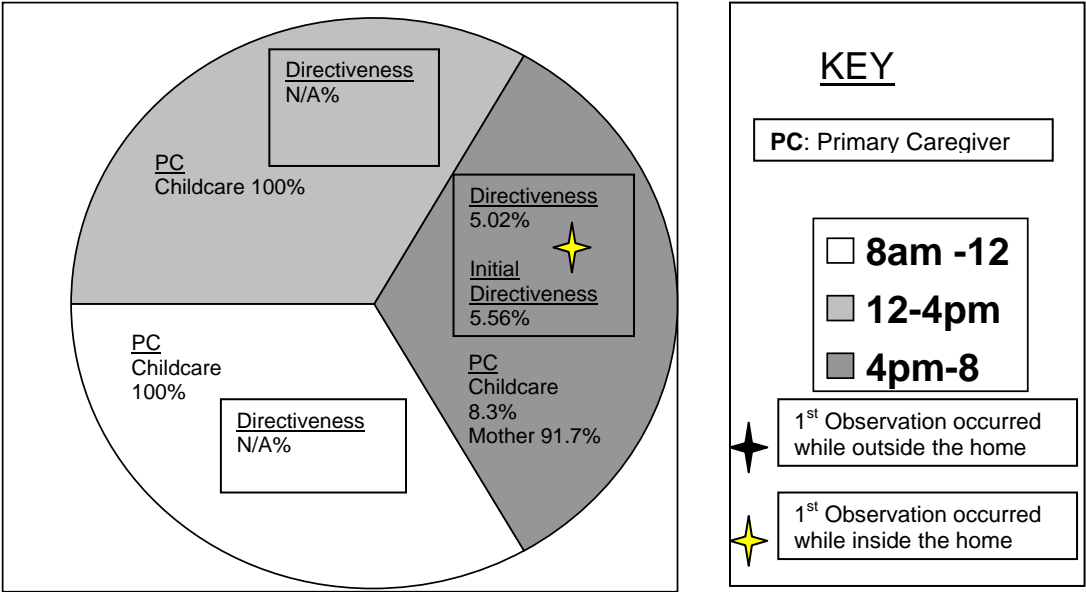


Figure 7. Participant Seven.

Vita

Ann Elizabeth Koelz was born in Arlington, Virginia on November 2, 1981. She was raised in Nashville, TN attending Martin Luther King Academic Magnet School from seventh through twelfth grade. She graduated from high school with a 4.0 in May of 2000. She then attended The University of Tennessee, Knoxville, graduating Summa Cum Laude with a B.A. in Psychology and a minor in Child and Family Studies in December of 2003. She is currently finishing a Master's Degree in Child and Family Studies at The University of Tennessee, Knoxville.