SYMBOLIC PLAY IN LOW-INCOME AFRICAN AMERICAN MOTHER-TODDLER DYADS: MATERNAL BEHAVIORS AND CHILD OUTCOMES

A Thesis Presented to
the Faculty of the Graduate School
University of Missouri

In Partial Fulfillment
of the Requirements of the Degree

Master of Science

---

by

MADELEINE E. EBELING

Dr. Jean Ispa, Thesis Advisor

JULY 2011

The undersigned, appointed by the dean of the Graduate School, have examined the thesis entitled

SYMBOLIC PLAY IN LOW-INCOME AFRICAN AMERICAN MOTHER-TODDLER DYADS: MATERNAL BEHAVIORS AND CHILD OUTCOMES

presented by Madeleine E. Ebeling,

a candidate for the degree of master of science,

and hereby certify that, in their opinion, it is worthy of acceptance.

_____

Professor Jean Ispa

_____

Professor Louis Manfra

_____

Professor Alex Waigandt

ACKNOWLEDGEMENTS

I would like to thank my advisor and mentor Dr. Jean Ispa for providing invaluable guidance throughout my graduate school career. Not only has she been immensely helpful during all phases of my thesis-writing process, she has taught me many things about conducting empirical investigations and considering critical questions. She has exposed me to provocative literature, expanded my research interests and urged me to challenge conventional ways of thinking. She has also facilitated my development as a scholar by supporting my decisions, reading hundreds of pages of writing, and offering erudite suggestions for revisions. Dr. Ispa's commitment to my success has always been apparent and has motivated me to live up to her expectations. I owe my post-graduate achievements to her.

I would also like to thank Dr. Louis Manfra and Dr. Alex Waigandt for their insightful assistance. Their suggestions have given this paper depth and molded it into a substantial and coherent final product. Specifically, I would like to thank Dr. Manfra for helping generate ideas about translating the paper into a relevant and manageable manuscript. He has pushed me to think of ways the paper can be adapted into an attractive empirical article, an article readers will be able to digest. I would also like to thank Dr. Waigandt for encouraging me to consider the results of my research more broadly. He asked me to think about how the findings, even those of marginal significance, fit into the larger story being told by the results. I am very grateful for their contributions.

TABLE OF CONTENTS

LIST OF TABLES

Table Page

ABSTRACT

In this exploratory investigation, low-income African-American mothers and their toddler-aged children were observed via videotaped recordings of semi-structured play activities when children were 14 and 24 months old. Episodes of symbolic play were isolated and analyzed using five different sets of codes. Mothers' symbolic play complexity, attention-directing and autonomy-granting behaviors, involvement type, and purpose for pretend were coded at both data-collection points. These were correlated with children's language scores at both ages and children's symbolic play complexity at time 2. Mothers' behaviors that promoted advancements in children's play activities were consistent across the data-collection period. Across time, mothers' goals seemed to be to influence their children's behavior and scaffold higher levels of pretend play. A number of maternal behaviors at time 1 were significantly related (both positively and negatively) to children's outcomes at 24 months, and many of these behaviors at time 2 were related children's concurrent language and symbolic play competence. Significant correlations are reported in the text and discussed broadly in the final chapter.

CHAPTER 1: INTRODUCTION

Studying symbolic play behaviors has given researchers valuable insight into the development of young children's symbolic understanding and language abilities (e.g., Pellegrini & Galda, 1993; Vygotsky, 1968). Symbolic or pretend play is often defined as representational play where objects, people, and places are transformed along non-literal dimensions and the play context is altered in a way that diverges from reality (Garvey, 1990). Researchers contend that pretend play is characterized by three unique qualities: the dissociation between actual events and the play context, the movement of actions away from their typical environment (e.g., child and mother "make dinner" on the living room floor), and the substitution of objects in a deliberate and symbolic fashion (Casby, 2003). In order to be classified as pretend, a mental representation of the pretend scenario (e.g., demonstrating one's understanding that the floor mat represents a body of water) must be involved, and the pretender must intentionally enact the representational sequence (Lillard, 2001).

Lev Vygotsky was a Russian theorist whose work has stimulated research on child development within sociocultural contexts. Vygotsky believed that pretend play facilitates children's understanding that one thing can represent another, even if the referent is absent (Vygotsky, 1968; as cited in Pellegrini & Galda, 1993). Vygotsky also emphasized the social elements of play, discussing parents' supportive role as they assist their children in mastering tasks beyond the children's current level of functioning (Cheyne & Tarulli, 2005). Evidence of pretend play typically emerges between 18 and 24 months (Ungerer, Zelazo, Kearsley, & O'Leary, 1981); however, research suggests that mothers facilitate children's symbolic play prior to the 18-month marker (Fiese, 1990), justifying empirical investigation of pretend play in

younger children during interactions with their more symbolically competent mothers. Play content tends to progressively include more advanced instances of non-literal acts of pretense (Belsky & Most, 1981), and by the age of 3, children participate in a variety of novel and imitative symbolic play activities (Striano, Tomasello, & Rochat, 2001). Thus, we would expect the complexity and length of children's symbolic play behaviors to increase as toddlers increase in age.

There are also many contextual factors believed to influence children's pretend play competence. Vygotsky (and others) contended that children's development unfolds within a sociocultural context (Palincsar, 2005) and researchers have used this contention to frame empirical investigations of parent-child interactions and child outcomes. This chapter will reflect a similar sociocultural emphasis. The next section will include a discussion of how the social environment affects symbolic play behaviors. The role of mothers will be addressed first before moving on to cultural and socioeconomic influences. Children's understanding of referents is also evident beyond the play context, in emerging language abilities (McCune, 1995); therefore, the final section will examine the relations between language and symbolic play. The introduction will conclude with a presentation of the study's research questions.

The Role of Mothers

Vygotsky conceptualized play in general, and symbolic play in particular, as inherently social tasks (Lave & Wenger, 2005). When mothers are involved in play, children experience play's social elements. They are exposed to different aspects of interpersonal interchange in a fun and, quite literally, playful environment. These social exchanges can foster meaningful parent-child relationships and, when occurring within the context of symbolic play, assist

children in understanding themselves as separate from others as mothers encourage their children to extend the pretense beyond the self (Slade, 1987).

Encouraging children to extend the pretense beyond the self (i.e., encouraging children to consider their play partner's involvement in the pretend sequence and to consider how pretend is constructed by both partners) is one way mothers foster more sophisticated behaviors in their young children. Mothers are more advanced play partners and as such structure dyadic interactions at a level that exceeds a level the child could have reached if playing independently (Rogoff, 1990). Vygotsky's conceptualization of this phenomenon is referred to as the zone of proximal development (Cheyne & Tarulli, 2005). The zone's lower limit is children's current level of functioning. The upper limit is the level children can attain if they receive assistance from an instructor (Santrock, 2008). Research by Laakso and colleagues (1997) and Tamis-LeMonda and Bornstein (1994) have demonstrated that coordinated mother-child interactions can have positive outcomes for children's symbolic play competence and linguistic abilities. Mothers engage in symbolic play in a variety of ways—commenting on the activities, becoming involved as a pretend actor (Slade), and modeling pretend-play behaviors (Nielsen & Christie, 2008)—either through vocalizations or vocalizations, both of which have been shown to be effective in eliciting symbolic play responses from toddler-aged children (Striano, Tomasello, & Rochat, 2001). In short, mothers' scaffolding assists children in becoming more advanced pretenders.

Attention directing. Part of mothers' scaffolding also involves directing the children's attention to particular play themes or objects of interest. Laakso, Poikkeus, Eklund, and Lyytinen (1999) examined the extent to which mothers Maintained (reinforced the child's ongoing activity), Extended (elaborated on the child's ongoing activity), or Redirected (interrupted the

child's current interest) and their children's attention during play interactions at 14, 18, and 30 months. Children's play complexity was strongly and positively related to Extending but unrelated to Redirecting or Maintaining. Maintaining was associated with concurrent language comprehension, and extending predicted later comprehension skills. Redirection had no effect on language. There is still an enigmatic relation between redirection, language and play; behaviors that disregard the children's wishes and direct their attention to an object of mother's interest, have been found to be inversely related to children's language and symbolic play competence in other studies assessing similar variables (Feldman, 2007; Tomasello & Farrar, 1986). Furthermore, mothers may use varying levels of control when directing their children's attention, and this variation could lead to differences in language and play outcomes.

Autonomy granting. In a study of middle-class mothers and their 33-month-old children, Feldman (2007) found that mothers' intrusive or overly controlling actions were more likely than reciprocal, coordinated actions to be followed by functional play (rather than symbolic play) in their young children. Reciprocal, or positive and warm give-and-take mother-child interactions were more likely to be followed by symbolic play behaviors. These synchronous interactions provide children with play options that build on their current focus and objects of interest. Parents who limit their children's play options have children who engage in fewer bouts of complex symbolic play behaviors than parents who support their children's exploration and promote play options (Noll & Harding, 2003).

Some researchers hypothesize that controlling parental behaviors stifle children's innate curiosity by undermining their sense of autonomy (Deci & Ryan, 1985). However, parents' autonomy supportive behaviors may have different developmental outcomes for children of different cultural backgrounds (Dennis, Cole, Zahn-Waxler, & Mizuta, 2002). Unfortunately,

mothers' specific autonomy-granting behaviors are infrequently studied cross-culturally. Thus, it is important to measure the effects of mothers' autonomy granting behaviors on children's symbolic play in samples other than middle-class European Americans. This would broaden our knowledge of how mothers' use of control is related to children's symbolic play behaviors. It would extend current findings beyond European American samples and could provide interesting clues about how culture is conveyed through symbolic play.

The Role of Culture

Vygotsky believed that the parent-child process of dually constructing development is organized by cultural norms; thus, culture shapes children's development (Lave & Wenger, 2005). Parents everywhere have a desire to raise children to be competent members of their cultural group (Hammer & Weiss, 1999), and they manage their children's activities in ways that are conducive to internalization of their culture's unique mores (Le, Ceballo, Chao, Hill, Murry, & Pinderhughes, 2008). Play is often conceptualized as a means through which parents teach their children about culturally appropriate behavioral patterns. It is possible that symbolic play is one avenue through which children learn culturally appropriate modes of affective expression and explore their role as children, play partners, and pretend agents. Symbolic play is unique in that it gives children the chance to learn about emotions and behaviors within the context of a pretend scenario, and then practice these behaviors with a more emotionally and symbolically competent play partner (Uzgiris & Raeff, 1995). It seems reasonable to assume that parents could convey different cultural messages through the pretend themes they present, the amount of autonomy they allow the child, and the role they assume during the play episode.

Interestingly, some cross-cultural research suggests that mothers engage in very similar symbolic play behaviors across cultures. For example, Cote and Bornstein (2009) compared the

symbolic play behaviors of mothers and their 20-month-old children in three cultural groups residing in the United States: European Americans, South American Latino immigrants, and Japanese immigrants. The researchers found that, across cultures, mothers and children engaged in similar amounts of exploratory and symbolic play, and mothers who used more symbolic play had children who also engaged in more acts of pretense (Bornstein et al., 1999). However, European American mothers were more likely to solicit their children's attention and demonstrate play behaviors than mothers of the immigrant cultural groups. The researchers suggested that this finding reflects a greater emphasis on language and language learning among European American families (Cote & Bornstein).

These cross-cultural differences have received speculative interpretation, but very little empirical research has been conducted on the question of *why* mothers engage in certain behaviors during pretend play episodes. Differences in mothers' goals for pretend and their purpose behind using pretend play may reflect cultural differences in parenting and childrearing. For example, a mother may redirect her child's attention in an attempt to distract her child from misbehavior. In another episode, a mother may redirect her child's attention because she does not believe the child is playing with the materials correctly. In the first example, the mother may be using redirection to avoid using punishment. It is possible this behavior has been influenced by her cultural belief that toddlers should be redirected rather than told no. In the second example, the mother's behavior may reflect a cultural belief that mothers should use play to teach their children correct behaviors.

Some researchers have attributed differences in parenting practices during play and teaching tasks to cultural differences in what constitutes "good" or "effective" parenting and how a cultural group defines the parenting role. For example, Taiwanese and Chinese parenting

practices tend to emphasize the importance of guidance and training whereas European American parents tend to focus on the child's independence (e.g., Chao, 1994). In a teaching task Wang (2011) found that Taiwanese parents (living in Taiwan) were more likely to hold the child's hands to demonstrate the task and interrupt the child's exploration in favor of promoting appropriate behavior. European American parents were more hands-off during the task and tended to let their child lead the activity. Despite differences in the amount of autonomy allowed by parents in each group, children learned the task equally well.

Although some of the aforementioned studies have investigated cultural groups residing in the United States, there is a paucity of research on symbolic play interactions among minority cultures, including African American populations. Previous research has found both similarities and differences in parenting practices and child outcomes between African Americans and members of other cultural groups (e.g., Ispa, et al., 2004; Tamis-LeMonda, Briggs, McClowry, & Snow, 2008). For example, previous research has found that African American mothers' parenting practices tend to be more controlling than European American mothers' practices (Bradley, Corwyn, McAdoo, & Garcia Coll, 2001: McLoyd & Smith, 2002), but their controlling behaviors are often paired with high levels of positivity (Murry et al., 2001; Tamis-Lemonda, Briggs, McClowry, & Snow, 2008). This style of parenting has been linked to positive developmental outcomes for older African American children (Brody & Flor, 1998), and in a large study of African American, European American, and Mexican American mothers and their 15-month-old children, Ispa and colleagues (2004) found that the association between intrusive parenting and negative child outcomes was moderated by parental warmth, but only for African American families. To the extent that control is part of normative parenting practices and integrated into mothers' beliefs about effective parenting, we would not expect to see the same

negative effects on symbolic play that Feldman (2007) found in her sample of middle-class European-American toddlers.

The Role of Socioeconomic Status

Differences in parenting beliefs and practices have also been found in families of different socioeconomic statuses, which again, may influence the behaviors, themes, and outcomes of symbolic play. Scheffner Hammer and Weiss (1999) documented the play interactions of 6 low-income African American mother-toddler dyads and 6 middle-income African American mother-toddler dyads. Although they observed few group differences in mothers' play behaviors, middle-income mothers were more likely to saturate the play environment with language. They verbally initiated play more frequently, and they used more and a greater variety of words than their low-income counterparts. However, the percentage of play interactions initiated by mothers was significantly smaller and the percent initiated by children was significantly higher in middle-income dyads. In their discussion, the authors say the interactive style of most of the mothers would be described as directive; directive behaviors were typically used to keep children on task. These behaviors, like those evidenced in the Taiwanese mothers, may reflect the African American cultural construction of parenting as requiring the use of behavioral control to maintain the child's focus on the task.

In her review of the literature on play, Doris Pronin Fromberg (1999) asserted that while some research suggests that low-income children develop symbolic play slower than children in middle-income homes, mothers' participation in the pretend play sequences stimulates children to play at more advanced levels, regardless of socioeconomic status. She cites the work of Levenstein (1992) who claimed that all mothers teach their children play skills and low-income mothers are capable of facilitating the same play-skill improvement as middle-income mothers.

In a review of work on preschoolers' sociodramatic play (pretend play in a peer context), McLoyd (1982) expressed concern about methodological flaws in empirical investigations of pretend play in low-income children. In particular, she questioned the validity of findings concerning social class differences in verbalizations and play themes.

Despite the considerable length of time since McLoyd's publication, there is still a need for in-depth investigation of symbolic play interactions in low-income families, particularly ethnic minority families in the United States. Describing parent-child symbolic play interactions in these families is important, especially given the myriad environmental stressors that influence parent-child relationships, parenting behaviors, and children's developmental outcomes in low-income families (e.g., Ceballo & Hurd, 2008; Dupere, Leventhal, Crosnoe, & Dion, 2010; Li-Grinning, 2007). For example, researchers suggest that controlling parenting techniques may be adaptive for families living in highly stressful or aversive environments (Brody & Flor, 1998). Parents may increase their restrictions and utilize control methods in an attempt to buffer their children from the ill effects of dangerous neighborhoods (Brody & Flor; Jarrett, 1997). Brody and Flor examined parent-child relationships in African American dyads with slightly older children and discovered that controlling but warm parenting was positively related to child development outcomes including self-regulation.

It is possible that parental control and the dangers associated with living in low-income neighborhoods could be related to the content and nature of symbolic play behaviors in interactions between mothers and their young children. For example, the same controlling practices seen in mothers of older children may be evidenced symbolic play interactions. Even with young children, mothers' restrictive behaviors could have positive and protective effects. These may be the first signs of mothers trying to control their children's behaviors in order to

prevent their children from experiencing the negative outcomes associated with living in an aversive environment. Unfortunately, symbolic play behaviors remain understudied in samples of low-income mothers and their toddler-aged children. Thus, an investigation of these relations is warranted and could provide insight into the nature of mother-child symbolic interactions as well as children's language outcomes.

Language and Symbolic Play

According to Vygotsky, the dialogue that takes place during parent-child play interactions facilitates children's linguistic competence, symbolic understanding, and the development of advanced cognitive processes (Vygotsky & Luria, 1994). Indeed, studies have found that mother-child interactions influence children's symbolic play competence and language proficiency scores (e.g., Laakso, Poikkeus, Eklund, & Lyytinen, 1999). Multiple researchers have demonstrated relations between symbolic play and young children's developing language abilities. Children whose language skills develop earlier than their peers' tend to demonstrate more complex symbolic play behaviors than late-talking children (Lyytinen, Poikkeus, & Laakso, 1997). Similarly, children with language delays engage in fewer episodes of symbolic play, though the rates of functional play are comparable across language groups (Rescorla & Goossens, 1992). The associations between symbolic play behaviors and language abilities highlight the importance of symbolic play as an avenue for empirical investigation of child development outcomes (McCune, 1995).

A number of studies have demonstrated that time spent in symbolic play and symbolic play complexity are related to concurrent and later measures of linguistic competence. For example, Tamis-LeMonda and Bornstein (1994) found that 13-month-old children's receptive vocabulary was positively related to their concurrent symbolic play competence. Furthermore,

13-month symbolic play competence predicted 20-month semantic diversity (variety in categories discussed by the child), which was strongly related to children's symbolic play competence at 20 months. Similarly, Laakso, Poikkeus, Eklund, and Lyytinen (1999) found that children's symbolic play at 14 months was related to language comprehension at 18 months. Knowledge of symbols may help children understand the referential nature of both language and pretend play (Bornstein, Haynes, O'Reilly, & Painter, 1996; Laakso et al., 1999). Indeed, children's lexical development is highly correlated with the onset of symbolic play (McCune, 1995), and children's language comprehension, vocabulary production and length of utterances are all related to the percent of time children spend engaged in symbolic play (Lyytinen et al., 1997).

Present Study

Children aged 14 and 24 months were targeted for the current analyses for a number of reasons. Although children do not reliably engage in pretend play before 18 months (Nielsen & Dissanayake, 2004), when mothers involve themselves in children's play activities (as opposed to when children play alone) they facilitate more complex symbolic behaviors even before the 18-month mark (Fiese, 1990). Mothers' symbolic play complexity when their children are 13 months is positively related to children's concurrent symbolic play (Lyytinen et al., 1999) and children's symbolic play competence at earlier ages is significantly related to the later language comprehension (Laakso et al., 1999).

Mothers also model symbolic play activities (Nielsen & Christie, 2008) and use language associated with pretend (Lillard & Witherington, 2004) to enhance their young children's symbolic play behaviors prior to 18 months. Although children typically demonstrate symbolic play behaviors between 15 and 21 months of age (Nielsen & Dissanayake, 2004), when mothers

demonstrate how to play with a new toy as a way to increase their children's playing options and affirm their children's behaviors through verbal encouragement, children as young as 12 months show increases in time spent in symbolic play (Noll & Harding, 2003). Therefore, mothers' behaviors at time 1 (when their children were 14 months old) may give us considerable insight into the development of symbolic play, development that happens rapidly during toddlerhood (e.g., Tamis-LeMonda & Bornstein, 1994).

Fourteen-month-old children's symbolic play was not assessed in this study. This was done for practical and theoretical reasons. Given the large amount of coding that took place, it was difficult to justify adding additional codes (and additional correlations) when children were not expected to reliably demonstrate pretend play behaviors. It was very difficult to disentangle children's symbolic play from mothers' symbolic play at this young age, and establishing children's intent to enact a representational sequence was challenging. Also, the primary goal of the study was to assess how mothers' behaviors related to children's development. Although relations between maternal behaviors and concurrent child outcomes were assessed, the primary investigative goal was to examine how maternal behaviors were related to child outcomes over time. Therefore children's symbolic play behaviors were only assessed at time 2.

Research Questions

Given the exploratory nature of the present study, the first question to be answered relates to mothers' behaviors across time.

Are mothers' behaviors stable across the ten-month length of time? In other words, do mothers engage in the same or similar behaviors when their children are 14 and 24 months of age?

1. Do mothers' behaviors at time 1 (with their 14-month-old toddlers) correlate with

the same behaviors at time 2 (with their 24-month-old toddlers)?

Do mothers' symbolic play behaviors relate to children's concurrent and future symbolic play behaviors and language abilities?

2. Do mothers' symbolic play behaviors at time 1 correlate with children's concurrent language abilities?
3. Do mothers' symbolic play behaviors at time 1 predict children's symbolic play complexity, initiation of symbolic play and language abilities at time 2?
4. Do mothers' symbolic play behaviors at time 2 correlate with children's concurrent symbolic play complexity, initiation of symbolic play and language abilities?

How are mothers' attention-directing behaviors related to children's concurrent and future symbolic play behaviors and language abilities?

5. Do maternal maintaining, extending, redirecting, and directing unoccupied behaviors at time 1 correlate with concurrent language abilities?
6. Do maternal maintaining, extending, redirecting, and directing unoccupied behaviors at time 1 predict children's symbolic play complexity, initiation of symbolic play and language abilities at time 2?
7. Are maternal maintaining, extending, and redirecting behaviors at time 2 related to children's concurrent symbolic play complexity, initiation of symbolic play, and language abilities?

How do mothers' autonomy-granting behaviors relate to children's concurrent and future symbolic play behaviors and language abilities?

8. Do mothers' autonomy-granting behaviors at time 1 correlate with children's concurrent language abilities?

9. Do mothers' autonomy-granting behaviors at time 1 predict children's language abilities and symbolic play behaviors at time 2?
10. Do mothers' autonomy-granting behaviors at time 2 correlate with children's concurrent symbolic play complexity, initiation of symbolic play, and language abilities?

How are mothers' goals for pretend play related to their children's concurrent and future symbolic play behaviors and language abilities?

11. Are mothers' goals for pretend play behaviors when children are 14 months old related to children's concurrent language abilities?
12. Do mothers' goals for pretend play behaviors at time 1 predict children's symbolic play complexity, initiation of symbolic play, and language abilities at time 2?
13. Do mothers' goals pretend play behaviors at time 2 correlate with children's concurrent symbolic play complexity, initiation of symbolic play, and language abilities?

CHAPTER 2: METHODOLOGY

Participants

In order to investigate these questions, videotapes of 32 mothers and their children during play interactions were coded when the children were 14 and 24 month old. The videotapes were created for the Early Head Start Research and Evaluation (EHSRE) project. All mothers were low-income, African American women who qualified for Early Head Start services. Upon entrance into the program, mothers were randomly assigned to either receive Early Head Start services or to serve in the control group. Twenty mothers in this sample received Early Head Start Services and 12 were members of the control group. Eight women were partnered when their children were 14 months old; 24 were not partnered.

When mothers entered into the program, their ages averaged 20.03 years old (SD = 2.95 years) and they had 11.78 years of education (SD = 1.45). Some of the mothers were still enrolled in school throughout the data-collection period, so the average years of education was slightly higher (M = 11.91, SD = 1.17) when the children were 24 months old.

Procedure

Research assistants visited families in their homes when children were 14 and 24 months old. As part of the data collection protocol, mothers were asked to answer a set of demographic questions, to respond to questions from the MacArthur Communication Development Inventory (Fenson, Dale, Reznick, Bates, Thal, Pethick, et al., 1994), and to participate in a 10-minute semi-structured play session with a standard set of toys presented to mothers in a "3-bag" sequence. At both time 1 (when the children were 14 months old) and time 2 (when the children were 24 months old), Bag 1 contained a book; Bag 2 contained a plastic cooking set complete with pots, a spoon, a spatula, a plate, and pretend food; and Bag 3 contained a Noah's ark set

complete with boat, house, Noah and his wife, and a variety of animals. Mothers were asked to play with the bags in order but could divide the time however they liked. Mother-child interactions with Bag 1 (the book) were excluded from the current analyses because this investigation was focused on play behaviors, not mother-toddler book-reading interactions. Dyads' interactions while playing with the contents of Bag 2 and Bag 3 were coded for the purposes of this study (M = 7.33 minutes at time 1; M = 7.43 minutes at 24 months).

Measures

Pretend play. All verbalizations reflecting pretense (e.g., "the animals are sleeping") and all symbolic actions (e.g., making exaggerated eating motions while a spoon was close to their mouths) were coded. Functional play (i.e., the child demonstrating an understanding of an object's functional use; e.g., eating with a spoon) had to be accompanied by vocalizations that located it in the pretend realm. For example, if the child was stirring the contents (real or imaginary) of a pot, the episode was considered pretend only if the action was coupled with a statement that confirmed pretense was intended (e.g., "Dinner is almost ready!"). Both mothers and their children were credited with a symbolic gesture if mothers commented on their children's behavior, rendering an otherwise functional action symbolic. For example, if the child put a spoon to his or her mouth, both mother and child were credited with a symbolic action if mother made a sound associated with eating such as "mmmm" or "tastes good." In this example, the child's action is symbolic by way of her mother's utterance so the child's gesture was also coded as symbolic.

Actions occurring after play had been located in the pretend realm were considered symbolic until the pretend episode ended or until the actor performed another gesture. For example, one mother started putting animals inside the toy house, and for the first couple of

seconds of the episode, she simply said, “Put the animals in the house.” Three seconds later, she exclaimed, “Put them in; it’s raining outside,” and continued inserting animals into the house. The play episode was not coded as symbolic until the mother said it was raining outside. After she located it in the pretend realm, her subsequent actions were coded as pretend until the animals fell onto the ground and she abandoned the activity.

All maternal behaviors when children were 14 months old were coded before behaviors at time 2 were coded. Every effort was made not to code the same dyad at time 2 right after having coded them at time 1. Due to researcher error, three dyads were coded back-to-back. Two dyads were coded this way for mothers’ purposes for pretend and one was coded for type of maternal involvement. All other dyads were coded with at least two videotapes in between viewing the dyad at time 1 and viewing the dyad at time 2. This was done to minimize the extent to which coding of behaviors at time 2 was influenced by any behaviors displayed at time 1.

At both time points the proportion of total playtime devoted to symbolic play was calculated by dividing the number of seconds spent in symbolic play by the total number of seconds spent using the items in Bags 2 and 3. Other researchers have also used the proportion of time spent in symbolic play in their analyses (Bornstein, Haynes, O’Reilly, & Painter, 1996); the absolute length of time dyads spent engaging in play and engaging in pretend play varied considerably across participants. The length of time mothers spent encouraging or facilitating pretend play in their toddlers while simultaneously engaging in their own pretense was also calculated.

Mothers’ pretend play behaviors. All maternal behaviors were coded before children’s behaviors were coded. Mothers’ behavior during pretend play was coded using five different sets

of codes (symbolic play levels, attention-directing behaviors, types of maternal involvement, mothers' autonomy-granting behaviors, and mothers' apparent purpose for using pretend).

Mothers' symbolic play levels. The mother codes for symbolic play described five progressively more complex levels (see Table 1 for a full description and examples): (1) Self-, (2) Other-, (3) Combinatorial-, (4) and Substitutional-pretend, and (5) Object as Active Agent. *Self-pretend* referred to self-related activities such as eating that were accompanied by sound effects (e.g., mmmm) or elaborations (e.g., making exaggerated eating motions with the mouth). These gestures and sound effects signified an understanding of the action's pretense as separate from the object's functional use. *Other-pretend* extended the pretense beyond the self. This included instances when others were part of the pretense (e.g., child feeds mother) or when the actor pretended to be someone else (e.g., child pretending to cook).

Combinatorial-pretend was coded when several play schemes were enacted in a related way. The code was applied to three types of scenarios. It was used during instances when a single scheme was enacted with several agents (e.g., the mother put the animals to sleep and then put the toy man to sleep), instances when different schemes were enacted on the same agent (e.g., child walks the elephant down the ramp and child has elephant eat), and when different schemes were enacted in sequential order (e.g., the mother said, "Let's cook it," then said, "Okay, it's done."). *Substitutional-pretend* included instances when one object was substituted for another in a deliberate fashion (e.g., child used the spoon as a phone). This required advanced understanding of the relation between an actual object (the spoon) and its representation (a phone). *Object as Active Agent* was coded when there was clear personification happening. The objects were given life-like features or treated as real. For example, one mother animated an elephant walking up the ramp saying, "They want to go up on the boat!" McCune (1995) argued

that giving these objects animate properties involves prior representation of the object as animate, thus it is indicative of more complex symbolic understanding.

Mothers were also given two additional codes (see Table 1): (6) Mother Encourages Self-pretend, and (7) Mother Encourages Other-pretend. As the code names imply, these codes were applied to instances in which mothers facilitated children's Self- or Other-pretend play behaviors.

Mothers' attention-directing behaviors. The codes used for maternal attention-directing behaviors (i.e., Maintaining, Extending, and Redirecting) were the same as those used by Laakso, Poikkeus, Eklund, and Lyytinen (1999; see Table 1). *Maintaining* was coded when mothers sustained their children's ongoing activity. Mothers may have done this by validating the children's actions or by repeating their verbalizations. Maintaining was also coded when mothers engaged in the same activity alongside their children (e.g., mother and child stirred the contents of separate bowls after establishing that they were "cooking") and any other time mothers engaged in pretend play but did not contribute any additional ideas (e.g., mother commented on child's cooking, but did not try to get the child to eat). *Extending* was coded when a mother elaborated on her child's activity or introduced a new element into the child's play episode. For example, a child may have said, "Hot!" after removing a pot from the stove. If the child's mother said, "Let it cool off before you eat it," then the mother was credited with extending. *Redirecting* was coded when mothers interrupted children's ongoing play and diverted their attention to an alternate activity (e.g., the child was stirring and their mother put a lion in front of them—animating it with a roar). Finally, *Directing Unoccupied* was coded when mothers were using pretend to engage their otherwise unoccupied toddlers. Although this code

was not part of Laakso et al.'s coding scheme, it is included here because this behavior is not captured in the previous codes, and this type of attention-directing behavior occurred frequently.

Type of maternal involvement. Maternal involvement was coded as (1) Uninvolved, (2) Commentary, (3) Involved Actor (Slade, 1987), (4) Involved Physically, (5) and/or Involved Director (see Table 1). If children engaged in pretend play without their mother's involvement, mothers were coded as uninvolved. *Commentary* was coded when mothers narrated their children's ongoing activity but did not participate in any other way. This was coded when mothers were watching their children and narrating the pretense, when mothers were setting up other toys but commenting on the children's current focus, when mothers were setting up toys before the dyad engaged with them, and when mothers made sounds associated with cooking or eating (e.g., "MMM"). *Involved Actor* was coded when mothers took on a pretend role during the interaction. This was coded anytime mothers were eating, cooking, trying to involve themselves in the pretend (e.g., "I'm hungry, give me something to eat") or animating pretend objects (e.g., Noah and his wife). *Involved Physically* was coded if mothers were actively engaged but not taking on a pretend role (e.g., mother holds a piece of food to child's mouth so he can blow it). Commentary, Involved Actor, and Involved Physically were mutually exclusive categories. In addition to these codes, mothers could be categorized as an *Involved Director*. Mothers were credited with this behavior if they encouraged the pretend play using explicit instructions (e.g., mother told the child, "Make the animals walk").

Mothers' autonomy-granting behaviors. The codes used for autonomy-granting behaviors were adapted from Ispa et al.'s (in progress) qualitative study of maternal intrusiveness (see Table 1). The codes described how mothers promoted their own agenda and how much control their children had during the pretend episode. *Child has Little Say* was coded when

mothers gave the child very little say in the content or focus of the play. When this was coded, mothers were clearly in charge. *Mother Stops Child* was often coded in conjunction with Child has Little Say. This was coded when mothers forced their children to stop pursuing their own interests, when mothers stopped the children from doing an activity that seemed to interest them. *Child not Stopped but Mother Tries to Redirect* was coded when mothers were trying to direct their children's attention to their agenda but did not actually stop the children's play activity. Sometimes the children followed their mothers' suggestion and sometimes they did not.

Direction Builds on Child's interest was coded when mothers furthered the children's play with directing behaviors. For example, one child had food in his mouth and his mother took this self-pretend behavior to a higher level of pretend saying, "Give me some." Mothers were sometimes coded as *Directing Unoccupied* when their behaviors were designed to involve their children when their children were not yet engaged in an activity. The sixth code was *Child Allowed to Plays as Wishes*. This autonomy-granting behavior was coded when mothers did not interfere with the children's play. Mothers could comment or play with their children, but they followed the children's lead.

Mothers' pretend play goals. The codes for mothers' pretend play goals were also adapted from Ispa et al.'s (in progress) study of maternal intrusiveness. Some codes were omitted and others were added to make coding more applicable to a study of pretend play behaviors. The final coding scheme included 9 codes (see Table 1): (1) To Protect Health and Safety, (2) To Entertain, (3) to Stop the Banging or to Distract, (4) to Offer Other Ideas or Suggestions, (5) to Teach Children How to Play, (6) to Indicate the Child is Playing Incorrectly, (7) to Usher Functional Play into Pretend, (8) to Insert Herself into Pretend as an Actor and (9) to Preserve the Child's Autonomy. *To Protect Health and Safety* was coded when mothers' pretend seemed

to be aimed at protecting their children from germs or teaching their children about the real-life dangers associated with the items. *To Entertain* was coded when mothers seemed to be trying to entertain their children, rather than teach them.

To Stop Banging/to Distract was coded when mothers' apparent reason for using pretend was to distract children from a prohibited or undesirable behavior. *To Offer Other Ideas/Suggestions* was coded when mothers gave their children an alternative to the current use of the toys. This was coded only when it did not seem as though the mother was trying to teach the child about the correct way to use the toys. In contrast, to *Teach Child How to Play* was coded when the mothers showed their children how to play with the toys or to tell them about the toy's pretend function (e.g., "you cook with pots"). *To Indicate the Child is Playing Incorrectly* was coded when mothers told their children they were not playing the right way or engaged in behaviors that signified that their children were not playing properly.

To Usher Functional Play into Pretend was coded when mothers rendered the children's functional play pretend by giving it a pretend label. For example, child might have brought a piece of food up to her mouth and mother ushered it into pretend saying, "MMMM, it's good!" *To Insert Herself into Pretend as an Actor* was coded when mothers' goal seemed to be to directly involve herself in the children's pretense. Mother may have noticed her child eating with a spoon and asked the child if she could have some. Finally, *To Preserve the Child's Autonomy* was coded for mothers who went along with child-initiated pretense.

Variable formation. The codes for mothers' goals for pretend play were numerous. Two codes were mutually exclusive in this category. To Indicate the Child is Playing Incorrectly and to Teach Child How to Play, if coded together, were assigned to the Indicate Child is Playing Incorrectly category. However, all other code combinations were acceptable. This resulted in a

large number of code combinations. A common method for reducing items and increasing statistical power is exploratory factory analysis (Hair & Black, 2000). As the codes theoretically should be highly related to each other, code combinations were loaded into a principal components analysis using an oblique (i.e., promax) rotation. Criterion for factor inclusion was that code combinations had to have a minimum correlation of .4 to the factor and code combinations could not have a correlation within .25 of another factor. Originally, this resulted in nine factors that accounted for 88.811% of the variance. The internal reliability was then calculated for the codes within each factor. Some codes were eliminated order to obtain Cronbach's $\alpha > .700$ for each factor. Two factors were retained that did not meet this threshold. One was retained for conceptual reasons and one was retained because $\alpha > .500$ and the factor contained only two items. Four factors were obtained and named (see Table 2): (1) To Provide Direct Instruction, (2) To Encourage Alternative Ways of Thinking, (3) To Protect Health and Safety, and (4) To Preserve the Child's Autonomy.

To Provide Direct Instruction consisted of three codes ($\alpha = .764$), all of which had a teaching or instructional focus: to Insert Herself into Pretend Play as an Actor + to Usher Functional Play into Pretend, to Indicate the Child is Playing Incorrectly + to Usher Functional Play into Pretend, to Teach Child How to Play. This factor accounted for 15.069% of the variance. *To Encourage Alternative Ways of Thinking* consisted of three codes ($\alpha = .833$), all designed to provide gentle suggestions without imposing on the child's autonomy: to Offer Other Idea/Suggestion + to Offer Other Idea/Suggestion, to Usher Functional Play into Pretend + to Preserve the Child's Autonomy, to Insert Herself into Pretend. This factor accounted for 12.904% of the variance. *To Protect Health and Safety* consisted of three codes ($\alpha = .464$), all of which had a health and safety component: to Protect Health and Safety + to Protect Health and

Safety, to Preserve the Child's Autonomy + to Protect Health and Safety, to Teach Child how to Play. This factor accounted for 9.752% of the variance. Factor 4 *To Preserve the Child's Autonomy* consisted of two codes (α = .571), both of which involved attention being paid to the child's independent behaviors: to Preserve Child's Autonomy + to Preserve Child's Autonomy, to Usher Functional Play into Pretend. This factor accounted for 8.297% of the variance.

Because each of the codes had the same unit of analysis (i.e., length of time mothers seemed to be promoting a particular goal), the codes within each factor were combined and then correlated with children's language competencies and pretend play behaviors. Exploratory factor analyses are typically conducted with much larger datasets. It was used here to help reduce the large number of code combinations. Because the study has a small sample size the resultant factors are unstable and caution should be used when interpreting these results. In the future, this analytic procedure would need to be applied to a much larger sample in order to substantiate the existence of the factors found here.

Children's pretend play behaviors. Children begin to reliably demonstrate pretend play between 15 and 21 months of age (Nielsen & Dissanayake, 2004), so their pretend play behaviors were only coded at 24 months. None of the children were coded immediately after coding their mothers' behaviors. This was done to minimize the extent to which coding of children's behaviors was influenced by any behaviors their mothers displayed.

The child codes for symbolic play described five progressively more complex levels (see Table 1 for a full description and examples): (1) Self-, (2) Other-, (3) Combinatorial-, (4) and Substitutional-pretend, and (5) Object as Active Agent (see Table 1 for a full description). These codes correspond to mothers' pretend play levels. Children's imitations were coded at their corresponding level of pretense. For example, if a child saw his mother stir the pretend food and

lift the spoon to her mouth to eat, the child was credited with combinatorial-pretend if he copied these gestures and the sequence met the aforementioned criteria (i.e., accompanied by a verbalization that located it in the pretend realm). Most of young children's symbolic play behaviors were imitative; however, previous researchers have argued that these imitative behaviors usher in more advanced levels of symbolic competence (Striano, et al., 2001). Thus, imitations were coded based on the level of complexity manifested in the child's imitative action.

Coding strategy. Each set of codes was applied to every pretend play episode. For mothers, symbolic play levels, attention-directing behaviors, type of maternal involvement, autonomy-granting behaviors, and mothers' pretend play goals were coded for every episode at time 1 and time 2. For example, types of maternal involvement and mothers' pretend play goals were applied to each pretend play episode when the children were 14 months old and again when they were 24 months old. Children's symbolic play types were coded for the children at 24 months.

Children's linguistic competence. Linguistic competence was assessed at both ages using the MacArthur Communication Development Inventory (CDI, Fenson, et al., 1994). The CDI includes a series of checklists and Likert scales with words and language samples. Parents were asked to identify the words and phrases that most closely resembled their children's current language use. For example, in the infant version, parents were given a series of nouns and asked to identify all the words their children understood and the words their children understood but could not yet produce.

The infant version of the CDI was used to assess children's language abilities at 14 months. This version measured infants' and toddlers' language productive abilities and language comprehension. Separate scores were obtained for productive vocabulary and language

comprehension. The numbers of words spoken and understood were summed to obtain production and comprehension scores.

The toddler form of the CDI assessed children's language abilities at 24 months. It measured children's productive vocabulary, sentence complexity, and whether or not children were combining words. The method for obtaining productive vocabulary scores mirrored the method used at 14 months. In order to measure sentence complexity, mothers were given a list of paired sentences that were similar in content but differed in grammatical complexity. Mothers were asked which version was more characteristic of their children's current language ability. The number of complex sentences was summed to obtain a score for this scale. Mothers were also given one question asking if their children were combining words. If they answered yes they were given a score of 1 and if they answered no they were given a score of 0.

Fenson and colleagues (1994) reported that both the infant and toddler versions of the CDI had adequate internal consistency, test-retest reliability, and concurrent validity. Low-income children score significantly lower than middle-income children on the CDI; however this measure is widely used with low-income samples though the norms for children living in low-income families are shifted toward the lower end of the scoring system (Arriaga, Fenson, Cronan, & Pethick, 1998).

Inter Rater Reliability

For each set of codes, seven videos (21.875%) were randomly selected to undergo reliability checks. The author was the first coder and coded all pretend play episodes prior to the second coder's viewing. The second coder received training on each set of codes before reliability was assessed. All but one dyad was used for at least one reliability check. Four dyads were coded for reliability on two different sets of codes, but the reliability coder had not recently

reviewed these tapes. Once the second coder was finished, Cohen's Kappa was assessed for each set of codes. In general, the Kappas were high (see Table 1). The *K*s for all but two codes were above .7. The two that were not above this threshold were in the .6-.7 range. Table 1 shows the Kappa coefficients for each code.

Data Analysis Plan

Given the exploratory nature of the study, Pearson correlation coefficients were calculated to analyze the bivariate relations between mothers' behaviors and children's outcomes. First, mothers' behaviors at time 1 and their corresponding behaviors at time 2 were correlated. These behaviors were then correlated with children's language scores at 14 and 24 months and their pretend play behaviors at 24 months. If a maternal behavior at time 1 was significantly related to the same behavior at time 2, and that behavior predicted children's outcomes at time 2, the author ran partial correlations controlling for the maternal behavior at 24 months. The correlations between demographic variables (mothers' age, education, partner status, and program status) and children's outcomes were also assessed. Only one relation was significant. Program status was positively related to children's vocabulary production scores at 24 months. The author ran partial correlations for any maternal behaviors that were related to children's 24-month vocabulary production abilities, controlling for program status.

Given the large number of correlations, it is possible some significant findings happened by chance. Thus, a Bonferroni correction was made and because there were 777 correlations, the corrected P-value = .0000643. This decreased the likelihood of making a Type I error but also decreased the number of significant correlations. All significant correlations are reported in the results section below, and all P-values < .0000643 are given special recognition.

CHAPTER 3: RESULTS

Consistency in Mothers' Behaviors Across Time

The proportion of total playtime mothers spent in pretend play with their children at time 1 was significantly related to the proportion of total playtime mothers spent in pretend play with their children at time 2 ($p = .001$; see Table 3); however, the total amount of time mothers spent facilitating pretend and engaging in it at time 1 was not significantly related to the total time mothers engaged in these same behaviors at time 2 ($p = .031$; see Table 4).

Mothers engaged with their children on a variety of pretend play levels. Different levels were sometimes displayed simultaneously and were given a separate code. For example, a mother was coded as *Encouraging Other-* and performing *Self-pretend play* if she encouraged her child to cook saying, "Cook like Mama" while performing a cooking action (e.g., stirring). Mothers were given credit for *Encouraging Other-, Self-*pretend not *Encouraging Other-pretend* and *Self-pretend play*. This was done to prevent overlapping codes, and to ensure mothers would not be credited two different times for the same behavior. Other code combinations never occurred and some occurred at one age but not the other (e.g., at time 1 no mother engaged in *Combinatorial- and Encouraging Other-pretend play* simultaneously but some mothers did at time 2). Some codes were very similar and strongly correlated (e.g., *Self-pretend* and *Encouraging Self-pretend*). These were combined into one code if $r > .550$. The final categories can be found on the top line of the tables provided below. See notes for descriptions of the combined codes.

Mothers' *Total Self-pretend play* (i.e., *Self-* + *Encouraging Self-* + *Encouraging Self-, Self-pretend play*) at 14 months was strongly correlated with these same behaviors at time 2. Similarly, the total time mothers spent *Encouraging Other-* and engaging in *Self-pretend play*

simultaneously and *Encouraging Other-,* engaging in *Other-pretend play* simultaneously at 14 months were positively related to these behaviors at time 2 (see Table 5). Mothers' *Extending* behaviors at 14 months were also positively related to *Extending* at time 2. Similarly, mothers' *Maintaining* and *Redirecting* behaviors at time 1 were also related to their corresponding time 2 behaviors. *Directing unoccupied* at Time 1 was not significantly related to this behavior at time 2 (see Table 6).

Involved Actor at time 1 was significantly related to her involvement as an actor at time 2. The number of instances where mothers commented on their children's pretend, but did not participate in any other way at time 1 was positively correlated with *Commentary* at time 2. This same pattern was true for *Involved Director* (see Table 7). *Direction Builds on Child's Interest* at time 1 was significantly related to this same autonomy-granting behavior at time 2. *Child Allowed to Play as Wishes* at time 1 was also positively related to *Child Allowed to Play as Wishes* at time 2 (see Table 8)**.** These two autonomy-granting behaviors are the most child-driven of the autonomy-granting behaviors. Thus, the amount of time pretend play was child-driven at time 1 was significantly related to the amount of time pretend play was child-driven at time 2.

Of the four factors included in mothers' goals for pretend, two were correlated with each other at times 1 and 2. To *Provide Direct Instruction* at time 1 was positively related to this same goal at time 2. The same was true when mothers' goal was to *Encourage Alternative Ways of Thinking* because this goal at time 1 was related to the goal at time 2, but relation was only marginally significant (p = .096; see Table 9). Both of these goals involved influencing the children's pretend in some way, despite differences in the directiveness of these goals.

Relations Between Mothers' Behaviors and Children's Self-Pretend Play

The proportion of total playtime mothers spent in pretend play at time 1 was positively related to children's *Self-Pretend play* at time 2 (see Table 10). Mothers' *Total Self-pretend play* at time 1 was positively related to children's *Self-pretend play* behaviors at time 2, even with the corrected P-value (see Table 13). This relationship held even when mothers' *Total Self-pretend play* at time 2 was controlled ($r_{\text{Mothers' time 1 Total Self-pretend play and children's time 2 Self-pretend play. Mothers' time 2 Total Self-pretend play.}} = .683$, $p = .000$). Mothers' *Object as Active Agent-pretend play* at time 1 was also positively related to children's *Self-pretend play* at 24 months with a corrected P-value (see Table 13).

Two attention-directing behaviors at time 1 were related to children's *Self-pretend play* at time 2. *Maintaining* the child's attention and *Redirecting* the child's attention at time 1 were significantly and positively related to children's *Self-pretend play* behaviors when the children were 24 months old (see Table 16).

Two autonomy-granting behaviors at time 1 were related to children's *Self-pretend play* at time 2. *Directing Unoccupied* and *Total Child has Little Say* at time 1 were positively and significantly related to children's 24-month *Self-pretend play*, even with a corrected P-value (see Table 20). *Involved Actor* at time 1 was also significantly related to children's self-pretend at time 2 (see Table 18). *Involved Actor* at time 1 still significantly related to children's self pretend at time 2 even after controlling for *Involved Actor* at time 2($r_{\text{Mothers' time 1 Involved Actor and children's time 2 Self-pretend play. Mothers' time 2 Involved Actor}} = .481$, $p = .006$).

At time 2 the total time mothers spent engaging and facilitating pretend was positively associated with children's engagement in *Self-pretend play*, although this trend was only marginally significant ($p = .099$; see Table 11). Mothers' *Total Self-* and *Encouraging Other-pretend play* were significantly related to children's concurrent *Self-pretend play* (see Table 15),

as were mothers' *Extending* attention-directing behaviors (see Table 17). *Involved Actor*, and *Uninvolved* behaviors at time 2 were significantly related to children's concurrent *Self-pretend play* and *Directing Unoccupied* was marginally related (see Table 19). Although no pretend play goals at time 1 were significantly related to children's *Self-pretend play* at 24 months, to *Protect Health and Safety* at time 2 was significantly related to children's concurrent *Self-pretend play* (see Table 25).

Relations Between Mothers' Behaviors and Children's Other-pretend Play

The only 14-month maternal pretend-play behavior that was significantly related to children's *Other-pretend play* at 24 months was *Combinatorial-* and *Object as Active Agent-pretend play* engaged in simultaneously (see Table 13). Mothers' behaviors at time 1 that were classified as both *Combinatorial-* and *Object as Active Agent-pretend play* at the same time were positively correlated with children's *Other-pretend play* ten months later. The total time mothers spent facilitating and engaging in pretend play at time 1 was marginally correlated with children's time 2 *Other-pretend play* (p = .068; see Table 10). Time 1 *Encouraging Other-*, engaging in *Self-pretend play* was marginally related to children's *Other-pretend play* at time 2 (p =.056; see Table 13), and *Directing Unoccupied* when children were 14 months old was also marginally correlated with children's *Other-pretend play* when they were 24 months old (p = .080; see Table 21).

The total time mothers spent engaging in pretend play and encouraging pretend play in their 24-month-old children was positively related to the amount of time their children engaged in Other-pretend play (see Table 11). Mothers' *Encouraging Other-, Total Combinatorial-,* and *Encouraging Other-* engaging in *Self-pretend play* behaviors at time 2 were all positively related to children's concurrent *Other-pretend play* (see Table 15). Mothers' *Extending* and *Maintaining*

attention-directing behaviors at time 2 were also related to children's concurrent *Other-pretend play* (see Table 17). Similarly*, Involved Actor, Involved Director*, and *Commentary* at time 2 were positively correlated with children's *Other-pretend play* behaviors at time 2 (see Table 19).

Direction Builds on Child's Interest and *Child Allowed to Play as Wishes* were also positively and significantly related to children's concurrent *Other-pretend play* behaviors (see Table 21). Children-driven autonomy-granting behaviors were significantly related to children's *Other-pretend play*; however, *Child Not Stopped but Mom Tries to Redirect* at time 2 was marginally positively associated with 24-month-old children's *Other-pretend play* behaviors (see Table 21). In these instances mothers did not stop their children, but the autonomy-granting behavior did not have the same children-directed features as the significantly correlated maternal behaviors. *To Preserve the Child's Autonomy* at time 2 was also significantly related to children's *Other-pretend play* at time 2. This was the only pretend play goal that was related to children's *Other-pretend play* (see Table 25).

Relations Between Mothers' Behaviors and Children's Combinatorial-Pretend Play

Child has Little Say and *Child not Stopped but Mom Tries to Redirect* coded simultaneously at time 1 was positively associated with children's *Combinatorial-pretend play* at 24 months (see Table 20). This same code was not used at time 2, but this code was significantly related to *Child not Stopped but Mom Tries to Redirect* at time 2. Even when time 2 *Child not Stopped but Mom Tries to Redirect* was controlled, *Child has Little Say, Child not Stopped but Mom Tries to Redirect* at time 1 was still positively related to children's *Combinatorial-pretend play* ($r_{\text{Mothers' time 1 Child has Little Say, Child not Stopped but Mom Tries to Redirect and children's time 2 Combinatorial-pretend play. Mothers time 2 Child not Stopped but Mom Tries to Redirect}} = .370$, $p = .040$).

The total time mothers spent encouraging their children's play and engaging in it simultaneously at time 2 was significantly related to children's concurrent *Combinatorial-pretend play* (see Table 11). Mothers' time spent in *Combinatorial-pretend play* at time 2 was also related to children's *Combinatorial-pretend play* (see Table 15). Mothers' time spent *Encouraging Other-,* engaging in *Other-pretend*, and *Encouraging Other-*, engaging in *Combinatorial-pretend play* were positively related to the time 24-month-old children spent in *Combinatorial-pretend play* (see Table 15).

Extending and *Maintaining* at time 2 were both related to the time children spent in concurrent *Combinatorial-pretend play* and *Maintaining* was significantly correlated once the P-value was corrected (see Table 17). *Involved Actor* and *Involved Director* at time 2 were also positively correlated with children's *Combinatorial-pretend play* behaviors (see Table 19) as was *Direction Builds on Child's Interest, Child has Little Say* (see Table 21). *Child Allowed to Play as Wishes* was marginally positively related to children's concurrent *Combinatorial-pretend play* (see Table 21) along with mothers' goal to *Preserve the Child's Autonomy* (see Table 26).

Relations Between Mothers' Behaviors and Children's Object as Active Agent-Pretend Play

No maternal play behaviors at time 1 were significantly related to children's *Object as Active Agent-pretend play* at time 2. However, when mothers *Encouraged Other-* and engaged in *Combinatorial-pretend play* simultaneously at time 2, it was positively related to children's concurrent *Object as Active Agent-pretend play*. The same was true for *Encouraging Other-* and engaging in *Object as Active Agent-pretend play* when coded simultaneously, and this relation held even when the P-value was corrected (see Table 15). The simultaneous coding of

Combinatorial- and *Object as Active Agent-pretend play* was marginally positively related to children's *Object as Active Agent-pretend play* (see Table 15).

Relations Between Mothers' Behaviors and Number of Child-Initiated Pretend Play Episodes

The proportion of total playtime spent in symbolic play at time 1 was marginally related to the number of child-initiated pretend play episodes at time 2 (see Table 10). However, after controlling for the proportion of total playtime spent in symbolic play at time 2 the relation between symbolic play at time 1 and child-initiated pretend play episodes when the children were 24 months old dropped to non-significant ($r_{\text{Mothers' total playtime spent in symbolic play at time 1 and children's child-initiated pretend-play episodes at time 2. Proportion of time spent in symbolic play at time 2}} = .265$, $p = .149$). Mothers' *Maintaining* behaviors at time 1 were marginally related to the number of child-initiated pretend play episodes.

Involved Actor at time 1 was significantly related to the number of child-initiated pretend play episodes at time 2 (see Table 18), but this relation also dropped to non-significant after controlling for time 2 Involved Actor ($r_{\textit{Involved Actor at time 1 and child-initiated pretend-play episodes at 24 months. Involved Actor at 24 months}} = .265$, $p = .150$). *Direction Builds on Child's Interest* at time 1 was also significantly relate to the number of child-initiated pretend play episodes at time 2 (see Table 20), but this relation also fell to non-significance when *Direction Builds on Child's Interest* at time 2 was controlled ($r_{\text{Time 1 Direction Builds on Child's Interest and number of child-initiated pretend play episodes at time 2}} = .277$, $p = .132$). In contrast, mothers' time 1 goal to *Encourage Alternative Ways of Thinking* was positively related to the number of child-initiated pretend play sequences at time 2 (see Table 23), and remained significant even when controlling for this same maternal pretend play

goal at time 2 ($r_{Encourage\ Alternative\ Ways\ of\ Thinking\ at\ 24\ months\ and\ number\ of\ child\text{-}initiated\ pretend\text{-}play\ episodes.\ Encourage\ Alternative\ Ways\ of\ Thinking\ at\ 24\ months}$ = .548, p = .001).

Mothers' *Encouraging Other-,* engaging in *Other-pretend play* behaviors coded simultaneously at time 2, was significantly related to the number of child-initiated pretend play episodes (see Table 15). Mothers' *Maintaining* attention-directing behavior at time 2 was also positively and significantly correlated with number of child-initiated pretend play episodes when the children were 24 months old (see Table 17). *Direction Builds on Child's Interest, Child has Little Say* at time 2 was marginally positively correlated with the number of child-initiated pretend play episodes. Finally, mothers' time 2 pretend play goal to *Preserve the Child's Autonomy* was positively related to children's concurrent pretend initiations (see Table 25).

Relations Between Maternal Behaviors and Children's Language Scores

Mothers' goal to *Encourage Alternative Ways of Thinking* at time 1 was significantly positively related to children's 14-month vocabulary production scores and marginally positively related to children's vocabulary comprehension scores at the same point in time (see Table 22). No other 14-month behaviors were significantly related to children's concurrent language proficiency. However, *Child has Little Say* at time 1 was marginally negatively correlated with children's concurrent vocabulary production scores (see Table 20).

The proportion of total playtime mothers spent engaged in symbolic play at time 1 was significantly related to children's 24 month sentence complexity scores and marginally related to children's 24 month vocabulary production scores (see Table 10.) Mothers' use of *Combinatorial-* and *Object as Active Agent-pretend play* simultaneously at time 1 was significantly negatively related children's word combinations and vocabulary production scores at 24 months and marginally negatively related to children's sentence complexity scores. The

dyad's program status was positively related to children's vocabulary production (this was the only demographic variable related to any of children's outcomes), but the relation between *Combinatorial-, Object as Active Agent-pretend play* and children's vocabulary production held even when program status was controlled ($r_{\textit{Object as Active Agent, Combinatorial and children's vocabulary production. Program status}} = -.570$, $p = .001$). Mothers' *Encouraging Other-* and engaging in *Self-pretend play* simultaneously at time 1 was also negatively related to children's 24-month word combination scores (see Table 12), and mothers' uninvolvement at time 1 was marginally negatively related to children's language production scores at time 2 (see Table 18). No other maternal behaviors at time 1 were related to children's 24-month language competency.

Mothers' pretend play levels at 24 months were not significantly related to children's concurrent language scores (see Table 14), although *Combinatorial-, Other-pretend play* was marginally related to children's concurrent vocabulary production scores. Mothers' *Maintaining* was significantly related to children's concurrent sentence complexity scores; however, no other attention-directing behaviors were related to children's 24-month language scores (see Table 17). Type of maternal involvement at 24 months had no effect on children's concurrent linguistic competence (see Table 19), yet *Direction Builds on Child's Interest, Child has Little Say* was positively related to children's sentence complexity scores and marginally related to children's vocabulary production scores (see Table 21).

Children's 14- and 24-Month Language Scores and Pretend Play Levels

Children's 14-month language scores were neither related to 24-month language scores nor 24-month pretend play levels (see Table 26). Interestingly, children's 24-month word combination scores were negatively related to children engaging in *Other-pretend play* (see

Table 27). Children's 24-month sentence complexity scores, however, were positively related to children's Combinatorial-pretend play (see Table 27).

CHAPTER 4: DISCUSSION

Vygotsky believed that culturally organized social interactions drive children's development (Lave & Wenger, 2005), and pretend play, which has been shown to affect the development children's symbolic competence (Lyytinen et al. 1999), is one such sociocultural interaction. However, previous cultural investigations of pretend play have notable limitations. Research on symbolic play interactions in low-income African American mother-child dyads is scarce. Cross-cultural research has been conducted on different cultural groups within the United States and around the world, but few have examined the symbolic play styles of African American mothers and their young children. Perhaps this reflects an interest in cross-cultural differences in symbolic play based on autonomy and individualism versus relatedness and collectivism—different ways of orienting toward others. For example, two of the three cultural groups in Cote and Bornstein's (2009) sample were European Americans and Japanese immigrants, two groups who have been shown to emphasize different patterns of interpersonal interactions (i.e., European American parents stress autonomy and individuality whereas Japanese parents focus on relatedness and mutuality; Dennis, Kohl, Zahn-Waxler, & Mizuta, 2002).

It is possible the lack of investigation on other cultural groups within the United States is due, in part, to an emphasis on cross-cultural differences in individualism versus relatedness. Individualism and relatedness are related to pretend play in ways that highlight cross-cultural similarities and dissimilarities. However, there are a number of differences in parenting practices and beliefs (e.g., the cultural conceptualization of mother's role as teacher), unrelated to the issue of individualism and relatedness, that warrant an in-depth investigation of parenting practices among African American mother-toddler dyads. One practice that may differ across cultural

groups is the amount of autonomy mothers grant their children during pretend play interactions. In other words, mothers may differ in the directing behaviors they utilize during episodes of symbolic play.

There is also a paucity of research on the symbolic play interactions of low-income mothers and their young children. Hammer and Weiss (1999) found income group differences in mothers' use of language during pretend play episodes and differences in child-initiated pretend play sequences. And although research on the rates at which low- and middle-income children develop symbolic play competence is inconclusive, mothers' scaffolding—regardless of their SES—has the potential to elevate children's pretend play levels (Fromberg, 1999; Levenstein, 1992; as cited in Fromberg). Much of the symbolic play literature is still based on observations of middle-class parent-infant dyads. This exploratory study was meant to provide such a description through the coding of mother-child play sequences in an Early Head Start sample of mothers and their children when the children were 14 and 24 months old.

Videotapes of thirty-two African American mothers and their children were coded using five different sets of codes as mothers played with their children during a three-bag sequence. Symbolic play episodes were identified and the proportion of time the dyad spent in symbolic play was calculated. Once these episodes were isolated, mothers and children were coded for their symbolic play complexity and mothers were coded according to their attention-directing behaviors, type of maternal involvement, autonomy-granting behaviors, and their apparent purposes or goals for engaging in pretend play. Many of these behaviors were related to children's language and pretend play behaviors, and given the large number of correlations only select results will be discussed here. Some of the very specific results will be discussed more generally in order to make sense of the myriad significant findings.

Consistency in Mothers' Behaviors Across Time

The proportion of time spent in symbolic play and the amount of time mothers spent engaging and facilitating pretend play were consistent across time. Mothers' simple pretend behaviors (e.g., *Encouraging Self-* and *Encouraging Other-pretend play*) were also consistent over the ten-month span of time. Simple pretend behaviors are most suitable for toddlers this young so it is not surprising that mothers demonstrated consistency in these behaviors. Simple symbolic play behaviors are not beyond these children's pretend play competencies.

In general the other consistent maternal behaviors were ones that furthered the children's pretend play. For example, *Extending*, *Direction Builds on Child's Interest*, and *Involved Actor* at time 1 were significantly related to these same behaviors at time 2. The two maternal goals that were consistent across the study's ten-month span were to *Provide Direct Instruction* and to *Encourage Alternative Ways of Thinking*. In both cases mothers' goals were to influence their children's play activities. Across toddlerhood, mothers use pretend play to influence their children's play behaviors, and potentially scaffold more advanced play and strengthen children's symbolic competence. It is possible that these behaviors advance children's pretend play and symbolic competence in some way, either by helping the child understand the role of others in pretend or pushing the pretense to a higher level.

Perhaps mothers who are responsive to their children promote pretend play levels their young toddlers can realistically attain, while scaffolding more advanced pretend by expanding on their children's current focus. Mothers may also feel as though symbolic play is an important feature of mother-toddler play interactions and children's development. This may be why they consistently engage in it over the ten-month span and why they encourage developmentally-appropriate levels of symbolic play. These responsive mothers may also feel comfortable letting

their children lead the interaction so while they consistently elaborate on their children's pretend play they also give their children the opportunity to play autonomously. It is possible that mothers' controlling behaviors were more reactionary, which is why they were not consistent between time 1 and time 2; they were more dependent on moment-to-moment changes in the play scenario. Facilitating the advancement of children's pretend play behaviors may be a characteristic of more symbolically-competent mothers, making these behaviors more consistent across time.

Future investigations could examine which maternal behaviors most often occur together, and once these co-occurring behaviors are identified, researchers may then be able to group mothers according to these behaviors. From there, children's developmental outcomes could be assessed based on the groupings. Perhaps different groups of mothers are more or less likely to facilitate their children's pretend play and linguistic competencies.

This study's initial goal was to provide a more complete picture of mothers' behaviors during pretend play episodes over the course of their children's second year of life. The next step taken in the current investigation was to see how these maternal behaviors related to children's pretend play behaviors and language outcomes.

Mothers' Behaviors and Goals and Children's Pretend Play Outcomes

Mothers' behaviors at time 1 and their relation to children's pretend play behaviors at time 2. The proportion of mothers' total playtime spent in symbolic play at time 1 was associated with children's *Self-pretend play* and number of child-initiated pretend play episodes. *Self-pretend play* is the simplest pretend play type, and tends to be the first symbolic play level children reliably demonstrate (e.g., McCune, 1995). The more time children spend engaging in pretend play with their mothers, the more time they have to develop their own symbolic play

behaviors, and because these children are young, it is likely these behaviors will be relatively simple symbolic demonstrations. Similarly, if children have more exposure to symbolic play at early ages it is not surprising that they are more likely to initiate pretend play at later ages. They have experience participating in it, they have witnessed others' initiations, and they may feel comfortable taking on pretend roles and engaging in pretend play sequences.

Children's *Self-pretend play* behaviors and child-initiated pretend play episodes at time 2 were related to time 1 *Involved Actor*, but this relation dropped to non-significant for child-initiated pretend play episodes after controlling for *Involved Actor* at time 2. This suggests that it is the consistency of mothers' being active play participants that is related to the number of child-initiated pretend play episodes. However, mothers' active participation at time 1 is related to children's *Self-pretend play* behaviors above and beyond mothers' involvement as an actor at time 2. One possible explanation for this is that mother's involvement as an actor gives her the opportunity to model pretend play behaviors in ways she could not if she were only to comment on the child's activities. This could provide children with an understanding of theirs' and others' roles within the pretend-play context, thus stimulating symbolic understanding. Furthermore, when mothers take on an acting role alongside their nascent pretenders, children can explore play's pretend characteristics while their mothers facilitate through active participation.

Children's *Self-pretend play* was correlated with more restrictive maternal behaviors (i.e., *Total Child has Little Say*). It is possible mothers stopped their children to keep them engaged in the pretend play episode. However, child-initiated pretend play episodes were positively related to less-controlling maternal behaviors (i.e., *Direction Builds on Child's Interest* and *Encouraging Alternative Ways of Thinking*), which suggests that mothers who preserve their children's autonomy in early toddlerhood actually help promote children's autonomy and initiative ten

months later. Indeed, to *Encourage Alternative Ways of Thinking* at time 1 was significantly related to the number of child-initiated pretend-play episodes at time 2. In these instances, mothers' goal was to influence the children's behaviors in a way that did not disrupt the children's current activities, thus preserving children's autonomy.

Children's *Self-pretend play* at 24 months was also associated with mothers' *Object as Active Agent-pretend play.* Similarly, children's *Other-pretend play* was positively related to mothers' time 1 *Combinatorial-* and *Object as Active Agent-pretend play* when these behaviors were demonstrated simultaneously. These behaviors might be indicative of mothers' commitment to scaffolding pretend play at levels too advanced for the children to grasp on their own. Children may use these demonstrations as a springboard for their own pretend play at later ages.

Interestingly, the most complex child pretend play level at time 2 that was related to maternal behaviors at time 1 was *Combinatorial-pretend play*, which was related to *Child has Little Say, Child not Stopped but Mom Tries to Redirect*. This code is a combination of restrictive and less-controlling behaviors, which is perhaps what makes it so conducive to promoting more complex play behaviors. Mothers focus their children's attention on pretend play by using non-intrusive attention-focusing methods, which could provide children with a sense of agency and options-promoting opportunities while simultaneously alerting them to the pretend features of the play context.

As children's pretend play behaviors at 24 months increased in complexity (e.g., *Self-pretend play*→*Combinatorial-pretend play*) the number of maternal behaviors at time 1 significantly related to that pretend play level decreased. At the highest level of play complexity, children's *Object as Active Agent-pretend play* was not significantly related to any maternal

behaviors at time 1. One explanation for this phenomenon is that mothers' behaviors at time 1 can and do influence the manifestations of children's pretense at later ages; however, it is not until children are more symbolically competent that mothers' behaviors can influence complex symbolic play. Mothers' early behaviors may facilitate children's development of simple symbolic behaviors, but it is not until children have developed these initial skills that mothers' behaviors can fully scaffold children's complex symbolic play.

Mothers' Behaviors at time 2 and their relations to concurrent pretend play behavior in their 24-month-old children. In general, mothers' pretend play levels at time 2 were related to children's corresponding pretend play levels. Given that many of children's first symbolic play behaviors are imitative (Striano, Tomasello, & Rochat, 2001), the relations between mothers' and children's pretend play levels at time 2 were not unexpected. Extending and *Maintaining* at time 2 were positively related to children's *Other- and Combinatorial-pretend play* as were *Involved Actor* and *Involved Director*. These results suggest children's 24-month symbolic play benefits from concurrent maternal behaviors to the extent that mothers actively participate in elaborating upon or sustaining their children's pretense.

Interestingly, children's *Self-pretend play* was also positively related to *Uninvolved*. Although this finding seems rather bizarre, after considering the circumstances that typically surrounded mothers being uninvolved, an explanation becomes strikingly clear. In order for a play episode to be coded as pretend one or both members of the dyad had to be engaging in some act of pretense. If mothers were coded as *Uninvolved*, their children had to have been engaging in some sort of pretend in order for the episode to be used in these analyses. And because *Self-pretend play* is the most basic level of symbolic play and the first level children typically

demonstrate (e.g., McCune, 1995), it seems logical that children would engage *in Self-pretend play* if not aided by more symbolically-competent mothers.

Children's more complex *Other-* and *Combinatorial-pretend play* behaviors were positively related to *Direction Builds on Child's Interest* at time 2; yet, *Child Allowed to Play as Wishes* was related to children's *Other-pretend play* and *Child has Little Say* was related to children's *Combinatorial-pretend play*. During instances of *Direction Builds on Child's Interest*, mothers expanded and furthered their children's play activities by directing their attention to the pretense, which built on the children's current focus. These results suggest that mothers' expanding on their children's interest was positively related to their children's pretend play. This is likely because mothers' expansion alerts children to the object or activity's pretend properties. Building on the child's interest is a scaffolding technique that elevates the child's pretense; however, engaging in the higher of the two codes (i.e., *Combinatorial-pretend play*) is related to mothers' restrictive behaviors and children's engagement in the less complex symbolic play level (i.e., *Other-pretend play*) is related to less-restrictive maternal behaviors.

This relation between children's *Other-pretend play* and less-restrictive maternal behaviors was also supported by the correlation between mothers' to *Preserve the Child's Autonomy* goal and children's *Other-pretend play*. Perhaps in order for children to demonstrate pretend play at higher levels of complexity, mothers had to be more restrictive and focus their children's attention on the pretense. It is also possible that the amount of symbolic understanding needed to reliably perform *Combinatorial-pretend play* actions makes these kinds of pretend play episodes mother-directed. Also recall that children were credited with pretend play behaviors if they seemed to be going along with pretense encouraged by their mothers. Perhaps

mothers had to be more restrictive if they were going to encourage *Combinatorial-pretend play* because children needed more scaffolding in *Combinatorial-* as compared to *Other-pretend play*.

The finding that *Child has Little Say* was correlated with higher levels of symbolic play complexity is very interesting and, like all the findings discussed in this investigation, needs to be replicated before firm conclusions can be drawn. An important direction for future research would be to examine these relations in other socioeconomic and cultural groups. African American mothers tend to be more authoritarian and controlling than other cultural groups (e.g., Bradley, et al., 2001); however, research suggests that African American children do not experience the same negative outcomes of maternal control as children of other groups (e.g., Ispa et al., 2004). In this investigation, mothers' controlling behaviors were positively associated with 24-month-old children's complex symbolic play. High levels of control during pretend may be perceived as normative and appropriate in parent-child interactions. In a study of mothers' directing behaviors Ispa and colleagues found the negative effects of maternal intrusiveness were moderated by maternal warmth in African American participants. Perhaps mothers' warmth motivates children to engage in their mothers' pretense regardless of the level of control, and this mutual engagement gives mothers the opportunity to scaffold higher levels of pretend play. In order to test this hypothesis, future research could investigate maternal warmth within the context of symbolic play assess its relation to maternal behaviors and children's pretend-play outcomes.

It is also possible that mothers' beliefs about play and beliefs about their teaching roles during pretend interactions are related their behaviors and their children's outcomes. Play provides a context for teaching children about the real world, and controlling behaviors may be perceived as appropriate for toddler-aged children. Mothers know how to play and because they

are more competent pretenders they should use control to focus their children's attention on the pretend features of the play interaction. This is not to say that all of mothers' pretend-play interactions were characterized by control. In fact mothers' behaviors that served an elaborative purpose (e.g., *Direction Builds on Child's Interest* or *Involved Actor*) were consistent across ages. Only mothers' concurrent controlling behaviors were positively related to children's pretend play competence. Mothers' elaborative behaviors had predictive and concurrent benefits. Perhaps once children reach a certain age and have a certain capacity for pretend play, mothers use control as a way to elevate play to levels. Control is seen as an appropriate way of focusing the child's attention on more difficult-to-reach levels of pretense. It would be interesting to ask mothers what they believe their role is in pretend play interactions and if and how their role changes correspond to children's developmental changes.

Mothers' Behaviors and Goals and Children's Language Scores

Previous research on symbolic play in young children has found associations between children's symbolic play competence and language ability (e.g., Lyytinen et al., 1997). The analyses conducted in the current study found no relation between children's language ability at 14 months and their symbolic play competence at 24 months. Because children begin to reliably demonstrate symbolic play behaviors between 15 and 21 months of age (Nielsen & Dissanayake, 2004) and because much of the symbolic play evidenced before this point is constructed by the children's mothers (Fiese, 1990), children's symbolic play at 14 months was not assessed. This investigation was focused more on mothers' behaviors for those reasons, but perhaps an assessment of children's symbolic play competence at 14 months would have revealed an association between symbolic competence and 24 month language abilities.

Nevertheless, children's *Combinatorial-pretend play* at 24 months was significantly related to children's concurrent sentence complexity scores. The more complex sentences children produced, the more time they spent engaged in complex play. It is possible that combining words to make complex sentences helps children combine play schemes during symbolic episodes and vice versa. Perplexingly, the analyses also revealed that children's time spent in other pretend at 24 months was negatively related to children's word combination scores. The word combination measure is simply a yes/no format: Does your child combine words? Children who combined words spent less time in *Other-pretend play* than children who were not combining words. The most common form of other pretend for children was cooking, and children's awareness was typically evidence by uttering, "Cook!" often imitatively. Demonstrating this form of symbolic play competence did not require two-word utterances. Perhaps children who were combining words were more likely to engage in a variety of pretend play behaviors whereas children who were not combining words were more likely to follow their mother's lead and engage in cooking—the most common form of other pretend. This finding was unexpected, difficult to interpret, and needs to be replicated in order to obtain a clearer picture of relation between these two variables.

Mothers' behaviors at time 1 and their relation to children's language scores. At time 1, to *Encourage Alternative Ways of Thinking* was significantly positively related to children's concurrent vocabulary production and marginally positively related to vocabulary comprehension scores. It is possible that mothers whose goals for pretend included encouraging their toddlers to think about their current play activity in different ways were more adept at facilitating language. It is also possible that mothers with this goal tried to influence their children's pretend using non-invasive methods and therefore saturated the pretend play episode

with language instead of influencing their children using physical force. This could help facilitate language competence in young children.

The proportion of total time mothers spent in symbolic play at time 1 was positively related to children's sentence complexity scores at 24 months. This variable was also marginally positively related to children's vocabulary production scores at 24 months. These were important findings. Mothers' time in pretend play when their children were too young to reliably pretend on their own was positively related to children's linguistic competence ten months later. It is possible that mothers who engaged in pretend play with their 14-month-old children at levels their children could realistically grasp, may have been facilitating symbolic competence in ways that extended beyond the immediate pretend play episode. Mothers' symbolic facilitation related to their propensity to engage in symbolic play and their ability to foster language development. Both pretend play and language have symbolic underpinnings. One must understand that making exaggerated eating noises symbolizes the act of eating just as the word "eat" symbolizes the act of eating. These symbols are referencing the act of eating, even though no actual eating is occurring. It is possible that pretend play provides opportunities to explore the non-literal, which helps children develop an understanding of the referential, arbitrary nature of language. It is important for mothers to engage in these symbolic exchanges at early ages, given its association with children's later language competencies.

Interestingly mothers' simultaneous use of *Combinatorial*- and *Object as Active Agent-pretend play* at time 1 was significantly negatively related to children's word combination and vocabulary production scores at 24 months and marginally negatively related to children's sentence complexity scores at 24 months. There are a number of ways to interpret this finding. Mothers who engaged in such complex forms of symbolic play were probably unaware of the

symbolic play levels appropriate for children that young. They may have been neither responsive nor adaptable enough to modify their behaviors according to their children's level of symbolic competence. These mothers may have been unresponsive to other areas of development, including children's linguistic capacity. It is possible these mothers did not have a realistic understanding of children's development, so they did not respond to their children in ways that were developmentally appropriate.

Child has Little Say and *Uninvolved* were both marginally negatively related to children's language scores. Perhaps these are also characteristics of unresponsive mothers whose general knowledge of children's development is lacking. Overly controlling mothers may disregard their children's wishes in a variety of settings while uninvolved mothers may be apathetic or too absorbed in their own interests to appropriately attend to their children's behaviors. It is possible that neither one of these interactional behaviors are conducive to the development of certain linguistic competencies. Mothers who give their children little say when their children are 14 months old, may be using more physical force to guide their children's behaviors, instead of using language. Uninvolved mothers may also use very little language while demonstrating their disengagement. It is possible these behaviors are indicative of mothers' limited language use, unresponsivity or both. Although these findings are only marginally significant it seems as though too much control and too little engagement when children are 14 months are negatively related to language 10 months later.

Somewhat more difficult to interpret is the finding that mothers' *Encouraging Other-*, engaging in *Self-pretend play* was also negatively related to children's Word Combination scores. It is possible that something about the emotional tone or ways in which mothers engage

in these behaviors at time 1 were negatively related children's ability to combine words at 24 months.

Mothers' behaviors at time 2 and their relation to children's concurrent language scores. There were a number of maternal behaviors that correlated with children's concurrent sentence complexity scores. In general, the behaviors maintained children's current levels of pretend play (e.g., *Maintaining, to Preserve the Child's Autonomy*) or facilitated play at a higher level (e.g., *Direction Builds on Child's Interest, to Encourage Alternative Ways of Thinking*). Interestingly, these behaviors seemed to benefit children even when they were accompanied by restrictive behaviors (e.g., *Total Child has Little Say*). It is possible that mothers were stopping their children in order to focus their attention on the symbolic play activity, thus facilitating symbolic understanding. The children may be restricted but the pretend lens was directed toward an object or activity that is currently peaking the child's interest. Thus, the child was more likely to pick up on the words and phrases that surrounded his or her present interest. This could help explain the linguistic benefits associated with these maternal behaviors. It is also possible that mothers who restricted their children while going along with their children's play and/or building on the children's current interest were giving their children reasons for limiting their activities and saturating the play episode with language. Mothers filled the pretend episode with words to maintain the children's interest and build on it to usher it into a more sophisticated activity.

Limitations

This study has a number of limitations. The three-bag sequence was not designed to elicit symbolic play behaviors. It was originally chosen for the EHSRE project because it tapped different aspects of parental sensitivity and insensitivity (Berlin, Brady-Smith, & Brooks-Gunn, 2002). It is possible that mothers and children who create pretend scenarios using these materials

are different from dyads that engage in pretend play with materials specifically designed to elicit symbolic play behaviors. Mothers could decide how to divide the time between the bags. There were no time limits other than the 10-minutes allotted for the entire 3-Bag sequence. Thus, the time dyads spent engaged with the contents of each bag varied across all mother-child pairs. It is possible that each bag's contents elicited different symbolic play behaviors, so if one mother spent more time with Bag 2 and another mother spent more time with Bag 3, the differences in their symbolic play behaviors may be a result of the play materials themselves, not the mothers' interactional style.

The current investigation was also limited by its sample size. It is difficult to determine if the same patterns would emerge if applied to a larger sample. Perhaps some results are restricted to these particular dyads, and the findings are not generalizable. All families were African American families living in a large Midwestern city who qualified for Early Head Start Services in the early 1990s. It is possible the results only generalize to this very specific population. This study was also limited by its statistical methods. Due to the investigation's exploratory nature, there were numerous correlational analyses with many significant findings. However, only four of the significant relations remained once the corrected P-value was taken into account. Using a similar methodology with a much larger sample size would be an enormous undertaking, but would help substantiate this study's findings. Despite these and other limitations, some general conclusions can be drawn.

Conclusions

Mothers' behaviors at time 1 are important for children's concurrent language scores, but many of them are also predictive of children's functioning ten months later. Mothers who actively engage with their children in pretend play and extend their children's play activities

before their children are competent pretenders set the stage for more advanced behaviors later in development. However, mothers who are not responsive to their children's current pretend play capacities and engage in pretend that is beyond their children may actually deter adaptive development. Therefore, mothers who understand their children's current level of functioning and scaffold developmentally appropriate pretend play behaviors can facilitate their children's symbolic and linguistic competence.

References

Arriaga, R. I., Fenson, L., Cronan, T., & Pethick., S. J. (1998). Scores on the MacArthur Communicative Development Inventory of children from low-income and middle-income families. *Applied Psycholinguistics, 19,* 209-223.

Belsky, J. & Most, R. K. (1981). From exploration to play: A cross-sectional study of infant free play behavior. *Developmental Psychology, 17(5),* 630-639.

Berlin, L. J., Brady-Smith, C., & Brooks-Gunn, J. (2002). Links between childbearing age and observed maternal behaviors with 14-month-olds in the Early Head Start Research and Evaluation project. *Infant Mental Health Journal, 23,* 104-129.

Bornstein, M. H., Haynes, O. M., O'Reilly, A. W. & Painter, K. M. (1996). Solitary and collaborative pretense play in early childhood: Sources of individual variation in the development of representational competence. *Child Development, 67(6),* 2910-2929.

Bornstein, M. H., Haynes, O. M., Pascual, L., Painter, K. M., & Galperin, C. (1999). Play in two societies: Pervasiveness of process, specificity or structure. *Child Development, 70(2),* 317-331.

Casby, M. W. (2003). Developmental assessment of play: A model for early intervention. *Communication Disorders Quarterly, 24,* 175.

Cheyne, J. A. & Tarulli, D. (2005). Dialogue, difference and voice in the zone of proximal development. In H. Daniels (Ed.), *An Introduction to Vygotsky* (125-148). New York, NY: Routledge.

Cote, L. R. & Bornstein, M. H. (2005). Child and mother play in cultures of origin and acculturating cultures of destination. *International Journal of Behavioral Development, 29(6),* 479-488.

Cote, L. R. & Bornstein, M. H. (2009). Child and mother play in three U.S. cultural groups: Comparisons and Associations. *Journal of Family Psychology, 23(3),* 355-363.

Damast, A. M., Tamis-LeMonda, C. S., & Bornstein, M. H. (1996). Mother-child play: Sequential interactions and the relations between maternal beliefs and behaviors. *Child Development, 67(4),* 1752-1766.

Dennis, T.A., Cole, P.M., Zahn-Waxler, C., & Mizuta, I. (2002). Self in context: Autonomy and relatedness in Japanese and U.S. mother-preschooler dyads. *Child Development, 73(6),* 1803-1817.

Fein, G.G. (1981). Pretend play in childhood: An integrative review. *Child Development, 52(4),* 1095-1118.

Feldman, R. (2007). On the origins of background emotions: From affect synchrony to symbolic expression. *Emotion, 7(3),* 601-611.

Feldman, R. & Greenbaum, C. W. (1997). Affect regulation and synchrony in mother-infant play as precursors to the development of symbolic competence. *Infant Mental Health Journal, 18(1),* 4-23.

Fenson, L., Dale, P.S., Reznick, S., Bates, E., Thal, D. J., Pethick, S. J., Tomasello, M., Mervis, C. B., & Stiles. (1994). Variability in early communicative development. *Monographs for the Society for Research in Child Development, 59(5).*

Fiese, B. H. (1990). Playful interactions: A contextual analysis of mother-toddler interaction and symbolic play. *Child Development, 61,* 1648-1656.

Fromberg, D. P. (1999). A review of research on play. In C. Seefeldt (Ed.), *The Early Childhood Curriculum: Current Findings in Theory and Practice,* (27-53), New York: Teacher's College Press.

Garvy, C. (1990). *Play.* Cambridge, MA: Harvard University Press.

Hair, J. F. & Black, W. C. (2000). Cluster Analysis. In L. G. Grimm & P. R. Yarnold, *Reading and Understanding More Multivariate Statistics* (147-205). Washington, D.C.: American Psychological Association.

Hammer, C.S. & Weiss, A.L. (1999). Guiding language and development: How African American mothers and their infants structure play interactions. *Journal of Speech and Hearing Research, 42,* 1219-1233.

Ispa, J., M. Fine, M. A., Halgunseth, L. C, Harper, S., Robinson, J., Boyce, L., Brooks-Gunn, J., & Brady-Smith, C. (2004). Maternal Intrusiveness, maternal warmth, and motherñ-toddler relationship outcomes: Variations across low income ethnic and acculturation groups. *Child Development 75(6),* 1613-1631.

Laakso, M. L., Poikkeus, A. M., Eklund, K., & Lyytinen, P. (1999). Social interactional behaviors and symbolic play competence as predictors of language development and their associations with maternal attention-directing strategies. *Infant Behavior and Development, 22(4),* 541-556.

Lave, J. & Wenger, E. (2005). Practice, person, social world. In H. Daniels (Ed.), *An Introduction to Vygotsky* (149-155). New York, NY: Routledge.

Lillard, A. Pretend play as twin earth: A social-cognitive analysis. *Developmental Review, 21,* 495-531.

Lillard, A. S. & Witherington, D. C. (2004). Mothers' behavior modifications during pretense and their possible signal value for toddlers. *Developmental Psychology, 40(1),* 95-113.

Lyytinen, P., Laakso, M. L., Poikkeus, A. M. & Rita, N. (1999). The development and predictive relations of play and language across the second year. *Scandinavian Journal of Psychology, 40,* 177-186.

Lyytinen, P., Poikkeus, A. M. & Laakso, M. L. (1997). Language and symbolic play in toddlers. *International Journal of Behavioral Development, 21(2),* 289-302.

McCune, L. (1995). A normative study of representational play at the transition to language. *Developmental Psychology, 31(2),* 198-206.

McCune-Nicolich, L. (1981). Toward symbolic functioning: Structure of early pretend games and potential parallels with language. *Child Development, 52,* 785-797.

Murry, V. M. B., Bynum, M. S., Brody, G. H., Willert, A., & Stephens, D. (2001). African American single mothers and children in context: A review of studies on risk and resilience. *Clinical Child and Family Psychology Review, 4*(*2*), 133-155.

Nielsen, M. & Christie, T. (2008). Adult modeling facilitates young children's generation of novel pretend acts. *Infant and Child Development, 17,* 151-162.

Nielsen, M., & Dissanayake, C. (2004). Pretend play, mirror self-recognition and imitation: A longitudinal investigation through the second year. *Infant Behavior and Development, 27,* 342-365.

Noll, L. M. & Harding, C. G. (2003). The relationship of mother-child interaction and the child's development of symbolic play. *Infant Mental Health Journal, 24(6),* 557-570.

Palincsar, A. S. (2005). Social constructivist perspectives. In H. Daniels (Ed.), *An Introduction to Vygotsky* (285-309). New York, NY: Routledge.

Pellegrini, A. D. & Galda, L. (1993). Ten years after: A reexamination of symbolic play and literacy research. *Reading Research Quarterly, 28(2),* 162-175.

Power, T. G., Lynn, C. M., & McGrath, M. P. (1985). Assessment of individual differences in infant exploration and play. *Developmental Psychology, 21(6),* 974-981.

Rescorla, L. & Goossens, M. (1992). Symbolic play development in toddlers with expressive specific language impairment (SLI-E). *Journal of Speech and Hearing Research, 35,* 1290-1302.

Santrock, J. W. (2008). *Children* (10th ed.). New York, NY: McGraw-Hill.

Scheffner Hammer, C. & Weiss, A. L. (1999). Guiding language and development: How African American mothers and their infants structure play interactions. *Journal of Speech, Language, and Hearing Research, (14),* 1219-1233.

Slade, A. (1987). A longitudinal study of maternal involvement and symbolic play during the toddler period. *Child Development, 58(2),* 367-375.

Striano, T., Tomasello, M., & Rochat, P. (2001). Social and object support for early symbolic play. *Developmental Science, 4(4),* 442-455.

Tamis-LeMonda, C. S. & Bornstein, M. H. (1994). Specificity in mother-toddler language-play relations across the second year. *Developmental Psychology, 30(2),* 283-292.

Tamis-LeMonda, C. S., Briggs, R. D., McClowry, S. G., & Snow, D. L. (2008). Challenges to the study of African American parenting: Conceptualization, sampling, research approaches, measurement, and design. *Parenting: Science and Practice, 8,* 319-358.

Tamis-Lemonda, C. S., Shannon, J. D., Cabrera, N. J., & Lamb, M. E. (2004). Fathers and mothers at play with their 2- and 3-year-olds: Contributions to language and cognitive development. *Child Development, 75(6),* 1806-1820.

Tomasello, M., & Farrar, J. (1986). Joint attention and early language. *Child Development, 57,* 1454-1463.

Ungerer, J. A., Zelazo, P. R., Kearsley, R. B., & O'Leary, K. (1981). Developmental changes in the representation of objects in symbolic play from 18to 34 months of age. *Child Development, 52(1),* 186-195.

Uzgiris, I. C. & Raeff, C. (1995). Play in parent-child interactions. In M. H. Bornstein (Ed.), *Handbook of Parenting, 4,* 353-377, Mahway, NJ: Erlbaum.

Vygotsky, L. & Luria, A. (1994). Tool and symbol in child development. In R. van der Veer & J. Valsiner (Eds.), *The Vygotsky Reader,* 99-174, Massachusetts: Blackwell Publishers.

Want, S. (2011). How much help is too much? Maternal guidance on object exploration by infants in Taiwant and the U.S. In C. S. Tamis-LeMonda & L. B. Karasik (Chairs), *Maternal support of infants' skills across different contexts and cultures.* Symposium conducted at the Society for Research in Child Development's biennial meeting.

Youngblade, L. M. & Dunn, J. (1997). Individual differences in young children's pretend play with mother and sibling: Links to relationships and understanding of other people's feelings and beliefs. *Child Development, 66,* 1472-149.

Table 1

Operational Definitions of Observational Measures

Types of Pretend Play

	Code Definition	Examples	Kappa
Self	Actor pretends to do something they do in real life. Pretense is directed toward the self and/or focused on the self.	• Pretend eating accompanied by chewing motions and/or sound effects • Noises associated with eating or cooking (e.g., "MMM," sizzling noises, "it's hot," or "tastes good") • Mother feeds the child • Child eats what her mother is trying to feed her • Mother pretends to cook	Child *K* = .93 Mother *K* = .95
Other	Actor pretends to do something s/he does not do in real life. Pretense is extended beyond the self by involving others or pretending to perform actions one does not perform.	• Child pretends to cook • Child pretends to turn the stove off • Child feeds their mother • Actor moves the boat or makes motor noises	Child *K* = .88 Mother *K* = .92
Combinatorial	Actor performs same sequence with different objects. Actor uses an object in two or more ways. Actor uses the items in a necessary order.	• Actor feeds a hippo, then a giraffe • Actor feeds themselves then the other • Actor puts animals to sleep then puts Noah to sleep • Actor "cooks" in one pot then cooks in another pot • Actor feeds the animals then has them walk up the ramp • Actor cooks the food and then eats dinner • Actor turns the stove off then blows on the hot food before pretending to consume it	Child *K* = .68 Mother *K* = .88

Substitutional	Actor substitutes one object for another in a deliberate fashion.	• Ramp used as a phone • Animal used as a car • Spoon used as a microphone	No instances where the child was credited with substitutional Only one instance coded for mothers reliability Mother *K* =1.0
Object as Active Agent	Inanimate toys are give human- or animal-like properties. Clear personification of objects. Treating the animal or Noah as if they have a life of their own.	• Actor makes animal growl or roar • Actor has animals or Noah walk up the ramp • Actor has animals or Noah go to sleep • Actor animates the toys so they talk, eat, walk, or play games on their own	Child *K* =1.0 Mother *K* = .97
Mother Encourages Pretend Self	Mother encourages child to pretend to do something the child does in real life or on a regular basis.	• Mother tells child to eat their dinner • Mother feeds the child • Mother tells the child to say hi to the animals • Mother models a "self" activity such as eating	*K* = .97
Mother Encourages Pretend Other	Mother encourages child to pretend to do something the child does not do in real life or on a regular basis.	• Mother tells child to cook the food • Mother tells child to feed her • Mother asks child to save the animals from drowning	*K* = .94
Attention Directing Behaviors			
	Code Definition	Examples	Kappa
Extending	Mothers use pretend to take the child's play to the next level of pretend complexity. Mothers	• Child has the spoon in her mouth and Mother says, "MMM tastes good!" • Child says, "Hot" while removing a pot from the	*K* = .85

	elaborate on their children's current activity or introduce an additional element.	stove. Mother tells him to let it cool off before eating it • Child has food in their mouth and Mother asks if she can have some • Child has a pot and spatula in his hand and mother asks if he is cooking	
Maintaining	Mothers reinforce child's ongoing activity or engage in play without contributing any additional ideas.	• Mother and child stir the contents of separate bowls after establishing that they are "cooking" • Child holds a piece of food up to mother's mouth and she pretends to eat it • Mother continues to comment on the child's cooking, but does not encourage the child to eat the food or play with any additional objects	$K = .85$
Redirecting	Mothers actively divert their children's attention to an alternate activity. She interrupts the child's current focus to get them to promote her agenda.	• Child is stirring and mother puts a lion in front of Child's face and makes it roar • Mother takes a pot out of Child's hand and puts it on the stove saying, "Have to keep it on the stove to cook it" • Mother takes a plate out of Child's hand saying, "No we're cooking" • Child is quietly playing with an elephant. Mother takes it away and says, "Go get that one! He needs to be saved!"	$K = .83$
Directing Unoccupied	Mothers use pretend to engage an otherwise unoccupied child. Child is not playing	• Child is watching Mother take objects out of the bag and she says, "We're going to cook!" • Child is not engaged with	$K = .80$

	yet so mothers use pretend to get them involved in an activity.	the toys, Mother walks an animal toward her leg and has the animal say, "Hi!" • Child is looking into space and Mother hands him a plate saying, "Eat your dinner"	
Types of Maternal Involvement			
	Code Definition	Examples	Kappa
Uninvolved	Mother is not involved, ignores the child, or is occupied in a separate activity during Child's pretend play sequence.	• Child makes a loud chomping sound as he lifts the spoon up to his mouth. Mother is rummaging through the next bag and does not notice. • Child says, "Cook! Cook!" as she stirs. Mother is looking into space and does not acknowledge Child's pretense • Child says, "Hot!" and waves the pot he is holding while Mother sets up Noah in the house	*K* = .93
Commentary	Mothers narrate their children's ongoing activity but do not participate in any other way. Mothers may watch their children and narrating the pretense, set up other toys but commenting on the child's current focus, set up toys before the dyad is engaged with them, and made sounds associated with cooking or eating.	• Mother sets up the ark but comments on Child's current focus saying, "You're cooking!" • Mother is taking objects out of the bag and vocalizes a plan for pretend • Child picks up a pot and Mother says, "It's hot!" but makes not attempt to stop the child from picking it up • Mother asks Child what they are making for dinner	*K* = .92
Involved Actor	Mothers take on a pretend role during	• Mother engages in a parallel activity and	*K* = .88

	the dyadic interaction. This includes instances where mothers attempted to take on a pretend role, regardless of whether they were successful.	comments on the activity (e.g., we're cooking) • Mother asks Child to feed her or make her something to eat • Mother animates the toys or makes boat noises • Mother models an activity (e.g., Mother stirs to show Child how to cook)	
Involved Physically	Mother is involved physically but not as an actor.	• Mother tries to draw Child's attention to a pot by rattling its contents and asking, "Do you want to cook with this one?" • Mother points • Mother hands Child something	*K* = .84
Involved Director	Mothers explicitly tell their children how to engage with the toys or arrange the toys in a way that promotes her agenda. Most often, mothers give their children explicit instructions.	• Mother says, "Blow it" or "Cook it" • Mother physically controls Child's movement • Mothers set up the toys so child plays the way Mother wants • Mother tells Child they are supposed to be doing something (e.g., "You're supposed to be feeding me!")	*K* = .89
Mothers' Autonomy-Granting Behaviors			
	Code Definition	Examples	Kappa
Child has Little Say	Mothers give their children very little say in the content or focus of the play. Mother is in charge.	• Child is trying to "eat" something Mother is feeding her and Mother takes the spoon away while Child still has her mouth open making chewing noises • Mother gets out a new bag, has an animal growl in Child's face, but moves the animal out of reach when	*K* = .96

		Child puts her hand out to grasp it	
Mother Stops Child	Mothers force their children to stop pursuing their own interests. Mothers restrict the child's activity and keep them from doing an activity that seems to interest them.	• Child picks up a ramp. Mother takes it from her and attaches it to the boat asking the child, "How do you expect the animals to get out of there?" • Child is stirring in the green pot. Mother puts a plate on top of the pot and says, "We're eating now" • Child takes a pot off of the stove and starts examining it. Mother puts it back on the stove saying, "Don't! That's hot, it'll burn you!"	*K* = .95
Child Not Stopped but Mother Tries to Redirect	Mothers try to direct their child's attention to the agenda, but do not actually prohibit their child's activities. Sometimes children follow their mother's suggestion and other times they do not.	• Child is manipulating some cooking materials on the mat. Mother points to the stove and says, "You could cook with this one" • Child is playing with a spatula. Mother walks an animal up the boat ramp and asks, "You don't want to watch the animals walk into the boat?" • Mother tries to direct Child's attention from the stove toward the plate she is holding and says, "You can eat your dinner now"	*K* = .65
Direction Builds on Child's Interest	Mothers further the child's play using directing behaviors. They notice the child's interest and try to expand on it by directing them in some way.	• Child has food in his mouth and Mother says, "Give me some" • Child is stirring and Mother tells her to, "Turn the stove on" • Mother is eating and begins feeding Child when she sees he is looking at her. As she puts the spoon to his mouth she says, "You eat	*K* = .79

		now."	
Directing Unoccupied	Mothers tell or show their unoccupied child what to do with the toys. The child is not yet engaged in an activity so mothers direct their attention to get them involved with the toys.	• Child is looking at Mother as she searches in the bag for a toy. Mother retrieves the stove and says, "Let's make some breakfast." • Child is watching as Mother takes an ark out of Bag 3. She looks at the ark but does not engage with it. Then Mother shows her a lion, makes it roar, and hands it to Child.	*K* = .85
Child Allowed to Play as Wishes	Mothers do not interfere in their child's play. They may comment on the play or play alongside the child, but the child takes the lead.	• Child is hitting a spoon against a pot and Mother says, "Oh that food smells good!" but does not become involved in the play • Child says, "Hot!" and moves his hand back-and-forth in a waving motion. Mother confirms his pretense saying, "Yeah the stove is hot!" then imitates his arm-waving motion	*K* = .84
Mothers' Pretend Play Goals			
	Code Definition	Examples	Kappa
To Protect Health and Safety	Mother's pretend seems to be aimed at protecting the child from germs or teaching the child about the real-life dangers associated with the objects.	• "It's hot" • "Blow it off!" • Child has a piece of food in her mouth and Mother takes it out saying, "It's not done yet. You have to cook it first."	*K* = .98
To Entertain	Mothers seem to be using pretend To Entertain their child rather than teach them.	• Mother has an animal growl as she tickles Child with the object • Mother tells Child, "The lion is going to get you!" then nuzzles the lion into	*K* = .84

		Child's back	
To Stop Banging/To Distract	Mothers use pretend to stop their from banging and throwing the materials. Or mothers use pretend to distract their child.	• Child is banging a pot against the floor. Mother says, "Put it on the stove so we can cook dinner" • Child is crying and motioning off camera. Mother tries to distract the child by having an elephant give him kisses.	$K = .65$
To Offer Other Ideas/Suggestions	Mothers give their children an alternative to the current use of the toys. Mothers do not seem to want to teach their children how to correctly use the toys, just offer another suggestion.	• Child is playing with a pot and Mother points to another pot saying, "You could play with this one too" • Child is walking animals into the boat and Mother puts the house next to him saying, "If you put the house on, they won't get out"	$K = .77$
To Teach Child How to Play	Mothers use pretend to show their children how to play with the toys or tell them the pretend function of the objects.	• Mother gets pots out of Bag 2 saying, "You cook with pots" • Mother demonstrates how to eat or cook • Mother shows and/or tells Child how to walk animals up the ramp • Mother tells Child the pans are hot	$K = .83$
To Indicate the Child Playing Incorrectly	Mothers indicate that the child is not doing something appropriately.	• Child has a piece of food in her mouth and Mother takes it out, puts it in a pot, and tells her, "It's hot! You can't eat it" • Child takes a ramp off of the boat and Mother tells him, "That's not what you do with that. The animals have to walk"	$K = .86$
To Usher Functional Play into Pretend	Mother renders the child's functional	• Child has a piece of food in her mouth and Mother says,	$K = .82$

	play pretend by giving it a pretend label. The action is functional until mother's verbalizations usher it into pretend.	"MMM, it's good!" • Child hits a spoon against a pot and Mother says, "You're cooking!"	
To Insert Herself into Play as a Pretend Actor	Mother's goal for pretend is to get herself involved in the activity.	• Child is eating a piece of food and Mother asks if she can have some. • Child is stirring and Mother says, "Make me some dinner! Cook for me"	$K = .96$
To Preserve the Child's Autonomy	The child initiates a pretend sequence and Mother completes it accordingly.	• Child offers Mother a piece of food and she eats it to complete the interaction • Child says, "Hot!" and Mother affirms her vocalizations saying, "Yeah it's hot!"	$K = .76$

Table 2

Mothers' Pretend Play Goals Data Reduction Using Exploratory Factor Analysis

Factor	Cronbach's Alpha	Dropped/Retained	Reason Dropped/Retained
Factor 1 (To Provide Direct Instruction): Teach Child How to Play + Teach Child How to Play, Usher Functional Play into Pretend + Usher Functional Play into Pretend + Insert Herself into Pretend as an Actor + Usher Functional Play into Pretend, Indicate the Child Playing Incorrectly	$\alpha = .439$	Dropped: Teach Child How to Play Usher Functional Play into Pretend	Without two dropped codes $\alpha = .764$
Factor 2 (To Encourage Alternative Ways of Thinking): Offer Other Idea/Suggestion + Offer Other Idea/Suggestion, Usher Functional Play into Pretend + To Preserve the Child's Autonomy, Insert Herself into Pretend as an Actor	$\alpha = .883$	Retained	Adequate alpha

Table 2 (continued)

Factor	Cronbach's Alpha	Dropped/Retained	Reason Dropped/Retained
Factor 3: To Entertain + To Entertain, To Stop/Distract	α = .156	Dropped	Inadequate alpha
Factor 4: To Indicate the Child is Playing Incorrectly, To Insert Herself into Pretend as an Actor + To Insert Herself into Pretend as an Actor, To Usher Functional Play into Pretend + To Preserve the Child's Autonomy		Dropped	Codes made more conceptual sense when included in other factors. Relations to other factors >.400
Factor 5 (To Protect Health and Safety): To Protect Health and Safety + To Protect Health and Safety, To Preserve the Child's Autonomy + To Protect Health and Safety , To Teach Child How to Play	α = .464	Retained	Codes made conceptual sense

Table 2 (continued)

Factor	Cronbach's Alpha	Dropped/Retained	Reason Dropped/Retained
Factor 6 (To Preserve the Child's Autonomy): To Preserve the Child's Autonomy + To Preserve the Child's Autonomy, To Usher Functional Play into Pretend	α = .571	Retained	Because there were only two codes, .571 was considered adequate alpha
Factor 7: To Protect Health and Safety + To Usher Functional Play into Pretend + To Protect Health and Safety, To Usher Functional Play into Pretend		Dropped	Codes made more conceptual sense when included in other factors. Relations to other factors >.400
Factor 8: To Indicate the Child is Playing Incorrectly + To Indicate the Child is Playing Incorrectly, To Protect Health and Safety, To Stop/Distract	α = .084	Dropped	Inadequate alpha

Table 2 (continued)

Factor	Cronbach's Alpha	Dropped/Retained	Reason Dropped/Retained
Factor 9: To Protect Health and Safety, To Indicate Child is Playing Incorrectly + To Insert Herself into Pretend as an Actor, To Teach Child How to Play + -(to Insert Herself into Pretend as an Actor, To Usher Functional Play into Pretend, To Teach Child How to Play)		Dropped	Codes did not fit together conceptually

Table 3

Correlation Between Proportion of Time Spent in Pretend at time 1 and Proportion of Time Spent in Pretend at 24 Months

	Proportion of Time Spent in Pretend at Time 1
Proportion of Time Spent in Pretend at Time 2	.548**

$^{\dagger}p < .10$. $*p < .05$. $**p < .01$.

Table 4

Correlation Between the Amount of Time Spent Engaging and Participating in Pretend at Time 1 and the Amount of Time Spent Engaging and Participating in Pretend at 24 Months

	Total Time Engaging and Participating in Pretend Play at Time 1
Total Time Engaging and Participating in Pretend Play at Time 2	.258

$^{\dagger}p < .10$. $*p < .05$. $**p < .01$.

Table 5

Correlations Between Mothers' Pretend Play at Time 1 and their Pretend Play at Time 2

Mothers' Pretend Behaviors with their 24-Month-Old Toddlers	Mothers' Pretend Behaviors with their 14-Month-Old Toddlers: Total Self[a]	Other	Total OAA[b]	Encourage Other	Total Comb[c]	Encourage Other, Self	Encourage Other, Other	Comb, OAA[d]
Total Self	.449*	.060	.241	.358*	-.027	.169	.389*	.072
Other	-.122	-.116	-.191	-.086	-.164	.027	.135	-.109
Total OAA	.047	.100	.104	.176	.116	.078	.531**	-.149
Encourage Other	.456*	-.009	.269	-.040	-.096	.166	-.038	.020
Total Comb	-.027	.293	.024	.094	-.096	-.010	.221	-.074
Encourage Other, Self	.199	.328†	.059	.123	-.096	.392*	.164	.148
Encourage Other, Other	.225	-.066	.210	.317†	-.104	.311†	.490**	.212
OAA, Encourage Other	-.202	.303†	-.151	-.165	.037	-.120	-.216	-.173
Comb, Self[e]	.296	.382*	.030	.346†	.020	-.108	-.212	-.012
Comb, Other	-.115	-.105	-.111	-.103	.063	.271	.331†	-.098
Comb, OAA	.042	-.079	-.062	.227	-.154	-.052	.145	-.177

[a]Total Self = *self* + *encouraging self* + *encouraging self, self*. [b]Total OAA = *object as active agent* + *object as active agent, other*. [c]Total Comb = *combinatorial* + *combinatorial, substitutional*. [d]Comb, OAA = *combinatorial, object as active agent.* [e]Comb, self = *combinatorial, self.*

$^{\dagger}p < .10$. $^{*}p < .05$. $^{**}p < .01$.

Table 6

Correlations Between Mothers' Attention-Directing Behaviors at time 1 and Attention-Directing Behaviors at Time 2

	Mothers' Attention-Directing Behaviors with their 14-Month-Old Toddlers			
Mothers' Attention-Directing Behaviors with their 24-Month-Old Toddlers	Extending	Maintaining	Redirecting	Directing Unoccupied
Extending	.440*	.171	.463**	.367**
Maintaining	.512**	.390*	.218	.290
Redirecting	.479**	.360*	.358*	.423*
Directing Unoccupied	.046	.052	.044	.290

$^{\dagger}p < .10$. $*p < .05$. $**p < .01$.

Table 7

Correlations Between Type of Maternal Involvement at time 1 and Type of Maternal Involvement at Time 2

	Type of Maternal Involvement at Time 1				
Type of Maternal Involvement at Time 2	Involved Director	Involved Actor	Involved Physically	Uninvolved	Commentary
Involved Director	.389*	.366*	.130	-.190	.366*
Involved Actor	.512**	.630**	.186	-.196	.421*
Involved Physically	.114	.205	.199	-.126	.452*
Uninvolved	.068	.365*	-.136	-.056	-.137
Commentary	.113	.183	.147	-.094	.497*

$^{\dagger}p < .10$. $*p < .05$. $**p < .01$.

Table 8

Correlations Between Mothers' Autonomy-Granting Behaviors at time 1 and Mothers' Autonomy-Granting Behaviors at Time 2

	Mothers' Autonomy Granting Behaviors at Time 1							
Mothers' Autonomy-Granting Behaviors at Time 2	Directing Unoccupied	Direction Builds	Total Child Little Say[a]	Play as Wishes	Redirect	Total Direction Builds, Little Say[b]	Directing Unoccupied, Little Say	Redirect, Little Say
Directing Unoccupied	.259	-.060	.073	.271	.044	.101	-.100	-.002
Direction Builds	.348†	.554**	.057	.482**	.082	.520**	-.151	.508**
Total Child Little Say	-.073	-.061	-.147	.015	-.091	-.118	-.137	.094
Plays as Wishes	.449*	.490**	.078	.477**	.279	.283	-.186	.405*
Redirect	.331†	.080	.138	-.017	.096	.119	-.153	.436*
Total Direction Builds, Child Little Say	.010	.368*	-.016	.338†	.005	.083	-.088	.209
Little Say, Directing Unoccupied	.034	.122	-.196	.020	-.094	.734**	-.058	.216

[a]Total Child Little Say = *Child little say* + *Mom Stops Child* + *Mom Stops Child, Child Little Say*. [b]Total Direction Builds, Child Little Say = *Direction Builds on Child's Interest, Child Little Say* + *Direction Builds on Child's Interest, Mom Stops Child* + *Direction Builds on Child's Interest, Child Little Say, Mom Stops Child.*

$^{\dagger}p < .10$. $^{*}p < .05$. $^{**}p < .01$.

Table 9

Correlations Between Mothers' Goals for Pretend at time 1 and Goals for Pretend at Time 2

	Mothers' Goals for Pretend Play at Time 1			
Mothers' Goals for Pretend Play at Time 2	To Provide Direct Instruction[a]	To Encourage Alternative Ways of Thinking[b]	To Protect Health and Safety[c]	To Preserve the Child's Autonomy[d]
To Provide Direct Instruction	.595**	-.122	-.163	.082
To Encourage Alternative Ways of Thinking	.100	.304[†]	-.053	-.141
To Protect Health and Safety	.155	-.156	.253	-.139
To Preserve the Child's Autonomy	.391*	-.140	-.043	-.189

[a]To Provide Direct Instruction = *to Insert Herself into Pretend Play as an Actor + to Usher Functional Play into Pretend, to Indicate the Child is Playing Incorrectly + to Usher Functional Play into Pretend, to Teach Child How to Play.* [b]To Encourage Alternative Ways of Thinking = *to Offer Other Idea/Suggestion + to Offer Other Idea/Suggestion, to Usher Functional Play into Pretend + to Preserve the Child's Autonomy, to Insert Herself into Pretend.* [c]To Protect Health and Safety = *to Protect Health and Safety + to Protect Health and Safety, to Preserve the Child's Autonomy + to Protect Health and Safety, to Teach Child how to Play*. [d]To Preserve the Child's Autonomy = *to Preserve Child's Autonomy + to Preserve Child's Autonomy, to Usher Functional Play into Pretend.*

[†]$p < .10$. *$p < .05$. **$p < .01$.

Table 10

Correlations Between the Proportion of Play that was Symbolic and the Total Time Spent Mothers Spent Engaging and Encouraging Pretend at Time 1 and Children's Concurrent Language Scores, Children's Language Scores at Time 2, and Pretend Play Behaviors at Time 2

Children's Language at 14 and 24 Months and Pretend Play at 24 Months	Proportion of Time Spent in Symbolic Play and Total Time Mothers Spent Facilitating and Participating in Pretend Simultaneously	
	Time 1 % Symbolic[a]	Time 1 Total Facilitating and Participating[b]
14 Month Vocab Comp[c]	-.076	.159
14 Month Vocab Prod[d]	.104	-.48
24 Month Vocab Prod[e]	.308†	-.049
24 Month Sentence Comp[f]	.425*	-.081
24 Month Word Comb[g]	.172	-.380*
24 Month Self Pretend	.530**	.147
24 Month Other Pretend	.132	.332†
24 Month Object as Active Agent	-.255	-.129
24 Month Combinatorial	.159	.184
24 Month Number of Child Initiated Episodes	.367*	.302†

[a]Time 1 % Symbolic = *proportion of total time spent in symbolic play.* [b]Time 1Total Facilitating and Participating = *the amount of time mothers spent encouraging the child's pretend play and engaging in pretend herself.* [c]14 Month Vocab Comp = *14 Month Macarthur CDI Vocabulary Comprehension.* [d]14 Month Vocab Prod = *14 Month Macarthur CDI Vocabulary Production.* [d]24 Month Sentence Comp = *14 Month Macarthur CDI Sentence Complexity.* [f]24 Month Word Comb = *24 Month Macarthur CDI Word Combination.*

$^{\dagger}p < .10$. $^{*}p < .05$. $^{**}p < .01$.

Table 11

Correlations Between Proportion of Play that was Symbolic and the Total Time Mothers Spent Engaging and Encouraging Pretend at Time 2 and their Relation to Children's Concurrent Language Scores and Play Behaviors

	Time 2 % Symbolic[a]	Time 2 Total Facilitating and Participating[b]
24 Month Vocab Prod[c]	.021	.056
24 Month Sentence Comp[d]	.076	.077
24 Month Word Comb[e]	-.054	.091
24 Month Self Pretend	-.106	.333†
24 Month Other Pretend	.165	.350*
24 Month Object as Active Agent	-.188	-.040
24 Month Combinatorial	.157	.416*
24 Month Number of Child Initiated Episodes	-.167	.283

[a]Time 2 % Symbolic = *proportion of total time spent in symbolic play.* [b]Time 2 Total Facilitating and Participating = *the amount of time mothers spent encouraging the child's pretend play and engaging in pretend herself.* [c]14 Month Vocab Prod = *14 Month Macarthur CDI Vocabulary Production.* [d]24 Month Sentence Comp = *14 Month Macarthur CDI Sentence Complexity.* [e]24 Month Word Comb = *24 Month Macarthur CDI Word Combination.*

$^{\dagger}p < .10$. $^{*}p<.05$. $^{**}p<.01$.

Table 12

Correlations Between Mothers' Pretend Play Levels at Time 1 and Children's Concurrent and 24-Month Language Scores

	Mothers' Pretend Play Types with their 14-Month-Old Toddlers							
Children's Language Scores at 14 and 24 Months	Total Self [a]	Other	Total OAA[b]	Encourage Other	Total Comb[c]	Encourage Other, Self	Encourage Other, Other	Comb, OAA[d]
14 Month Vocab Comp[e]	-.008	.206	.119	-.037	-.166	.191	-.029	.272
14 Month Vocab Prod[f]	-.166	.082	.163	.068	.020	.032	-.199	.095
24 Month Vocab Prod	-.192	.165	-.142	.045	.129	-.185	.250	-.495**
24 Month Sentence Comp[g]	-.042	.018	-.010	-.049	-.145	.021	.086	-.355[†]
24 Month Word Comb[h]	-.189	.098	-.101	-.101	.045	-.479**	.117	-.676**

[a]Total Self = *self* + *encouraging self* + *encouraging self, self.* [b]Total OAA = *object as active agent* + *object as active agent, other*. [c]Total Comb = *combinatorial* + *combinatorial, self* + *combinatorial, substitutional*. [d]Comb, OAA = *combinatorial, object as active agent.* [e]14 Month Vocab Comp = *14 Month Macarthur CDI Vocabulary Comprehension.* [f]14 Month Vocab Prod = *14 Month Macarthur CDI Vocabulary Production.* [g]24 Month Sentence Comp = *14 Month Macarthur CDI Sentence Complexity.* [h]24 Month Word Comb = *24 Month Macarthur CDI Word Combination.*

$^{\dagger}p < .10$. $^{*}p < .05$. $^{**}p < .01$.

Table 13

Correlations Between Mothers' Pretend Play at Time 1 and Children's Pretend Play Behaviors at Time 2

	Mothers' Pretend Play Types with their 14-Month-Old Toddlers							
Children's Pretend at 24 months	Total Self [a]	Other	Total OAA [b]	Encourage Other	Total Comb [c]	Encourage Other, Self	Encourage Other, Other	Comb, OAA [d]
24 Month Self Pretend	.722**	-.068	.711**	.002	-.052	.114	.083	-.033
24 Month Other Pretend	.090	.296	.090	.008	-.137	.347†	-.125	.411*
24 Month OAA [e]	-.185	-.010	-.190	-.229	-.192	-.064	-.191	-.133
24 Month Comb Pretend [f]	-.048	.054	-.053	.088	-.177	.075	.285	-.079
24 Month # Child-Initiate	.259	-.014	.193	.101	-.026	.291	.136	.058

[a]Total Self = *self* + *encouraging self* + *encouraging self, self.* [b]Total OAA = *object as active agent* + *object as active agent, other*. [c]Total Comb = *combinatorial* + *combinatorial, self* + *combinatorial, substitutional*. [d]Comb, OAA = *combinatorial, object as active agent.* [e]24 Month OAA = *24-month-old children's object as active agent.* [f]24 Month Comb Pretend = *24-month-old children's combinatorial.*

†$p < .10$. *$p < .05$. **$p < .01$.

Table 14

Correlations Between Mothers' Pretend Play Levels at Time 2 and Children's Concurrent Language Scores

Children's Language Scores at 24 Months	Mothers' Pretend Play Types with their 24-Month-Old Toddlers										
	Total Self[a]	Other	OAA[b]	Encourage Other	Total Comb[c]	Encourage Other, Self	Encourage Other, Other	Encourage Other, OAA[e]	Comb, Self[e]	Comb, Other	Comb, OAA
24 Month Vocab Prod	-.082	.013	.184	-.126	.045	-.014	.249	.175	.045	.299†	.249
24 Month Sentence Comp	-.085	-.232	.201	.179	.176	-.126	.201	-.071	-.118	-.031	.170
24 Month Word Comb	.055	.015	.137	-.295	-.040	-.108	-.040	.063	.042	.074	.070

[a]Total Self = *self* + *encouraging self* + *encouraging self, self.* [b]Total OAA = *object as active agent* + *object as active agent, other* + *object as active agent, combinatorial*. [c]Total Comb = *combinatorial* + *combinatorial, encouraging self* + *combinatorial, encouraging other*. [e]Encourage Other, OAA = *encouraging other, object as active agent.* [e] Comb, Self = *combinatorial* + self.

†$p < .10$. *$p < .05$. **$p < .01$.

Table 15

Correlations Between Mothers' Pretend Play Levels at Time 2 and Children's Concurrent Pretend Play Behaviors

	Mothers' Pretend Play Types with their 24-Month-Old Toddlers										
Children's Pretend Play at 24 Months	Total Self	Other	OAA	Encourage Other	Total Comb	Encourage Other, Self	Encourage Other, Other	Encourage Other, OAA	Comb, Self	Comb, Other	Comb, OAA
24 Month Self Pretend	.469**	-.096	.066	.352*	.051	.115	.285	-.200	.179	-.041	.151
24 Month Other Pretend	.174	-.020	.079	.516**	.410**	.369*	.358*	-.034	.289	-.131	.266
24 Month OAA	-.152	.145	-.095	.068	.033	-.169	.061	.661**	-.156	-.107	.298†
24 Month Comb Pretend	.158	.132	.142	.251	.435**	.111	.528**	.065	.139	.144	.805**
24 Month # Child-Initiate	.110	-.084	.192	.250	.187	.077	.372*	.011	.098	-.004	.355*

†$p < .10$. *$p < .05$. **$p < .01$.

Table 16

Correlations Between Mother's Attention Directing Behaviors at Time 1 and Children's Concurrent and 24 Month Language Scores and 24 Month Pretend Play Behaviors

	Mothers' Attention-Directing Behaviors with their 14-Month-Old Toddlers			
Children's Language at 14 and 24 Months and their Pretend Play at 24 months	Extending	Maintaining	Redirecting	Directing Unoccupied
14 Month Vocab Comp	-.023	-.059	.024	.138
14 Month Vocab Prod	-.093	.034	-.069	-.014
24 Month Vocab Prod	-.025	-.027	.047	-.187
24 Month Sentence Comp	-.023	.055	-.058	-.139
24 Month Word Comb	-.173	-.005	.065	-.197
24 Month Self Pretend	.263	.561**	.522**	.123
24 Month Other Pretend	.163	.068	-.028	.319†
24 Month OAA	-.289	-.128	-.204	-.167
24 Month Combinatorial Pretend	.135	.175	.063	.051
24 Month # Child-Initiated	.291	.302†	.182	.130

†$p < .10$. *$p < .05$. **$p < .01$.

Table 17

Correlations Between Mother's Attention-Directing Behaviors at Time 2 and Children's Concurrent Language Scores and Pretend Play Behaviors

	Mothers' Attention-Directing Behaviors with their 24-Month-Old Toddlers			
Children's Language and Pretend Play at 24 Months	Extending	Maintaining	Redirecting	Directing Unoccupied
24 Month Vocab Prod	.061	.091	.087	-.224
24 Month Sentence Comp	-.010	.394*	-.051	-.100
24 Month Word Comb	-.015	-.046	.083	-.206
24 Month Self Pretend	.360*	.251	.263	.349
24 Month Other Pretend	.375*	.570**	.200	.233
24 Month OAA	-.019	.073	.089	-.061
24 Month Combinatorial Pretend	.375*	.682**	.213	-.110
24 Month # Child-Initiated	.175	.534**	.147	.060

$^{\dagger}p < .10$. $*p < .05$. $**p < .01$.

Table 18

Correlations Between Type of Maternal Involvement at Time 1 and Children's Concurrent Language Scores, Language Scores at 24 Months, and Pretend Play Behaviors at 24 Months

	Type of Maternal Involvement with their 14-Month-Old Toddlers				
Children's Language at 14 and 24 Months and their Pretend Play at 24 Months	Commentary	Involved Actor	Involved Director	Involved Physically	Uninvolved
14 Month Vocab Comp	-.225	.053	.182	-.043	-.166
14 Month Vocab Prod	-.081	-.004	.024	.028	-.155
24 Month Vocab Prod	.000	-.037	.063	.080	-.308†
24 Month Sentence Comp	.118	-.035	-.032	.042	-.184
24 Month Word Comb	-.028	-.137	-.130	.103	-.120
24 Month Self Pretend	.110	.545**	.183	-.016	-.092
24 Month Other Pretend	.209	.160	.108	-.126	-.163
24 Month OAA	-.155	-.253	-.264	-.229	-.071
24 Month Combinatorial Pretend	.220	.122	.164	.017	-.079
24 Month # Child-Initiated	.239	.374*	.169	-.102	-.158

$^{\dagger}p < .10$. *$p<.05$. **$p<.01$.

Table 19

Correlations Between Type of Maternal Involvement at Time 2 and Children's Concurrent Language Scores and Pretend Play Behaviors

	Type of Maternal Involvement with their 24–Month-Old Toddlers				
Children's Language and Pretend Play Behaviors at 24 Months	Commentary	Involved Actor	Involved Director	Involved Physically	Uninvolved
24 Month Vocab Prod	-.225	.098	.067	.003	-.218
24 Month Sentence Comp	-.049	-.037	.037	.020	-.082
24 Month Word Comb	-.119	-.032	-.130	.015	-.177
24 Month Self Pretend	.313†	.391*	.232	.206	.862**
24 Month Other Pretend	.509**	.383*	.425*	.129	.132
24 Month OAA	.101	-.002	.203	-.064	-.070
24 Month Combinatorial Pretend	.205	.349*	.552**	.068	-.082
24 Month # Child-Initiated	.101	.290	.212	.028	.141

†$p < .10$. *$p<.05$. **$p<.01$.

Table 20

Correlations Between Mothers' Autonomy-Granting Behaviors at Time 1 and Their Relation to Children's Concurrent and 24 Month Language Scores

	Mothers' Autonomy-Granting Behaviors with their 14-Month-Old Toddlers							
Children's Language Scores at 14 and 24 Months	Directing Unoccupied	Direction Builds	Total Child Little Say	Play as Wishes	Redirect	Total Direction Builds, Little Say	Directing Unoccupied, Little Say	Redirect, Little Say
14 Month Vocab Comp	.249	-.032	-.031	.006	.064	-.176	-.280	.014
14 Month Vocab Prod	.220	.061	-.330†	.055	.263	-.077	-.132	-.033
24 Month Vocab Prod	-.109	.092	-.127	.026	-.029	.178	-.270	.112
24 Month Sentence Comp	-.189	-.088	-.043	.064	.081	-.020	-.160	-.037
24 Month Word Comb	-.110	-.167	.007	-.052	-.133	.093	.049	.086

$^{\dagger}p < .10$. $*p < .05$. $**p < .01$.

Table 21

Correlations Between Mothers' Autonomy-Granting Behaviors at Time 1 and Children's Pretend Play Behaviors at 24 Months

	Mothers' Autonomy-Granting Behaviors with their 14-Month-Old Toddlers							
Children's Language Scores at 14 and 24 Months	Directing Unoccupied	Direction Builds	Total Child Little Say	Play as Wishes	Redirect	Total Direction Builds, Little Say	Directing Unoccupied, Little Say	Redirect, Little Say
24 Month Self Pretend	.380*	.139	.614**	.131	.382*	.100	-.104	.130
24 Month Other Pretend	.279	.252	-.177	.147	.017	-.068	-.071	.188
24 Month OAA	-.096	-.163	-.169	-.252	-.208	-.068	-.071	.188
24 Month Combinatorial Pretend	-.086	.212	-.007	.157	-.052	.067	-.079	.345†
24 Month # Child-Initiated	.292	.392*	-.018	.275	.133	.075	-.158	.253

†$p < .10$. *$p < .05$. **$p < .01$.

Table 22

Correlations Between Mothers' Autonomy-Granting Behaviors at Time 2 and Children's Concurrent Language Scores and Pretend Play Behaviors

	Mothers' Autonomy-Granting Behaviors with their 24-Month-Old Toddlers						
Children's Language and Pretend Play at 24 Months	Directing Unoccupied	Direction Builds	Total Child Little Say	Plays as Wishes	Redirect	Total Direction Builds, Little Say	Little Say, Directing Unoccupied
24 Month Vocab Prod	-.262	.156	-.009	-.035	.057	.334†	.029
24 Month Sentence Comp	-.193	.015	-.004	.060	.117	.496**	.053
24 Month Word Comb	-.102	-.023	.191	-.150	-.054	.124	.082
24 Month Self Pretend	.321†	.278	.049	.283	.242	.091	-.102
24 Month Other Pretend	.135	.431*	.048	.468**	.329†	.201	-.015
24 Month Object as Active Agent	-.028	.023	-.051	-.056	.286	.030	-.083
24 Month Combinatorial	-.091	.478**	.191	.312†	.110	.546**	-.116
24 Month Number of Child Initiated Episodes	-.028	.287	-.003	.258	.113	.303†	-.050

$^{\dagger}p < .10$. $*p < .05$. $**p < .01$.

Table 23

Correlations Between Mothers' Goals for Pretend Play at Time 1 and Children's Concurrent Language Scores and Language Scores at 24 Months

	Mothers' Goals for Pretend Play at Time 1			
Children's 14 and 24 month Language Scores	To Provide Direct Instruction[a]	To Encourage Alternative Ways of Thinking[b]	To Protect Health and Safety[c]	To Preserve the Child's Autonomy[d]
14 Month Vocab Comp	-.154	.354†	-.091	-.060
14 Month Vocab Prod	-.176	.365*	.052	-.110
24 Month Vocab Prod	.082	-.062	.020	-.207
24 Month Sentence Comp	.068	-.123	.123	-.216
24 Month Word Comb	.056	.007	.020	-.093

†$p < .10$. *$p < .05$. **$p < .01$.

Table 24

Correlations Between Mothers' Goals for Pretend Play at Time 1 and Children's Pretend Play Behaviors at 24 Months

	Mothers' Goals for Pretend Play at Time 1			
Children's Symbolic Play Behaviors at 24 Months	To Provide Direct Instruction[a]	To Encourage Alternative Ways of Thinking[b]	To Protect Health and Safety[c]	To Preserve the Child's Autonomy[d]
24 Month Self Pretend	.242	.052	-.073	-.126
24 Month Other Pretend	.080	.143	-.001	-.197
24 Month Object as Active Agent	-.104	-.093	-.034	-.133
24 Month Combinatorial	.312†	-.100	.026	-.108
24 Month Number of Child Initiated Episodes	.235	.557**	.089	-.202

†$p < .10$. *$p < .05$. **$p < .01$.

Table 25

Correlations Between Mothers' Goals for Pretend Play at Time 2 and Children's Concurrent Language Scores

	Mothers' Goals for Pretend Play at Time 2			
Children's Language Scores at 24 Months	To Provide Direct Instruction	To Encourage Alternative Ways of Thinking	To Protect Health and Safety	To Preserve the Child's Autonomy
24 Month Vocab Prod	.229	-.147	-.015	-.058
24 Month Sentence Comp	.022	-.149	.099	-.028
24 Month Word Comb	.135	.064	.135	-.264

$^{\dagger}p < .10$. $*p < .05$. $**p < .01$.

Table 26

Correlations Between Mothers' Goals for Pretend Play at Time 2 and Children's Concurrent Pretend Play Behaviors

	Mothers' Goals for Pretend Play at Time 2			
Children's Symbolic Play Behaviors at 24 Months	To Provide Direct Instruction	To Encourage Alternative Ways of Thinking	To Protect Health and Safety	To Preserve the Child's Autonomy
24 Month Self Pretend	.229	-.064	.532**	.125
24 Month Other Pretend	-.048	.070	.293	.570**
24 Month Object as Active Agent	-.164	.292	-.186	-.043
24 Month Combinatorial	.116	.001	.057	.303†
24 Month Number of Child Initiated Episodes	.146	.085	.098	.372*

†$p < .10$. *$p < .05$. **$p < .01$.

Table 27

Correlations Between Children's Language Scores at 14 Months and Children's Language Scores at 24 Months and Children's Pretend Play Levels at 24 Months

	Children's Language at 14 Months	
Children's Language and Pretend Play at 24 Months	14 Month Vocabulary Comprehension	14 Month Vocabulary Production
24 Month Vocab Prod	.273	.215
24 Month Sentence Comp	-.097	.114
24 Month Word Comb	-.128	-.165
24 Month Self Pretend	-.059	-.165
24 Month Other Pretend	.052	.093
24 Month Object as Active Agent	-.130	-.073
24 Month Combinatorial	-.210	-.202
24 Month Number of Child Initiated Episodes	.073	.084

$^{\dagger}p < .10$. $*p < .05$. $**p < .01$.

Table 28

Correlations Between Children's Language Scores at 24 Months and Concurrent Pretend Play Behaviors

	Children's Language at 24 Months		
Children's Pretend Play at 24 Months	24 Month Vocabulary Production	24 Month Sentence Completion	24 Month Word Combinations
24 Month Self Pretend	-.083	.098	.000
24 Month Other Pretend	-.292	-.065	-.556**
24 Month Object as Active Agent	.011	.005	-.008
24 Month Combinatorial	.200	.369*	.101
24 Month Number of Child Initiated Episodes	.116	.323†	-.097

†$p < .10$. *$p < .05$. **$p < .01$.