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THE RELATIONSHIP BETWEEN PARENTAL COMMUNICATIVE ACT AND
ABSTRACTION LEVEL USAGE IN STORYBOOK READING AND CHILDREN'S
LANGUAGE AND LITERACY ABILITIES

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ABSTRACT

This study analyzed the possible relationship between parental communicative act and abstraction level usage during storybook reading and children's language and literacy outcomes for children from lower socioeconomic households. It was thought that results would be similar to previous studies analyzing middle class parent-child dyads, with more interactive reading associated with higher language and literacy abilities. However, the only significant correlation was found between parental descriptive utterances and children's letter-word knowledge. These results may suggest that many intervening variables influence the storybook reading experiences of children from different socioeconomic backgrounds. Perhaps the strategies championed in the middle class dominant literature are not suited for children from lower socioeconomic households. More research is necessary to determine specific parental reading practices that may be beneficial for children's language and literacy development.

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Chapter 1

Why is Storybook Reading Important?

Storybook reading is a ubiquitous practice, frequently championed as an ideal activity for providing learning opportunities for children within parent-child interactions (Van Kleeck, Gillam, Hamilton, & McGrath, 1997; Pellegrini, Perlmutter, Galda, & Brody, 1990; Reese & Cox, 1999). Indeed, these book reading interactions, principally centered upon fostering pre-literacy skills to bolster later school success, have proven to be increasingly important in a fast-paced literate society holding high esteem for academic achievement (Reese, Cox, Hearte, & McAnally, 2003; Danis, Bernard, & Leproux, 2000). However, dissimilarities in preliteracy abilities have been found to be firmly rooted by the age of four, with children who demonstrate inferior skills early in life failing to improve later in school (Van Kleeck, 2008). Thus, it is recommended that children's emergent literacy skills be targeted prior to their enrollment in preschool in order to provide the most opportunities for academic achievement (Whitehurst & Lonigan, 1998).

Storybook Reading

Storybook reading in the home has been shown to be a successful tool to achieve this early focus on teaching emergent literacy skills (Whitehurst & Lonigan, 1998). However, the process of learning through storybook reading itself includes many

different facets that are influenced by parental behaviors. This necessitates an analysis of the interactions that occur between parents and children to determine which parental utterances foster emergent literacy abilities. By understanding which specific strategies utilized in storybook reading are most indicative of school success (as measured through children's emergent literacy and language skills and their interaction with parental utterance types and frequencies), informative recommendations, and more critically, effective interventions, may be constructed. Thus, children will be able to begin their journeys towards literacy in their most natural environment with their most important teachers; their home and their parents.

What is Emergent Literacy?

In order to clearly relate the parental role in storybook reading with emergent literacy outcomes, a sufficient understanding of the concept of emergent literacy must be achieved. Whitehurst and Lonigan (1998) argued that emergent literacy does not simply refer to the process of acquiring the skills necessary to read and understand text through reading books. Rather, emergent literacy can best be viewed as a continuum, with abilities acquired over time starting at the beginning of development. This model thus requires early teaching experiences and exposure to components of text that delve beyond print decoding, making the home an important environment to provide these initial opportunities to learn. A minimum of two components are included in emergent literacy: inside-out abilities that "require explicit learning" (e.g. phonological awareness or letter knowledge) and outside-in abilities that are learned through experience and input from

the environment (e.g. language or conceptual knowledge). For instance, a child may be taught letter names explicitly in the classroom (inside-out), while the child also learns about sentence structures used in narratives through experiences with storybooks (outside-in). Once again, those skills gained through teaching as well as, and especially, those acquired through exposure, are met best in the home environment, underlining the important role of parents in influencing their children's emergent literacy outcomes. Emergent literacy is a complex, multilayered set of skills that requires carefully planned and coordinated teaching early in development, particularly in the home, in order to provide children with the skills necessary to succeed in the classroom (Whitehurst & Lonigan, 1998).

Storybook Reading and Its Benefits from Home to School

One of the most frequently used activities to encourage emergent literacy skills, particularly in the home, is storybook reading. Its popularity stems from the relative ease in conducting the activity and its flexible nature. This flexibility allows it to fit into the rigors of daily life while providing a constrained context with an understood topic (Van Kleeck, 2008; Van Kleeck et al., 1997).

The fundamental act of storybook reading between parents and children itself offers substantial benefits for numerous aspects of children's language and emergent literacy skills (Whitehurst & Lonigan, 1998). Children are introduced to narratives and story structure, permitting an understanding of how ideas are constructed and linked to form a cohesive plot. This aids comprehension abilities related to emergent literacy skills

(Reese & Cox, 1999). In turn, an understanding of story narratives has been linked to a greater use and comprehension of decontextualized language, or information beyond what is present in the text. It has been hypothesized that a lack of sufficient understanding of decontextualized language is the true root of inferior reading and writing abilities, thus bolstering the suggested need for reading storybooks to children to provide exposure to important literary concepts early in development (Sorsby & Martlew, 1991; Dickinson & Snow, 1987).

Vocabulary improvements are also significant benefits of storybook reading, with children who are read to more often demonstrating greater receptive vocabularies. Of note, the same positive impact was found across children from all socioeconomic levels (Senechal, Thomas, & Monker, 1995). Children essentially learn word meaning through contextual clues and linguistic forms such as grammar, leading to not only a larger, but also a deeper, vocabulary base (McNaughton, 1995). Syntax and simple print concepts are also gained as children learn that speech and print are interchangeable, while critically recognizing that some language is used exclusively in print (Pellegrini & Galda, 1998).

Further benefits are derived from the nature of the content of storybooks. The components of speech that have been shown to foster language development as well as greater variations and forms of sentences are found more often in books as compared to other sources of language input. Importantly, greater experiences with these specific forms of speech and sentences have been found to be linked to literacy and oral language skills (Sorsby & Martlew, 1991; Bus, van Ijzendoorn, & Pellegrini, 1995).

When examining the benefits of storybook reading related to emergent literacy skills, a connection to school success is often also made due to the link between emergent

literacy and academic success. Essentially, storybook reading ties context specific conversations encountered in daily life with context independent utterances that are emphasized in the school setting (Sorsby & Martlew, 1991). With the exposure and use of such varied contexts, those children who have been read to exhibit greater success in literacy abilities in school. It is presumed that prior emergent literacy skill acquisition made such success possible (Sorsby & Martlew, 1991).

Clearly, exposure to storybook reading early in life, particularly in the home, offers opportunities for learning that extend into, and include, many other critical skills needed for school success, including vocabulary, syntax, and story structure knowledge among many others. It is for this reason that the current study explored the act of storybook reading in great detail to attempt to further isolate and specify the gains achieved by this important activity between parents and children.

Examining the Storybook Reading Activity

With the benefits of storybook reading omnipresent throughout the professional literature, the entire activity has been divided into smaller constituents in an attempt to analyze the impacts of each component on emergent literacy skills. The vast majority of these studies focus on white, middle class children, leaving lower socioeconomic classes relatively underrepresented in the literature (Van Kleeck et al., 1997; Heath, 1983; Haden, Reese & Fivush, 1996). Two primary components have been highlighted in particular for their beneficial influences on emergent literacy abilities: the specific communicative acts employed during reading, and the levels of abstraction of parental

communicative acts (Van Kleeck et al., 1997). The findings suggest that varying strategies offer specific and distinct consequences for later achievement (Van Kleeck et al., 1997; Whitehurst & Lonigan, 1998; Zevenbergen & Whitehurst, 2003; Haden, Reese, & Fivush, 1996). As Reese, Cox, Hearte, and McAnally (2003, p. 39) point out, “it may not be reading to children per se that is beneficial, but the way in which children are read to that exerts beneficial effects on their literacy-related abilities.”

Communicative Acts

Communicative acts are essentially the building blocks of storybook reading interactions. Parents have been shown to use various types of acts, with each probing into a different realm of developing literacy aptitudes (Van Kleeck et al., 1997; Heath, 1983). The current study examined these variations in utterances and their links to emergent literacy outcomes.

What-explanations, which include simple inquiries concerning the comprehension of what has previously occurred in the text, allow the child to recognize the plot’s sequence of events, identify central ideas, and recall the title of the text, while enhancing other more concrete skills. Reason-explanations ask the child for the reason a character acted in a specific way or for the reason a specific event occurred, allowing the child to comprehend cause-effect relations through the transformation from explicit connections to implicit ones (Heath, 1982). Supporting these effects of adult questioning experimentally, Senechal, Thomas, and Monker (1995) found that children who were asked questions during storybook reading did better on comprehension measures and

produced a greater amount of words both directly after the study as well as when tested one week later when compared to a control group. The critical conversion from immediately present information to implied information allowed for a deeper understanding of the text, thus enhancing the development of further emergent literacy skills.

Predictions, at their simplest levels, are derivatives of what-explanations, with an understanding of why an event took place essentially a prerequisite to predict successive events in the plot (Haden, Reese, & Fivush, 1996). Each inquiry demands a mental separation from the physical text, allowing for the subsequent development of a much more profound knowledge base than those needed to decode phonemes. This more intricate set of skills fostered through the use of various communicative acts has been shown to have substantial effects on school success (Whitehurst & Lonigan, 1998). For instance, parental utterances including text-world connections, world-text connections, and requests for the child to label items were all found to positively relate to children's vocabulary scores (Pellegrini & Galda, 1998). Indeed, in a second study, Senechal, Thomas, and Monker (1995) found that children who were engaged in the reading by experimenters produced a greater amount of words in both short and long term testing. The interactive context allowed for greater gains in comprehension vocabulary most likely due to increased opportunities to practice retrieving the vocabulary items. In a related study, Senechal (1997) again found that questioning children during book reading was positively correlated with expressive vocabulary measures, with children in the questioning group obtaining scores 3.7 times higher than the normal reading group. The

questioning group also achieved scores that were 1.2 times higher on receptive vocabulary measures.

Whitehurst et al. (1988) applied this research in a one month intervention targeting adult behaviors that encouraged child involvement in storybook reading. They found children of parents who asked wh- and open-ended questions more frequently and provided informative feedback about children's performances (thus engaging children to be active participants in the reading) were nearly 8.5 months superior to the control group in receptive language measures and 6 months superior in expressive vocabulary measures. Overall, these studies highlight the benefits of interactive book reading, placing the responsibility on parents to provide book reading contexts with these advantageous characteristics (Senechal, Thomas, & Monker, 1995; Senechal, 1997).

Parental Utterance Abstraction Levels

The benefits of specific adult communicative acts which encourage children's emergent literacy skills are universal within these findings; however an even more detailed study of these acts regarding abstraction levels yields a deeper insight into the impact of various strategies on children's emergent literacy outcomes. It may not be just asking a wh- question that is beneficial, but rather asking a wh- question in a challenging context that requires a separation from the present that promotes the maximum achievement of emergent literacy abilities. It is this very question that the current study explored in order to try to find the link between parental abstraction level usage and children's emergent literacy skills. Once again, however, most studies conducted in the

past centered upon white, middle class children (Van Kleeck et al., 1997; Heath, 1983; Haden, Reese & Fivush, 1996). Thus, the current study examined lower income parents and children in an attempt to narrow the breach in research between socioeconomic (SES) classes.

Abstraction may be used interchangeably with the term decontextualization; both refer to a deviation from what is perceptually present (Van Kleeck et al., 1997). The practice of storybook reading itself seems to be a fertile source of potential opportunities to use high levels of abstraction, with more high level demands and more abstract utterances found to occur during reading as compared to other interactive contexts (Sorsby & Martlew, 1991). The use of such high level/high demand comments, for example predictions, inferences, or print knowledge utterances, have been found to be positively correlated with story comprehension skills, letter recognition, and receptive vocabulary abilities. Haden, Reese, and Fivush (1996) found that those mothers labeled as comprehenders, characterized by more print knowledge comments and high-level/high-demand talk beyond the text, had children who scored better on vocabulary and comprehension measures. Further, mothers who used more frequent high-level narrative utterances during reading were found to have children with better vocabulary and word decoding abilities when tested later in their academic careers, with the depth of vocabulary augmented by more involved inquiries (Leseman & de Jong, 1998; Van Kleeck, 2008).

When transferring this research into practice, studies examining the utilization of higher level utterances within the practice of dialogic reading have also shown favorable results. Children in dialogic reading conditions emphasizing decontextualized utterances

emerged 6 months ahead in expressive vocabulary and 8.5 months ahead in expressive language fluency, with those in a school plus home condition reporting the greatest gains. Once again, this underscores the role of the home as a critical enabler to help children acquire emergent literacy skills successfully (Zevenbergen & Whitehurst, 2003).

Continuous high levels of interaction, however, have not always been proven to be the most beneficial strategies to foster emergent literacy abilities. Studies have suggested that utterances both low and high in cognitive demand are particularly helpful in concurrently providing a positive successful environment along with a challenging context favorable for learning opportunities. Children showed the greatest improvement when provided with parental utterances at levels one, two, and four (with a scale from one to four increasing in abstraction) (Reese, Cox, Hearte, & McAnally, 2003; Van Kleeck et al., 1997). Further, children were found to mimic their parents when abstraction changes were initiated, emphasizing the need for parents to utilize various levels of abstraction to encourage children to do the same (Danis, Bernard, & Leproux, 2000). Thus, it is not only the communicative act that is important, but the level at which the act is transmitted that holds greater weight with regards to emergent skills necessary for literacy success.

It must be noted, however, that these high level interactions are infrequently used by parents, and are most often supplanted with brief, concrete labeling and describing (Pellegrini, Brody, & Sigel, 1985). Even more critically, similar to the lack of usage of high levels of abstraction, there is a dearth of information in existing research regarding the effects of the usage of highly demanding utterances, leaving the potential benefits gained from engaging deeper knowledge constructs left to be uncovered (Van Kleeck et

al., 1997). The current study attempted to fill this hole in order to provide more information about potential links between parental abstraction levels and children's emergent literacy abilities.

Socioeconomic Status Effects

Despite the apparent benefits that storybook reading offers, the effects of socioeconomic status on parental usage of specific communicative acts and levels of abstraction are not as clearly established. As Heath (1982; 1983) found in her detailed ethnographic study of Roadville and Trackton children, different beliefs and practices are embedded in various cultures and socioeconomic groups, having profound implications for children's literacy success in school. These implications, however, are a matter of debate.

Differences in child participation and communicative act usage are evident between classes. Heath found that white, middle-class families spoke longer and more often during book reading as compared to white working-class or black working-class families (Heath, 1982; Heath, 1983). Further, low-SES families have been reported to have less complex interactions when reading, with fewer connections made between the text and children's lives. Children from low-income backgrounds also demonstrate less representational competence, with the culmination of all of the differences between classes leaving economically challenged children at a disadvantage regarding emergent literacy abilities. Essentially, low-SES children are not provided with the exposure to communicative acts and interactive book reading contexts that have been proven to be so

beneficial to academic success for their middle class counterparts (McNaughton, 1995; Sigel, 1982).

Despite dissimilarities in communicative acts, a few studies have shown that parental abstraction level usage is present in low SES dyads. Mothers from low-income backgrounds have been found to adjust levels of interaction based on their child's abilities, with African American Head Start mothers' levels of demand correlating with their children's vocabulary scores (Pellegrini & Galda, 1998; Pellegrini, Perlmutter, Galda, & Brody, 1990). However, the application of high demand utterances in dialogic reading practices have had mixed results for children's outcomes. Some studies found that middle and upper class children benefitted more from high demand utterances than lower class children, while others reported equal benefits regardless of class. Therefore, solid conclusions in this area are lacking (Whitehurst & Lonigan, 1998; Zevenbergen & Whitehurst, 2003).

These class differences and outcomes are extremely relevant in today's diverse society, but currently a limited data set is available regarding the exclusive exploration of abstraction level usage within low-income dyads. The studies mentioned above focused more on theories such as the Zone of Proximal Development and intervention programs such as dialogic reading, with a specific examination of abstraction levels and emergent literacy outcomes noticeably absent. While some researchers have examined high levels of demand within white, middle class groups, they have not yet targeted the large population of those labeled lower on the socioeconomic scale (Van Kleeck et al., 1997; Haden, Reese, & Fivush, 1996). Much is left to be determined both about the usage of demand within low-class groups, as well as the relationship between the use or absence

of such utterances and children's emergent literacy outcomes. The current study addresses this need for information.

Needs for Research

Given the limited nature of current studies regarding communicative act and abstraction level usage during storybook reading behaviors, and more specifically abstraction level and communicative act usage and its effects in low-income populations, an examination of these behaviors and outcomes is needed to begin to close this gap in the data. Essentially, a large portion of the population is being overlooked.

Some researchers have cited the need to study the elements of book reading and their specific effects on literacy skills, using microanalytic coding to ascertain the connections between certain reading styles and outcome measures (Whitehurst & Lonigan, 1998; Haden, Reese, & Fivush, 1996). The current study examined communicative acts, and more specifically, the abstraction levels of these acts, used by parents during storybook reading, and their relationship with children's emergent literacy abilities. Communicative acts were coded for utterance type as well as abstraction level to permit a detailed exploration of each dyad's interactions.

Broadly speaking, probing deeper than the superficial reading activity allows for a study of potential strategies capable of fostering later language and literacy skills which are essential to success in the classroom (Dickinson & Smith, 1994). The results of these careful studies have great potential for the promotion of the development of young language and literacy experts beginning in the home.

Addressing the Needs for Research

The current study examined low-income parents' use of communicative acts and abstraction levels during storybook reading behaviors with their children. The data were extracted from time one measures of a larger study centered upon kindergarten readiness for children with reading difficulties. There were two primary purposes for the current study:

1. Examine the relationship between parental communicative act usage and children's expressive and receptive language, and preliteracy abilities
2. Examine the relationship between parental abstraction level usage and children's expressive and receptive language, and preliteracy abilities

The interactions were analyzed to determine if storybook reading between parents and children was related to literacy outcome measures. The primary purpose of the study was to see if parental communicative acts and abstraction levels, and their frequencies of use, correlated with emergent literacy skills for children from low socioeconomic households. It was hypothesized that the results would be similar to previous studies of middle class dyads, with more interactive parental reading practices associated with gains in children's language and literacy outcomes. It was hoped that the findings would help develop beneficial practices to allow children from all backgrounds to perform maximally with regards to language and literacy.

The need for an understanding of the factors included in the larger concept of emergent literacy has great repercussions for an increasingly literate and academically oriented society. Reading to a child essentially creates the framework necessary for basic

scholastic achievement (Reese, Cox, Hearte, & McAnally, 2003; Danis, Bernard, & Leproux, 2000). What is critical, however, is deconstructing that framework to determine which components of storybook reading serve as the principal foundations for emergent literacy and language abilities. Additionally and arguably more importantly, determining which reading strategies, including communicative act and abstraction level usage, are most conducive to fostering these skills will allow parents from all socioeconomic classes to effectively impart essential aptitudes to their children, promoting future academic accomplishments in the school setting.

Chapter 2

Method

Participants

This investigation is part of a larger examination of kindergarten readiness of children who are at risk for reading difficulties. One hundred and fourteen parent-child dyads of the 118 dyads in the original study participated in the current study. The dyads were recruited from two kindergarten classes in each of three school districts in Central Pennsylvania. Demographic information about the schools is provided in the Appendix. Approximately 90% or more of District 1 and District 3's student populations were eligible for free and reduced price lunches, whereas 64% of the student population for District 2 was eligible.

Participating children were identified as being at risk for early reading difficulties by their teachers. Children were identified by their teachers as performing in the lowest third of their class in early reading abilities. Children and their parents were excluded from the investigation if English was not the primary language used during the observations (1 dyad), their videotape of their booking was of poor audio quality (1 dyad), or if demographic data was not obtained from the family (2 dyads).

The parents of the dyads averaged 33 years of age (SD 6.3), ranging from 22 to 60 years old. All but one of the participants was a parent; the other was a grandparent. For ease of discussion, the remainder of the paper refers to all of the adult members of the dyads as parents. Approximately 39% of the parents were not married, whereas 38%

were married, and 23% lived with an individual who was not the child's parent. Over 60% of the parents worked outside of the home.

Seventeen percent of the parents obtained less than a high school education. Further, 53% of the parents obtained a high school diploma or GED. Approximately 25% of the parents completed some technical school or college or earned an Associate of Arts degree (AA) or technical certificate. Six percent of the parents completed a college education or higher. One parent did not provide information about educational achievement.

Table 1 *Ethnicity of 114 Parent-Child Dyads*

Ethnicity	Percentage of Parents	Percentage of Children
Non-Hispanic White	43.9	37.7
Hispanic White	10.5	9.6
Black	40.4	36.8
Asian	0	0
Black/Hispanic	1.8	3.5
White/Hispanic	0.9	0.9
Non-Hispanic White/Black	1.8	6.1
Other	0.9	5.3

The dyads in the study included families from a variety of ethnic backgrounds (see Table 1). Forty-four percent of parents considered themselves to be non-Hispanic White; 11% considered themselves to be Hispanic White; and 40% considered themselves to be Black. A small percentage of parents considered themselves to be multi-ethnic.

The children averaged 67 months of age (SD 4.5) with a range of 45 to 81 months of age. Fifty-three percent of the children were male and 47% were female. The children

were also from varied ethnic backgrounds (see Table 1). Thirty-eight percent of the parents considered their children to be non-Hispanic White, 10% Hispanic White, and 37% Black. A small percentage of parents also considered their children to be multi-ethnic. When examining home language use, 90% of the dyads spoke only English at home, while 7% spoke English and Spanish, and 3% spoke a language other than English or Spanish.

Procedure

In the fall of the children's kindergarten year, home visits were conducted by trained visitors. A background questionnaire was administered to each parent. The questionnaire included questions that elicited demographic information, parental ratings of the children's behavior and personal characteristics, and parental feelings toward their children. The parents were also asked to respond to items regarding their own perceptions of themselves and their responsibilities as a parent. Reading frequency and characteristics of their personal storybook reading activities were specifically targeted as well.

Upon completion of the questionnaire, the home visitor asked the parents to look at a book with their children as they normally would. All of the parents were presented with the book *Don't Eat the Teacher* (Ward, 2002) to read to their child. However, the parents were given a choice to read either an English or a Spanish version of the text. All dyads in the current study used the English text. One parent did use both English and Spanish during the book reading, but a sufficient amount of English utterances were

produced to allow for an analysis of communicative acts and abstraction levels. The only parent that spoke entirely in Spanish was excluded from the current study as mentioned previously. The reading was videotaped.

On a separate occasion following the home visit, the children were tested in their respective schools for language and preliteracy measures. To assess each child's expressive language abilities, the Expressive One Word Picture Vocabulary Test (EOWPVT), and the sentence imitation subtest of the Test of Language Development (TOLD) were administered (Brownell, 2000; Newcomer & Hammill, 1997). In the EOWPVT, each child was asked to name pictures showing either objects, actions, or concepts. In general, the assessment is designed so that typical responses are only one word. The sentence imitation subtest of the TOLD involved presenting the child with a sentence in a normal voice and with a typical intonation pattern. The child was instructed to "say exactly what I have said," and was given two examples before beginning the assessment. Two subtests of the Woodcock-Johnson III Tests of Achievement were also given to the children (Woodcock, McGrew, & Mather, 2001). The letter-word identification subtest was administered to assess preliteracy abilities. Each child was presented visually with a variety of letters and words and was asked to respond receptively (by pointing to a letter or word) or expressively (by saying the letter name or reading a word) depending on the particular stimulus. The oral comprehension subtest was given to assess receptive language abilities. Each child was presented with a cloze task, in which audio recordings of sentences omitting one word each were played. The child was instructed to respond with a word that would complete each sentence. For

instance, each child was given the sentence, “Water looks blue and grass looks _____,” with the correct response being “green.”

Analysis

Transcription and coding.

The videotapes of the dyads’ book readings were transcribed using the Systematic Analysis of Language Samples (SALT) software (Miller & Chapman, 2002). Because this study focused on parental communicative behaviors, only the parent’s utterances were analyzed in this study. The parental communicative acts and their associated abstraction levels were coded by an undergraduate student and a graduate student in the Communication Sciences and Disorders program.

Communicative acts coding system.

The communicative act coding system for this study was based on the system developed by Hammer, Nimmo, Cohen, Draheim, and Johnson (2005). The Van Kleeck et al. (1997) codes were also consulted to help designate codes as story related or non story related, which will be discussed later. The utterances that were coded, seen in Table 2, were divided into two distinct groups based on their communicative purpose, either an assertive or a responsive.

Table 2 *Original Coded Communicative Acts*

Communicative act	Definition	Example
Assertives		
Request for a yes/no (RQIN-YN)	Parent asks a child to agree or disagree with the parent's utterance	You think that's the teacher?
Assertive statement/comment (ASSC)	A comment or statement related to the story	Oh no, he ate the teacher!
Request for information (RQIN)	A request for information (i.e. identify a character, locate a character, describe story events, external information related to the child)	Who is that?
Request for reading (RQIN-R)	Asks the child to read	What does that say? What's that word?
Request for clarification (RQCL)	Asks the child to clarify when the original utterance was not understood	The what?

Prompt (PR)	The parent starts an utterance with the intention of having the child complete it	Brush his~ Not to~
Imitation (IM)	An identical imitation of the child (including an indefinite article)	C: Crunch M: Crunch
Attention directing (ATTN)	Directs the child's attention to a particular object or concept	Look at the star.
Performative (PERF)	An utterance that accomplishes an action	We'll see. Alright.
Request for behavior related action (RQAC)	Request to modify the child's behavior (including actions related to the reading activity)	Sit up. Turn the page.

Responses

Response to a yes/no (RSIN-YN)	Parent responds to affirm or disagree with the child's utterance	C: Is that Sammy? M: Yes
Response to a request for information (RSIN) Non-verbal response to a yes/no question (RSIN-YN-N)	Answers a question Non-verbal response to a yes/no question	C: Is that the mom or the dad? M: (Umm) probably the mom. M: Didn't he? C: {NVN}
Non-verbal response to a request for information (RSIN-N)	Non-verbal response to a request for information	M: What did he learn? C: {shrugs}
Response to request for reading (RSIN-R)	Response to a request to read	C: Mom read that one M: I already read that one
Response to a request for clarification (RSCL)	Response to a request for clarification	M: The what? C: The crab
Response to a prompt (RSPR)	The child responds to the parent's prompt	M: Don't eat the what? C: The teacher
Response to a text prompt (TXT-PR)	The child responds to a text prompt	M: Don't eat the~ C: Teacher
Feedback (FDBK)	Information regarding the correctness of the child's utterance	M: What's he going to do? C: Bite the table. M: Yeah.

*Adapted from Van Kleeck et al. (1997) and Hammer et al. (2005)

Abstraction level coding system.

The abstraction level coding system aligned with Van Kleeck et al. (1997) levels of abstraction. Four levels of abstraction were used to code the parental story related assertives and responses in the transcripts. Table 3 displays the levels of abstraction, their respective definitions, and examples of utterances that were coded at each level.

Level one included utterances that were the most directly and clearly related to the text. Level one assertives included labeling characters and objects or specifying where a character was in the picture. These utterances were based on overt observations of events that were explicitly displayed in the illustrations of the text, thus requiring minimal mental separation from the story. Level one utterances were static in nature, containing nouns that were not associated with any actions. For instance, an adult asked a child, “Where is the teacher?” or “Who is that?”

Level two included concepts that required a larger separation between story related events and the child. Level two utterances included descriptions of the characters or pictures in the book and prompts for the child complete a line in the story such as “Don’t eat the...” with the intent for the child to respond, “teacher.” In contrast to Level one, Level two utterances included actions, such as “You see them dancing?” or “What did he eat?” Level two also included requesting the child to remember events that already occurred, such as “Did he eat the teacher?”

Level three was more abstract than levels one and two, requiring the child to think about concepts that were not explicitly occurring in the text. Level three utterances included summarizing events and providing definitions of unknown words. Level three

utterances also required the child to consider characters' perspectives and feelings in order to postulate a possible reasoning behind a character's action or their emotions regarding an event in the story. Further, level three utterances also included personal perceptions regarding the book, such as "Aren't they funny looking?" and connections between the text and the child's own experiences. These utterances often took the form of, "You wouldn't eat your teacher right?" It must be noted that the inclusion of these utterances that connected the text to a child's experiences was contrary to the Van Kleeck et al. (1997) system, in which "text to life" utterances were separated into an entirely different category outside of story related utterances.

Level four required the greatest mental separation from the text, with parents' utterances either predicting future events and solving hypothetical problems themselves or requesting for their child to do so. For instance, a parent stated, "If it's his first day of school, he is probably five." Level four utterances also involved explaining a complex concept, such as answering a child's "how" or "why" questions. The reader is directed to Van Kleeck et al. (1997) for a more detailed description of the abstraction level coding system.

Table 3 *Abstraction Level Coding System*

Utterance	Description	Example
<i>Level One</i>		
Label	Stating, focusing the child's attention to, or posing a question about an object or a person explicitly located in the text	This is a puffer fish. What color is that?
Locate	Stating or posing a question about where an object or character is located in the text	Where's the teacher? The fish is in the water.
<i>Level Two</i>		
Describe Characteristics	Stating or asking questions about the perceptual traits of objects or characters	His teeth are sharp. He's the seaweed.
Describe Scene	Stating or asking questions regarding events occurring in the text (includes actions)	What was he biting? He's eating.
Recall Information	Stating or asking questions about events that already occurred in the text	Did he eat the teacher?
Complete Sentence	Prompt for a child to finish an incomplete utterance	Don't eat the~
<i>Level Three</i>		
Summarize	Stating or asking the child to integrate events in the text	So he was it. So all of the little fish was taping him.
Define	Stating or asking about the meaning of an unknown word	What's this for?
Provide Point of View	Stating or asking about the reasoning behind a character's actions or the character's perspective	He still wants to play.
Identify Similarities and Differences	Stating or asking about connections between the text and the child's personal experiences	Kind of reminds you of Mr. Crab. Just like you, huh?
Make Judgments	Stating or asking about personal feelings towards characters, events, or objects in the text; judging a character's emotions	(Oh) this is a silly picture. Sammy is mad.
<i>Level Four</i>		
Predict	Stating or asking about what will occur in the text in the future	I bet he took a chunk out of the table. What do you think it's going to be about?

Problem Solve	Stating or asking about why events occurred; using reasoning to answer a question	If it's his first day of school he's probably five.
Explain	Describing ambiguous events and ideas in the text	(Oh) okay this is an underwater neighborhood. That's how he can go down the stairs and go out the door.

*Adapted from Van Kleeck et al. (1997) and Hammer et al. (2005)

Statistical

Communicative acts that were used infrequently by parents were collapsed into broader categories. Verbal and nonverbal communicative acts were combined into single groupings. Therefore, the single category of yes/no responses (RSIN-YN) included nonverbal yes/no responses (RSIN-YN-N) and verbal yes/no responses (RSIN-YN). Nonverbal responses to requests for information (RSIN-N) were also incorporated into the single category of responses to requests for information (RSIN). Requests to read and responses to requests to read (RQIN-R and RSIN-R), requests for clarification and responses to requests for clarification (RQCL and RSCL), and prompts and responses to prompts as well as responses to text prompts (PR, RSPR, and TXT-PR) were omitted from the analysis. They served more as conventions in directing the storybook reading activity rather than engaging the parent and child with the contents of the story.

Only story related utterances were included in the study. Story related utterances, displayed in Table 4, were defined as those directly involving ideas or information from the text, such as requesting a child to name a character, or answering a child's query regarding the plot. The story related utterances in the assertive category

that were analyzed in this study were requests for a yes or no answer, assertive statements or comments, and requests for information. Story related responses that were analyzed included responses to yes or no questions and responses to requests for information. Non-story related utterances, shown in Table 5, were defined as utterances directed towards behavioral requests or providing feedback to the child regarding the correctness of their utterances. All utterances that were unrelated to the story were omitted from the analysis.

Table 4 *Story Related Parental Communicative Acts*

Communicative act	Definition	Example
<i>Assertives</i>		
Request for a yes/no (RQIN-YN)	Parent asks a child to agree or disagree with the parent's utterance	You think that's the teacher?
Assertive statement/comment (ASSC)	A comment or statement related to the story	Oh no, he ate the teacher!
Request for information (RQIN)	A request for information (i.e. identify a character, locate a character, describe story events, external information related to the child)	Who is that? Where is Sammy?
<i>Responses</i>		
Response to a yes/no (RSIN-YN)	Parent responds to affirm or disagree with the child's utterance	C: Is that Sammy? M: Yes

Response to a request for information (RSIN)	Answers a question	C: Is that the mom or the dad? M: (Umm) probably the mom.
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*Adapted from Van Kleeck et al. (1997) and Hammer et al. (2005)

Table 5 *Non-Story Related Parental Communicative Acts*

Communicative Act	Definition	Example
<i>Assertives</i>		
Attention directing (ATTN)	Directs the child's attention to a particular object or concept	Look at the star.
Performative (PERF)	An utterance that accomplishes an action	We'll see. Alright.
Request for behavior related action (RQAC)	Request to modify the child's behavior (including actions related to the reading activity)	Sit up. Turn the page.
<i>Responses</i>		
Feedback (FDBK)	Information regarding the correctness of the child's utterance	M: What's he going to do? C: Bite the table. M: Yeah.
Imitation (IM)	Identical imitation of the child's utterance (may include an indefinite article)	C: Cold. M: Cold.

*Adapted from Van Kleeck et al. (1997) and Hammer et al. (2005)

The SALT software was used to determine the percentage of usage of each communicative act and abstraction level produced by the parents during storybook reading (Miller & Chapman, 2002). Communicative acts and abstraction levels were separated so each act and level could be analyzed with regards to the children's test scores. The percentage of usage for every communicative act was calculated for each parent by dividing the number of each particular act by the total number of utterances that were coded as a story related communicative act. The percentage of usage for each abstraction level was calculated for each parent by dividing the number of utterances at each level by the total number of utterances that were coded with any abstraction level. Mean and standard deviations values for the parents as a whole for communicative act and abstraction level usage were then computed from this data. Pearson correlations were calculated between communicative act usage and children's test scores, and between abstraction level usage and children's test scores. The level of significance was set at 0.05.

Reliability

The reliability for each communicative act and abstraction level is presented in Tables 6 and 7. In order to approximate inter-rater reliability, the two raters independently coded 20% of the transcripts. Overall, the coders achieved 95% reliability for communicative act codes and 93% reliability for abstraction level codes. All of the

story related communicative acts, and all but one of the abstraction level codes, had reliabilities of over 90%.

Table 6 *Reliability for Communicative Acts*

Communicative Act	Amount Agree	Amount Possible	Reliability (%)
RQIN-YN	156	158	98.7%
ASSC	378	404	93.6%
RQIN	208	218	95.4%
RQIN-R	20	21	95.2%
RQCL	6	6	100.0%
ATTN	58	66	87.9%
FDBK	79	84	94.0%
RQAC	29	33	87.9%
PR	3	3	100.0%
IM	59	60	98.3%
PERF	33	34	97.1%
RSIN-YN	37	40	92.5%
RSIN-YN-N	35	35	100.0%
RSIN	121	127	95.3%
RSIN-N	17	21	81.0%
RSIN-R	3	3	100.0%
RSCL	2	2	100.0%
RSPR	1	1	100.0%
TXT-PR	44	47	93.6%
TOTAL	1289	1363	94.6%

*Communicative acts that were not analyzed in the study were included in the reliability measures

**Adapted from Van Kleeck et al. (1997), and Hammer et al. (2005)

Table 7 *Reliability for Abstraction Levels*

Abstraction Level	Amount Agree	Amount Possible	Reliability (%)
One	285	309	92.2%
Two	466	500	93.2%
Three	167	180	92.8%
Four	42	48	87.5%
TOTAL	960	1037	92.6%

*Adapted from Van Kleeck et al., 1997

Chapter 3

Results

The means and standard deviations for parental communicative act usage and abstraction level usage are displayed in Tables 8 and 9 respectively. With regards to communicative acts, parents tended to use assertive utterances with relatively equal frequency, with assertive statements or comments (ASSC) constituting the largest proportion of utterances. In contrast, responses were used in far fewer instances, with both responses to requests for information (RSIN) and responses to yes/no questions (RSIN-YN) combined only comprising an average of 7% of the total amount of coded communicative acts. When examining abstraction level usage, differences in frequencies of each level were evident. The parents in the current sample used a greater amount of level one and level two utterances than level three and level four utterances, with respective average percentages of use being 74% (sum of level one and level two) and 21% (sum of level three and level four). Level two utterances were particularly common, constituting an average of 43% of the total utterances coded for abstraction. A marked decrease occurred between level three and level four utterances, with an average of only 4% of parental utterances labeled as level four. It is important to note that the standard deviations for both communicative act and abstraction level usage were all very large, and indeed close to the percentages of usage themselves. This indicates that a large amount of variability in parental behaviors was present in the current sample.

Table 8 *Parental Communicative Act Usage*

Communicative Act	RQIN	RQIN-YN	ASSC	RSIN	RSIN-YN
Mean	0.33	0.22	0.35	0.05	0.02
SD	0.24	0.18	0.22	0.13	0.07

Table 9 *Parental Abstraction Level Usage*

Abstraction level	One	Two	Three	Four
Mean	0.31	0.43	0.17	0.04
SD	0.24	0.22	0.18	0.07

*Data includes one word responses

Pearson correlations were computed to investigate the associations between parental communicative act usage or abstraction level usage, and children's language and literacy abilities as indicated by their scores on the four assessments described earlier: the EOWPVT, the letter-word identification subtest of the Woodcock-Johnson III Tests of Achievement, the sentence imitation subtest of the TOLD, and the oral comprehension subtest of the Woodcock Johnson III Tests of Achievement. The children's mean standardized scores for each of the four tests can be found in Table 10. The Pearson correlations between parental communicative act usage and children's test scores are shown in Table 11. The Pearson correlations between parental abstraction level usage and children's test scores can be found in Table 12. The sample size (N) was 114 for this analysis.

Table 10 *Children's Standardized Test Scores*

Assessment	Mean Score
EOWPVT	83.36
Woodcock-Johnson (letter-word identification)	98.87
TOLD (sentence imitation)	6.91
Woodcock-Johnson (oral comprehension)	95.69

Table 11 *Correlations Between Parental Communicative Act Usage and Child Standardized Assessment Scores*

Assessment	Communicative Act				
	RQIN	RQIN-YN	ASSC	RSIN	RSIN-YN
EOWPVT	0.06	-0.09	0.01	-0.02	0.03
Woodcock-Johnson (letter-word identification)	0.15	-0.15	0.17	-0.07	0.00
TOLD (sentence imitation)	-0.02	-0.04	0.08	-0.01	-0.03
Woodcock-Johnson (oral comprehension)	0.03	-0.09	0.05	-0.02	0.08

Table 12 *Correlations Between Parental Abstraction Level Usage and Child Standardized Assessment Scores*

Assessment	Abstraction Level			
	One	Two	Three	Four
EOWPVT	-0.15	-0.03	0.16	0.05
Woodcock-Johnson (letter-word identification)	-0.07	0.21*	0.05	-0.04
TOLD (sentence imitation)	-0.12	0.10	0.04	0.00
Woodcock-Johnson (oral comprehension)	-0.18	0.10	0.08	0.04

*Significant at the 0.01 level (2-tailed)

The only correlation between either parental communicative act or abstraction level usage and children's language and literacy scores that met the criterion of

significance was between the letter-word identification subtest of the Woodcock-Johnson assessment and level two abstraction level usage. This correlation was significant at the .01 level (2-tailed).

Chapter 4

Discussion

Contrary to what was expected given the results of previous studies conducted with middle class samples, few significant correlations were found between parental communicative act and abstraction level usage and children's language and literacy measures. It is, however, still worthwhile to examine the larger patterns in the relative magnitudes of the correlations between parental communicative act and abstraction level usage and children's language and literacy outcomes seen in Tables 11 and 12.

With regards to parental communicative act usage, the largest correlations, positive or negative, were found with the letter-word identification subtest of the Woodcock-Johnson III Tests of Achievement. This examination of preliteracy abilities seemed to show that better literacy skills were associated with more open-ended requests for information (RQIN) and assertive statements or comments (ASSC) from parents. In contrast, poorer literacy abilities were associated with more requests for yes/no answers (RQIN-YN). It must be mentioned, though, particularly since no significant correlations were found for any of the communicative acts, it is difficult to conclude which communicative acts were potentially helpful or harmful to the development of children's language and literacy abilities.

When examining parental abstraction level usage, the significant correlation between level two utterances and children's scores on the letter-word identification subtest of the Woodcock-Johnson examination (measuring preliteracy abilities) implied that greater preliteracy skills are associated with midlevel utterances from their parents.

The reader is reminded that level two utterances were descriptions of events in the text, moving beyond labeling, yet more literal than level three utterances involved with characters' feelings and other more abstract concepts. It is important to also note that negative correlations were found between level one parental utterances and children's scores on all four of the tests. This potentially showed that parents of children who had lower language and literacy scores used relatively more labels in their storybook reading interactions compared to other levels of abstraction. One final possible conclusion that can be drawn is that greater expressive vocabularies are associated with more high level utterances from parents, as shown by the relatively high correlation between level three parental utterances and children's PPVT scores. Given all three of these potential findings, it is possible that parents in low socioeconomic classes are responding to their child's level of ability by using corresponding levels of abstraction during storybook reading. However, it is important to emphasize that these conclusions are purely speculative in nature since they are based on relative sizes of correlations, with only one correlation reaching actual statistical significance. Further, little information about which particular parental abstraction levels are beneficial for developing children's language and literacy abilities is gleaned from these relatively inconclusive results.

Given the tentative findings above, it is evident that a number of intervening variables are likely influencing parental behaviors, which may influence children's language and literacy outcomes. Although this paper attempted to find similarities between the results of past studies of middle class dyads and the current study's lower class dyads, it is possible that these parallels do not exist. In order to discover the reason or reasons for this lack of comparability between the current study and others, one must

consider several influential variables. These include differences in the characteristics of samples, such as ethnicity and age. Variations in storybook reading interactions across classes, as well as children's abilities are also important factors leading to potential discrepancies between findings. Methodological differences between studies also pose a challenge to the ability to compare results. Thus, a detailed consideration of each intervening variable is warranted to illustrate the important implications of the findings for future research, and intervention endeavors, specifically for children from low socioeconomic backgrounds.

Characteristics of Sample

Demographics.

As mentioned earlier in this paper, it is quite obvious that middle class, European American children dominate the literature regarding language and literacy interventions and outcomes (Van Kleeck et al., 1997; Heath, 1983; Haden, Reese & Fivush, 1996). This makes it increasingly difficult to judge the results of the current study since little has been done to examine storybook reading in lower socioeconomic classes. Notably, Van Kleeck et al. (1997) (which served as a basis for the development of the current study) included middle class dyads who exclusively spoke English. All children also lived in a home with both parents. In contrast, as mentioned earlier, many children in the current study were from various cultures, with 40% of the parents not married, and 22% of the parents living with another adult who was not the child's other parent. Further, most

children came from schools with a large proportion of students receiving free or reduced priced lunches (see the Appendix for the demographic data for each school included in this study).

Age is also a significant factor to consider when comparing data. Importantly, gains in language and literacy abilities seem to be fostered more in preschool age children than in school age children. For instance, several researchers have concluded that a child's level of preliteracy skills are set by four years of age, with subsequent testing revealing a similar level of abilities across time (Van Kleeck, 2008). Further, numerous studies and interventions purporting the benefits of storybook reading practices between parents and children have been reported specifically for preschool age children (Hargrave & Senechal, 2000; Zevenbergen & Whitehurst, 2003; Van Kleeck, 2008). This is important to consider particularly when comparing Van Kleeck et al. (1997) to the current study since their children's average age was 3;8, while the children in the current study had an average age of 5;7. Since the children in the current study were older, their ability to benefit from particular communicative acts or abstraction levels may have been compromised. Further, if their levels of language abilities were lower than average (which will be discussed in detail later in this section), and their abilities were essentially set at a younger age as hypothesized by other studies, significant correlations between parental communicative acts and abstraction levels and literacy outcomes would not be expected in the current study.

Differences in storybook reading interactions.

The aforementioned differences in socioeconomic status are significant since it has been found that storybook reading interactions in middle class dyads demonstrate noticeably different characteristics when contrasted with dyads from lower socioeconomic classes. These differences may influence the impact of specific parental communicative acts and abstraction levels on children's literacy outcomes. For example, middle class parents have been shown to speak for greater amounts of time and more frequently during storybook reading, thus producing more opportunities for children to develop literacy abilities than their lower class counterparts (Heath, 1982; Heath, 1983; Haden, Reese, & Fivush, 1996). In contrast, dyads from lower socioeconomic classes tend to have less involved discourse while reading, and fewer instances of connecting the text to the child's life (McNaughton, 1995; Sigel, 1982). Indeed, Table 13 demonstrates that compared to the parents in Van Kleeck et al. (1997), the parents of the current study produced fewer level one, three, and four utterances (the Mom and Dad unfamiliar labels refer to the means and standard deviations of abstraction level usage by mothers and fathers when reading unfamiliar texts in the Van Kleeck et al. (1997) study, which is comparable to the unfamiliar text read in the current study). Therefore, the children of the current study were not only potentially receiving less input at the more literal level, but more importantly, at the more abstract level. With a limited number of communicative acts, particularly those that deviate from the literal level of the text, children in lower socioeconomic levels, such as those in the current study, may not have enough input to develop later literacy abilities.

Table 13 *Frequency of Parental Abstraction Usage Means and Standard Deviations of Current Study Compared to Van Kleeck et al. (1997)*

	One		Two		Three		Four	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Current Study	6.65	8.15	9.24	9.34	4.02	6.08	1.06	1.99
Mom								
Unfamiliar	9.80	0.34	7.29	6.22	5.57	5.44	5.03	4.57
Dad								
Unfamiliar	8.06	8.99	6.51	5.26	4.40	4.74	3.97	6.77

Further, the concept of inferencing in particular has been found to be a common component in middle class dyad storybook reading, with parents both demonstrating the concept and asking their children to imitate it (Van Kleeck, 2008). Importantly, Van Kleeck (2008) posited that children from low socioeconomic backgrounds could have more trouble with inferencing while in preschool, and subsequent difficulty with reading comprehension later in their academic careers, because early programs such as Head Start are not fostering inferencing abilities. Similarly, studies have shown varying impacts of more challenging utterances in storybook reading by class, with some believing that middle class children may derive greater benefit from these practices than those from lower classes (Whitehurst & Lonigan, 1998; Zevenbergen & Whitehurst, 2003). Given these underlying differences, the children in the current study may not have had the exposure to higher level utterances or more open-ended communicative acts, or have been able to benefit as much from these challenging comments and questions, as their middle class peers, making comparisons between the two difficult to conduct.

It is important to note, however, that variability in abstraction level use was found in both Van Kleeck et al. (1997), as well as in the current study. As seen in Table 13, the parents in the current study had larger standard deviations in abstraction level usage than

all of the means of each level of abstraction, while the parents in the middle class study had standard deviations around the same or greater than the means. One is reminded to be cognizant of the fact that individual differences in parental communicative behaviors within both studies does indeed make it difficult to generate comparisons of the frequency of abstraction level usage between the two groups of parents. Therefore, these statements are to be used as potential indicators of differences between middle class and lower class parental abstraction level usage, but not as definitive evidence of such disparities.

Another factor to consider in the examination of differences in socioeconomic classes is the frequency of storybook reading between parents and children. It is evident that the frequency of book reading is important for the development of reading abilities (Senechal, Thomas, & Monker, 1995). Alternately, it has been proposed that reading less often may diminish a child's ability to understand and use syntactic aspects of written words, vocabulary, and meaning and form skills at the sentence level (Van Kleeck, 2008). When surveyed regarding the number of days ago that they read to their child, the parents of the current study reported an average of three days, with a standard deviation of 4.9, and a range from zero to 30 days. While this data is far from conclusive, the three day mean may have been enough to limit the exposure to important information about written text to the children. Therefore, any use of particular communicative acts or abstraction levels would be insignificant since the simple quantity was not sufficient to produce noticeable improvements in a child's language abilities.

Variations in the proportion of more literal utterances to more decontextualized utterances are also important to mention. Van Kleeck (2008) found that 60% of middle

class European American parents' utterances were more literal, while 40% were inferential in nature. In contrast, the average parental utterances in the current study were approximately 74% literal (defined as levels one and two), and 21% inferential (defined as levels three and four), as shown in Table 9 (although the proportions of abstraction levels calculated for each parent sum to 1, because the data in Table 9 are means of those proportions, the proportions do not sum to 1). While the 60-40 ratio has not been proven to be a gold standard, the greater amount of literal utterances for the parents in the current study may once again point to a less frequent exposure to high level utterances, making gains in language and literacy less likely. Further, Van Kleeck and colleagues posited that a balance between more literal utterances and utterances that are more difficult due to the inclusion of emerging abilities is requisite for successful language and literacy outcomes (Van Kleeck et al., 1997). However, if these emerging skills were not yet beginning to develop in the children of the current study, the difficult utterances may have been too complicated, making any gains improbable.

Children's abilities.

An additional distinction important to underline is that the children in the current study were labeled at risk for literacy difficulties by their teachers. While the criterion for designating these children at risk is not clear, the label is still crucial when considering the results of this paper. It is quite possible that the children began the study with a deficit in literacy abilities, which could have once again interfered with any potential gains from specific communicative act or high abstraction level usage. Indeed,

as seen in Table 10, the children in the current study scored below one standard deviation from the mean for both the EOWPVT and the sentence imitation subtest of the TOLD. These lower scores imply potential expressive language deficits; however it is important to mention that dialectal differences may have contributed to lower test scores since responses may have been deemed incorrect if they did not match typical American English constructs. This is particularly true for the TOLD sentence imitation examination. While it is important to consider such biases in scoring, however, it is reasonable to conclude that they would not be solely accountable for the large discrepancy in the scores between the children in the current study and their typical counterparts. Therefore, assuming that the test scores were valid, a comparison of the current results with Van Kleeck et al. (1997), who actually conducted pre-testing to ensure that the children in their study were developing according to age-appropriate norms, may not be valid.

Further, several studies have reported different outcomes of interventions for children at different levels of language functioning. For instance, Senechal, Thomas, and Monker (1995) found that children designated as having higher vocabularies showed greater improvement than children with lower vocabularies in a study comparing more involved storybook reading practices to more passive practices. Perhaps the relatively lower expressive language ability of the children in the current study created a barrier to improvement in skills regardless of parental input.

Various levels of ability have also been associated with optimal parental reading styles, with children demonstrating a more limited vocabulary showing more improvement when parents labeled and described the text, while children with a more

expansive vocabulary benefitted from a more interactive reading by the parent with frequent questions about the text (Reese, Cox, Hearte, & McAnally, 2003). If this is the case, higher abstraction level usage and more open-ended communicative acts may have been antagonistic to gains in literacy skills for the children in the current study, assuming their more limited expressive language abilities. In addition, the parents in the current study produced even fewer level one utterances than the parents in the Van Kleeck et al. (1997) study, allowing for the possibility that not enough input at an easier level was offered, making any improvement very unlikely.

Van Kleeck (2008) also determined that mothers of children demonstrating language delays used less inferencing in their storybook reading. This lack of more complex discourse continued despite advances in their children's language abilities over time. It is possible that the lower levels of functioning for the children in the current study unknowingly determined the parents' more basic communicative act and abstraction level usage during the storybook reading activity, as shown in the tentative findings at the beginning of the discussion. Returning to socioeconomic differences, two studies of mothers from low socioeconomic classes discovered that the mothers did indeed alter their interactions according to their child's level of language competence (Pellegrini & Galda, 1998; Pellegrini, Perlmutter, Galda, & Brody, 1990). If the parents in the current study perceived their children's abilities to be low, they may have adjusted accordingly, accounting for the high proportion of lower abstraction level utterances. In fact, when asked in the initial survey about their thoughts on their children's future grades, 32% of the parents expected their children to get B's or lower. Coupled with the fact that the children also quantitatively demonstrated difficulties in expressive language

as shown by their assessment scores, it is quite possible that the parents did interact at more basic levels due to their children's abilities.

Therefore, within the web of socioeconomic factors, there may be a greater susceptibility to lower language mastery, leaving the children in the current study with a larger obstacle to overcome in order to benefit from the characteristics of storybook reading that are so beneficial to their middle class cohorts.

Methodological Differences

Methodological differences across studies also may account for discrepancies. One of the primary differences noted between the current study and other analogous studies is the use of familiar versus unfamiliar texts. Importantly, Van Kleeck et al. (1997) used a combination of an unfamiliar text and a familiar text, while the current study only used an unfamiliar text. This is important since different types of books have been found to influence the style of reading employed by parents during storybook reading interactions. For instance, Haden, Reese, and Fivush (1996) found that two groups of mothers used a larger proportion of low level utterances when reading an unfamiliar book. Unfamiliar texts were also found to be associated with a greater amount of level one and level four abstraction level utterances, along with a greater range in levels since labeling, pointing out novel information, and explaining were more probable in unfamiliar books (Van Kleeck et al., 1997). In contrast, familiar books were associated with an increased amount of child directed utterances when compared to unfamiliar texts (Haden, Reese, & Fivush, 1996). Pellegrini and Galda (1998) also found

that mothers from low socioeconomic classes were able to teach more effectively when reading a familiar book, as demonstrated by a greater amount of beneficial text world and world text communicative acts. Perhaps the parents in the current study were restricted in their ability to use more abstract language and communicative acts due to the unfamiliar nature of the text. Also, if Pellegrini and Galda's (1998) findings are valid, the parents may have naturally not been as effective in teaching with the unfamiliar texts. If the greater variation in abstraction levels was also due to the unfamiliar context, there may not have been enough utterances at each level to generate a significant correlation with child outcomes. Further, Van Kleeck et al. (1997) used four different unfamiliar books, while the current study used the same text for all dyads. Variations in length and the nature of the texts could have impacted the results of both studies. While it is not clear exactly how the unfamiliar versus familiar contexts, or particular books, may have influenced the parental communicative acts and abstraction levels in the current study, it is reasonable to conclude that they may have impacted the results in a way that made them dissimilar to the Van Kleeck et al. (1997) data.

Further, since the data for the current study was essentially taken at time one, the absence of an intervention component also posed a challenge for the comparison of the current data with other studies. The lack of any planned practices to improve language and literacy skills may have interfered with the ability to see significant correlations between communicative act and abstraction level usage and literacy outcome measures.

The assessments used to evaluate children's language and literacy skills must also be considered. Van Kleeck et al. (1997) based most of their conclusions on the Preschool Language Assessment Instrument (PLAI). Essentially, children's use of abstract

language was the only criterion used to judge the impact of parental abstraction level usage on children's outcomes. In contrast, the current study examined communicative act and abstraction level usage and their relationships with preliteracy outcome measures including receptive and expressive language abilities. Since these measures evaluate very different abilities than abstract language usage, the differing results between Van Kleeck et al. (1997) and the current study are not surprising. It may be that parental communicative acts and abstraction levels interact differently with these language and literacy abilities in children as compared to simple abstract language usage, which warrants further research to determine the exact nature of the relationships.

Future Implications

It is evident that numerous variables impacted the results of the current study. However, it is important to underscore the fact that the causal factors underlying the differences between the children in the current analysis and other studies, including Van Kleeck et al. (1997), are yet to be found. The children in this paper were indeed labeled as at risk, but the reasoning behind this label is not clear. Demographic differences, variations in storybook reading interactions by socioeconomic levels, and an overarching difference in initial language abilities all intertwine in a complex web of intervening factors. Further, methodological differences between studies make it increasingly difficult to evaluate the findings of the current study. However, these differences are just that; differences. Blame is not to be placed on a particular party or a specific reading practice. Indeed, it is suggested that parents in the current study were in fact active in

interacting with their children, adjusting their storybook reading behaviors according to their children's language and literacy abilities. Instead, the current findings may provide evidence that particular populations of children may not benefit from the findings of research conducted with primarily white, middle class children. Therefore, rather than following blanket statements regarding what is best for children, a closer analysis of individual dynamics present within each unique dyad may be necessary to determine which practices are best to foster language and literacy abilities. The groups that differ from the "normal" profile must not be seen as subjects of remediation, but rather as potential candidates for supplemental practices to help achieve positive language and literacy outcomes. However, only with future research will these beneficial practices be identified, particularly for those from the lower SES population. Storybook reading is not a "one size fits all" practice. Professionals must be sensitive to this fact and act accordingly in order to provide all children with the optimal tools to succeed in the classroom and beyond.

Appendix

Demographic Information for Studied Elementary Schools in Three School Districts

District-School	Number of Students	Non-Hispanic White (%)	Hispanic White (%)	Black (%)	Asian (%)	American Indian/Alaskan (%)	Eligible For Free and Reduced-Price Lunches (%)
1-1	473	19.9	53.7	26.4	0	0	94.5
1-2	373	21.7	50.1	26	2.1	0	83.1
2-1	239	86.2	7.5	5.9	0.4	0	67
2-2	572	93.9	1.6	4.5	0	0	60.3
3-1	740	5.1	9.9	84.6	0.3	0.1	95.5
3-2	553	4.3	16.5	78.5	0.5	0.2	95.5

*Race statistics are percentages of the entire student population

**Both 3-1 and 3-2 included pre-kindergarten through grade eight, while the remaining four schools included kindergarten through grade five

***Data from U.S. Department of Education Institute of Education Sciences (2008)

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- Language and Literacy Development in Diverse Contexts Lab Assistant with Dr. Carol Hammer, The Pennsylvania State University, 2008-2010
 - Worked six hours a week researching and composing a thesis intended for publication regarding home literacy communicative act abstraction level usage and impacts on children's future literacy outcomes, 2009-2010
 - Worked three hours a week analyzing language samples using the SALT program, applying communicative act and abstraction level coding to determine best home literacy practices, 2008-2009
- Language and Literacy Research Assistant with Dr. Megan Davison, Temple University, May-July 2009
 - Worked three and one half hours a week transcribing preschool language samples using the SALT transcription software to contribute to a study of English language development of bilingual children
- Assistant Instructor for Social Skills Camp with Medley & Mesaric Therapy Associates LLC, Fort Washington, PA, 2009-2010
 - Worked twelve hours a week assisting in preparation and instruction of social skills for children on the autism spectrum in the Lower Merion School District as well as in a private social skills group
- Administrative Assistant/Secretary, Hatboro-Horsham School District Administration Building, Horsham, PA, 2007-Present
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