THE UNIVERSITY OF CALGARY

A Developmental Analysis of 4- and 6-Year-Olds' Narratives: A Comparison of Formal Storytelling to Fantasy Play

by

Shelley E. Bergman

A THESIS

SUBMITTED TO THE FACULTY OF GRADUATE STUDIES

IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE

DEGREE OF MASTER OF SCIENCE

DEPARTMENT OF EDUCATIONAL PSYCHOLOGY

CALGARY, ALBERTA

AUGUST, 1997

ABSTRACT

The development and use of fantasy play and storytelling have been investigated extensively within the scientific literature. Recently researchers and theorists have begun to question the potential interaction between them and the role of contextual and maturational influences. This more dynamic, contextually embedded view of children's meaning-making activities form the basis of this research study. The dyadic, spontaneous, fantasy play stories of 24 4- year-olds and 21 6-year-olds were compared to formal storytelling stories. The two toy conditions involved the use of small, geometric blocks (low degree of internal support) and doctor/nurse dramatic play props (high degree of internal support). The formal storytelling prompts paralleled the same degree of inherent support used in the two toy conditions. The videotaped play and formal storytelling narrative accounts were transcribed, scored and analyzed, using a series of two way MANOVA's, for plot level and inter-textual structural content. Significant results suggested a movement from contextually embedded to disembedded storytelling with age. The implications of these results were discussed in terms of service provision to children and followed by suggestions for future research.

ACKNOWLEDGEMENTS

I am deeply indebted to a number of people whose continual and unconditional support and encouragement have allowed me to conquer the many obstacles, both real and imagined, in bringing this document to its fruition.

First, I would like to thank my supervisor and mentor, Dr. Anne McKeough. Her incredible strength of character, dedication to and pursuit of academic and personal excellence, and ability to discover the "gem" within has helped me strive for similar qualities within my own life. She has tolerated my fits of anxiety and insecurity with an awe-inspiring aplomb and sensitivity. Her unwavering patience and confidence in my ability has allowed me to acknowledge, explore, and come to terms with both my strengths and my frailties. I consider myself extremely fortunate and honored to have worked under her expert guidance. Thanks, Anne, for the privilege.

Second, I would like to thank my friends Michael, Denise, and Sonya for their unconditional emotional support. Your willingness to forgo your own immediate concerns and needs to help a friend and your loyalty in times of crises have made me realize how fortunate I am to have such dedicated friends.

Third, I would like to extend a heartfelt thank-you to Dr. Tak Fung for his patient and expert guidance through the statistical maze.

Last, I would like to thank all the staff, parents, and children who participated in this study. In particular, I would like to extend my sincere appreciation and gratitude to the various directors of the child-care programs: Kelly, Heather, Jennifer, Marilyn, Marion, and Laurie. Their open-mindedness and dedication to this research project has

greatly contributed to our growing knowledge of how children explore and make sense of their world. And to the children: Thank-you for your wonderfully engaging and enthusiastic storytelling. It was, by far, the most satisfying and rewarding experience of this project.

DEDICATION

This thesis was really a joint effort and the contributions of some very important people in my life require recognition.

First, to my husband, Dale: You are an incredible source of strength and support. Your faith in me, your resiliency during difficult times, your unstoppable energy, and your willingness to sacrifice your own needs for your family's has instilled a sense of wonder and humility within myself. You have been, and continue to be, my hero. As well, to my son, Colin: Your love of life, appreciation of all things big and small, and incredible patience, tolerance, and understanding for one so young has taught me more than formal schooling ever could. I am very proud to be part of your life.

Second, to my mother and father: By example, you have instilled within me a sense of principle, commitment, and fortitude that has stood me in good stead while in the master's program. Who would have ever believed this quiet, little "flower-pot child" had such secret yearnings? And to my mother- and father-in-law: Thank you for tolerating my many moods, and being a sounding board during those tough times.

Lastly, I would like to thank my many siblings, both immediate and in-law, for their sometimes painful bluntness, and their concerted effort to keep my somewhat obsessive and lofty nature in check. I am fortunate to have so many caring and loving family members in my life.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

Chapter I

INTRODUCTION

Children are continually constructing and reconstructing frameworks for making sense of the world around them. They use various means at their disposal to assist them in this meaning making process. Two of the more common means are storytelling (Bruner, 1974; Chafe, 1990; Olson, 1990) and fantasy play (Piaget, 1962, 1976; Vygotsky, 1966, 1978).

Children are natural storytellers. Although many studies of children's developing narrative competence have examined the acquisition of discrete language or literacy functions, children's use of various contextual or situational supports, and its relationship to or interaction with the early emergence of a story schema in preschool children has, until recently, been a neglected field of scientific inquiry. This recent theoretical and empirical shift in emphasis from a decontextualized to more interactional, contextualized view of human behavior has accentuated the need not only to study the <u>product</u> of development, but also to examine its <u>process</u> (Vygotsky, 1978).

This more contemporary focus has generated a great deal of interest in the contexts that influence the early emergence of narrative competence in children. One such context appears to be fantasy play. In fact, several researchers have proposed that children's fantasy play is an early manifestation of storytelling (Guttman & Frederiksen, 1985; Wolf & Pusch, 1985; Paley, 1990; Nicolopoulou, 1993). The recent emphasis on the origins or roots of narrative and burgeoning interest in the role of various extraneous

influences on children's narrative competence reflects the field's view that these issues are central to understanding the dynamic nature of young children's development.

Within the story realm, children not only explore language, they actively manipulate and direct the story-line to communicate information to the audience: They invite the audience into the story world with them so they too can appreciate the significance and meaning the young narrator is trying to impart (Kelly-Byrne, 1984). Research findings appear to support the presence of a general, sequential, developmental progression in children's narrative competency and complexity (Botvin & Sutton-Smith, 1977; Sutton-Smith, Botvin & Mahoney, 1976; Umiker-Sebeok, 1977; McKeough, 1992). Very young children tend to rely heavily upon gestures and actions (Bruner, 1990a, 1990b), contextual supports (e.g., toys; French, Lucariello, Seidman & Nelson, 1985), and scripts (Seidman, 1983; Nelson & Seidman, 1984) to provide the scaffold upon which to build their stories. As children gradually master the complex, representational language system they are continually exposed to within their specific cultural milieu, this reliance fades and they begin producing coherent, complex narratives in the absence of such supports (Bruner, 1990a, 1990b; Scarlett & Wolf, 1979).

Previous studies examining the development of children's narrative abilities have tended to focus on children's ability to generate decontextualized stories. Although this approach has produced a vast amount of information regarding children's narrative discourse, there are several difficulties that arise when using such an approach.

Firstly, these studies frequently request children to "Tell me a story about...," relying upon children's ability to convey their meaning verbally. These more formal and

structured elicitation techniques tend to focus attention onto children's ability to perform or tell a proper story thereby creating performance expectations between the teller and the listener. These unspoken expectations cause tension and trepidation within the storyteller and, as a result, may precipitate a decrement in performance (Polanyi, 1982). Narratives elicited under such conditions not only tell researchers little about children's developmental potential, they may also fail to reflect, with any accuracy, their true storytelling ability (Nicolopoulou, 1993).

An additional problem with this approach is the tendency for researchers to focus exclusively on children's ability to produce decontextualized stories, to the exclusion of more natural, or spontaneous forms of storytelling. Decontextualized narratives demand a great deal of verbal competence on the part of the storyteller because the story's meaning is conveyed and comprehended solely through language with minimal reliance upon the story's context. Very young children have not yet mastered these verbal abilities thus perpetuating the erroneous assumption that very young children are either incapable or incompetent storytellers. This exclusive and narrow focus on what constitutes a proper or complete story does not consider that children, young and old, tell stories in non-canonical ways as a function of their personal experiences and social histories (Dyson, 1991); differences in ability between children may simply reflect this variation in experiential histories and are not necessarily indicative of developmental deficits.

Lastly, and perhaps most importantly, many of the research designs typically employed fail to capture the dynamic nature of narrative. Often, children's stories are thoroughly dissected and then analyzed for various structural features and developmental

trends. However, storytelling is a transactional process that involves the inter-weaving of fact and fiction. It is a continually evolving entity reliant upon a myriad of factors such as the lived experiences of the children, the presence of social (e.g. peers, adults) and ecological (e.g., pictures, toys) supports, and the response of the audience. Children's stories are the personal expression of their lived experiences and fantasies within a broader social and situational framework. Removing children's narrative discourse from this social and situational context and dissecting it into discrete units fails to highlight storytelling's embedded nature. The coalescence of social, ecological, maturational, and experiential aspects reflects the complex, dynamic, multi-dimensional essence of narrative, an essence that many previous studies have failed to capture.

More recently, the literature has begun to address the substantial influence of all these factors on children's narrative production and have begun to employ more interpretive frameworks for their analyses (Nicolopoulou, 1993). The natural and spontaneous context of young children's fantasy play provides an ideal forum to unobtrusively examine the dynamic emergence of storytelling in young children.

Fantasy play, or the ability to transform or transcend reality, is a common medium young children use to tell their stories. The value of fantasy play in promoting children's development has been noted extensively within the literature (Sutton-Smith, 1979; Partington & Grant, 1984; Johnson, Christie, & Yawkey, 1987). As well, it is the contention of some theorists that fantasy play, being less bound by societal expectations and constraints, is a natural means that children use to actively explore new ways of being and new ways of relating (Bruner, 1986a; Vygotsky, 1966). Within fantasy play, children

extend themselves beyond the boundaries imposed upon them in their daily lives. This transcendence from external rules and regulations regarding what constitutes appropriate or acceptable behavior suggests that fantasy play is a non-threatening and optimal context for observing children's naturally emerging narrative competence. Indeed, some theorists suggest that fantasy play is the actual enactment of narrative (Paley, 1990; Nicolopoulou, 1993). Although, the relationship between fantasy play and specific language or literacy skills has been well documented within the literature (Pellegrini, 1985; Pellegrini & Galda, 1993; Hall, 1991; Ervin-Tripp, 1991), comparatively fewer empirical studies have examined the narrative aspects of children's fantasy play.

Recent empirical studies examining the narrative structure of children's fantasy play productions have discovered structural similarities (Sachs, Goldman, & Chaille, 1985; Eckler & Weininger, 1989) and differences (Hicks and Wolf, 1988) between those elements found in decontextualized narratives and those found in fantasy play. Other studies have discovered that children's play narratives are affected by a myriad of external influences such as shared knowledge and experiences (Seidman, 1983; Nelson & Seidman, 1984) and access to contextual supports (i.e., toys; French, Lucariello, Seidman & Nelson, 1985). Although the results of these studies appear to suggest that structural congruities may exist between children's narrative and fantasy play, the nature and extent of that linkage is still far from clear.

The role of toys and play props has generated a rich field of findings within the scientific literature with regard to children's fantasy play and specific language functions, yet few studies have examined the impact of high structured (i.e., realistic, miniature

replicas) versus low structured (i.e., less realistic, few salient features) toys on the structural aspects of children's fantasy play narratives. Moreover, no study has examined the relationship between these factors and children's current level of cognitive functioning. The need to examine the early emergence of children's storytelling within the naturalistic context of their fantasy play is clear and potentially fruitful to our growing understanding of not only what but how children communicate through their stories. A broader, more dynamic methodological approach to the study of children's narrative production as an evolving, developmental phenomenon embedded within a social and situational context is more likely to capture the nature of this relationship and the essence of young children's storytelling.

Statement of Purpose

This exploratory study will investigate more closely the effect of developmental and contextual influences upon the early emergence of narrative in young children within the naturalistic context of their fantasy play. Specifically, the present research was undertaken to address the following questions:

1. What is the structure of the spontaneous, fantasy play narratives of young children and how does this structure compare to those elicited under more formal storytelling conditions?
2. Is narrative structure affected by the degree of supportive detailing within the toy prop or storytelling prompt?

Organization of the Thesis

In the following chapter, a theoretical review of the development of fantasy play and narrative, and related empirical research provides the background knowledge for this study. Chapter III presents an overview of the methodology of the present study, detailing subject selection and procedures for task administration and scoring. Chapter IV presents the descriptive and statistical analyses of results obtained in the structural scoring of participant's fantasy play and formal storytelling narrative productions. The final chapter discusses the results of these analyses, drawing conclusions regarding the relationship between storytelling context, cognitive development, and the structural aspects of storytelling. As well, methodological limitations and implications of this study are highlighted and recommendations made for future research.

Chapter II

REVIEW OF THE LITERATURE

Introduction

To understand the nature and extent of the association between children's evolving narrative competence and fantasy play, the impact of various influences on that linkage, and how these two common forms of meaning making constitute the groundwork for children's continued competence and growth, a thorough review of the theoretical and empirical literature is necessary. First, a theoretical review of the development of children's fantasy play and related empirical studies will be discussed. The theoretical foundations of children's narrative development will also be addressed and then supported by selected empirical works. Last, recent studies examining the potential relationships between these two meaning making functions will round out the discussion and set the context for the research hypotheses to follow.

Theoretical Review of Fantasy Play

Children use many means at their disposal for making sense of the world around them. Fantasy play is perhaps one of the first means by which children attempt to render meaning to an often uncontrollable and incomprehensible world. The ability to transcend and transform reality, and the freedom to express, spontaneously, one's needs, motives, perceptions, and dreams facilitates this meaning-making process (Vygotsky, 1966; Weininger & Daniel, 1992).

Within fantasy play, children's imaginations are allowed free reign. In addition to practicing familiar roles, behaviours, and activities, children explore, manipulate, and experiment with new ways of being and new ways of relating. This active exploration within fantasy play encourages children to stretch themselves beyond the constraints imposed upon them by maturational limitations and a rule-governed society (Vygotsky, 1966).

Presently, there are different theoretical formulations within the literature regarding the inception and progression of fantasy play and its role in children's development and learning. Piaget's (1962, 1976) and Vygotsky's (1966, 1978) theories are two of the most comprehensive and frequently cited. Although much of the literature has tended to address these two different theoretical orientations as mutually exclusive, bipolar opposites, some authors have noted that such a discrete boundary is misleading (Rogoff, 1988; Pellegrini & Galda, 1993). These authors propose that the many differences that appear to exist between the theories are simply a matter of emphasis.

Piaget's work, representing the rationalist tradition of cognitive development, emphasized reason as the primary source of knowledge, and the human species innate need to impose order on sensory information (Weininger & Daniel, 1992). Piaget proposed that development was progressive and invariant. The work of Vygotsky, and more recently Bruner (1986b), representing the historico-cultural cognitive tradition, proposed that knowledge was acquired in the social context and that development was driven by the need to "make meaning" of the objective and external aspects of human existence (Weininger & Daniel, 1992). The complex, dialectical interaction between the

intra- and inter-psychological dimensions of human existence results in development marked by "periodicity" and "unevenness" (Vygotsky, 1978, p. 73).

Although these two prominent theories may appear to represent opposite extremes, there is convergence between them on many issues. Despite the fact that Piaget attended less to the social aspects of the human experience in shaping development (Pellegrini & Galda, 1993) and emphasized the internal cognitive activity that was taking place (i.e., assimilation and accommodation), and Vygotsky (1978) tended to focus his attention on the internalization and personalization of an external, rule-governed reality, both Vygotsky and Piaget emphasized the dynamic and active role children took in directing their own growth, the dialectical nature of development, and the crucial role of conflict in facilitating that development. Vygotsky and Piaget believed that, rather than being passive recipients of knowledge and information, children actively and continually constructed adaptive, interpretive frameworks for making sense of the world around them. A thorough discussion of the development of children's fantasy play effectively highlights these similarities and differences.

Fantasy play, or the ability to transform or transcend reality, is one of the first symbolic and imaginative means through which children feel free to express themselves. It has been referred to extensively within the literature as symbolic, make-believe, imaginative, pretend, invented or dramatic play; however, to alleviate confusion the singular term fantasy will be used in this document.

In addition to its "as if" quality (Yawkey & Blohm, 1977, p. 3), fantasy play includes those characteristics which are found in all forms of play such as non-literality,

intrinsically motivating, non-goal or ends directed, and pleasurable (Johnson, Christie & Yawkey, 1987). Although play behavior exists in all higher vertebrates, fantasy play is unique to the human species (Wolf, 1984). Due to variations in experimental design, definitional or measurement criteria, and a myriad of other factors, controlled or otherwise, the amount of time children spend engaged in fantasy play in comparison to other types of play (e.g., functional, rule-governed) is difficult to accurately determine from the literature. For example, estimates range anywhere from 10% (Cole & LaVoie, 1985) to a high of 46% (Matthews, 1978). Regardless of this discrepancy, the literature suggests that fantasy play contributes in a fundamental way to children's development (Mead, 1934; Sutton-Smith, 1979; Partington & Grant, 1984; Johnson, Christie, & Yawkey, 1987) and emphasizes its functional value within the context of children's emotional, social, and cognitive growth.

The Structural Approach to Fantasy Play Development

Early empirical research examining the functional value of play and its role in children's development typified a Piagetian theoretical orientation (Pellegrini & Galda, 1993). Piaget (1962) attempted to integrate play into his more general framework of cognitive development. Similar to other areas of cognitive development, Piaget argued that children progress sequentially through three general forms of play: sensorimotor, fantasy, and games with rules. He emphasized the transitional nature of fantasy play, proposing that with the gradual and natural emergence of children's logical thought processes, play becomes increasingly realistic, as demonstrated by older children's preference for games with rules.

In tracing the development of children's representational functioning, Piaget (1962, 1976) identified several age-related stages through which children progress. Prior to 18 month of age, children routinely engage in pre-symbolic, sensorimotor play. In such play, children repeat and combine familiar sensorimotor schemas in a ritualized manner. As these schemas are gradually mastered, children begin combining them in new and unique ways. This greater variety of combinations facilitates the gradual abstraction of these schemas from their context. At this point, children begin to establish a subjective link between the "signifier" (i.e., object) and the "signified" (i.e., substitute; Piaget, 1962, p. 98). The point at which children begin to evoke these symbolic schemas marks the departure from practice or mastery games into the first stage of Piaget's (1962) theoretical account on symbolic or fantasy play.

Piaget (1962) proposed that fantasy play, the second form of play, was ultimately a manifestation of conceptual immaturity, a result of an imbalance between two inseparable cognitive processes: assimilation and accommodation. Assimilation involves incorporating the external world into an existing cognitive structure or schema. Alternately, accommodation involves actively changing an existing cognitive schema to fit an external reality. Piaget proposed that harmony between these two processes is necessary for adaptive functioning and growth. In the very young child, the cognitive logical operations required for establishing this equilibrium have not yet been constructed (Piaget, 1962); therefore, the child actively distorts reality to suit his or her desires and needs. This distortion facilitates a sense of continuity and "ego balance" (Golomb & Cornelius, 1977, p. 246) within the child. Thus, Piaget viewed fantasy play as one of the adaptive means

employed by intellectually immature children for resolving conflict between subjective, inner states (i.e., needs, desires) and objective, external realities. It exemplifies the domination of assimilation over accommodation and is "egocentric thought in its pure state" (Piaget, 1976, p. 559).

Although Piaget (1962, 1976) held that fantasy play represented immature cognitive functioning, he nevertheless emphasized its significance in the development of the semiotic, or representational, function (Lucariello, 1987). Actively transforming and transposing reality within fantasy play aids children's understanding that the meaning of the object is not necessarily bound by its physical features or context. Fantasy play provides a forum for practicing this separation of meaning from the object which then lays the foundation for understanding other representational systems (e.g., written language). It is within the unique context of fantasy play that children first begin to understand that objects (the signifier) can represent something else (the signified) and to differentiate objects' external properties from their internal or assigned meaning. Thus, Piaget proposed that children's fantasy play is an early manifestation of their present level of representational or symbolic functioning (Pellegrini & Galda, 1993).

To explicate more specifically how this abstraction process occurs, Piaget (1962) proposed that children invariably progress through three, age-related stages whereby the progression from one stage to the next is determined by fluctuations between the assimilation and accommodation cognitive processes. The following discussion outlining the specific features characterizing Piaget's fantasy play stages attempts to explicate and clarify this process in more detail.

Stages of Fantasy Play

Stage 1.

Three co-occurring events within the first stage of Piaget's (1962) theoretical account on children's fantasy play assist children in gradually abstracting the meaning from a referent object. First, from approximately 2- to 4- years old, children begin to project symbolic schemas onto new objects. Initially, the selection of a symbolic referent is not arbitrary: There is a resemblance between the object and the substitute. As these new schemas become interiorized, and the signifier becomes increasingly dissociated from the signified, children begin applying these schemas to new and dissimilar objects. Thus, with advancing age, children are more able to tolerate dissimilarities between objects and their substitutes. This increased tolerance indicates a closing of the gap between the assimilative and accommodative processes.

Secondly, children's play actions reflect a gradual progression from self to other referenced behavior. As well, the other moves from the role of passive recipient of the play action to assuming a more active role within the play scenario. Thus, children initially direct their fantasy play actions towards themselves. As they continue to practice these representational behaviors, the symbolic schemas become routinized and part of the children's existing cognitive framework. Children then begin to project these symbolic schemas onto other people and objects. For example, a child goes from feeding him or herself to feeding a doll. With further practice, children assign a more active role to the recipient of the action being imposed upon them. To illustrate, by altering his or her voice

to indicate movement into the recipient's role, the child may begin to express the doll's delight or disgust over the choice of food.

Lastly, the third and final feature characterizing the first stage of children's fantasy play is the progression from simple to complex symbolic combinations. Simple transformations involve discrete, isolated substitutions and actions. Complex combinations progress through four successive levels: (1) simple combinations, (2) compensatory combinations, (3) liquidating combinations, and (4) anticipatory combinations. During simple combinations children transpose or distort whole scenes. These scenes have little substance in reality. As children move into the compensatory combination phase, they begin to correct or compensate, within their play, for perceived deficits or difficulties in reality. When children begin to relive realistic, difficult situations within their play, they have entered the liquidating combination stage. The fantasy play context provides children with the means to disassociate from the threatening situation, and, although they still address the problem, they are able to de-intensify its emotional impact. Lastly, anticipatory combinations marks the fourth and final phase of children's symbolic combinations. As the label suggests, children begin to anticipate the consequences of certain courses of behavior within their fantasy play, and these perceived consequences approximate those likely to be encountered in real life. At this point, children's representations, although still symbolic, become more closely aligned with reality.

Stage 2.

Children enter Stage 2 between 4 and 7 years of age. As the assimilative cognitive processes are increasingly counter-balanced by the accommodative processes, children's fantasy play becomes more coherent and orderly and is characterized by an increased attention to detail. Piaget (1962) suggested that this observed, qualitative change in the content of the play effectively highlights children's growing desire to exactly and accurately replicate reality. The observed decrease in children's pure (i.e., extreme distortions of reality) fantasy play after age 4, and its progressive evolution into a "straightforward copy of reality" (Piaget, 1962, p. 137), wherein only the themes remain symbolic, precipitated Piaget's contention that the fantasy play mode begins to decline during this stage. A unique feature of Stage 2 is the onset of collective symbolism, involving play with one or more companions. Although Piaget did not address this emerging phenomenon at any great length, he emphasized that the requisite objectification of arbitrary symbols and negotiation of play roles and themes accompanying this more social play precipitates a type of fantasy play that is almost an exact replica of reality. Thus, collective or social forces appear to depress distortion during fantasy play and may smooth the entry into the next developmental stage: games with rules.

Stage 3.

The third stage, occurring around 7- to 8-years-old, marks the decline of fantasy play and the rise of games with rules. However, Piaget (1962) did not suggest that symbolism disappeared completely from children's behavioral repertoires. Rather, he proposed that these representational schemas are redirected to activities that are less distorting and more adaptive to reality (e.g., handwork or drawing).

Summary of Age-Related Stages

Recall that Piaget (1962, 1976) felt that fantasy play was primarily the domination of assimilation over accommodation thus he attempted to illustrate, in outlining children's gradual progression through the various fantasy play stages, how balance is gradually restored between these two cognitive processes; between an internal, subjective ego and an external, objective reality. Piaget proposed that this balance was a requisite for successful adaptation and essential for continued intellectual growth.

It should be noted that Piaget did not advocate a total disappearance of previous forms of play with development. Rather, he proposed that as children progress, mastery play takes a back seat to fantasy play, and similarly, fantasy play is eventually pre-empted by games with rules. Although all three forms of play remain within children's behavioral repertoires, one form is usually dominant depending upon fluctuations in the balance between the assimilative and accommodative cognitive processes. The imitative behavior prevalent in early forms of sensorimotor play illustrates the subordination of assimilation to accommodation; fantasy play demonstrates the domination of assimilation over accommodation. Lastly, participation in games with rules, which Piaget proposed highlighted children's forward movement into the more logical thought processes characteristic of intellectual maturity, demonstrates a harmony or equilibrium between accommodation and assimilation, whereby each process influences behavior in turn; first accommodation, then assimilation, then accommodation, and so on.

To summarize, Piaget (1962, 1976) proposed that fantasy play progressed on several levels. Firstly, it becomes increasingly social, evolving from a solitary, symbolic

activity to one which is collective and co-constructed. Secondly, the application of symbolic schemas to increasingly dissimilar referents indicates growth in children's ability to decontextualize objects; to separate the meaning of the object from its physical attributes. As children become more proficient in this new-found ability, they begin to combine these separate symbolic elements in new and unique ways. As well, they begin to shift from self- (e.g., the child feeds the self) to other-referenced (e.g. the child feeds the doll) behavior and utilize more active as opposed to passive roles within their play. Lastly, fantasy play as a distortion of reality begins to decline after age 4. However, fantasy play as an enactment of reality, with its complex, planned, and coherent play sequences, continues until approximately 7 years of age where it is then replaced by a preference for games with rules. Thus, the progression of fantasy play follows an inverted U-shaped function, peaking at approximately 6 years of age. Empirical work examining this hypothesized developmental progression have tended to support Piaget's theory (Matthews, 1977; Fein, 1981; Field, DeStefano, & Koewler, 1982).

The Contextual Approach to Fantasy Play Development

Vygotsky's (1966, 1978) "contextualized" theoretical account of the function and development of fantasy play in children has also had a powerful impact on current research and practice and contributed significantly to our expanding knowledge of fantasy play (Pellegrini & Galda, 1993).

Both Vygotsky (1966) and Piaget (1962) shared a similar emphasis on rule governed play as play at its most sophisticated. As well, both theorists noted an age-related decrease in children's reliance on objects' physically salient features in the

generation of their fantasy play. Similarly to Piaget's emphasis on fantasy play as expressing children's need to distort reality to the self, Vygotsky, in a slight variation on this theme, emphasized fantasy play as a type of wish fulfillment; as an "imaginary, illusory realization of unrealizable desires" (Vygotsky, 1966, pp. 7-8).

Despite these similarities, Vygotsky (1966, 1978), unlike Piaget (1962, 1976), emphasized play as a leading contributor to children's development. Recall from the previous discussion that Piaget (1962) viewed fantasy play as regressive; a subjugation of an external, rational reality to an internal, subjective self. As well, Vygotsky (1966, 1978) emphasized the role of social, situational, motivational, and affective factors influencing this development. Thus, contrary to Piaget's more general, age-related, stage theory, Vygotsky advocated a context-specific approach to understanding children's fantasy play and its role in children's cognitive development and growth.

Vygotsky (1966, 1978) suggested that human development was not solely the result of age-related, maturational changes but rather reflected the active transformation (i.e., personalization) and internalization of culturally valued activities and conventions. He believed that all higher psychological functions were characterized by this inward movement. Vygotsky (1978) was keenly interested in this process of internalization; thus, he advocated the need to study behavior within its context.

Vygotsky (1978) proposed that the fantasy play context facilitated and highlighted this meaning-making process by releasing children from the societal rules and constraints imposed upon them in their daily lives and providing them with the means by which they can freely explore and experiment with cultural roles and activities. Because rules (e.g.,

external or situational constraints) are subordinated to that of the imaginary (e.g., internal, ideational) situation within fantasy play, children learn to rely on internal rather than external tendencies and motives. Vygotsky (1978) proposed that this release from situational constraints and movement "within the field of meaning" (p. 101) promotes the acquisition and mastery of skills required for later social participation because it leads to the "development of will, the ability to make conscious choices" (p. 101) or "complex, mediated form of thought and volition" (p. 104). It is for this reason that Vygotsky (1966) felt play was a leading source of children's development in the preschool years. How, precisely, does this transition from an external to internal plain occur and what is the significance of fantasy play in this process?

Vygotsky (1966, 1978) proposed that within fantasy play, children acquire the ability to separate the meaning field from the visible field, or the perceptual field. In children less than 3 years of age, these two aspects are fused. Affect and perception are intertwined and bound to the play action. Thus, children's play is subject to and constrained by the external situation. As play behavior continues to evolve, the meaning field and the perceptual field begin to differentiate. As children become increasingly liberated from external or situational constraints or incentives, they are better able to conceive situations on an imagined level.

Vygotsky (1966, 1978) felt that toys played a critical role in facilitating this shift from the concrete, external, or visual realm to the more abstract, internal, meaning realm. The toy serves as the "pivot" for detaching the meaning from perception (Vygotsky, 1978, p. 97). Vygotsky proposed that, for younger children, the substitute object must resemble

the real object because the perceptual field dominates the meaning field; the object dominates the meaning. However, this reliance on similar or prototypical substitutes declines as the meaning of the object is gradually detached from its extraneous qualities. Initially, children separate the object from the meaning unconsciously and spontaneously. As this divergence between the perceptual and affective fields continues, children become increasingly aware of these two aspects as separate and distinct and begin to apply them in a more deliberate fashion. Thus, older children begin to guide themselves in their play not by what they see, but by what they think. Action arises from ideas rather than things; the meaning dominates the object. This separation process continues until approximately six years of age at which point children's imaginary play becomes converted to internal processes such as internal speech, logical memory, and abstract thought (Vygotsky, 1978).

To conclude, Vygotsky (1978) proposed that fantasy play was the transitional stage between the situationally constrained action of early childhood and liberated, decontextualized adult thought. He proposed that initial forms of fantasy play were reproductions of real life situations where rules predominate over imagination: It is "memory in action rather than a novel imaginary situation" (p. 103). As children begin to separate the meaning from the object, these externally governed rules and constraints are subordinated to that of the imagination. At this point, fantasy play is driven by internally generated thought and meaning, not by external limitations or constraints. Vygotsky believed that fantasy play, and the inherent nature of its transformative function, provided the forum or framework for this meaning making process. Through fantasy play, children learn to function on an internal, cognitive plain, rather than an external, perceptual level.

Vygotsky (1978) was particularly interested in children's fantasy play and its relationship to the development of speech noting that, with the gradual predominance of speech, there was a subsequent decrease in fantasy play. Vygotsky concluded that children's fantasy play was a precursor to more formalized (i.e., decontextualized) speech or discourse. As children become more verbally proficient, the manner in which they symbolically express themselves changes. They begin to use more developmentally advanced forms of communication such as written language. Thus, Vygotsky suggested that fantasy play did not decrease; rather, it evolved into a more socially acceptable and adaptive symbolic form of self-expression such as language and speech. Although fantasy play's transformational or continually evolving nature is similarly echoed in Piaget's (1962, 1976) explanation of the observed decline in children's fantasy play,[1] Piaget did not suggest that the ability to transcend reality or transform reality was an underlying factor in children's ability to communicate through speech and language. Rather, Piaget proposed that symbolic or representational thought was redirected to activities (e.g., drawing and handwork) that were less distorting and more adaptive to reality. Another distinction between Vygotsky and Piaget is the hypothesized direction of the content of children's fantasy play. Piaget proposed that children's play scenarios become more realistic with age due to the establishment of equilibrium between assimilation and accommodation. Alternately, Vygotsky stated, as the meaning of the imaginary situation is gradually emancipated from situational and extraneous constraints, fantasy play progresses from the

---

[1] Recall that, due to a gradual re-assertion of the accommodative thought processes, Piaget proposed that fantasy play as a preferred play mode waned and was gradually replaced by games with rules)

familiar and realistic to the novel and fantastic. Thus, although both Piaget and Vygotsky view fantasy play as a natural aspect of children's development facilitating children's ability to engage in representational thought, they differ on some core issues regarding the process and final product of fantasy play.

Bruner (1986a, 1986b), an advocate of Vygotsky and influential theorist in his own right, has also examined the ways children attempt to understand the world around them, to glean meaning from their everyday lives and the events that shape them. Although Bruner (1974, 1986b) was primarily interested in the function of language, he noted play's fundamental contribution to children's language mastery and communicative competence. For example, Bruner (1974) noted that children's mother tongue was mastered more readily in play. As well, he found that the most complicated language forms first appeared in children's play activities (Bruner, 1974). Similar to Vygotsky's (1966) belief in play as a major force in shaping children's development, Bruner proposed that play was "a test frame, a hot house for trying out ways of combining thought, language, and fantasy" (Bruner, 1986b, p. 83).

Bruner (1986b) believed that play was one context children used to understand and master the external world. To facilitate this meaning-making process, he proposed that human beings were born with the innate capacity to construct conceptual schemas that interpret others intentions (Bruner, 1974). These conceptual schemas are adaptive in that they enable the infant to establish and regulate joint activity and attention, first with the primary caregiver and later on with more tertiary figures. Bruner (1974) emphasized the critical role of the caregiver in reciprocating this process and the fundamental contribution

of play in facilitating this transactional, meaning-making process. Initially, the pre-verbal child uses actions in play to convey meaning. The sensitive caregiver responds to the child's attempts to communicate and establish a joint point of reference by verbally interpreting or clarifying the child's intended meanings. This process helps the child develop an awareness of the rule structures for communication. The child then begins to combine speech with his or her play actions. Once again the caregiver responds and so this process continues until the child is able to explicitly communicate his or her intentions and meaning through language alone without relying upon actions (i.e., play) or the external context (i.e., toys or props). Thus, Bruner (1974, 1986b) believed that, within the jointly regulated activity of play and buffered from any external consequences or constraints by play's non-literal nature, the child experiments, combines, clarifies, and elaborates on the rule structures in communication, first through acts and then through verbal utterances, until he or she is able to explicitly convey his or her intended meaning through language.

Bruner (1986b) suggested that this socialization into the rules and function of appropriate language use exemplifies how play is subtly structured to instruct children on the values within the culture thereby facilitating their successful adaptation and integration into the larger social milieu. Like his Russian predecessor, Bruner accentuated the crucial role of situational and social factors in affecting this process. However, rather than relying solely upon broad, hypothetical assumptions such as those made by Vygotsky (1966, 1978), Bruner attempted to garner some empirical support for his theoretical suppositions by examining, in detail, the role of various contextual and social supports such as adults,

peers, and toy materials upon children's play. After analyzing thousands of play observations from play groups and nursery schools, Bruner (1986b) noted that the sequences of play that were the longest and most richly elaborated were produced in the presence of non-directive adults who provided a stable and continuous play environment, in peer dyads (as opposed to solitary, triadic or group play), and using instrumental play materials (i.e., toys which allowed children the freedom to construct something). These findings tend to support both Vygotsky's and Bruner's dialectical, context-specific approach to understanding children's cognitive growth. Not only do children actively transpose and manipulate incoming information to form meaningful conceptual schemas to interpret the world, they are, in turn, constrained by situational and social factors within that world. Thus, internal needs and motives are intertwined with external, socially imposed rules. Fantasy play, due to its non-literal nature, is a socially acceptable means children use to integrate these frequently oppositional forces in an attempt to derive meaning from and achieve mastery over an often incomprehensible and uncontrollable world.

Briefly, to conclude, prominent theorists such as Vygotsky (1966, 1978) and Bruner (1974, 1986a, 1986b, 1988) have been instrumental in precipitating the recent shift towards a more contextualized view of children's knowledge acquisition and growth. Both theorists emphasize the critical role of the social or cultural milieu in children's developmental trajectories. Although Piaget (1962, 1976), contrary to Bruner and Vygotsky, tended to emphasize children's development as primarily an internal, age-related process, all three theorists present children as active constructors of interpretive

frameworks, or conceptual schemas, from which to view the world. They incorporate and transpose incoming information in an attempt to make sense of it; to make it meaningful. Fantasy play provides the adaptive forum for this transformative function to occur. It enables children to build increasingly elaborate and abstract conceptual schemas. Fantasy play is a reflection of both an external, objective reality and an internal, subjective self. Therein lies the duality of fantasy play.

Although it is clear, from the preceding discussion, that fantasy play is a tool that children use to make sense of the world, it would be erroneous to presume that it is the only way. There are other commonly used means at their disposal. Bruner (1988) suggested that narrative, or storytelling, is another representational tool by which children interpret and transform their worlds.

Theoretical Review of Children's Narrative

As with fantasy play, narrative discourse is a specific, symbolic communication mode by which children organize and represent their internal and external experiences, thoughts, and fantasies. Children actively explore language and ideas within the story realm. They manipulate the story-line, conveying pertinent details and information to their audience that assist in the accurate interpretation of the story unfolding events. Storytelling is universal; it is common across all cultures and all ages (Olson, 1990).

Previous empirical and theoretical literature on the development of storytelling in children has tended to emphasize specific grammatical or structural aspects of children's stories (Bruner, 1988; Nicolopoulou, 1993). Shifts within the scientific literature in viewing storytelling as a tool children use to actively explore and make sense of their lived

experiences, and communicate these perceptions and interpretations to others, has precipitated a subtle movement, in recent years, toward a more interpretive approach to studying children's narrative. The following discussion traces the historical roots of narrative development in children and highlights current theoretical and empirical findings regarding the function and development of narrative.

Children's narrative as a field of scientific inquiry by educators, psychologists, linguists, sociologists, and others within the field of academia has generated an impressive body of knowledge concerning its origin and development. Although definitional variation exists to some degree within the literature, in general the literature appears to suggest that specific grammatical or structural components are necessary to distinguish narrative from other forms of oral or written discourse. Labov and Waletsky (1967) identified narratives as any sequence of clauses which contains at least one temporal juncture and conveyed the following information to the audience: (1) orientation -- a description of a person, time, place or situation, (2) complication -- a series of events ending in a resolution, (3) evaluation -- narrator implicitly or explicitly emphasizes certain events over others to accentuate the importance or significance of those events, (4) resolution, and (5) coda -- an optional transitional device intended to bring the audience back to the present moment. Similar to Labov and Waletsky, Umiker-Sebeok (1977) and Thorndyke (1977) emphasized character, setting, plot, complicating event, and resolution as primary constituents of a complete narrative. In a slight variation to this theme, Rumelhart (1977) used a schema approach to delineating narrative structure. Specifically, schema was defined by Rumelhart as an abstract representation of a generic concept for an object,

event, or situation. Two schemata commonly found in stories are the EPISODE schema and the TRY schema (Rumelhart, 1977). The former describes the relationship between an initiating event, goal, and attempt to achieve that goal, whereas the latter describes the internal structure of the attempt. The preceding definitions share a common focus on specific grammatical or structural aspects of narrative. These story grammarians were primarily concerned with identifying the unique features that characterize stories from non-stories and the development of these features within the storyteller.

Several empirical studies have found a developmental progression in narrative competency and structural complexity in children with age (Sutton-Smith, Botvin & Mahoney, 1976; Botvin & Sutton-Smith, 1977; Umiker-Sebeok, 1977; Hicks & Wolf, 1988; McKeough, 1986, 1992). Simple narrative accounts, whereby an initial state "A" proceeds to a final state "B" emerges around 4-5 years of age. By 6-years-old, this basic dyad is elaborated and extended to include intervening actions or events (i.e., problem) mediating the movement from A to B. At approximately 7-years-old, the child begins to coordinate multiple-action sequences to form a series of episodes. Embedded plots begin to emerge at approximately 11 years of age and multiple-embedded structures by age 12. In addition, with increasing age children become more flexible in their ability to use and reverse these basic structures (Sutton-Smith, Botvin & Mahoney, 1976; Hicks & Smith, 1988; McKeough, 1992) and incorporate secondary elements (i.e., flashbacks, surprise endings) to elaborate upon the primary plot structure (Sutton-Smith et. al., 1976). These latter findings support Kernan's (1977) findings that older children more often elaborated upon the background information in their stories. Kernan suggested that this elaboration

may indicate an overriding concern that the stories' events are interpreted by the audience in a manner the narrator wishes them to be. Kernan postulated that younger children tend to assume the audience understands and appreciates the narrative account the same way they do, whereas older children realize that explicit cues are necessary for accurate interpretation and appreciation of the story.

Briefly, to conclude, previous studies examining the developmental progression of narrative in children outline a gradual incorporation and integration of increasingly sophisticated linguistic and grammatical structures thereby enhancing the complexity, coherence, and cohesion of the narrative account.

Bruner (1986a, 1986b, 1988, 1992), Case (1992), and McKeough (1992), although focusing on slightly different aspects of children's narrative competence, suggested that narrative assumes a central role in children's cognitive development. Bruner (1992), emphasizing the social and cultural origins of storytelling, takes a more interpretive, context specific approach to the function of narrative in children's lives. Although they do not discount the importance of situational influences, Case (1992) and McKeough (1992), following the neo-Piagetian tradition, suggest that narrative is a universal, central conceptual structure which gradually progresses in structural complexity as a result of a more general, age-related growth in working memory capacity. They proposed that this central conceptual structure is used by children to organize and make sense of their experiences. Currently, their research attempts to elicit empirical support for the presence of a universal, stage-related developmental sequence within this particular cognitive domain. Despite the differences in emphases, both Bruner and Case and

McKeough recognized the central role of narrative in children's development and growth and its primary function as a meaning-making device.

Bruner's Co-constructed Narrative

Bruner (1992) wrote extensively on narrative as a special, symbolic language system "not only representing but of constituting reality" (p. 223). Children's stories were a reflection of their active and continual attempts to interpret and make sense of these experiences. Indeed, Bruner (1988) felt that children's ways of telling and of conceiving the world through narrative become so habitual that they become "the recipes for structuring experience itself" (p. 582). Thus, this narrative mode of thought (Bruner, 1986b) provides children with a format for interpreting and understanding life experiences and for informing future courses of action (Olson, 1990).

Bruner (1986a) argued that knowledge was not solely constructed internally (intra-individually) or externally (inter-individually) but rather was co-constructed in the interplay between the child and the culture. In other words, children's mental representations not only reflect the culture to which it is embedded, it reflects children's transformation and interpretation of cultural realities in an active search for meaning. These differing external experiences and internal interpretive frameworks shape and personalize narrative expression (Bruner, 1988). Thus, children's active participation in meaning making finds its expression in the narratives that they tell. Like fantasy play, narrative is a socially derived expressive forum which unites and integrates the internal, interpretive aspects and the external, cultural aspects of reality.

Bruner (1986a) postulated that these two realities are depicted within the dual landscapes of narrative: (1) the landscape of action, and (2) the landscape of consciousness. The landscape of action is the infra-structure or the structural building blocks (i.e., setting, character, plot, resolution) of the story upon which the landscape of consciousness, or the intentional, motivational, internal states of the story's characters, depend. The narrator, through active and creative manipulation of these two story components, creates implicit and explicit meanings within the story text and it is this personalized new meaning that is conveyed to the audience. How is this narrative competence transmitted to the next generation?

Bruner (1990) suggested that young children are initially socialized into narrative by the larger culture. Early on children learn that narrative is one of the non-confrontational means to which they achieve certain ends. Bruner (1990) proposed one of these ends was to find meaning in and master experiences which are often incomprehensible and uncontrollable. Another end was to successfully navigate the shift into the larger cultural and social milieu. Because Bruner believed both play and narrative were interwoven and integral to young children's attempt to render meaning, many of the same processes and supports discussed previously in fantasy play apply here as well, e.g., interpretation and clarification of intended meaning by an attentive caregiver, children's gradual abstraction of cultural rules governing language use and communication. With the expert adult's careful and sensitive guidance, storytelling proceeds within children from unconscious, spontaneous, and action-based play to conscious, deliberate, and enculturated verbal accounts. This process ensures the successful continuation and

transmission of the culturally valued tool of narrative from one generation of story-makers to the next.

From this very brief description of Bruner's comprehensive account of the origins and function of narrative and its role in children's cognitive development and knowledge acquisition, it is clear that he believed storytelling was a socially derived and culturally defined phenomenon used to interpret meaning and inform action. Case (1992) and McKeough (1992) take a slightly different theoretical stance in their interpretation of the nature of children's cognitive growth and the progression of narrative thought.

Case's Neo-Piagetian Model of Cognitive Development

Case (1992) revised and expanded upon Piaget's original theory of cognitive development in an attempt to deal with some its limitations and to integrate and combine both general, system-wide and more context specific characteristics of cognitive development, which to that point had remained discrete. He proposed that structural change is localized and specific to one particular knowledge domain, yet the process of its assembly is subject to a general developmental constraint: working memory or processing capacity. As children's working memory capacity increases with age, they are able to incorporate more information into the preceding cognitive structure. Thus, cognitive development proceeds in a building block fashion whereby children integrate and consolidate new information with the old. This enables them to construct increasingly complex conceptual structures for interpreting information.

Case (1992) proposed that children invariantly progress through four general stages of cognitive development: (1) the sensorimotor stage, (2) the interrelational stage

(3) the dimensional stage, and (4) the vectorial stage. He suggested that, within each of these four stages, there were four sub-stages characterized by the number of working memory units (WM) available to process information. These four sub-stages are:

(a) consolidation: a new structure is assembled; 1 WM unit available therefore the new structure is applied in a isolated fashion

(b) coordination: 2 WM units available therefore two structures are considered at one time

(c) bifocal coordination: characterized by 3 WM units, involves coordination of the two structures

(d) integrated bifocal coordination: 4 WM units available, the two structures are integrated and consolidated to form qualitatively distinct entity, marks the transition from the 4th sub-stage of one level to the first sub-stage of next level

Each stage proposed by Case (1992) is labeled and characterized according to the qualitatively distinct means by which children construct these conceptual structures. In the sensorimotor stage (4 to 18 months old), development takes place within infants' sensorimotor behavior. Within the interrelational stage (18 months to 5 years of age), children focus on the relational aspects of conceptual units. During the dimensional stage (5 to 11 years of age) children begin to address the spatial and temporal dimensions of their experiences. Lastly, children in the vectorial stage (11- to 19-years-old) begin to conceptualize information in terms of "abstract systems of dimensions in which there is no concrete referent" (Case, 1992, p. 27). Because the intellectual structures at these higher levels are not considered cultural universals, it is during this last sub-stage that exposure

(i.e., to formal schooling) and experience (i.e., practice) become more critical variables in determining the outcome of children's developmental trajectories. Case posited that individual variation in rates of development are largely due to individual differences in children's experiences of specific content areas. Thus, Case proposed that children construct increasingly complex conceptual structures as they move from one sub-stage and stage to the next and that development was constrained by system-wide maturational and domain-specific experiential components. McKeough's (1992) work from the social domain, specifically within the field of narrative, attempted to validate, empirically, Case's theory and more clearly demonstrate this developmental process.

McKeough's Neo-Piagetian Model of Narrative Development

McKeough (1992), documented a general, stage-like, sequential progression in children's storytelling abilities during the dimensional stage of cognitive development. She linked this age-related progression to a growth in working memory processing capacity which increased from 1 to 4 units across each sub-stage. This growth in processing capacity corresponded to an increase in the structural complexity of children's narrative productions.

The typical 4-year-old produced stories that epitomized scripted narrative accounts. These scripted accounts are characterized by familiar, commonly encountered experiences linked causally or temporally together to form a predictable event sequence containing four elements: a setting, an initiating event, a response, and an outcome. The consolidation and integration of these four separate elements into the qualitatively distinct, singular entity story marks the 4-year-olds movement from the final phase of the preceding

relational stage to the first sub-stage of the dimensional stage. Thus, the 4-year-old's story typically contains a single episode. The following illustrates a prototypic 4-year-old story:

> Once there was a lamb and a girl walking to get home. So they saw their mother's house and they went in and they saw their mother. That's where they lived and they lived happily ever after. (McKeough, 1992, p. 172)

This story clearly indicates the aforementioned elements of the typical 4-year-old story: It has a setting (i.e., mother's house), an initiating event (i.e., walking to get home), a response (i.e., they went in and they saw their mother) and outcome (i.e., they lived happily ever after). There is a predictable unfolding of story events and the story elements are temporally and causally linked to form a single, scripted (i.e., based upon the "happily ever after" story script) story structure.

Unlike the 4-year-old, the 6-year-old is able to coordinate two different episodic structures indicating a growth in processing capacity from one to two units. It is at this point that children's stories more closely approximate a plotted story structure wherein the first story sequence centers around a problem that is perceived and the second event sequence details attempts to resolve it. The introduction of a problem episode into the story reflects a shift from an exclusively external focus to a more internal plane, marking the onset of children's awareness of underlying motivational states and intentions directing the character's actions. This shift marks a major change in children's social cognitive abilities. Thus, 6-year-olds begin to coordinate and integrate the landscape of action with the landscape of consciousness (Bruner, 1986a) thereby forming an <u>intentional</u> story structure. The following illustrates a prototypic 6-year-old story:

> A horse was walking along in a field and he saw a little lamb in one of the places of the barn and it was a fence. And it was a nice little lamb and it-it was lonely. So the horse jumped in and the lamb jumped onto the horse and then they got out. And then they went to a place where there was no one except them. And they picked some blueberries. And the lamb found some grass and he liked the grass better than the blueberries. And then they went and lived together. And they lived happily ever after. (McKeough, 1992, p. 174).

The preceding example of a prototypic 6-year-old story illustrates how the character's actions are linked to underlying mental states (i.e., nice little lamb and it - it was lonely) to form a basic plot wherein a problem is introduced (i.e., a lonely lamb trapped by a fence) and subsequently resolved (i.e., a horse rescues the lamb).

By 8 years of age and the introduction of yet another unit of processing capacity, children are able to consider two or more plot units, albeit in a somewhat tentative manner, usually in the form of a complication or sub-plot which serves to impede the successful resolution of the initial problem. The following example illustrates such a scenario:

> Once there was a little girl who was walking in the woods and she saw a helpless little lamb. And then she took it to her father but her father said, "No! She can't keep it." Then she built a house in the woods for it and kept it there and brought food for her every day. And her father and mother found out that she was keeping the little lamb there and so, they told her that they should send her to a place where lambs live. (McKeough, 1992, p. 176).

Ten year olds have four units of processing capacity available to them therefore they are able to systematically integrate and elaborate more upon these two basic plot units to produce coherent and cohesive narrative accounts.

Briefly, to summarize, McKeough's (1992) empirical work within the narrative domain suggests the presence of a linear, age-related progression in children's story structure and a movement from action-driven to intention-driven narrative accounts. This progression has been linked to a parallel growth in working memory processing capacity. These findings lend direct support to Case's (1992) reformulated Piagetian account of children's cognitive development and knowledge acquisition. Case (1992) and McKeough (1992) proposed that children build upon prior knowledge, constructing increasingly complex conceptual schemas by which they interpret the world. Narrative knowledge is thought to be one such interpretive structure.

The preceding discussion effectively highlights theoretical postulates and empirical support regarding the nature and progression of narrative and suggests that, like fantasy play, storytelling may be a cultural tool that children actively use to organize and make sense of their lived experiences. These attempts to render meaning are reflected in the stories that are told (Bruner, 1986b, 1992). Case (1992) and McKeough (1992) suggest that, in addition to the many social forces shaping children's meaning-making activities, there appears to be distinctive age-related differences on <u>how</u> children go about this interpretive activity and that these differences may be related to system-wide constraints in working memory or processing capacity.

Factors Affecting Children's Fantasy Play and Narrative

The literature discussed thus far suggests that children's development is dynamic, complex, and multifaceted. The internal and external forces shaping that development are embedded within and expressed through children's meaning making activities (e.g., fantasy play and storytelling). The search for a more complete and comprehensive account of how and what factors influence children's attempts to make meaning or sense of their lived experiences, and their effect on children's developmental trajectories, has prompted researchers to attempt to parcel out and explicate the role of these many factors. Accompanying this more contextualized view of children's growth, appears to be a re-discovery and re-emphasis, within the empirical literature, on the value of studying children's development and meaning making activities within its natural context rather than the more sterile and controlled laboratory conditions of yesteryear.

Following the more recent acknowledgment and emphasis within the theoretical literature of examining behavior within its social, cultural, and ecological context, the current empirical research reflects a growing awareness and recognition of children's development as a dynamic intra- and inter-personal process. The interplay of these internal and external factors is evident in children's representational use of narrative and fantasy play.

The empirical literature amassed thus far examining the impact of internal and external factors on children's narrative and fantasy play is substantial and beyond the scope of this particular document. The following review is merely intended to highlight the scope and diversity of current empirical work within the area of children's narrative and play.

Several studies suggest that how children engage in meaning making activities such as storytelling and fantasy play may be affected, to some degree, by each child's unique profile of competencies and personalized interpretive framework. For example, individual differences in imaginative style (Wolf & Grollman, 1982), productive language abilities (Shapiro & Hudson, 1991), and verbal facility (Reifel & Yeatman, 1991) appear to influence children's narrative competence and fantasy play. Another study found gender differences in children's tendency to externalize fantasy thoughts and ideas, with boys more likely to engage in fantasy speech than girls (Olszewski, 1987). Lastly, aforementioned developmental or age-related differences in how children use the means available to them to make sense of their worlds (Bruner, 1986a; Vygotsky, 1978; Piaget, 1962; Peterson & McCabe, 1991; Case, 1992; McKeough, 1992) plays an important role in how children organize and communicate their experiences to others.

Researchers have noted many social and cultural influences which also appear to influence children's meaning making activities. For instance, Miller (1993) noted that there existed a considerable degree of cultural variation on how the narrative genre was defined and made available to young children. Peterson (1994) noted variation in the personal narratives of racially and culturally homogeneous children from different socioeconomic backgrounds. Social factors such as familiarity (Bloom, 1988; cited in Burroughs & Murray, 1992), preferred play partnership (Wanska & Krantz, 1981), and the presence of an adult or peers (Cook-Gumperz & Corsaro, 1977; Pellegrini, 1983; Soderbergh, 1980) also appear to affect children's ability and/or willingness to communicate.

Ecological or situational factors existing within the immediate environment have been linked to language production and play. Cook-Gumperz and Corsaro (1977) discovered that children selected different communication strategies to meet the expectations generated by the setting. Supporting Vygotsky (1978) and Bruner's (1986) contention of play as a leading contributor in children's development, Benson (1993) found greater narrative competence for 4- and 5-year-olds in the play setting than in the storytelling setting. Kramer, James, and Saxman (1979), using two different language measures, found children produced longer utterances at home rather than within the clinic setting. Studies by Pellegrini (1982, 1983, 1984, 1986) found that the play context (e.g., housekeeping, blocks, and sand/water) elicited quantitatively and qualitatively distinct types of language. For example, one study found that housekeeping and blocks centers facilitated more imaginative and multi-functional language than sand/water in preschool children (Pellegrini, 1983).

The results of these numerous empirical studies appear to suggest that children's ability to convey meaning through narrative and fantasy play is a transactional, dynamic, and emergent process; an "interweaving of text and context" (Kelly-Byrne, 1984, p. 39). These findings have contributed substantially to our understanding of <u>why</u> and <u>how</u> children come to view the world in so many different ways.

Although many studies have examined contextual and situational influences on children's fantasy play, one particularly rich field of inquiry is that of inherent toy <u>structure</u>. Toys are an essential component of children's play. For example, one study found the majority (97%) of children's free-play activity involved some type of play material (Tizard,

Philps & Plewis, 1976). Toys structure has been conceived of as existing along a continuum (Johnson, Christie, & Yawkey, 1987; see Figure 2.1). Depending upon the degree of inherent detailing and realism, all expressive play mediums can be placed somewhere along this continuum. Highly structured toys approximate their realistic counterparts and are quite specific in their use (e.g., Doctors or nurses kits). Conversely, unstructured toys tend to be less feature specific and used for a number of purposes (e.g., wooden blocks, sand, water).

Figure 2.1

Johnson, Christie, & Yawkey's (1987) Continuum of Toy Structure

Mud Sand Water	Blocks	"Featureless" Dolls Vehicles, etc.	Detailed Toys	Instructional Materials
Unstructured				Structured

Neumann (1971) and Fein (1981) hypothesized a relationship between fantasy play production and toy structure. They suggested that 5-and 6-year-olds' ability to generate fantasy in the absence of environmental supports (Piaget, 1962; Vygotsky, 1978) leads to a preference for objects with less structure. Following Vygotsky, they reasoned that older children prefer these unstructured toys because they are less constrained by the object's physical features and, as such, they are able to use these toys in a greater variety of fantasy scenarios. They predicted that older children's fantasy play is enhanced by the use of less structured toy materials. Alternately, they proposed that children less than 5 years of age demonstrate the opposite pattern. They reasoned that, because younger children rely

heavily upon the salient features of the play objects to support their fantasy play themes, the presence of low-structured toys would deleteriously affect their fantasy productions. Thus, younger children's fantasy play is thought to be richest in the high structured toy condition.

Empirical studies examining the fantasy play/toy structure relationship have failed to produce consistent, conclusive results, however (McGhee, Ethridge & Benz, 1984; Olszewski & Fuson, 1982; McLoyd, 1983). This may be a function of potential confounds within the design of these studies. For example, these studies employed different criteria in delineating high, versus medium, versus low structured toys. Olszewski and Fuson's (1982) low-structured toys fell towards the middle of Johnson, Christie and Yawkey's (1987) toy continuum. Other potential flaws were a lack of awareness or inattention to extraneous variables which may affect the interaction of children's fantasy play and toy structure. For example, toy preference, gender, adult or peer presence (Pellegrini & Perlmutter, 1989), familiarity of play partners, surroundings and toys (Matthews, 1977, 1978), socio-economic, cultural, and familial factors (Udwin & Shmukler, 1981), social competency (Doyle & Connolly, 1989), and social status (i.e., popularity; Black, 1992) all impact the quantity and quality of children's fantasy play.

Very few studies have examined the affect of toy structure on the structural and thematic aspects of children's fantasy play utterances. Pellegrini (1982, 1984, 1985, 1986) and his colleagues (Pellegrini & Cramer, 1983; Pellegrini & Perlmutter, 1989), Pulaski (1973), and McLoyd, Warren, and Thomas (1984) are three notable exceptions.

Pellegrini's extensive work examining the effects of toy materials and other contextual features on children's play (Pellegrini & Perlmutter, 1989; Pellegrini, 1985) and language abilities (Pellegrini & Cramer, 1983; Pellegrini, 1982; Pellegrini, 1984; Pellegrini; 1986) has made a substantial contribution to this growing body of knowledge, yet most of this work has focused on discrete, isolated aspects of language, social influences, or contextual supports rather examining them as reciprocating and interconnected influences. Pulaski's (1973) study found that 5-, 6- and 7-year-old children produced a significantly greater variety of fantasy play themes in the minimally structured toy condition, although the most commonly recited stories were those which were rooted in reality. These findings appear to support Piaget's (1962) contention that fantasy play becomes less distorted, and increasingly bound to reality with age. McLoyd, Warren, and Thomas (1984) examined type of imaginary role enactment as a function of toy specificity. Unlike Pulaski (1973), they discovered that less specific (i.e., unstructured) toys elicited significantly more fantasy, as opposed to domestic, role reenactments. These findings appear to support Vygotsky's (1966, 1978) view of the progression of fantasy play, whereby fantasy is gradually emancipated from an external, rule-governed world and children begin to move freely within the field of meaning. The seemingly contradictory findings of these two studies highlight the aforementioned discrepancy which currently exists within the literature regarding the developmental progression of the representational or symbolic cognitive function.

The Fantasy Play and Storytelling Connection

Children's fantasy play and storytelling, as representational tools, provides a natural context whereby developmental psychologists can naturally and unobtrusively observe children's early attempts at meaning making. Only recently have researchers begun to examine the potential relationship between fantasy play and narrative. Some theorists believe fantasy play is play with a story-line (Paley, 1990; Nicolopoulou, 1993). Others have found structural parallels between children's formal (i.e., decontextualized) narrative productions and stories they produce while engaged in fantasy play (e.g., introduction of characters and settings, initiation of a problem, resolution to the problem; Sachs, Goldman, & Chaille, 1985; Eckler & Weininger, 1989).

Hicks and Wolf (1988), examining children's fantasy play narratives in greater detail, proposed that children's narratives produced during their play were "inter-textual" (Wolf & Hicks, 1989, p. 330). They suggested that narrative, in general, was more than a single line or strand of text; rather, narrative was characterized by an interweaving of many different voices and that this multi-dimensionality gave narrative its texture and vitality (Hicks & Wolf, 1988; Wolf & Hicks, 1989). To convey information to their audience, children flexibly traverse between the narrative voice, which accounts the events and actions of the story, the dialogue voice, which imparts information concerning the internal thoughts of the characters, and the stage managing voice, which permits the storyteller to suspend the action of the narrative, to plan the direction of the story, and to inform the audience regarding changing roles, characters, setting, etc. This understanding of the function of these various voices within narrative appears to emerge very early on in children's development. For example, Wolf and Hicks (1989) found that the spontaneous

play narratives of children as young as three years of age were multi-voiced. However, these voices were manipulated differently depending on the age of the child. With age, children use more linguistic markers (i.e., temporal features; tense) to distinguish between the various voices. As well, between five and six years of age, children begin to demonstrate their understanding of the plurifunctionality (Wolf & Hicks, 1989, p. 331) of the voices: Each voice has multiple functions and can convey the same information as the other voices. For example, information is conveyed through the story characters rather than through the narrator. Thus, by age five, children are skilled not only in manipulating the separate voices, but also begin to embed the functions of the other voices into one voice. In addition to the developmental changes that were observed, Wolf and Hicks (1989) found children's use of the various voices in relaying certain story events and their particular stance to those events was highly sensitive to differences in the children's cultural background.

Cultural and social experience and knowledge also appear to play a major role in children's fantasy play and storytelling. For example, Seidman (1983) and Nelson and Seidman (1984), examining the content of children's play scripts, detailed how young children used shared, familiar experiences as a common framework for organizing their play and discourse. French, Lucariello, Seidman & Nelson (1985) noted how toys assist children to access this shared event knowledge (i.e., scripts). They observed differences in the narrative productions of children who played in physical settings with limited contextual cues or supports to establish a shared point of reference versus those settings with props or toys supporting access to script-based knowledge. They also found children

who were able to rely upon the meaning inherent in the setting produced extended and richer discourse and "reveal competencies not previously attributed to them" (p. 27) than those without such contextual supports. Sachs, Goldman and Chaille (1985) made a similar observation in their work, noting that older children with a well developed doctor script produced more advanced pretend play story-lines than younger children with less exposure to, and therefore less knowledge of, that particular scripted event.

Despite the gradual accumulation of findings supporting a potential relationship between the two representational, meaning-making activities of narrative and fantasy play, the specific nature and extent of this relationship is far from clear. What is clear is that these meaning making activities are affected by a myriad of factors, both internal and external, that intermingle in complex, sometimes surprising ways. Untangling the mystery of how children use the particular means available to them (i.e., fantasy play, narrative) to organize and interpret their lived experiences and the facilitating effect that contexts have on this meaning making activity promises to be a fruitful area for future scientific inquiry and is the focus of the current study.

Summary

Many studies have examined the structure of children's fantasy play and various contextual and social factors affecting its expression, yet few studies have examined the qualitative aspects; those qualities which make it magical and engaging not only to the participants, but also to the audience. The stories children tell while they play, although a natural by-product of their play, have only recently begun to be examined in any depth. Moreover, although some studies have examined the relationship between specific

language functions and fantasy play, the methodological approaches employed in the analyses of these studies fail to capture the dynamic, continually evolving nature of storytelling within a broader situational and social context. A comparative study examining the structural similarities, or lack thereof, between children's spontaneous fantasy play narratives and those produced under more formal, decontextualized storytelling conditions has yet to be explored.

Hypotheses

The few studies examining the relationship between narrative and fantasy play clearly indicate that, although they appear to be linked, the manner and extent of that linkage remains obscure. A broader, more dynamic approach to the study of children's narrative production as a continually evolving phenomenon embedded within a broader social and situational context is more likely to capture the nature of this linkage.

Guided by the theoretical and empirical literature on the development of narrative (Botvin & Sutton-Smith, 1977; Bruner, 1990a, 1990b; Case, 1992; McKeough, 1992) and fantasy play (Piaget, 1962; Matthews, 1977; Vygotsky, 1978; Seidman, 1983; Nelson & Seidman, 1984), the current study will attempt to clarify the relationship between children's fantasy play and narrative production by addressing the following research hypotheses:

1. Younger children rely more heavily upon scripted knowledge and contextual supports systems in the generation of fantasy therefore:

(a) narrative productions will have more advanced structural elements in a high support versus a low support toy condition[2]

(b) narrative productions will have more advanced structural elements with a high support versus a low support storytelling prompt

2. Older children rely less upon scripted knowledge and contextual support systems in the generation of fantasy therefore:

(a) narrative productions will have more advanced structural elements in a low support versus a high support toy condition

(b) narrative productions will have more advanced structural elements in a low support versus a high support storytelling prompt

3. Due to an additional unit of working memory or processing capacity (Case, 1992), the narratives of the 6-year-olds' will be more structurally advanced than the narratives of the 4-year-olds' regardless of the specific level of inherent support, or type of task.

---

[2] To reduce confusion for the reader with regard to the multiple use of the term "structure" within this document, the term "support" will be substituted and applied to the experimental conditions. Thus, the "Unstructured" play or storytelling tasks are, from this point, called "Low Support" and the "Structured" play or storytelling conditions are called "High Support."

Chapter III

METHODOLOGY

This experimental and exploratory study was designed to examine and compare the structural content of the narrative productions of 4- and 6-year-old children. More specifically, this study attempted to clarify whether age-related structural parallels existed between fantasy play versus formal storytelling narratives and examine the impact of the presence or absence of contextual supports (i.e., high versus low support toys and storytelling prompts) on these narrative productions.

This study employed a within-subjects experimental design. To encourage the children to verbalize their thoughts and actions while playing, each child was randomly paired with a same-aged participant from within the child-care facility. Many of the child-care programs contacted to participate in this study were smaller operations with limited numbers of children in each age group. Had a between-subjects design been used, the pairing procedure used in this study's design required that twice as many children be recruited from each of the two age groups. Because the child-care facilities tended to have smaller numbers of children, a greater number of centers are necessary to achieve an adequate number of participants. Increasing the number of centers introduces a greater degree of variance and this increased variance may obscure or limit any statistically significant findings. Thus, implementing a within-subjects design had a two-fold benefit: (1) it reduced the variability in the data due to extraneous confounding thereby lending

more statistical power to the findings, and (2) the researcher was able to achieve this end using fewer participants.

The researcher methodically followed a number of procedural steps from the inception of this study's design to its conclusion. The details of these steps, or phases, are further elaborated upon under their specified subheading and will be discussed shortly. However, a brief overview of the procedure is needed to map out the landscape of this study's design and to orient the reader.

Four and 6-year-old children were recruited from several child-care centers in middle to upper-middle socio-economic status neighborhoods. All participants were screened for average verbal ability. After a period of familiarization to the researcher, the experimental toys, and the playroom where the study took place within each child-care facility, the children were randomly assigned a play partner and a treatment order condition. The first data collection session, the children were exposed to one of two toy treatment conditions: high support (doctor toys) or low support (wooden blocks). They were videotaped playing with the toys for 15 minutes at which point one child was taken back to their regular playroom and the other child remained behind to complete the two formal storytelling tasks. The storytelling instructions paralleled the same degree of supportive detailing which existed within the toy props. The child's oral stories were videotaped. During the second session, the children were randomly assigned new play partners and were exposed to the toy treatment they had not had the preceding session. After the play, the child who had not yet completed the storytelling task remained behind to do so while the other child returned to his or her regular playroom. The video-taped

stories in both the play and formal storytelling conditions were transcribed and analyzed for various developmental (i.e., plot level) and inter-textual (i.e., narrative voices) structural elements and then subjected to a series of multivariate analysis of variance's (MANOVA's). The following account describes the procedural process in greater detail.

Method

Setting Selection and Description

Six child-care programs located in middle to upper-middle socio-economic neighborhoods in a large urban center in Western Canada agreed to participate in this study. The recruitment process involved telephone contact with the director of each child-care program and a brief explanation of the purpose, degree of involvement, and nature of the study. This initial contact was followed by a personal meeting that entailed a more detailed discussion of the specific procedures of the study and a tour of the facility.

During the tour, the researcher made informal observations to determine the suitability of the center as a potential research site. For example, the researcher noted: (1) the number, variety, and availability of toys, (2) the number of children in each of the age groups required for the study, (3) child-care ratios, (4) playroom size, lighting, and maneuverability (i.e., overcrowding), (5) children's level of comfort with their caretakers, (6) rapport between the staff, and (7) availability of a room for conducting the study that was separate from the main playroom yet still familiar to the children. During the facility tour, the director of each center was informally questioned regarding the philosophy and mandate of the facility. Those settings that demonstrated a child-centered approach to

child-care and emphasized play as a valued aspect of their program were selected to participate in the study.

Subject Selection and Description

After the completion of the setting selection process, letters of information (Appendix A), parental consent forms (Appendix B), and occupational information forms (Appendix C) were sent home with each 4- and 6-year-old child. The basis for the selection of these particular age groups is that from 4 to 6 years of age fantasy play begins to peak (Piaget, 1962; Matthews, 1977; Field, DeStefano & Koewler, 1982), and simple, action-based, narrative episodes (i.e., event sequences) progress to intentionally-based, plotted episodes (Botvin & Sutton-Smith, 1977, Umiker-Sebeok, 1977, McKeough, 1986; McKeough, 1992).

Parental response rates to the participation request varied from center to center and between the 4- and 6-year-olds and are presented in Table 3.1. The range of the mean response rate between the two age groups was from 66% (6-year-olds) to 92% (4-year-olds). Possible explanations for the large differences in response rates between the two age groups may be, for the older children, a lack of communication on three levels: (1) between the administration and child-care workers, (2) between child-care workers and relief or temporary staff, and (3) between the facility staff (i.e., administrative, child-care workers) and the parents. As well, there appeared to be less parental involvement in the day-to-day happenings of the child-care programs with lower response rates. This, in combination with potential gaps in communication on the three levels cited above, may have contributed to delaying or preventing the dissemination of pertinent

information to the parents for them to make an informed decision regarding their child's participation in the study. Interestingly, the lower response rates seemed to come from those centers with more structured, activity-based child-care programs and larger numbers of children.

Table 3.1

Parental Response Rates for 4- and 6-Year-Old Children by Child-care Center

Center	4-year-olds		6-year-olds	
	Number	Percent**	Number	Percent**
1	6/6	100	4/11	36
2	8/10	80	5/6	83
3	9/9	100	5/6	83
4	6/7	86	3/6	50
5*	N/A	N/A	5/6	83
6*	N/A	N/A	6/10	60
Mean	29/32	92	28/45	66

* Before and after-school child-care program only
** Rounded up to first integer

The researcher targeted relatively homogenous, middle to upper-middle socio-economic status (SES) neighborhoods because of the small sample sizes used in this study; however, to confirm the homogeneity of the participants' SES the researcher requested that the parents or guardians complete an occupational information form (Appendix C). If both parents or guardians completed the form, the highest socio-economic level was assigned to the child. A comparison of parental occupational titles to the 1981 Socioeconomic Index for Occupations in Canada (Blishen, Carrol, & Moore, 1987) indicated some heterogeneity and is presented along with other demographic and screening information of the subjects in Table 3.2.

To reduce potential confounding by individual differences in productive language facility, children's verbal abilities were screened using the Wechsler Preschool and Primary Scale of Intelligence (WPPSI, Vocabulary sub-test; Wechsler, 1967). Four of the 28 4-year-olds (14%), and two of the 23 6-year-olds (9%) had scaled scores that fell outside the average range (i.e., <8 and >12). These six children were eliminated from the study. The remaining children, 24 4-year-olds and 21 6-year-olds with average verbal ability, comprised the final subject pool.

Table 3.2

Demographic and Screening Information of Participants by Child-care Center

Center	Age Grp	#	M/F ratio	Age (mean)	WPSSI (vocab SS)	SES* *low*	*mid*	*hi*	*unkn.*	Ethnicity**
1	4	6	4:2	4-2	12	1	1	3	1	Caucasian(6)
2	4	7	4:3	4-5	10	2	4	1		Caucasian(5) Afr. Canadian(1) As. Canadian(1)
	6	4	1:3	6-4	11	1		3		Caucasian(2) Afr. Canadian(1) As. Canadian(1)
3	4	6	2:4	4-3	11		2	4		Caucasian(6)
	6	4	2:2	6-3	11		2	2		Caucasian(4)
4	4	5	5:0	4-2	11		2	2	1	Caucasian(4)
	6	3	1:2	6-3	10		1	2		Caucasian(3)
5	6	4	4:0	6-5	12		3	1		Caucasian(4)
6	6	6	1:5	6-8	11	1	3	2		Caucasian(4) Afr. Canadian(1) As. Canadian(1)

* estimated employment income based upon occupational title--low: one standard deviation below the mean; mid: within one standard deviation from the mean; hi: one standard deviation above the mean; unknown: unable to determine
** Afr.=African, As.= Asian

Materials Selection and Description

Recording Materials

In addition to verbal utterances, children communicate their thoughts and feelings through their play actions and other non-verbal cues such as eye gaze, gestures, and facial expressions. Often, these more subtle forms of communication are helpful to the researcher in clarifying, interpreting, and validating the children's' intended meaning. Audio-taping does not capture these aspects; thus, the researcher opted to videotape the children. A video-camera (Hitachi VHS CCDII, Model No.VM-3270A), conspicuously mounted on a tri-pod and directed by the researcher, was used to videotape the children during the data collection phase of the study.

Play Materials

Both theoretical and practical considerations formed the basis for toy selection in this study. An empirical study by Matthews (1977) identified six modes of transformation facilitating a qualitative shift from reality play to fantasy play within preschool children (Appendix D). The first three modes were labeled material transformational modes whereby children rely upon the physical or salient qualities of the object, using these tangible features as the pivot or contextual support to generate and maintain their fantasy play. While participating in material fantasy play, children attribute to an object (i.e., toy) extraneous qualities not typically associated with that object, thereby transforming it into something else. Supporting Piaget's (1962) and Vygotsky's (1978) theoretical stance that children increasingly differentiate between an object's physical characteristics and its assigned meaning with age, Matthews (1977) found that, with advanced age, children become increasingly capable of transcending the physical features of the object, relying upon ideas or mental images in generating and sustaining their fantasy play. Because the

actual referent is intangible, or not immediately present to the physical senses, Matthews (1977) labeled these last three modes characterizing older children's fantasy play as ideational transformational modes. The toys selected for use in this study attempted to elicit and access these material versus ideational fantasy play modes. To achieve this end, toys were chosen from the structured (i.e., high support) and unstructured (i.e., low support) extremes of Johnson, Christie, and Yawkey's (1987) Continuum on Toy Structure (Figure 2.1).

During the initial tour of the child-care facilities, the researcher noted that each center possessed different toys. To assure toy consistency and reduce the variability introduced into the data by the use of different toys, the researcher purchased and manually transported toys between the various centers. Thus, in addition to toy material consistency, ease of portability was another major criterion for toy selection. Lastly, to reduce potential confounding by toy novelty or toy preference, toys that all the children were likely to have encountered in their daily activities, and those that were gender neutral, were selected in favor of those that may be less familiar or preferred by one or the other gender.

As previously mentioned, low support toys have little inherent detailing and are the least specific in their use (Johnson, Christie, & Yawkey, 1987). Due to the more abstract nature of these toys, children are thought to rely upon internal ideas, and not the salient features of the toys, to generate their fantasy narratives. The low support toys used in this study were small wooden blocks of various geometric shapes (approximately 1" to 3" in size) and primary colors (i.e., red, blue, green, yellow).

Unlike the low support toys, high support toys are detailed, realistic replicas and tend to direct the play theme, drawing upon familiar routines and knowledge that children encounter in their everyday lives. The high support toys used in this study encouraged the children to enact such a common-place, scripted event: visiting the doctor. Included in these toys were 2 white smocks, 2 dolls (one of each gender), 4 receiving blankets (2 green, 2 white), 3 sets of doll-sized pajama's, a baby bonnet, and 2 Fisher Price medical kits, each containing a stethoscope, reflex testing instrument, eye/ear examiner, syringe, and thermometer. In addition, a blood pressure gauge, kidney-shaped medicine dispenser tray, box of plastic bandages, cast, 2 vitamin bottles, 1 bottle of children's Tylenol, a vial of prescription medicine (all empty), a pair of black, plastic glasses, and an eye chart were included. All the medical instruments were made of durable, sturdy plastic to withstand the animated play of the children.

Procedure

Task Selection and Description

Familiarization Phase

To reduce possible disruption of the play scenario by other children, staff, etc., a separate room within each child-care facility was selected for the data collection to take place. To minimize possible confounding by toy novelty, and to familiarize the children with the experimenter and the experimental playroom, the researcher instituted the following procedure prior to formal data gathering: (1) in the presence of the researcher, who assumed an informal and non-directive participatory role, the children played with the experimental toys in their regular playroom over three consecutive play sessions for

approximately 2 hours at a time, (2) in the presence of the researcher and the videotape equipment, the children played with the same toys in the experimental playroom over two consecutive play sessions, and (3) encouraging the children to actively explore the experimental playroom and recording equipment, and responding to the children's concerns or queries regarding the study and their role within it.

To encourage a sense of comfort and reduce anxiety levels in the children, the researcher attempted to keep the routine for each center predictable and consistent, attending each center on the same day, at the same time, and for the same period of time. Not all the children participating in the study questioned the researcher's presence or purpose within their child-care facility; therefore, the week prior to formal data gathering the researcher, using age appropriate language, explained to the children, as illustrated in the following passage, the purpose of the study and their role within it, and answered any questions or concerns expressed by the children:

> "Your parents have said that it's okay for me to watch you and videotape you while you're playing with one of your friends. Watching you helps me learn what kids do and say when they play. I may have to show the videotape to other grown-ups at my school so they can learn how you play, too. Next week when we come back to this playroom, there will be some toys to play with, either the blocks or the doctor toys. The week after that I will bring the other set of toys to play with. You will all have a chance to play with each set of toys before our time together is up. After playing with the toys, you will do an activity that most kids

enjoy. If you don't feel like coming to play with the toys that day or do the activity, that's okay. We'll try it again another day. Do you have any questions?"

Most of the children expressed their excitement about being specially selected to teach adults what play was all about and were generally very cooperative throughout the study. Only one 4-year-old child, during the second week of the data gathering, refused to come to the playroom and play with the toys. As well, one 4-year-old and one 6-year-old refused a second attempt at the storytelling activity after they failed to produce one the first time around.

Preparatory Phase

Pilot study.

The researcher completed two pilot studies before commencing data collection to identify and correct potential weaknesses within the study's research design and administration. Two 4-year-olds and two 6-year-olds participated in each pilot. The children were video-taped playing or telling a story with their same-aged playmate. As a result of the these pilots, some minor revisions and adjustments were made to the instructions issued to the children, the amount of verbal participation required by the researcher, and to the length of the time that the children were being videotaped. In addition, a major revision to the administration of the formal storytelling task was deemed necessary.

During the pilots, several difficulties emerged with regard to the instructions that were issued to the children. It was apparent that, because the children wanted to begin playing with the toys immediately, the instructions needed to be extremely brief and

outline only the basics of what was required of them. As well, to maintain a sense of freedom and spontaneity in their play while continuing to ensure the safety of all the children and prevent intentional damage to the toys, expectations and limits had to be clearly stated, yet minimal. In addition, the pilot studies indicated that the children, particularly the younger ones, often played for long stretches of time without any accompanying speech, making it extremely difficult for the researcher to follow or understand what was happening in their play. Thus, the play instructions issued to the children at the start of their play were modified to encourage the children to verbally express their thoughts and explain their actions. As well, as a reminder to those children who played for a length of time without speaking, it became obvious that these instructions needed to be re-issued on occasion throughout the play session. Verbal prompts by the researcher were also required to clarify the intended meaning of the play being verbally or non-verbally conveyed by the children (e.g., "Did you say that your baby had an earache?"), to redirect the children back to the play situation if their attention was disrupted by events occurring outside the immediate play setting (e.g., telephone ringing outside the playroom, toilet's flushing), and to restate behavioral limits (e.g., "Remember not to hurt each other with the toys"). However, with the exception of the limit-setting, the researcher attempted to keep the verbal prompts to a minimum and as non-directive as possible to continue to preserve a sense of comfort, spontaneity, enjoyment, and freedom of expression within the children's play.

In addition to these revisions, the researcher discovered, during the pilot studies and the familiarization phase of the present study, that many of the children required a

warming up period at the onset of their play. This transitional play (labeled as such by the researcher because it represented the transition from the children's regular playroom to the experimental playroom) was characterized by manual exploration and manipulation of toys, and by the children's active attempts to establish a sense of comfort with their play partner, the play surroundings, the video-equipment, and the researcher's undivided attention. Typically, transitional play was less spontaneous, more self-conscious, and directed toward the self (i.e., less socially interactive). Although there was individual variation in how quickly the children achieved a certain comfort level, usually five minutes was sufficient for most of the children to relax and become engrossed with the toys and their play partner. This brief period of awkwardness and discomfort seemed to occur regardless as to how familiar the children were with the situation. It may be that the change in routine precipitated a momentary state of discomfort and anxiety. In addition to incorporating a five-minute warm-up period into the study's design, the researcher discovered that 10 minutes of sustained play after the transitional play was sufficient for obtaining an adequate representation of their fantasy play. Because the children's choice of play materials was restricted, and the size of the designated play area was confined by the field width of the video-camera's view-finder, the children appeared to become quickly bored and inattentive with play sessions lasting longer than 10 minutes. Thus, the length of the videotaped play sessions were reset from 20 to 15 minutes to reduce the risk of this occurring.

Lastly, the researcher made revisions regarding the administration of the formal storytelling condition. Initially, the researcher's intention was to have the children tell a

story together. However, it was soon evident, from the first pilot study, that this mutual storytelling was confusing to the children, as illustrated by their increased agitation and distraction and very little storytelling. In the second pilot, the instructions were issued individually with much better results. Thus, the change to the administration of the formal storytelling condition (from dyadic to solitary storytelling) was incorporated into the present design.

Experimental tasks.

During the data gathering phase of the study, the children participated in each one of the following assigned experimental tasks over three consecutive sessions: (1) the high support play task, (2) the low support play task, (3) the high support storytelling task, and (4) the low support storytelling task. Maintaining a sense of comfort and decreasing performance anxiety in the children was of paramount concern and a necessary requisite for optimal performance; therefore, one play task always preceded the two storytelling tasks. The last of the three data gathering sessions was primarily reserved for those children who had missed a previously scheduled session or required a second attempt at the storytelling tasks. To reduce possible confounding by order of treatment presentation, each child-care facility was randomly assigned a different task order (see Appendix E). Three of the six child-care center's participated in the low support play task first. The remainder of the centers had the high support play task first.

Prior to participating in the experimental tasks, each child was assigned a personal identification number and then sequentially paired with another same-aged participant within their child-care center. For example, child #1 was paired with child # 2, child #3

was paired with child #4 and so on, totaling ten dyads within each age group across the six centers. This dyad was assigned to one of the play conditions. As well, one child of each play dyad was randomly selected to complete the storytelling tasks for that particular data gathering session. Each child was then randomly re-assigned a new play partner for the second session. The child who had not been previously completed the formal storytelling tasks did them in the second data gathering session. For those centers with uneven numbers of children participating in the study, one child was randomly selected to serve as an extra and be a substitute if an assigned child was unable or unwilling to participate that session.

Data Gathering Phase

Play tasks.

Upon completion of the preceding preparatory and familiarization phases, formal data gathering commenced and continued over three consecutive sessions. Each play dyad was escorted by the researcher to the experimental playroom. To keep both children within the visual field of the video-camera's view-finder at any given time, they were instructed to stay within the confines of a taped 6' x 8' area. The video-camera was set up on a tripod approximately 8-10 feet from the designated play area. Beside the camera was a chair that the researcher sat on while operating the camera and taking ongoing observation notes during the children's play and formal storytelling.

Following the treatment order schedule (Appendix E), either the low support (e.g., wooden blocks) or high support (e.g., doctor toys) play materials were laid out, prior to the children's arrival in the playroom, along the outer edge of the tape closest to the

video-camera to encourage the children to face the camera while playing. The blocks were piled towards the middle of the tape's edge. The medical props were organized in a semi-circle from left to right in the following order: (1) doctor smocks, (2) blankets, pajamas, bonnets, (3) dolls, (4) medical kits -- open and showing contents, and (5) an eye-chart.

After reminding the dyad to stay within the taped play area, the researcher issued the following instructions :

> "Play with the toys any way you want but be careful not to hurt each other or the toys. Try and tell me what you're doing and thinking when you play so I understand what's happening."

Each pair of children was videotaped for 15 minutes in the play sessions. The researcher attempted to maintain a non-directive, non-intrusive, observer role throughout the play session. For example, if the children sought the researcher's opinion or active involvement in their play, the experimenter responded with "What do you think?" or "I can't play with you because I have to run the video-camera and take notes." However, as mentioned previously within the pilot study discussion, it was necessary, at times, to clarify what the children were saying or doing to accurately interpret the content of their play. This was especially the case for the younger children whose speech was less clear and often difficult to understand. As well, the researcher issued prompts to redirect the children back to the play situation, or to remind them of acceptable behavioral limits within their play. Except in these particular circumstances, the researcher's involvement was deliberately kept at a minimum to encourage the children's play to be as natural and spontaneous as possible.

Five minutes prior to the end of the play session, the children were informed that they had five minutes left to play. This time notice was included to give them the opportunity to bring satisfactory closure to their current play scenario, or to play with toys that they had not yet had the opportunity to play with. Following the study's assigned task order, at the end of the play session one child returned to his or her regular playroom and the other child remained behind to complete the formal storytelling tasks.

The second data gathering session, the newly assigned peer dyad played with the toy condition that had not been assigned the preceding week. The same instructions and procedure were adhered to as discussed above. Following the play, the child who had not completed the storytelling tasks in the first session remained behind to complete them in the second session.

Formal storytelling tasks.

After completing the play task, the child remaining in the experimental playroom completed the two storytelling tasks. The researcher designed the storytelling prompts to parallel the inherent support (or lack thereof) of the two toy tasks. The high support storytelling task contained a greater degree of internal detailing and referenced characters commonly encountered in children's literature. The low support story task had very little supportive detailing; thus, the children had to generate a story in the relative absence of any contextual cues with which to guide them. In the storytelling experimental condition, the children were instructed to:

(a) "Tell me a story about a boy and a wolf. Try and tell the best story that you can."

(b) "Tell me any story you want to. Try and tell the best story you can."

There was a risk, when switching from the play to the storytelling tasks, and from sharing the researcher's attention with a peer to being the sole focus, that the children would experience a certain degree of anxiety that could detrimentally affect their performance in the storytelling tasks. Thus, the findings would be an artifact of the switch itself rather than the experimental tasks. This is particularly problematic for the younger children who may not have a cognitive framework in place for interpreting such a radical change in task demands. To alleviate this risk somewhat, and to maintain a degree of consistency, the researcher administered the storytelling instruction with the same degree of inherent support as the preceding play task to the child first, and the dissimilar (i.e., to the play task) storytelling task last. For example, after the child had played in the low support toy task, he or she was issued the low support story prompt, then the high support story prompt. Similarly, a child who had played in the high support toy task was given the high support storytelling instruction, then the low support storytelling prompt.

The children were videotaped orally narrating their stories. The instructions were repeated again if the children hesitated or appeared to be having difficulty generating a story. During the storytelling, the experimenter assumed a non-directive role except to restate the children's unclear utterances, or to clarify the specific parameters of the task. For example, after listening to the boy/wolf storytelling instruction, some children insisted they had not seen that movie yet, and so could not do the task that was required of them. In this circumstance, the experimenter assured them that the story did not have to be something he or she had read or seen on a movie before; rather, it could be a story that

was made up. If a child was unable to generate a story on the first attempt, a second opportunity was given the following week. For a summary of the children's storytelling attempts, refer to Table 3.3. If the child paused for longer than 20 seconds after starting the task, the experimenter confirmed whether the child considered the task complete by inquiring "Is that the end of your story?" If the child nodded or verbally responded "yes" to this question, the next storytelling prompt was issued. After completing the two story tasks, the child was taken back to his or her regular daycare playroom and the next dyad was brought to the study playroom for the play task. This process continued until each child in the treatment presentation schedule had participated in his or her assigned play and storytelling tasks.

Table 3.3

Storytelling Attempts by 4- and 6-Year-Olds on Formal Storytelling Tasks

Center	Age	(n=)	Successful Attempt		Failed Attempt**
			1st	*2nd*	
1*	4	6	4	0	2
2	4	6	5	1	0
	6	4	3	0	1
3	4	6	5	1	0
	6	4	4	0	0
4	4	4	2	2	0
	6	2	2	0	0
5*	6	4	3	0	1
6*	6	6	6	0	0

*only one age group represented at these centers
** scored as failed attempt when the child failed to produce a story after two attempts

Data Transcription Phase

Play transcriptions.

Only play segments adhering to the following definitional parameters were transcribed and analyzed to differentiate narrative accounts from other forms of oral discourse within the children's play. Narrative was operationalized as a "sequence of clauses which contain at least one temporal juncture" (Labov & Waletzky, 1967, p. 28) and a reference to one or more of the following elements: (1) a time, location, or character, (2) a problem that is encountered, (3) direct (e.g., "This is bad") or indirect (e.g., pause, raised voice) commentary on the action that is occurring, and (4) an attempt to solve the problem (Labov & Waletsky, 1967). Matthew's (1977) ideational and material fantasy play modes, in addition to reinforcing Labov and Waletzky's narrative criteria, served as a supplemental instrument for distinguishing narrative from non-narrative content within the children's play. Thus, those play segments that included an attribution of: (a) a new identity to an object, (b) a functional property to an object, (c) human or living characteristics or functions to an object, or reference to (d) materials not existing within the immediate play context, (e) situations not existing within the present play situation, and (f) active portrayal or enactment of character roles or qualities, were also transcribed and scored. In addition, the researcher transcribed the conversation between the children while trying to negotiate a mutual understanding and common point of reference for the story to be enacted, and made written notes of any accompanying play actions (e.g., listening to doll's chest with the stethoscope), and non-verbal cues (e.g., gestures, changes in vocal intonation). As mentioned previously, this additional information assists the researcher to interpret, more accurately, the children's intended

meaning. As well, these cues were useful in the later scoring of the narratives, serving to broaden the focus, and set it within a context that eased the identification of specific structural elements in the stories.

Formal storytelling transcriptions.

The narratives recounted by the children in the storytelling tasks were transcribed using the same operational criteria as the play tasks. In addition to the story itself, the researcher transcribed the recorded conversation between the researcher and the children negotiating and clarifying the terms of the task, and any accompanying non-verbal actions (e.g., eye gaze, gestures, pacing) and linguistic cues (e.g., changes in vocal intonation or speech patterns).

Scoring Phase

Prior to scoring the narrative transcriptions, the researcher separated the transcribed discourse by topic. While transcribing the play data, the researcher realized that the children often interwove many different stories at any given time. As well, during the story task, some children changed the focus of their stories midstream. These enmeshed stories and abrupt topic changes within the tasks made it extremely difficult to distinguish where one story ended and another began. Thus, to separate each narrative account as a distinct story unit, the researcher deemed those narrative chunks or segments that were causally, referentially, or temporally linked (McKeough, 1986) to a common topic as constituting a single narrative account. For example, all the states, actions, events, and characters associated with the children's discussion around a pretend visit to a farm were considered a complete narrative account. Alternately, if one child attempted to

direct the story away from the farm by introducing a new setting (e.g., the ocean), or character (e.g., shark) that was not linked to the farm story in some way, the researcher considered this a topic shift, and classified the ocean/shark scenario as a new story. All the stories within the children's play were scored for structural content. One 4-year-old child told two stories in one of the storytelling tasks. In this particular case, only the first story was scored.

After completing the narrative transcriptions, and separating them into complete narrative accounts, two scoring instruments, emphasizing different aspects of children's narrative discourse, were selected to target specific structural elements within the stories. Plot level was scored using an modified version (Davis, 1992; Howard, 1994) of McKeough's (1986) Plot Structure Scoring Scheme. Narrative voice was scored using an adapted version of Wolf and Hicks (1989) Inter-textual Scoring Criteria. The modified scoring criteria, and the rationale for modifying the structural scoring instruments, is discussed in conjunction with the results of the study in Chapter 4.

McKeough's plot structure scoring scheme.

McKeough's (1986) developmentally based scoring criteria are hierarchical in nature, examining the internal content of the children's narratives for the presence or absence of specific structural features. McKeough's scoring scheme is unique in that it highlights the children's movement from action-based (i.e., event description) to intention-based (i.e., plotted episode) narrative structure. Recall from the previous chapter that this movement into an intentional story structure occurs at approximately six years of age.

Each subsequent level in McKeough's (1986) scoring instrument incorporates developmentally advanced story components, with the assigned level representing the highest level achieved by the child (Figure 3.1). Because this study is examining the narratives of 4- and 6-year-olds with average or typical productive language ability, most of children's narrative productions for this study should fall within levels 0 to 2, which is characteristic of children at these ages (McKeough, 1986, 1992). The built-in, vertical structure of McKeough's (1986) scoring scheme maps on to Case's (1992) neo-Piagetian stage theory, whereby narrative invariably progresses in a sequential manner through a series of age-related levels, and the progression from one level to the next reflects a growth in the number of working memory units that are available.

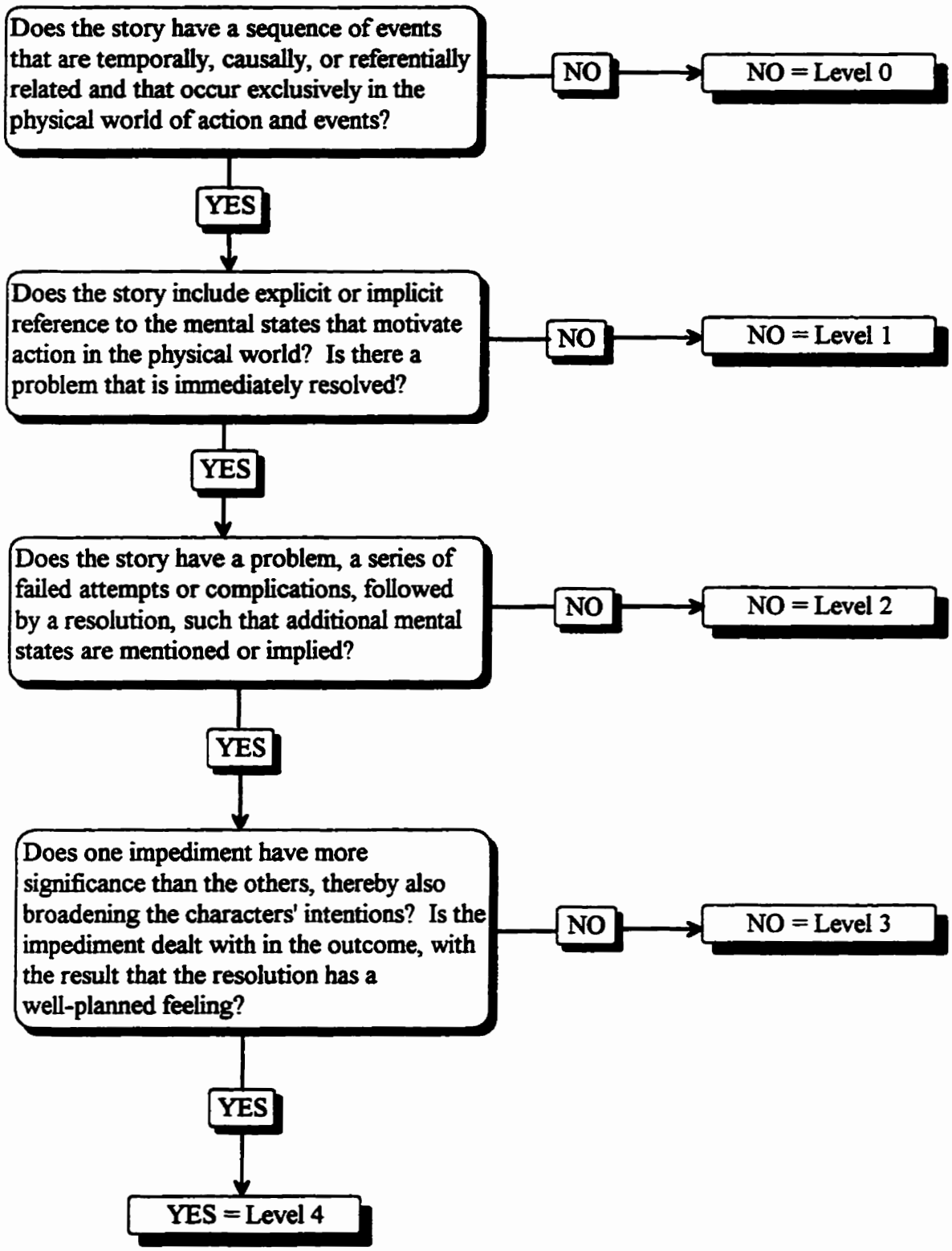
As mentioned previously, each child was assigned the highest level achieved depending upon the presence of specific structural elements. This was a fairly straightforward procedure for the solitary storytelling condition. However, in the play tasks, the stories were co-constructed between two children and there was often more than one story to assign a level to. In this circumstance, the researcher assigned an average plot level score to both the children. For example, if the children told three stories and two of the stories were at Level 1, and the other story was at Level 2, each child would be assigned a Level 1.33 (Level 1 + Level 1 + Level 2 / 3 [total number of narratives] = 1.33). These plot scores were entered onto a spreadsheet and then subjected to inferential statistical analyses using SPSS (1990) Statistical Software.

Wolf and Hicks' inter-textual scoring criteria.

Although Wolf and Hicks (1989) did not discount the developmental nature of

Figure 3.1

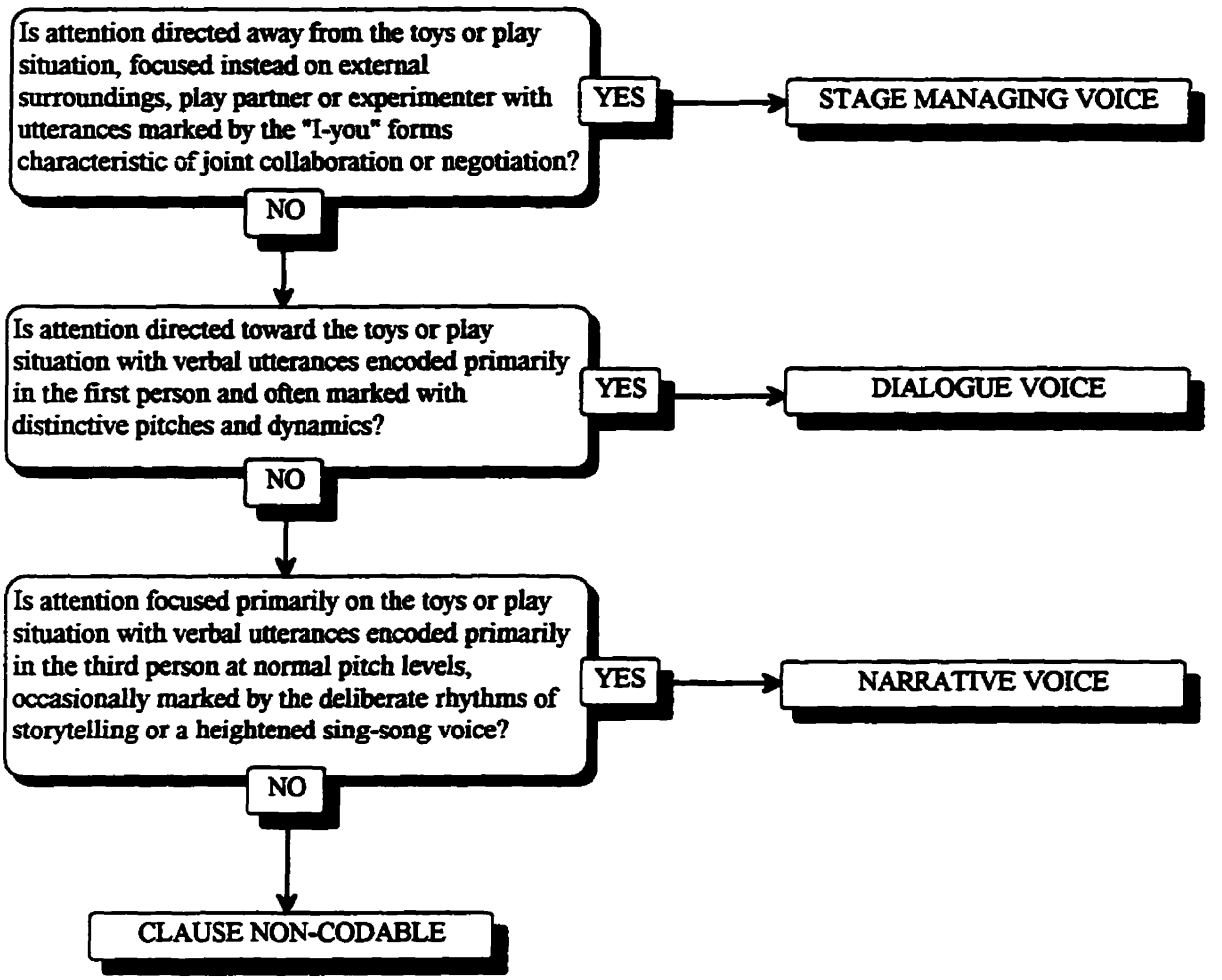
McKeough's (1986) Plot Structure Scoring Scheme



children's narrative productions, they emphasized subtle inter-textual structural variation within children's stories. Wolf and Hicks' (1989) scoring scheme (see Figure 3.2) has a horizontal structure whereby the interweaving of the various lines, strands, or voices within the text are examined in detail to discover how children manipulate the text to convey pertinent information to their audience. This scoring instrument was chosen because it attempts to unravel the dynamic and interactive nature or process of children's narrative production. This disentangling of the various voices within the text is accomplished by breaking each narrative account into separate clauses (defined as a unit containing a predicate) and coding each clause as representative of the stage managing, character dialogue, or narrative voice. Both linguistic (e.g., speech patterns, changes in vocal intonation, pronominal form) and visual cues (i.e., eye gaze) are used to determine what voice the children are using. For example, if the children's attention is directed away from the play situation and fixed upon the experimenter or surrounding objects, and their play utterances marked by the first or second (i.e., I, we, you) pronominal referential system characteristic of joint collaboration or negotiation, these clauses are coded as occurring in the stage-managing voice. When the utterances are primarily first person, marked with distinctive pitches and rhythms, and attention is focused toward the play objects, clauses are coded as occurring in the dialogue voice. Lastly, clause units are classified in the narrative voice when the children's attention is focused on the play objects, but the verbal utterances are characterized by the third person (e.g., she, he, it, they, someone, everyone) pronominal referential system.

Figure 3.2

Wolf And Hicks' (1989) Inter-textual Scoring Scheme



The narrative clauses for each voice were summed and, to standardize scores across the storytelling and play tasks, divided into the number of stories produced in that specific experimental condition (see Appendix F for inter-textual scoring protocol). The resultant value was assigned to the child. Similar to the plot level scoring, each child in the play dyad was assigned the same score for the co-constructed play narratives. The standardized raw scores were then entered onto a spreadsheet and subjected to descriptive and inferential statistical analyses using SPSS (1990) Statistical Software.

Summary

Briefly, to summarize, 21 6-year-olds and 24 4-year-olds recruited from six child-care centers within a large urban center in Western Canada participated in a within-subjects experimental study comparing the structural elements of children's stories in the presence of high versus low support toys and storytelling prompts. The narrative content of the children's videotaped utterances, along with accompanying non-verbal actions and linguistic cues, was subsequently transcribed and scored. The two instruments used in the scoring accentuated different structural elements within the children's narrative accounts and the dynamic and developmental process of children's storytelling. Lastly, due to potential interdependencies between the age of the children, the type of task (formal storytelling versus fantasy play), and the level of inherent support (high versus low), these structural scores were subjected to a series of multivariate analyses.

Chapter IV

RESULTS

Introduction

The general purpose of this study was to examine, more thoroughly, the contexts that support the emergence of narrative in young children and to clarify the potential link that exists between their fantasy play and storytelling activities. More specifically, this study attempted to address, by analyzing the structural elements of these two meaning-making activities, the following research questions: (a) Are children's narrative productions affected by the type of meaning-making activity in which they participate? (b) Are their stories influenced by the degree of inherent task support or detailing? and (c) Are there developmental differences in how children make sense of their experiences and use the contextual cues available to them?

Two instruments were selected, measuring different structural aspects of children's narrative and fantasy play, to capture the dynamic, complex, multi-dimensional essence of these-meaning making activities. In addition to modifications to the scoring systems, the results of the analyses for each of the two dependent measures -- plot level and narrative voice -- will be reviewed and discussed in relation to the three independent variables: age (4- versus 6-years-old), type of task (fantasy play versus formal storytelling), and level of internal support (high versus low). Firstly, an analysis of plot level (McKeough, 1986) using a developmentally-based scoring system that maps onto Case's (1992) stage-related, neo-Piagetian theory of cognitive development, was used. This scoring system allows us

to trace children's movement from simple, action-based event descriptions to more complex, intentionally-oriented, plotted narrative accounts. Following that, the various voices children deftly manipulate as they move from narrator, to participant, to observer role or stance (Britton, 1982) was examined. However, before presenting the findings of these two analyses, an explanation regarding modifications made to the original scoring schemes for the two dependent measures -- plot level and inter-textual voice -- is required.

Scoring Criteria Modifications

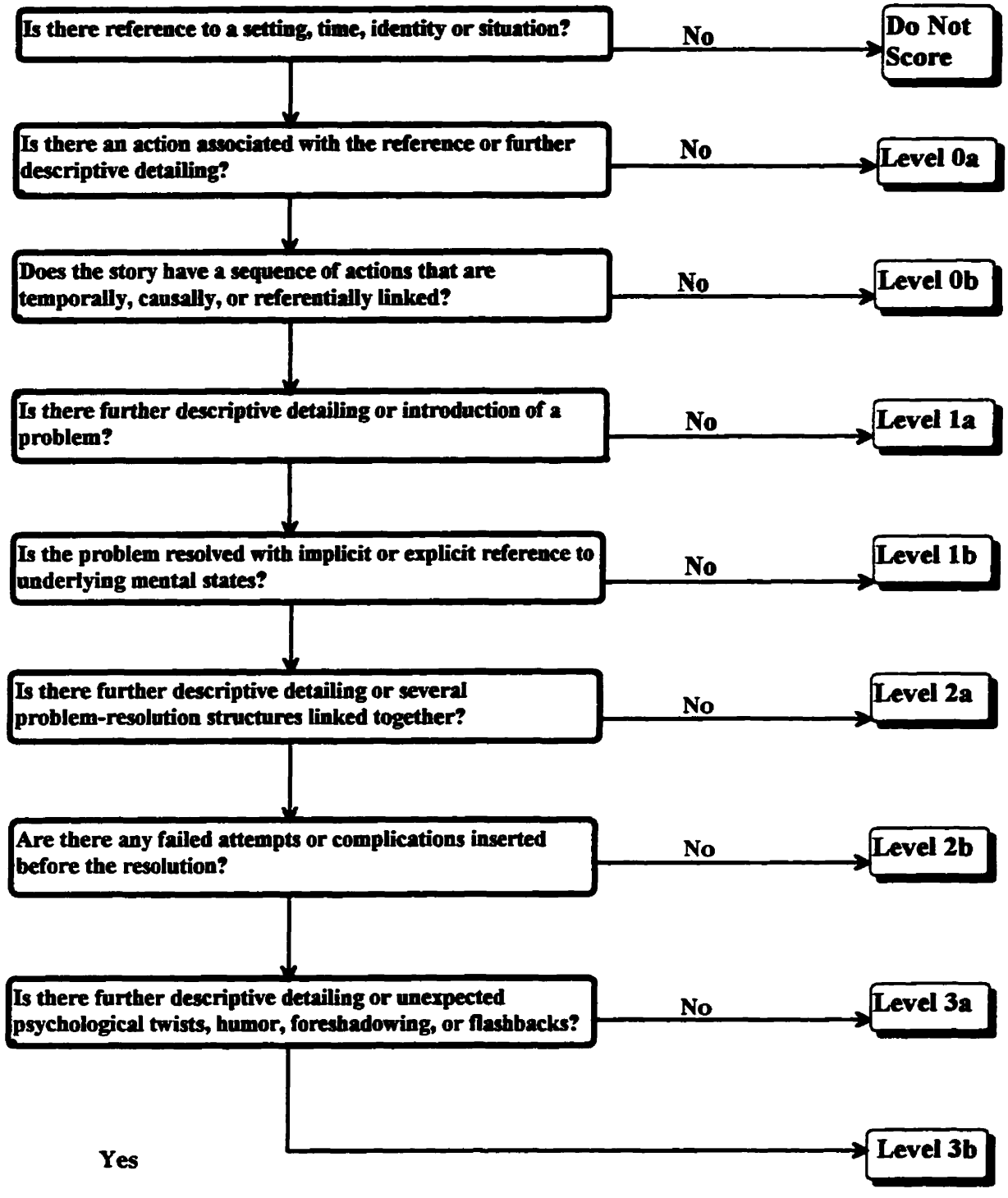
It was apparent to the researcher after an initial scoring of the raw data using each of the aforementioned scoring instruments that adjustments to the scoring criteria was required. The scoring criteria were either too broad or too vague, and they failed to capture, accurately, the more subtle nuances of the children's narrative accounts. The following discussion outlines the specific changes made to each of the scoring instruments.

Plot Structure Levels

While scoring the children's narratives using McKeough's (1986) measurement instrument, the researcher discovered that, within each level, there appeared to be a great deal of variation in the degree of elaboration, or descriptive detailing embedded in the stories. Following Davis (1992) and Howard (1994), the scoring system was revised to include a lean and an elaborate sub-level within each level to measure this more qualitative difference (Figure 4.1). Children were assigned a lean sub-level when the basic story elements were present (i.e., setting, characters, time) for that particular level, but there were no additional comments made describing those story elements in more detail.

Figure 4.1

Modified Scoring Scheme for Plot Structure Level
(adapted from McKeough, 1986, Davis, 1992, & Howard, 1994)



Children were given the elaborated designation if there was one or more descriptive details offered with regard to any of the story elements, or they included some, but not all, of the criteria from the more advanced plot level. Examples from the children's narrative accounts will be used to illustrate the distinction between the sub-levels within each level.

Level 0

A child was scored at this level when he or she referred to one or more of the following elements: (a) setting, (b) time, (c) character, (d) referent object, or (e) function (Labov & Waletsky, 1967; Matthews, 1977).

Lean level 0.

If the child simply introduced the aforementioned narrative elements, offered no further descriptive information with regard to them, and made no attempt to tie them in with subsequent or ongoing story-lines, the narrative was assigned a lean sub-level (i.e., Level 0a) and given a score of 0. The following are some excerpts from the children's stories illustrating narrative statements assigned a lean Level 0 designation: (a) "This is Mr. Bus", (b) "Once upon a time there was a book. The end.", (c) "This is for slivers.", and (d) "Time for bedtime."

Elaborate level 0.

When the child offered more descriptive detailing, or ascribed a single action to a referent, the narrative was assigned an elaborate sub-level (i.e., level 0b) and given a score of 0.5. Some examples include: (a) "Once upon a time there was a boy and a wolf. The boy was going for a walk...", (b) "I'm got a haircut. It's time for a haircut.", and (c) "There...a beautiful castle." The first two examples ascribe an action to the main character

in the story. The last example illustrates the use of more descriptive detailing (i.e., beautiful) with regard to the setting of the story.

Level 1

Lean level 1.

For a narrative to advance to a lean Level 1 (i.e., Level 1a), there were two or more actions within the story that were temporally, casually, or referentially linked, thereby forming an event sequence or episode. This story was scored a value of 1. Some examples include: (a) "Look. Let's put your necklace here. And let's bury it up.", and (b) "This is the motor...this is the motor bike jump. This is where they practice to motorbike. And we're making a whole city here." Each of these examples have more than one action ascribed to a single referent (i.e., necklace, motor bike jump); therefore, these narrative segments were scored as lean sub-level 1 stories.

Elaborate level 1.

If the child added further descriptive detailing, or implicitly or explicitly referred to a problem that was encountered, the narrative was assigned an elaborate rating (i.e., Level 1b) and scored a value of 1.5. The following examples illustrate the more elaborated Level 1 story: (a) "I'm going to make a castle...and that's the water. There I go. Where's the witch, where are the witch?", and (b) "How 'bout let's pretend these babies were sick, 'kay? Like if you have a cold. Like if you have like...like asthma...you have a heart attack...or a asthma attack you have to go (to the hospital), right?" The first example introduced a problem (i.e., Where is the witch?), but no resolution, therefore it was assigned an elaborated Level 1 score. If a resolution had been included, this narrative

advances to the next plot level: Level 2. The last narrative not only stated a problem (i.e., the baby is sick), but it also included additional descriptive information about what being sick entailed (i.e., like asthma or a heart attack); thus, this narrative was given an elaborate Level 1 score.

Level 2

For a narrative to advance to Level 2, a problem was introduced and resolved with implicit or explicit reference to the internal mental states directing the character's actions.

Lean level 2.

If the basic elements for Level 2 were present (i.e., problem, resolution, mental state), the narrative was assigned a lean level 2 (Level 2a) and scored a value of 2.0. The following example from the high support formal storytelling task illustrates such a story:

> Kelsey: "Once upon a time the boy and the wolf ran off...and...they went home and then wolf say 'Where is he, where is he?' 'I don't know. There's two of us for catching.' The boy ran home as fast as he could ...or he went in the leaves to hide. And he throws some leaves in the air and he went home...and...the wolf found him at last 'cause he knew where he lived and Teenan said 'He's not home.'...and he...left."

This narrative account illustrates, clearly, the problem that the character encountered (the wolf cannot find the boy), the mental state (i.e., implicit reference to fear) the character experienced that drove the action (the boy runs home as fast as he can and hides under the leaves), and the final resolution to the problem (wolf goes to the boy's home to find him and leaves empty-handed).

Elaborate level 2.

A narrative was assigned an elaborated sub-level (Level 2b) if there was further elaboration, or if there were multiple problem-resolution (P-R) structures linked together, with not one P-R assuming more importance than another. The following narrative between two children and the researcher from the high support play task illustrates this sub-level:

Observer: "What are you doing there, Jenny?"

Jenny: "Putting the baby to bed. Baby don't want to go to sleep...but it needs to. 'Cause it's nighttime...Hey, I forgot to brush her teeth."

Jeff: "How can you? There's no toothbrush here."

Jenny: "No. Not for real!"

Jeff: "You're taking a very long time for to go to bed."

Jenny: "Now she goes to bed...8:20:30."

Jeff: "She looks very tired."

Jenny: "I know but she doesn't want to go to bed."

Jeff: "Her eyes are closed."

Jenny: "Well, that's why I put her head down."

This story accentuates the features that characterize and elaborate Level 2 story. It introduces a problem, with its accompanying mental state (it is baby's bedtime but it doesn't want to go to bed), adds additional descriptive detailing regarding the process of putting the baby to bed (forgetting to brush the baby's teeth, the specific time the baby

gets to bed, and how tired the baby looks), and concludes with a resolution to the problem (baby is put to bed).

Level 3

Lean level 3.

A narrative was scored at this more advanced level if one of the P-R structures assumed a more significant role than the others, serving to complicate or impede the immediate resolution to the problem. If the story contained these basic elements with no further elaboration, it was assigned a lean Level 3 (Level 3a) designation and scored a value of 3.0. There was no story within the transcribed data to illustrate this sub-level.

Elaborate level 3.

The following example of an elaborate Level 3 (Level 3b) story incorporated such a complicating event, as well as provided additional detailing regarding the action taking place within the story.

> Matthew: "Once upon a time there were two boys driving down the road...Carl and Todd. When...Todd was driving, Carl was listening to the radio. It was DJZW. And then a news flash came on. 'There was a crazy man...he was escaped from the assylo.' So they looked out the...'...and he was seen to be spotted on...um...6th street.' So they were driving along 6th street. So they looked out the window and then...and Carl...he saw him. So...so then the car just stopped...dead.... So Todd tried to start the car over and over again, and the guy got closer and closer. He had a hook hand. And when just he got his hook hand on the door the car started and they drove away. And when they arrived on...at

Todd's and Carl's house, Carl opened his door and the hook hand was right there on his door."

The use of descriptive phrases (crazy man, hook hand) and more elaborate detailing such as naming the characters (Todd, Carl), the radio station (CJZW), and the street address (6th street), the addition of a complicating event (car just stopping dead) to the problem (the boy's see a man who had escaped from an asylum), the skillful selection and use of expressive words to build suspense and draw the listener into the narrative with the child (trying to start the car over and over, guy getting closer and closer), and the strong ending to the story (hook hand hanging on the car's door handle) justifies its placement within the elaborate Level 3 sub-level.

Inter-textual Voices

Adjustments were also made to the inter-textual voice scoring scheme adapted from Wolf and Hick's (1989) to define, more clearly, those features that distinguish the three voices -- stage management, dialogue, and narrative -- within the children's narratives. To accomplish this, more precise measurement criteria, guided by Britton's (1982) conception of narrative stance or perspective, was integrated into the original scoring scheme. The following discussion outlines the modified scoring criteria for each narrative voice, and provides examples illustrating its use.

Stage Management Voice

The researcher discovered, after an initial scoring of narrative clauses within the children's stories, that it was difficult to determine when the children were using the stage management voice versus the dialogue voice because both of these voices were encoded

using the first and second person pronominal referential system (i.e., I, you, we, us). This was particularly problematic within the play narratives because the children continually moved in and out of the various voices. For example, if the child said "Now, I'm going to dress the baby." he or she could be simply directing the observer or his or her play partner to an event that was taking place within the play scenario, in which case the child would be using the stage-management voice. Alternately, the child may have assumed a character role, that of caregiver, within the play scenario, in which case the clause would be scored in the dialogue voice, one of the identifying criterion for the dialogue voice. These more ambiguous clauses, which did not appear to fit neatly into one particular voice category, were common throughout the children's narratives. Wolf and Hicks (1989) suggested the use of non-verbal cues to help differentiate these different voices; however, oftentimes the non-verbal cues were obscure or nonexistent, making the process of accurately and consistently scoring the verbal clauses difficult. It was clear that more specific criteria was required to differentiate the stage management voice from the other two; thus, the researcher incorporated Britton's conception of executive stance, and included more concrete operational criteria in the form of decision rules. These decision rules were used in conjunction with non-verbal cues to better distinguish the various voices within the children's stories. Thus, a clause was scored as a stage management voice when:

(1) the child spoke primarily in the first or second person, (e.g., I, you, we, us)

(2) the child actively shepherded the narrative events to their end by clarifying and negotiating the terms of the story much like the director of a movie, but not

within a character role, (e.g., Jodi: "When it goes up to that dot that means you're really sick." Jodi begins to pump the blood pressure bulb. "Ohoh. You're really sick." Ricky: "I'm not sick!"); the first statement Jodi made was scored as occurring within the stage management voice because she was clarifying and negotiating the terms of the play scenario from outside the story. The response from Ricky was scored in the stage management voice because, although Jodi had assigned a patient role to him, it was still unclear by his response whether he had assumed that role and entered into the story world with Jodi, or whether he still wished to negotiate the terms of the play scenario. However, when Jodi assumed the doctor role, as demonstrated by her actions (using the blood pressure gauge), her speech was encoded as occurring in the dialogue voice. Recall that this was one of the criterion (i.e., child as character; to be discussed in the next section) differentiating the dialogue voice from the other two voices.

(3) the child replied to a specific question directed to him or her, (e.g., The researcher, clarifying a comment made by the child, asks "It's a really big what?" to which the child immediately responds "It's a really big mall.") In this instance, the child's reply was scored as occurring in the stage management voice because it followed a specific question, and it was clarifying the researcher's interpretation of the story.

(4) the child asked a question, (e.g., "Where's my stethoscope?" or "Do we have any stitches here?")

(5) the child attempted to direct others attention to something that is happening (e.g., "Look at this..." or "Listen to this...")

(6) the child referred to his/her underlying cognitive process, (e.g., "Now I remember.", "I think...", or "Let me think...")

(7) the child accentuated the illusory or pretend nature of an event, (e.g., "Let's pretend..." or "I'll just make up that.")

Dialogue Voice

The modified criteria for the dialogue voice is somewhat simpler than that of the stage management voice. Incorporating Britton's (1982) participant stance into Wolf and Hicks (1989) scoring criteria for the dialogue voice enabled the researcher to distinguish, more consistently, this particular voice from the other two voices. The child was considered to be a participant within the story when he or she performed actions and speech characterizing a particular character role. Clauses were scored in the dialogue voice when the child acted either as a character or in a character role. The following discussion and examples drawn from the children's stories highlights the distinction between child as character and child in character.

Child as character.

Child as character occurred when a participant became completely immersed in the stories activities and events. This entailed declaring what he or she was doing much like a story character thinking out loud, reporting to another on a procedure, or performing certain actions and behaviors characterizing a specific role or function within the story.

This occurred primarily within the play tasks. Utterances made while the child was actively engaged in enacting a specific character role were coded as the dialogue voice. The following story from the high support play task illustrates the child as character:

> Jordan: "I'm giving her vitamins (pretends to take some medicine from the bottle and puts it to the doll's mouth). I'm giving her a shot (holds syringe to doll's arm and presses the plunger). She'll have to have medicine (puts thermometer to doll's arm). Uh huh (reads thermometer). She's got...98. She's pretty good. She's doing pretty good."

It was obvious from the child's accompanying actions that he had assumed a role, that of medical practitioner, within the story he was relating. Thus, the sequence of verbal clauses from the preceding example were scored as occurring in the dialogue voice and continued to be scored as such as long as the child remained within that character role.

However, children often slipped in and out of character, particularly within the play narratives. The following examples from the high support play task illustrates this phenomenon. The underscored text, followed by its brief explanation, highlight those actions recorded by the researcher as the children entered and left a character role. The bracketed text contains the narrative voice assigned to the clause as well as the specific criteria delineating that assignment.

Example 1:

Mary: "I'll be the doctor, okay?" (stage management; outside character role, phrased as question)

Mary picks up stethoscope and glasses and puts them on, John lays down on the couch. Mary goes to over to him. -- entering character role

Mary: "Okay. What's the problem today?" (dialogue; within character role)

John: "I don't know." (dialogue; within character role)

Example 2:

John pretends to use the tweezers on Mary's knee. -- entering character role

John: "Tell me if you're hurt, okay?" (dialogue; within character role)

Mary: "It doesn't." (dialogue; within character role)

John stops what he is doing. -- leaving character role

John: "Oh yeh. For pretend, okay?" (stage management; outside character role, referring to illusory nature of play)

John resumes his actions, pretending to dig in Mary's knee with the tweezers. -- entering character role

John: "Does it hurt?" (dialogue; within character role)

Mary: "Uh huh."

Mary shakes her head in response to John's question. John stops playing and looks at Mary. -- leaving character role

John: "We're pretending!" (stage management; outside character role, referring to illusory nature of play)

The preceding examples illustrate how non-verbal cues (i.e., the children's actions) contained within the play segments were key to determining whether the children had immersed or withdrawn themselves from a particular character role.

additional criteria delineating the narrative voice. The storyteller had assumed the observer stance when he or she narrated the story's events from that of a distant spectator. Thus, events were described in the third person (e.g., they, it, he, she, someone, everyone) from outside the story context as if the story had a life of its own and the child was simply a channel for relaying it. The following examples, the first drawn from the high support play task and the second from the low support formal storytelling task, illustrates the child as an observer to the story's unfolding events:

Example 1:

Cody: "This germ is...is a germ from cancer." (gaze directed to researcher)

Researcher: "It's a germ from cancer."

Cody: "Uh huh. So she might have cancer. Can't stop it. Oh oh. She has only one blood cell left." (looks at play partner)

Researcher: "What's that, Cody?"

Cody: "She has only one blood cell left." (comment directed to researcher)

Researcher: "She has only one blood cell left."

Cody: "Uh huh (affirms researcher's comment). And she's got a really bad germ. That's from cancer. And it's all over her. And one white blood cell can't do that...can't suck it all up... It can't...um save her from it so she might die."

Example 2:

Danny: "One day there was a rabbit named...Sam. And he hopped along and he was the Easter Rabbit. And he gave everybody treats and stuff and then one day when it was Easter everybody locked their doors and stuff and he couldn't get (in).

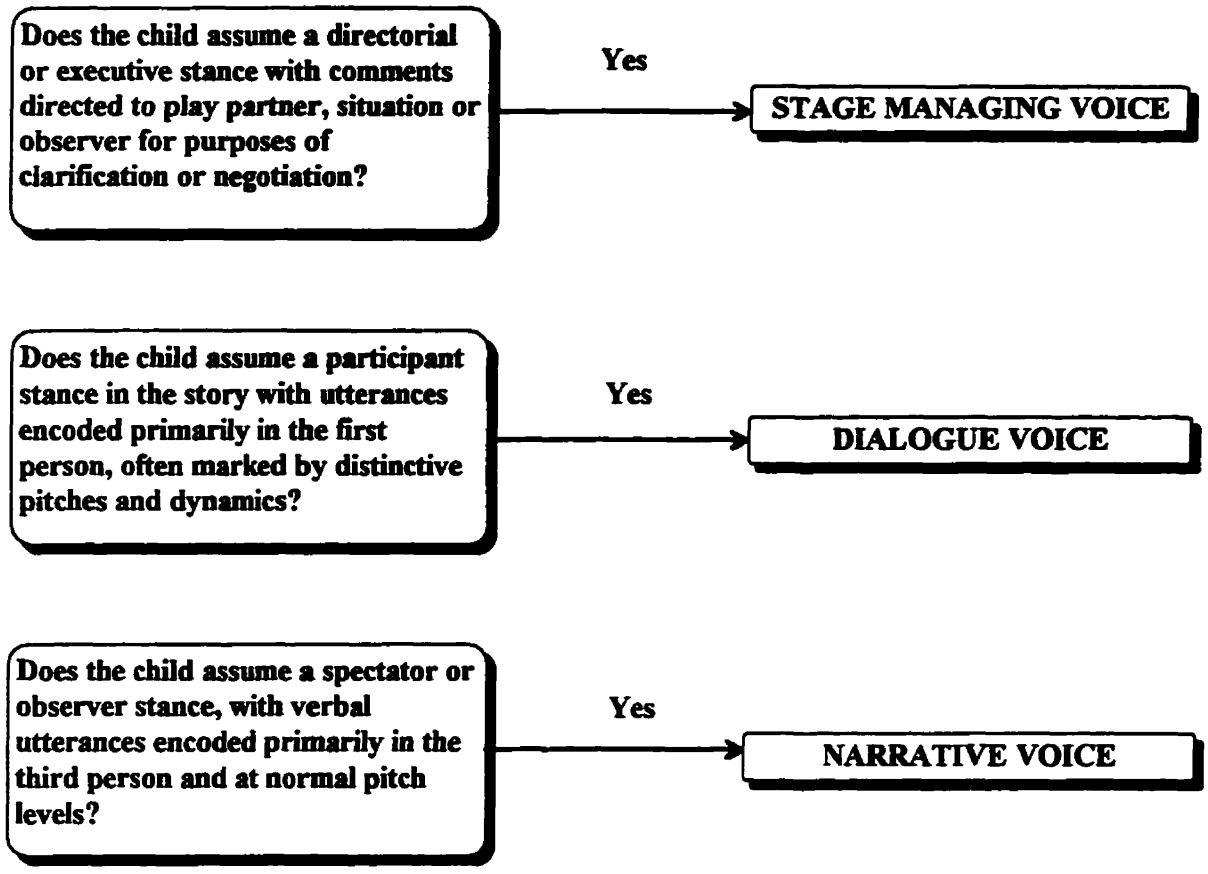
So he made a plan so he left all the Easter eggs on everybody's door and rang the doorbells of everybody and then they came their selves and picked up their Easter eggs and he ran away after the...um...peop...after he rang the doorbell. And then he went on and on and whenever that happened again he still had that plan in his head and then...he said...he said 'Maybe next Easter I'll make up a new plan. Like I could reverse it. They could be the Easter Bunnies and I could have all the chocolates on my break. That's a good idea.' (higher tone of voice) The end."

With the exception of the non-underscored text, the rest of the clauses in both of the examples above were scored as occurring in the narrative voice. Both children were speaking from a perspective that was outside the story events that were taking place, and they signaled this to the listener by their liberal use of the third person pronominal referential system. The non-underscored statement made by Cody in the first story was scored in the stage management voice because it was preceded by a question. Recall that this is one of the decision rules delineating the stage management voice.. The non-underscored clauses in the second story were scored as occurring in the dialogue voice because the child, by changing the tone of his voice, had stepped into the child in character participant role.

Thus, to clarify, further, the various voices the children used in their stories, Britton's (1982) conception of narrative stance or perspective was integrated into Wolf & Hicks' (1989) inter-textual scoring system. The modified scoring scheme is presented in Figure 4.2.

Figure 4.2

Modified Scoring Scheme for Inter-textual Voices
(adapted from Wolf & Hicks, 1989, & Britton, 1982)



Researcher/Observer Queries

Although the researcher attempted to maintain a non-directive role in the children's storytelling, at times it was necessary to intervene to clarify the children's thoughts, actions, or verbal statements. This is generally true for young children who often have speech that is difficult to understand, and who are less inclined to express themselves verbally. However, the questions the researcher asked could have artificially increased the number of stage management clauses that the children used in their stories. It is possible that the children would not have used as many of these clauses had the researcher not interfered. Thus, this intervention was a potential confound to the results of this study.

To assess the impact of the researcher's queries on the children's stories, the researcher reviewed the transcripts in each of the experimental tasks and, within each transcript, identified explicit questions that were issued to elicit a clarifying response from the children. These queries were summed and divided into the total number of conversational turns (a conversational turn was defined as a comment or comments initiated and sustained by a participant) and the total number of narratives (to standardize this average across the experimental tasks), and converted into a more interpretable percentage by multiplying it by 100. This final percentage was the value assigned each child participating in that transcribed account. Statistical findings regarding observer queries follow the presentation and discussion of the plot level and inter-textual voice results.

Summary of Modified Scoring Protocol

From the preceding discussion, adjustments to the original scoring criteria for plot structure level (McKeough, 1986), and inter-textual voice (Wolf & Hicks, 1989) served to capture subtleties within the children's stories, clarify ambiguous or vague statements, and reduce scoring inconsistencies within each of these measurement instruments. McKeough's scoring criteria was expanded to include lean and elaborate sub-levels within each plot structure level. In addition to incorporating more specific decision rules distinguishing the various narrative voices, Wolf and Hicks' scoring scheme was adjusted to integrate Britton's (1982) conception of narrative stance. Lastly, observer queries were scored to address its potential impact on children's narrative productions in each experimental condition.

Statistical and Descriptive Analyses

The researcher was interested in exploring the effects of age (4- versus 6-year-olds), task (story versus play), and support (high versus low) on the structural aspects (plot level, inter-textual voice) of children's oral stories. The original intent of this within-subjects research design was for all the children to participate in all the experimental conditions. However, some of the children refused to participate in some of the tasks. As well, some of the scheduled children had sporadic or unpredictable attendance at their child-care center, making it difficult to collect the necessary data. In these circumstances the designated "extra" child was used (recall from Chapter III that some centers had uneven numbers of children, so one served as an extra). The children who participated in only one of the four experimental tasks were not included in the statistical analyses, leaving a final subject pool of 40 children -- 19 4-year-olds and 21

6-year-olds -- who participated in two or more of the experimental conditions. To simplify the presentation of the findings, the descriptive and inferential analyses of plot level and narrative voice, as dependent measures, are presented and discussed with regard to the three independent measures -- age group, support level, and type of task -- in the following order: (1) plot level, and (2) inter-textual or narrative voice.

Before discussing the results of the analyses, it is useful to review the research hypotheses based on the current theoretical and empirical literature. Recall that an age-related increment in plot level structure had been found in children's stories, progressing from action-driven (Level 1) to intention-driven (Level 2) episodes from 4 to 6 years of age (McKeough, 1986, 1992). Furthermore, these age differences were thought to be related to system-wide constraints in working memory or processing capacity (Case, 1992, McKeough, 1992). The scientific literature also suggested that differences with regard to the amount of previous exposure or experience and the presence or absence of contextual cues or supports also affected children's narrative performance. For example, younger children appeared to rely more heavily upon previous knowledge and experience (Seidman, 1983; Nelson & Seidman, 1984), and contextual support systems (Piaget, 1962; Vygotsky, 1978; Neumann, 1971; Fein, 1981) than older children. Moreover, previous studies have found structural parallels between children's play and storytelling narratives (Sach, Goldman, & Chaille, 1985; Eckler & Weininger, 1989). Thus, the researcher hypothesized that the 4-year-olds, because they appeared to rely more heavily upon these contextual supports and scripted knowledge, produce more structurally advanced stories in the high versus low support condition (story prompt and

toy), regardless of the task (formal storytelling versus fantasy play). Alternately, it was hypothesized that the 6-year-olds, because they appeared to rely more upon internal ideas and mental images, produce more structurally advanced stories in the low support versus high support condition, regardless of the task. As well, it was hypothesized that 6-year-olds produce more structurally advanced stories than the 4-year-olds.

SPSS Statistical Software was used to analyze the structural data (i.e., plot level, narrative voice). To clarify and simplify the analyses, these two structural measures are discussed separately according to the three grouping variables -- age (4- versus 6-years-old), support (high versus low), and task (story versus play) -- used in the MANOVA's. Following this discussion, the results of the observer queries analysis are presented using the same organizational format as the structural analyses. The descriptive statistics (means, standard deviations) are presented first, followed by the inferential statistics. The alpha level for all the inferential analyses was set at .05. Given the potential interdependence between age, task, and support, multivariate analyses (MANOVA) were conducted. Significant interaction effects in MANOVA were tested using the simple effects model.

Plot Level

An inter-rater check using the new scoring system for plot structure on 20% of the narratives randomly selected from each experimental condition (i.e., high support story condition, low support story condition, high support play condition, low support play condition) for both age groups indicated an inter-rater reliability of 95.24%. Disagreements were resolved through discussion.

The scored data for plot structure level was grouped according to age and analyzed across the task and support conditions. Due to some missing data, which resulted in a low number of participants for each cell, a three way MANOVA was ruled out in favor of 4 two way MANOVA's: 2 two way MANOVA's (Age Group[4,6], Support[high, low]) within each task (story versus play), and 2 two way MANOVA's (Age Group[4,6], Task[story, play]) within each support level (high versus low).

The first MANOVA procedure compared the high support play condition to the low support play condition. Because the MANOVA procedure eliminates any cases with missing data and includes only complete cases of those variables it is comparing in its analysis, those children that participated in both of the aforementioned conditions were included in the analyses, whereas those that participated in only one of these tasks were not. The means and standard deviations for the high support play condition of the included children were different from that of the high support play condition of the third MANOVA procedure (which compared the high support play condition to the high support storytelling condition) because some of children who had participated in all the play conditions of the first MANOVA may not have completed the high support storytelling condition. These children are eliminated from the second analyses, thus causing the group means and standard deviations to change. The reverse may also be the case. Children who were eliminated from the first analysis because they did not complete one of the tasks being compared are included in subsequent analysis if they complete all the tasks that specific analysis was addressing. For example, a 4-year-old child refused to complete the high support storytelling task, but completed the remainder of the tasks. In

this circumstance, that case would be eliminated from two comparative MANOVA analyses: (1) the high versus low support formal storytelling tasks, and (2) the high support storytelling versus high support play tasks. However, that child was included in the last two MANOVA's comparing the low support storytelling versus the low support play tasks, and high support versus low support play tasks. Thus, the different means and the standard deviations for the plot level analyses presented in the Table 4.1 reflect differing configurations of complete cases (subjects without missing data) on those variables being measured and compared within each MANOVA procedure. In short, there is more than one mean and standard deviation within each condition for each age group.

Table 4.1

Average Plot Level for 4-and 6-Year-Olds by Task

		Tasks			
Age		HS Play	LS Play	HS Story	LS Story
4	M1	2.03(16)**	1.39(16)	1.76(18)	1.34(18)
	M2	2.14(17)	1.34(16)	1.77(17)	1.44(16)
	SD1	.74	.46	.68	.47
	SD2	.79	.40	.69	.36
6	M1	2.10(19)	1.39(19)	2.06(18)	2.22(18)
	M2	2.08(18)	1.36(18)	1.98(18)	2.13(18)
	SD1	.41	.28	.75	.65
	SD2	.41	.28	.78	.56

*HS = High support, LS = Low support
**Bracketed number = Number of Subjects (N)

Statistical analyses revealed a significant age effect between the high support and low support story ($F[1,34] = 11.85$, $p \leq .002$) tasks, and the low support play and low support story task ($F[1,32] = 12.00$, $p \leq .002$), all in favor of the 6-year-olds, as shown in Table 4.2. However, of more interest was the significant interaction between age and

support for the high and low support story task ($F[1,34] = 5.14$, $p \leq .03$), and between age and task for the low support play and story tasks ($F[1, 32] = 12.06$, $p \leq .001$). Subsequent analyses, using the simple effects model, of the first significant interaction between age and support indicated that a significant age effect existed only within the low support storytelling condition ($F[1, 34] = 22.00$, $p \leq .0001$; Table 4.3). This finding was similarly supported by the simple effects analysis of the second significant interaction between age and task ($F[1,32] = 18.17$, $p \leq .0001$). Thus, the 6-year-olds' plotted stories were significantly higher than the 4-year-olds', but only in the low support story condition. This finding only partially supported the original hypotheses that the 6-year-olds produce higher level stories in the low support tasks (either story or play) and in comparison to the 4-year-olds.

Table 4.2

Statistical Summary of Plot Level MANOVA's for Age, Support, and Task

Source**	N	Effect	SS	MS	F-value	P
LP/HP	35	Age	.01	.01	.05	.830
DF(1,33)		Support	8.02	8.02	39.69	.000*
		Age/Support	.03	.03	.15	.701
LS/HS	36	Age	6.36	6.36	11.85	.002*
DF(1,34)		Support	.29	.29	1.01	.323
		Age/Support	1.50	1.50	5.14	.030*
LP/LS	34	Age	2.22	2.22	12.00	.002*
DF(1,32)		Task	3.18	3.18	19.65	.000*
		Age/Task	1.95	1.95	12.06	.001*
HP/HS	35	Age	.10	.10	.20	.658
DF(1,33)		Task	.94	.94	2.11	.155
		Age/Task	.31	.31	.69	.413

*$p < .05$
**HP = High support play, LP = Low support play, HS = High support story, LS = Low support Story, DF = Degrees of freedom.

Table 4.3

Simple Effects of Significant Interactions for Plot Level

Source**	Design	Var***	SS	MS	F-value	P
HS/LS(N=36)	Support	4	1.56	1.56	5.35	.027*
DF(1,34)	within Age	6	.23	.23	.80	.378
	Age within	Low	7.02	7.02	22.00	.000*
	Support	High	.84	.84	1.65	.208
LP/LS(N=34)	Task within	4	.07	.07	.43	.514
DF(1,32)	Age	6	5.37	5.37	33.20	.000*
	Age within	Play	.00	.00	.04	.847
	Task	Story	4.17	4.17	18.17	.000*

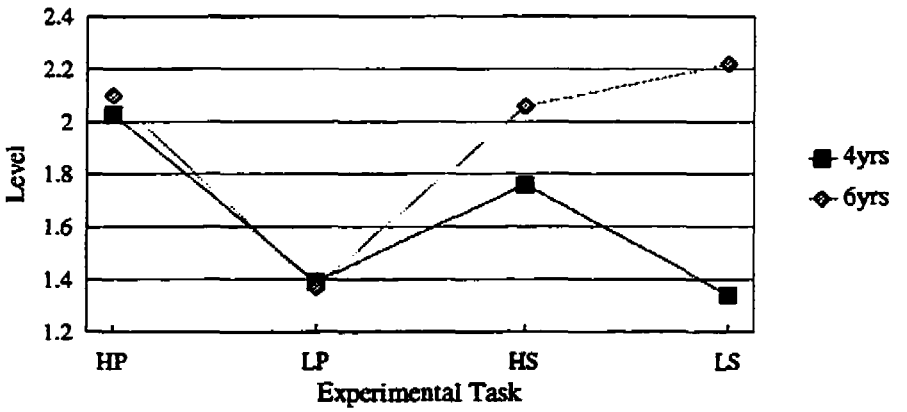
*$p<.05$
**HS = High support story, LS = Low support story, LP = Low support play
***Var = Independent variable being examined

There was a significant main effect for support (high versus low) for the 4- and 6-year-olds within the play tasks ($F[1,33] = 39.69$, $p \leq .0001$), suggesting that both groups produced higher level plotted stories in the high support versus the low support play conditions. Figure 4.3 illustrates that a high level of support within their play appeared to scaffold the 4-year-olds up to a 6-year-old level (i.e., Level 2); however, the 6-year-olds maintained an age appropriate level of performance in the high support play condition. The significant support effect for the 6-year-olds in the play task was more a reflection of a decrease in storytelling performance, to that of a 4-year-old level, in the low support play condition. Contrary to the significant support effect found within the play task, there was no such main effect found within the high and low support story tasks for the two age groups. However, a simple effects analysis of the significant interaction effect previously cited between age and support for the high versus low story support condition appeared to suggest that a significant support effect existed for the 4-year-olds across the two story

tasks ($F[1,34] = 5.35$, $p \leq .027$), with the 4-year-olds producing more advanced stories in the high support story condition. This effect was masked by the 6-year-olds' insignificant support effect for the two story tasks.

Figure 4.3

Average Plot Level of 4- and 6-Year-Olds Across Tasks



HP=High support play, LP=Low support play, HS=High support story, LS=Low support story

In summary, the 4-year-olds produced significantly higher level plotted stories in both the high support story and high support play conditions, supporting the original hypotheses. With the exception of the low support play condition, where they dropped to one level below what would be predicted by their age, the 6-year-olds maintained age-appropriate performance. These findings contradict the researcher's hypotheses that the older children produce more structurally advanced plotted stories in the low support versus high support task conditions. In fact, the 6-year-olds' narrative performance actually declined to that of a 4-year-old level in the low support play condition.

There was no significant task effect between the high support tasks (high support play versus high support story). However, there was a significant main effect between the low support play and low support story tasks ($F[1,32] = 19.65$, $p \leq .0001$), in favor of the

low support story condition. These findings suggested that both

produced more structurally advanced plotted stories in the low su

than in the low support play condition. However, subsequent an

interaction effect using the simple effects model suggested that th

applicable to the 6-year-olds ($F[1, 32] = 33.20$, $p \leq .0001$). Thus,

the 4-year-olds, produced more advanced stories in the low supp

the low support play condition, refuting the original hypothesis th

produce higher level stories in the low support condition regardle

and play).

To summarize the findings related to plot level, differing

support and type of task appeared to affect the plot level of the 4

differently. Four-year-olds appeared to produce richer, more ela

accounts, approaching or achieving a 6-year-old level, when a hi

detailing was present, regardless of the task. The 6-year-olds' na

more complex and less predictable, and contingent upon both the

and type of task. Although they maintained a consistent, age-ap

performance across both the high and low support story task, an

task, the complexity of their stories dropped dramatically in the l

one plot level below what would be predicted by their age (to th

The 4-year-olds increase in performance to a 6-year-old level in

tasks, and the 6-year-olds drop to a 4-year-old level in low supp

only one significant main effect for age in this multivariate analys

support story condition, both age groups produced stories that were consistent with their predicted level of functioning, with the 6-year-olds producing stories with more advanced structural plots than the 4-year-olds.

Inter-textual Voices

An inter-rater check using the modified scoring scheme for inter-textual voices on 20% of randomly selected stories within each of the experimental tasks indicated an inter-rater reliability of 96.89%. Differences were resolved through discussion.

Children's stories are much more than single lines of text. Examining the inter-textual features of children's narratives can offer some insight on how young children use the various perspectives or stances to engage and sustain the listener's attention as they tell their stories. This weaving in and out of the story world, and the voices children use to negotiate the smooth transition back and forth, has not been systematically analyzed from a developmental perspective. In the present analysis, the researcher was interested in examining potential developmental differences in the use of the stage management (SM), dialogue (DI), and narrative (NA)[3] voices, and whether the use of these three inter-textual voices was affected by the type (story versus play) or degree (low versus high support) of contextual cues that are present. The researcher was interested in developmental differences in children's use of these various voices, the impact of contextual cues on those differences, and potential interdependencies between age (4- versus 6-year-olds), type of task (formal storytelling versus fantasy play), and level of support (high versus low

---

[3] Because narrative voice is the umbrella term incorporating all the intertextual voices, and the narrative term is used interchangeably with story throughout this document, "narrator voice" will be used instead of "narrative voice" when referring to this particular intertextual voice clause for the remainder of this document.

support toys or story prompt); therefore, multivariate analyses of variance (MANOVA) were conducted on the data. As was previously mentioned in the results section for plot level, there was an insufficient number of subjects within each cell to perform a three way MANOVA; thus, 12 two way MANOVA's, the most comprehensive analysis that the data permits, was conducted on the data using the same variable groupings as plot level: 6 MANOVA's (Age Group[4, 6], Support[High, Low]) within each task (play versus story), and 6 MANOVA's (Age Group[4, 6], Task[Play, Story]) within each support level (high versus low support). To discuss the findings in as clear and concise a manner as possible, the body of the results are organized similar to those of the plot level analyses. Firstly, descriptive statistics are presented. Secondly, the inferential data is presented and discussed regarding significant age effects, support effects, and task effects in the children's use of the various inter-textual or narrative voices.

As with the plot level descriptive statistics, the descriptive results for narrative voice had two means and two standard deviations for each condition due to changes in the number and configuration of subjects that were included in each analyses and the elimination of those cases with missing data. The descriptive information is presented in Table 4.4.

The inferential analysis of the different narrative voices indicated several age related main effects. These effects varied among the three voices. Although the stage management voice was used less frequently than the narrator voice within the story tasks, it appeared that the 4-year-olds used significantly more of this voice than the 6-year-olds in both the low and high support story conditions ($F[1,34] = 5.31$, $p \leq .027$; Table 4.5). On

the other hand, the 6-year-olds appeared to use significantly more dialogue voice than the 4-year-olds in both story task support conditions ($F[1,34] = 6.02$, $p \leq .019$). This latter finding seemingly contradicted the insignificant age effect for dialogue voice in the low support story condition ($F[1,32] = 3.23$, $p \leq .082$) found in the simple effects analysis of the significant interaction between the low support play and low support story tasks ($F[1,34] = 5.18$, $p \leq .030$; Table 4.6). Closer scrutiny of the means of the two age groups used in this analysis explicated these contradictory findings (Table 4.4). The significant main effect finding was based on the first set (i.e., M1) of means between the 4- and 6-year-olds and the insignificant finding of the simple effects analysis for the interaction was based on the second set (i.e., M2) of means. The between groups difference in the first set of means (11.44-2.78=8.66) was almost double that of the second set of means (7.78-3.00=4.78); thus, it was not surprising that a significant finding was found using the first set of means, and not found using the second set. This difference between the two sets of means accounted for the discrepancy in the findings. The contradictory results regarding the 6-year-olds use of the dialogue voice relative to the low support story condition suggests this particular finding be interpreted with caution. In addition to the dialogue voice, the results suggested that the 6-year-olds used significantly more narrator voice than the 4-year-olds in the high support and low support play conditions ($F[1,33] = 7.53$, $p \leq .010$), in the high and low support story conditions ($F[1,34] = 5.95$, $p \leq .020$), in the high support play and story conditions ($F[1,33] = 5.53$, $p \leq .025$), and in the low support play and story conditions ($F[1,32] = 6.81$, $p \leq .014$).

Table 4.4

Average Number of Narrative Clauses for 4- and 6-Year-Olds Across Conditions

			Narrative Voice**					
Task*	Age	N	SM		DI		NA	
		N1/N2	M1/M2	SD1/SD2	M1/M2	SD1/SD2	M1/M2	SD1/SD2
HP	4	16/17	16.23/17.34	11.18/10.87	20.17/24.53	21.85/26.33	2.20/2.96	2.83/3.22
	6	19/18	28.62/29.99	27.96/28.11	31.64/32.89	38.00/38.70	10.52/11.11	13.75/13.90
LP	4	16/16	10.78/10.11	5.73/5.86	3.10/3.21	3.01/3.01	1.98/1.94	2.32/2.34
	6	19/18	15.94/16.34	19.55/20.04	1.30/1.38	2.19/2.23	5.23/5.12	4.53/4.64
HS	4	18/17	2.94/3.00	3.24/3.34	1.44/1.53	2.83/2.90	9.78/10.06	8.70/8.88
	6	18/18	1.00/1.00	2.00/2.00	5.89/5.22	7.14/7.09	33.28/31.56	51.26/51.78
LS	4	18/16	3.11/3.50	3.61/3.65	2.78/3.00	4.18/4.38	7.67/8.38	7.28/7.43
	6	18/18	1.72/1.50	2.24/2.20	11.44/7.78	16.65/9.78	24.11/21.44	23.94/22.57

* HP = High support play, LP = Low support play, HS = High support story, LS = Low support story
** SM = Stage Management, DI = Dialogue, NA = Narrator

There appeared to be some differences between the degree of inherent task support and the children's use of the various voices. The children used significantly more stage management voice in the high support versus the low support play conditions ($F[1,33] = 4.50$, $p \leq .041$). This also appeared to be the case for the dialogue voice ($F[1,33] = 18.77$, $p \leq .000$). However, the inverse relationship occurred in the story tasks where the children used significantly more dialogue voice in the low support story condition than in the high support story condition ($F[1,34] = 4.41$, $p \leq .043$). There were no significant support effects for the narrator voice.

Table 4.5

Statistical Summary of Narrative Voice MANOVA's for Age, Support, and Task

Source**	N	Effect	Voice***	SS	MS	F-value	P
HP/LP DF(1,33)	35	Age	SM	1336.96	1336.96	3.43	.073
		Support		1428.63	1428.63	4.50	.041*
		Age by Support		226.42	226.42	.71	.404
		Age	DI	406.67	406.67	.83	.369
		Support		9758.31	9758.31	18.77	.000*
		Age by Support		763.59	763.59	1.47	.234
		Age	NA	581.26	581.26	7.53	.010*
		Support		131.74	131.74	3.05	.090
		Age by Support		111.65	111.65	2.59	.117
HS/LS DF(1,34)	36	Age	SM	50.00	50.00	5.31	.027*
		Support		3.56	3.56	.52	.477
		Age by Support		1.39	1.39	.20	.656
		Age	DI	773.56	773.56	6.02	.019*
		Support		213.56	213.56	4.41	.043*
		Age by Support		80.22	80.22	1.66	.207
		Age	NA	7180.01	7180.01	5.95	.020*
		Support		572.35	572.35	1.25	.271
		Age by Support		224.01	224.01	.49	.489
HP/HS DF(1,33)	35	Age	SM	495.08	495.08	2.14	.153
		Task		8206.67	8206.67	34.21	.000*
		Age by Task		937.19	937.19	3.91	.057
		Age	DI	635.37	635.37	1.12	.298
		Task		11223.58	11223.58	19.72	.000*
		Age by Task		95.35	95.35	.17	.658
		Age	NA	3841.30	3841.30	5.53	.025*
		Task		3317.01	3317.01	4.00	.054
		Age by Task		779.10	779.10	.94	.340
LP/LS DF(1,32)	34	Age	SM	75.53	75.53	.53	.470
		Task		1948.19	1948.19	20.18	.000*
		Age by Task		286.77	286.77	2.97	.094
		Age	DI	36.80	36.80	1.19	.284
		Task		162.53	162.53	4.55	.041*
		Age by Task		184.94	184.94	5.18	.030*
		Age	NA	1118.18	1118.18	6.81	.014*
		Task		2192.99	2192.99	14.99	.001*
		Age by Task		414.30	414.30	2.83	.102

*$p<.05$
** HP = High support play, LP = Low support play, HS = High support story, LS = low support story
***SM = Stage management, DI = Dialogue, NA=Narrative

Table 4.6

Simple Effects of Significant Interactions for Dialogue Narrative Voice

Source	Design	Variable	SS	MS	F-value	P
LP/LS(N=34)	Task within	4	.34	.34	.01	.923
DF(1,32)	Age	6	368.80	368.80	10.33	.003*
	Age within	Play	28.37	28.37	4.12	.051
	Task	Story	193.36	193.36	3.23	.082

*p<.05
**LP = Low support play, LS = Low support story

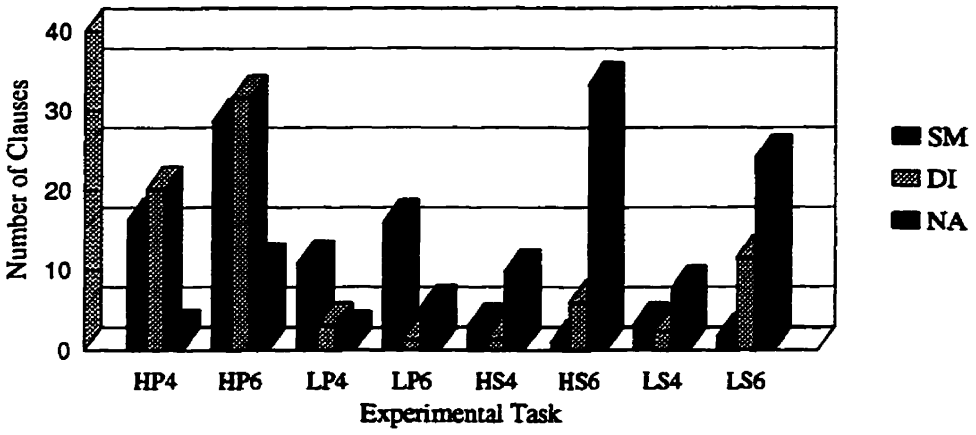
The various voices seemed to differentiate themselves along the task dimension as well. There were significantly more stage management clauses in the high support play versus the high support story tasks ($F[1,33] = 34.21$, $p \leq .000$), and in the low play versus low support story tasks ($F[1,32] = 20.18$, $p \leq .000$). Similar to the stage management findings, there were significantly more dialogue clauses within the high support play task in comparison to the high support story task ($F[1,33] = 19.72$, $p \leq .000$). This relationship was reversed in the presence of low support contextual cues. There were significantly more dialogue clauses in the low support story task than in the low support play task ($F[1,32] = 4.55$, $p \leq .041$). However, the previous simple effects analysis for the significant interaction effect between the low support story and play tasks suggested that this latter effect extended only to the 6-year-olds, not the 4-year-olds ($F[1,32) = 10.33$, $p \leq .003$). Lastly, while the findings suggested that the children used significantly more narrator clauses in the low support story task as opposed to the low support play task ($F[1,32] = 6.81$, $p \leq .014$), this distinction was not evident in the high support tasks. This insignificant finding may be explained, in part, by the large degree of individual variation within the

groups on these two tasks, as indicated by standard deviations that approach and occasionally surpass the group means (see Table 4.4).

To summarize the narrative voice findings, there appeared to be some significant differences in the use of the various inter-textual narrative voices. Although all the children clearly used all three voices within each task and across support conditions, the degree of use appeared to vary depending upon the age of the child, the level of inherent task support, and the type of task (Figure 4.4). Although both the 4- and 6-year-olds used primarily the narrator voice in the story tasks, there was some subtle distinctions between the two age groups. Not only did the 6-year-olds use significantly more narrator voice than the younger age group in the story tasks, they appeared to incorporate it more into their play stories as well. The 4-year-olds used significantly more of the stage management voice than the 6-year-olds in the story tasks, regardless of the amount of task support that was present. Although the dialogue voice was used infrequently in the 4-year-olds' formal stories, when it was used, it was more likely to be in the low support story task. Alternately, the 6-year-olds used more dialogue voice than the 4-year-olds in the story tasks irrespective of the degree of task support. However, similar to the 4-year-olds, the 6-year-olds used significantly more dialogue voice in the low support versus the high support story condition. Lastly, both the 4- and 6-year-olds' play narratives were composed primarily of the stage management voice; however, as mentioned previously, the 6-year-olds integrated more narrator voice into their play stories than the 4-year-olds.

Figure 4.4

Average Number of Narrative Clauses for 4- and 6-Year-Olds



SM=Stage Management, DI=Dialogue, NA=Narrator
HP=High support play, LP=Low support play, HS=High support story, LS=Low support story

The results of the inter-textual analysis suggested that the process by which children organize, interpret, and communicate to each other and the world around them was dependent on the both developmental factors and contextual cues within the environment. Both the 4-year-olds and the 6-year-olds appeared to perceive the storytelling tasks as distinct and unique from play, and adjusted their perspective from that of a distant observer reflecting upon actions, events, and characters that seem to have a life of their own, to that of director or character embroiled within the midst of the story's unfolding events. The complex findings of this analyses emphasized how children actively manipulated the various lines or strands of story text to construct and convey meaning to their audience.

Observer Queries

As mentioned previously, an analysis of observer queries was undertaken to determine whether there were any differences in the amount of observer participation for

the different aged children and within the four experimental tasks. The concern was that, in seeking clarification of the children's actions and verbal utterances during the formal data collection phase, the observer inadvertently altered the children's stories thereby confounding the results. More specifically, this interference may have influenced the number of stage management clauses the children used in their stories. Recall that one of the decision rules for scoring the presence of a stage management clause was that it was immediately preceded by a question. Thus, each response immediately following an observer's query regarding the content of the children's story's was scored in the stage management voice. It is possible that the children would have used less of the stage management voice had the observer not interfered. Thus, to assess the potential impact of the observer's queries on the children's stories, a statistical analyses was undertaken. Similar to the analyses for plot level and narrative voice, MANOVA's were used to examine the effect of observer queries with regard to the three independent measures: age, level of task support, and type of task. The researcher was interested in potential interdependencies between these measures; thus, 4 two way MANOVA's were conducted on the data: 2 MANOVA's (Age, Support) within each task (play versus story) and 2 MANOVA's (Age, Task) within each level of support (high versus low). Significant interactions were analyzed using the simple effects model. The means and standard deviations for observer queries are presented in Table 4.7.

There was an age effect for observer queries within the play tasks ($F[1,33] = 7.02$, $p \leq .012$; Table 4.8), with the 6-year-olds receiving significantly more queries than the 4-year-olds. Alternately, there was a significant age effect in favor of the 4-year-olds in

Table 4.7

Average Percentage of Observer Queries for 4- and 6-Year-Olds Across Tasks

Task*	Age	N1/N2	M1/M2	SD1/SD2
HP	4	16/17	5.84/6.27	3.35/3.51
	6	19/18	12.09/9.98	14.51/11.56
LP	4	16/16	3.65/3.52	3.49/3.58
	6	19/18	10.67/10.98	12.21/12.49
HS	4	18/17	21.10/20.38	15.85/16.03
	6	18/18	9.48/9.48	14.61/14.61
LS	4	18/16	24.32/23.71	10.44/10.85
	6	18/18	9.74/8.51	14.74/14.56

*HP = High support play, LP = Low support play, HS = high support story, LS = Low support story

Table 4.8

Statistical Summary of Observer Queries for 4-and 6-Year-Olds Across Conditions

Source**	N	Effect	SS	MS	F-value	P
HP/LP	35	Age	764.43	764.43	7.02	.012*
DF(1,33)		Support	56.40	56.40	.58	.454
		Age by Support	2.54	2.54	.03	.873
HS/LS	36	Age	3087.75	3087.75	11.60	.002*
DF(1,34)		Support	54.47	54..47	.42	.521
		Age by Support	39.57	39.57	.31	.584
HP/HS	35	Age	225.45	225.45	1.32	.259
DF(1,33)		Task	809.51	809.51	5.86	.021*
		Age by Task	932.89	932.89	6.75	.014*
LP/LS	34	Age	254.70	254.70	1.89	.178
DF(1,32)		Task	1330.12	1330.12	10.89	.002*
		Age by Task	2175.26	2175.26	17.81	.000*

*$p<.05$
**HP = High support play, LP = Low support play, HS = high support story, LS = Low support story

the story tasks ($F[1,34] = 11.60$, $p \leq .002$). There was a significant task effect ($F[1,33] = 5.86$, $p \leq .021$) and a significant interaction effect ($F[1,33] = 6.57$, $p \leq .014$; Table 4.9) between the high support task conditions. A simple effects analysis of the interaction suggested this task effect was only applicable to the one age group ($F[1,33] = 12.24$, $p \leq .001$), with the 4-year-olds receiving significantly more queries in the high support story condition than in the high support play condition. As well, the simple effects found a significant age effect within the high support story task ($F[1,33] = 30.85$, $p \leq .000$), with the 4-year-olds receiving more queries than the 6-year-olds in the high support story task. The simple effects analysis did not indicate a significant age effect within the high support play task. This insignificant finding is contrary to the previous statistically significant finding for the two age groups between both play tasks. Further exploration of the group means reveals a similar circumstance to that of narrative voice, whereby the first set of means (i.e., 5.84 for the 4-year-olds and 12.09 for the 6-year-olds) was used to calculate the first main effect, and the second group of means (i.e., 6.27 for the 4-year-olds and 9.98 for the 6-year-olds) was used to calculate the interaction effect. Thus, the significant main effect for age found in the two play tasks must be interpreted cautiously, particularly with regard to the high support play task. Lastly, there was a significant task effect ($F[1,32] = 10.89$, $p \leq .002$) and a significant interaction effect ($F[1,32] = 17.81$, $p \leq .000$) between the low support task conditions. However, again the simple effect analysis of this interaction indicated that this task effect was significant for the 4-year-olds only ($F[1,32] = 26.71$, $p \leq .000$), with more queries given in the low support story task than in the low support play task. As well, the simple effects analysis of the interaction supported previous main

effect findings for age within the low support tasks: The 4-year-olds received significantly more queries in the low support story condition ($F[1,32] = 11.68$, $p \leq .002$), and the 6-year-olds received significantly more queries in the low support play condition ($F[1,32] = 5.29$, $p \leq .028$).

Table 4.9

Simple Effects of Significant Interactions For Observer Queries

Source**	DF	N	Design	Var***	SS	MS	F-Value	P
HP/HS	1,33	35	Task within Age	4	1691.87	1691.87	12.24	.001*
				6	2.25	2.25	.02	.899
			Age within Task	Play	120.56	120.56	1.61	.213
				Story	7795.91	7795.91	33.23	.000*
LP/LS	1,32	34	Task within Age	4	3261.80	3261.80	26.71	.000*
				6	54.93	54.93	.45	.507
			Age within Task	Play	470.64	470.64	5.29	.028*
				Story	1959.32	1959.32	11.68	.002*

*p<.05
**HP = High support play, HS = High support story, LP = Low support play, LS = Low support story
***Var = Variable being analyzed

To conclude, the 4-year-olds received significantly more queries than the 6-year-olds in the story task, regardless of the degree of inherent support within the task. The 6-year-olds, on the other hand, appear to have received more queries than the 4-year-olds in the play tasks, however, this finding is less robust within the high support play condition in comparison to the low support play condition.

Summary of Statistical Results

The results of the three analyses discussed herein accentuate the inherent complexities that exist in how children structure and convey their experiences to others. Generally, these results suggested that 6-year-olds are less dependent on contextual cues than 4-year-olds, as illustrated by their age appropriate storytelling performance across

three of the four tasks. Despite these findings and contrary to research predictions, their narrative accounts declined in structural complexity to a typical 4-year-old level within the low support play condition. Alternately, the 4-year-olds appeared to be more affected by contextual cues but only within the high support tasks. In the low support tasks they maintained age appropriate performance. In contrast, in the high support tasks, the structural complexity of their stories approached or achieved a 6-year-old level.

The results of the inter-textual analyses highlighted the different voices the children used within the different types of tasks. The stage management voice was used primarily in the play tasks, and the narrative voice was used within the formal storytelling tasks. The dialogue voice varied depending upon both the type of task and the degree of inherent task support. The 6-year-olds used more narrative voice across all the tasks, and integrated more dialogue voice into the low support storytelling task than the 4-year-olds. The 4-year-olds, on the other hand, used more of the stage management voice in the formal storytelling tasks than the 6-year-olds.

The results from the observer queries analysis found some age and task effects, but no strong support effects. The 4-year-olds received more queries in the formal storytelling tasks, and the 6-year-olds received more in the play tasks, although this effect was less robust in the high support play condition.

Chapter V

DISCUSSION

Introduction

The theoretical and empirical literature tends to support the view that children move from an externally focused to an internally oriented, representational, or symbolic cognitive framework, whereby their meaning-making activities become increasingly motivated by internal thoughts and ideas. This movement occurs from approximately 3 to 7 years of age and has been traced within both children's fantasy play (Piaget, 1962; Matthews, 1977; Vygotsky, 1978) and children's narrative (Bruner, 1974, 1986a, 1986b; McKeough, 1986, 1992). Recently, the scientific literature has begun to question and explore the impact of inter- and intra-individual factors on this developmental progression (Shapiro & Hudson, 1991; Benson, 1993; Miller, 1993; Peterson, 1994), and potential connections between these two commonly used, representational activities (Sachs, Goldman, & Chaille, 1985; Eckler & Weininger, 1989; Paley, 1990; Nicolopoulou, 1993).

The present study attempted to address these issues by asking (a) How do young children use the means available to them to interpret their experiences, integrate them into their behavioral repertoire, and impart their intended meaning to those around them? and (b) Are there developmental differences in how this process is achieved? More specifically, the current exploratory study examined and compared the structural elements of 4- and 6-year-olds' fantasy play and formal storytelling narratives and the affect of varying degrees of inherent contextual support on these two meaning-making activities.

The scoring schemes used in this study were selected and subsequently modified to capture the interactive, multi-dimensional, and subtle qualities of the children's storytelling. The statistical findings presented in Chapter IV highlighted the complex interrelationships that exist between the developmental and contextual aspects of children's emerging narrative competence. To maximize clarity and understanding for the reader, each analyses is discussed separately beginning with plot level, then narrative voice, and lastly, observer queries. Following that, connections are drawn between the three analyses within the integrated discussion to accentuate the children's seamless blending of text and context. Limitations and delimitations of the study are then presented, as well as implications and suggestions for future research.

Discussion of Structural Analyses

Plot Level

Context appeared to affect the plot structure level of 4- and 6-year-olds' stories differently. The degree of inherent support or detailing within the task appeared to close the gap between the performance levels of the two age groups. The younger children experienced enhanced performance within both contextually laden tasks (high support play and high support storytelling), approaching or reaching a 6-year-old level. Interestingly, contrary to the common-sense dictates regarding inverse relationships, a reduction in the amount of contextual support did not detrimentally impact their storytelling. In the low support tasks they continued to produce stories at an age-appropriate level. Thus, the 4-year-old narrative performance was affected by the degree of inherent task support, but only within the high support tasks.

Recall from Chapter II that 6-year-old children have successfully navigated the shift from the perceptual, external realm to the ideational, internal realm. The literature suggested that high support tasks, because of its leading or suggestive content, constrained the 6-year-olds' ability to access this ideational thought (Neumann, 1971; Fein, 1981). Alternately, the low support tasks, due to the relative absence of such content, facilitated this access. Because these tasks were more congruent with their present mental state or process, it was predicted that the 6-year-olds would produce more structurally advanced stories in the low support as compared to the high support conditions. The decreasing reliance on contextual cues as a guide for behavior was supported by the 6-year-olds' consistent, age-appropriate performance across three of the four experimental tasks; however, this equilibrium was negatively affected when the contextual information contained within the task was extremely minimal or ambiguous, as in the low support play condition. In the low support play task, their narrative performance declined to that of a 4-year-old level. Thus, contrary to the original predictions, the low degree of inherent detailing within the tasks had either no effect, as was the case in the low support formal storytelling task, or a negative effect, as demonstrated in the low support play task, on the 6-year-olds' narrative performance. This latter decrease in performance suggested that 6-year-olds may continue to rely upon contextual cues as a guide for their storytelling in perceptually ambivalent or ambiguous situations.

The results of this analyses suggested that the 4-year-olds used the contextual detailing within the task as a type of supportive scaffold. The contextual detailing may assist the children to access scripted, familiar knowledge or schemas. These

well-ingrained conceptual schemas become the scaffold upon which the children build. It is possible that the support offered by the contextual cues bypasses system-wide constraints in working memory capacity (Case, 1992), thereby bridging the younger children's performance up to that of a 6-year-old.

The 6-year-olds' performance presents somewhat of a puzzle. If the shift from the external to internal realm is incomplete, the 6-year-olds may be engaged in a delicate balancing act between applying what they know and what they see. Although they do not discount the information gleaned from contextual cues, it may be that, in some circumstances, they may prefer to search and access internal ideas and mental schemas first. If that search comes up empty-handed, or the schema they have accessed in less firmly entrenched in their interpretive framework, they may then focus their attention to cues within their environment as a supplemental performance guide. Cognitive confusion may occur if the cues within the environment are ambiguous and there is no mental script to guide them. This may explicate the observed decline in performance within the low support play condition, but not the low support story condition. Within the low support story condition the children could access their story schema and use that as a guide for their behavior. Within the play condition, the children were unsure what mental schema to access, and there was no contextual information within the toys to guide that choice. This argument suggests that 6-year-old children may still require and rely upon a minimal level of contextual scaffolding to maintain age-appropriate performance, particularly in the presence of novel or ambivalent cues.

It appears that children as young as four years of age have, intact within their interpretive framework, a rudimentary understanding of story and all it entails. However, their undiscriminating application of this story schema or script across expressive forums (i.e., play) suggested that this schema was not yet a fully distinct or integrated knowledge structure. The 6-year-olds, due to their additional exposure to and practice in formal storytelling (Case, 1992; McKeough, 1992), had a more firmly established and complete conceptual understanding of narrative. Their reluctance to use the story schema in low support play task suggested that this schema was becoming increasingly differentiated and distinct from other expressive forums. Play, at least in the low support condition, was not seen as a legitimate narrative context.

To conclude, this analysis suggested that children looked to the external environment for specific cues that enabled them to access internal thoughts, ideas, and knowledge structures. The younger children who were only beginning to differentiate the internal, subjective, and ideational from the external, objective, and material realm, relied more heavily upon contextual cues to access scripted knowledge, which then served as a scaffold for their behavior. As well, although they had a basic conceptual blueprint of storytelling, this schema was not yet fully differentiated; thus, they applied it in a less discriminating fashion across various expressive forums. The older children's cognitive processes had evolved to a point where they had begun to access, more consistently, internal ideas and knowledge structures. However, because they had not yet achieved full differentiation between the external, perceptual and internal, conceptual planes, and they still required a minimal amount of contextual information to direct their behavior, they

experienced a certain degree of cognitive confusion, and a subsequent decrement in performance, when they encountered decontextualized tasks. As well, their more differentiated story schema prevented them from using it as an organizational framework in more ambiguous or less typical storytelling contexts.

Inter-textual Voices

The statistical analysis for inter-textual or narrative voices highlighted the complexities that exist between development and context. Although both age groups used all three voices (stage management, dialogue, narrator) within all of the tasks, the frequency of use varied depending upon the type of task, level of inherent support, and age of the children.

First, both the 4- and the 6-year-olds used primarily the stage management voice within the play tasks, and the narrator voice within the low support story tasks. The use of the dialogue voice varied depending on the task and the degree of inherent support. Both age groups were more likely to use the dialogue voice in the high support play condition and the low support story condition than in the other two experimental tasks (i.e., low support play, high support story). These findings suggested that the dialogue voice was more sensitive to, and affected by, contextual variants than the other two voices.

Some interesting age differences that emerged from the analyses suggested that 4-year-olds used more of the stage management voice within the story tasks, and 6-year-olds used more of it in the play tasks, particularly within the low support play condition. The older children were also more likely than the younger children to integrate

the dialogue voice into the story tasks. Lastly, the 6-year-olds used more of the narrative voice than the 4-year-olds in all of the experimental tasks.

The children's differential use of the various voices between the play and narrative tasks provides some additional insight regarding the gradual emergence and differentiation of a conceptual blue-print for story. Although both age groups incorporated more of the narrator voice within the story tasks, the conspicuous absence of the stage management voice in the 6-year-olds' formal storytelling, and the 4-year-olds liberal use of it to clarify and negotiate the meaning of these tasks, lends support to the previous conclusion that the 4-year-olds' story schema is less differentiated than that of the 6-year-olds'. The 4-year-olds seem to have to leave the story world they are constructing in order to communicate meaning. In contrast, 6-year-olds are more adept at meaning making while remaining within the story world.

As well, the analyses of the various inter-textual or narrative voices children manipulated within their stories clearly illustrates the gradual progression, with age, into the decontextualized, explicit language typical of more formal or literate forms of storytelling. The finding that 6-year-olds used more narrator voice than the 4-year-olds in their meaning-making activities, regardless of the contextual variation within these activities, suggested that this voice was becoming an integral part of their language repertoire and may reflect their increasing socialization into the more formal rule structures governing language and its use, as Bruner (1974) contended. Interestingly, the 6-year-olds integrated more of the dialogue voice into their formal storytelling than the 4-year-olds. A possible explanation for this phenomenon may be that the older children's

application of the various inter-textual voices across less typical experimental contexts (i.e., narrator voice in play, dialogue voice in formal stories) reflected a cognitive flexibility and reversibility that was not yet present in the younger children. Perhaps their increased ability to make and convey meaning from within the story world reduced the cognitive load associated with the continual movement in and out of the story world which typified the 4-year-olds' formal storytelling. An alternate explanation may be that the older children's more integrated or internalized story schema interacted with their increased communicative competence thereby freeing up extra working memory which then allowed them to apply these various voices (i.e., dialogue, narrative) in a more flexible and creative fashion across the various tasks. This freed up working memory may be redirected into creating and maintaining parallel story-lines. Thus, the older children are able to hold onto the event line and, at the same time, create a parallel dialogue line that is unique to a given character. The ability to carry two different narrative lines, one as a distant observer narrating the story's events and one as involved participant offering his or her perspective on those events, corresponds with Bruner's (1986b) conception of the dual landscapes (i.e., landscape of action, landscape of consciousness) depicted within older children's stories. It also supports McKeough's (1992) hypothesized and empirically supported developmental progression of children's storytelling from action-driven to intentionally-driven storytelling at approximately six years of age.

To conclude, the results of the inter-textual analyses suggest that the voices the children use within their stories differ depending upon the type of task, the degree of inherent support, and the age of the child. The findings support prior conclusions drawn

with respect to a gradual movement into more decontextualized thought and language with age. As well, the results highlight the older children's integration of various voices within less typical contexts. The latter finding may reflect the older children enhanced cognitive flexibility due to the differentiation and coordination of different conceptual structures.

Observer Queries

The analyses of observer queries found a very strong interaction between age and task. The 4-year-olds received more queries than the older age group in both story tasks, regardless of the degree of supportive detailing. Alternately, the 6-year-olds received more queries than the younger age group in the play tasks. This finding was more robust in the low support play condition than the high support play condition.

The results for the 4-year-olds are not particularly surprising if one accepts the previously stated explanation that the younger children require and seek more clarification with regard to the story task because they have a less differentiated story schema. Recall from the discussion on narrative voices that the 4-year-olds used significantly more of the stage management voice in the formal storytelling tasks than the 6-year-olds and that the use of this particular voice was directly linked to number of observer queries. Because the younger children were just beginning to formulate a conceptual framework regarding more formal storytelling, this story schema was still vague, tentative, and less firmly integrated into their present cognitive set. To fill gaps in knowledge, they relied more upon cues or prompts from the observer to guide their performance.

The findings for the 6-year-olds, at first glance, appear to be more complex and perplexing than those of the younger children. For example, why do the 6-year-olds have more observer queries than the 4-year-olds in the play tasks when there were no significant differences between the two ages in the number of stage management clauses within both play conditions? Closer scrutiny of the results suggests two possible explanations for this contradictory finding. Firstly, the finding that the 6-year-olds received more observer queries in the high support play condition than the 4-year-olds was not particularly robust. The within group variance for the 6-year-old group was so large that it resulted in large discrepancies between the means used in the statistical analyses and both statistically significant and insignificant findings for this particular task. Secondly, in resolving this potential discrepancy it is important to examine, closely, who is addressing whom? Observer queries were directed from the observer toward the children. A clause scored in the stage management voice may be in response to such a query, but it may also be in response to a comment made by a play partner, or a comment directed to a play partner. The greater number of observer queries for the 6-year-olds in the low support play condition suggested that the 6-year-olds had more comments directed to them from outside the play scenario (i.e., by the observer), whereas the 4-year-olds directed and negotiated the terms of the play scenario between themselves, relying less upon external input from the observer. The more socially interactive, mutually engaging, and sustained play of the younger children suggests that play remains a natural, spontaneous, and intrinsically satisfying expressive forum for them. The older children's reticence in the low support play condition may reflect, as Bruner (1974, 1986b) suggested, the older

children's increasing socialization into, awareness of, and preference for the more formal and explicit language rules of the dominant culture, and their decreasing reliance on play-based activities as expressive forums. Thus, they may be increasingly reluctant to communicate with others using activities they no longer perceived as acceptable, appropriate, or natural means of self-expression.

In conclusion, the results of the observer queries analysis continued to support prior interpretations of the findings for plot level and narrative voice. Younger children are aware that storytelling is a unique expressive context; however, due to a less differentiated knowledge structure than the older children they sought more guidance and clarification in terms of those specific aspects of more formal storytelling that delineate it from other meaning-making forms (i.e., play). Alternately, an enhanced awareness and understanding of the features distinguishing the various representational means within the older children may lead to more discriminating usage of those contexts perceived as acceptable and appropriate expressive forums.

Integrated Discussion of Narrative Findings

The results of the three analyses discussed in this document highlighted the multi-faceted, interconnected nature of young children's storytelling. Although narrative competence appeared to be embedded within a situational context, the impact of external factors was mediated by important developmental differences in how children used the contextual features available to them to make meaning.

The younger children appeared to have a rudimentary knowledge of narrative and a dawning realization of storytelling as a unique and distinctive expressive forum, as

demonstrated by their basic story plots and their increased use of the narrative voice in the formal storytelling tasks in comparison to the fantasy play tasks. However, their conceptual understanding of this story schema seemed less differentiated and integrated; therefore, they relied more heavily upon supportive detailing within the task and explicit cues from both the observer and their peers as a guide for their narrative performance. It was suggested that the more highly suggestive and detailed tasks helped the younger children access familiar, scripted knowledge, and that these schemas served as a type of mnemonic devise, circumventing potential cognitive limitations by freeing up extra working memory units. This freed up working memory, which would otherwise be directed to processing and retaining, for example, the various contextual cues and task demands, was subsequently redirected to elaborating upon the basic story elements, or integrating more structurally complex plot elements into the stories. The 4-year-olds not only relied more upon explicit, external cues in directing their behavior, their actions and language were also contextually embedded. The prevalent use of voices that actively immersed them in the midst of the story's unfolding actions and events (stage management, dialogue), and lesser use of the voice that characterized a more distant stance or perspective (narrative), highlights this contextual embeddedness. As well, the pattern of inter-textual voices found within the young children's narratives suggested an additional contextual dimension; that of a reciprocating social context. They industriously exchanged verbal cues with both their peers and the researcher and then fashioned their performance accordingly. Based upon these findings, it is possible that the 4-year-olds narrative performance would be optimal if both the contextual and social cues were

perceptually and verbally explicit. Although the social, contextual, and developmental connection was not directly examined in this particular study, it promises to be a fruitful area for future research studies. This potential connection is discussed further under the section entitled "Implications and Suggestions for Future Research" within the present chapter.

Unlike the 4-year-olds, the 6-year-olds' narrative performance appeared to be less tied to contextual or social cues. This may be due to a well integrated and differentiated conceptual blueprint regarding the specific structural elements comprising narrative. This gradual emancipation from context was clearly illustrated by their consistent performance across three of the four experimental tasks in the plot level analyses, and in their increased use of the narrator voice, the more decontextualized, explicit language characteristic of more formal storytelling, across all the tasks. As well, consistent with the interpretation that the older children had a more firmly intact story schema was their ability to generate stories in the formal storytelling tasks with very little clarification from the researcher, their more flexible integration and coordination of various inter-textual voices within less typical tasks, and their selective use of those contexts that were perceived as appropriate or inappropriate expressive forums for their storytelling. For example, it may be that the 6-year-olds' story plot scores dropped to one level below what was predicted by their age because they did not perceive the low support play task as an acceptable narrative forum.

Before concluding that the 6-year-olds' thought processes regarding storytelling are completely severed from contextual cues or situational constraints, recall from the previous plot level discussion that there was some evidence to suggest that they continue

to rely upon contextual information, particularly in ambiguous or ambivalent circumstances. They appeared to be at a loss as to what was expected of them in the low support play task and this cognitive confusion appeared to detrimentally affect their ability to proceed with the task at hand. As well, they talked less to their peers which resulted in more observer interference in an effort to elicit some degree of verbal communication. These latter findings suggest there was an affective or motivational component to the 6-year-olds' narrative performance and that this affective response may have been linked to the children's interpretation of the task. In short, the emotional response (i.e., social withdrawal, reticence) that occurred in response to the children's interpretation of task may have indirectly influenced the 6-year-olds' storytelling performance.

Limitations

There were several weaknesses in both the design and execution of this particular study that detrimentally affected the generality of its results. Although the researcher attempted to restrict the number, several child-care centers (six in total) were necessary to get an adequate number of participants for the study. Unfortunately, the more centers that were used, the more difficult it was to control for ecological differences that existed between the various centers, and these differences introduced a great deal more variance into the results. For example, the experimental playrooms varied across the different centers. Some of the experimental rooms were physically smaller than others, some were adjoining the regular playroom or next to the washroom or kitchen facilities. The noise erupting from adjoining rooms housing other children or staff members was often disruptive to the participants and may have negatively affected their performance. In

addition, although the researcher tried to familiarize the children with the experimental playroom prior to data collection, this process was more successful for some children than for others. This may account, in part, for some of the variability that existed within the children's performance. The use of fewer centers and longer familiarization periods would reduce the affect of these ecological limitations.

In addition to the limitations incurred by the physical setting, scheduling difficulties that arose during the familiarization and data collection phase may have affected the results of the study. Some centers were more accommodating than others in terms of scheduling or rescheduling their planned activities to correspond with the researcher's time at the center. Thus, the researcher experienced some difficulty controlling the amount of exposure the children had with the experimental toys, the experimental playroom, the recording equipment, and the researcher herself prior to data collection. This was particularly evident with the older children. The time they spent in their child-care programs was often briefer than that of the 4-year-olds because it included after-school care only. By the time the children had completed some compulsory activities (e.g., taking attendance, having snack) there was little time left for any free play. As well, unless the weather was inclement the children preferred to spend their free time playing outdoors rather than playing inside with the toys. In addition to these more general scheduling problems and time constraints, difficulties arose with the treatment order scheduling during the data collection phase. Some of the children either did not attend or refused to participate on their scheduled day. Although some centers had extra children that the researcher substituted for the missing child, these absences wrought a certain degree of

havoc in terms of collecting data on all of the children for all the tasks, a requisite for the within-subjects design used in this particular study. This lack of consistency and predictability resulted in missing data for some of the children, and lower and uneven cell numbers than desirable. To minimize these scheduling problems, ongoing and open communication at all levels is required, with all affected parties willing to negotiate acceptable alternatives.

In addition to limitations incurred during the implementation of the study, issues with regard to the methodological design of the study may have introduced some potential confounds into the results. Although the treatment order was randomly assigned, incomplete counterbalancing was used. In other words, the formal storytelling tasks always followed the play tasks, and the first story task always had the same inherent level of support as the immediately preceding play task. Thus, there may have been some carryover effects from this treatment order that the researcher was unable to assess. To minimize the impact of these carryover effects, complete counterbalancing (i.e., all possible treatment orders are used) is required.

As well as potential carryover effects, the storytelling instructions for the high support story task were not gender neutral. Because the instructions required that the children tell a story about a boy and a wolf, the girls in the study may not have related to the story characters as much as the boys, and this lack of identification may have affected their narrative performance. Incorporating less gender specific characters in the story prompts or changing the gender of the character so it is consistent with the child telling the story alleviates this concern.

It was difficult to accurately assess the role of various extraneous factors (e.g., fatigue, boredom) on the children's narrative performance when there were no baseline measures taken and no control group used for comparison. As well, only one performance measure was taken within each experimental condition. Multiple measures within each condition more accurately and reliably reflect the children's typical narrative performance. To generalize, more confidently, the findings from this study, replication incorporating these more stringent experimental criteria is necessary.

Delimitations

The within-subjects methodological design employed in this study automatically controlled for individual differences that may have existed within the subject pool. However, the representativeness of the subjects used in this study, and the application of its findings to all 4- and 6-year-olds within the general population, is debatable. Firstly, the children used in this study were of average verbal ability, primarily Caucasian, and from middle to upper-middle class backgrounds. This restricted sample range suggests extreme caution be taken if generalizing to children not fitting these specific demographic criteria.

When using small sample sizes, as was the case in this study, it is desirable to match the children on as many demographic variables as possible, particularly with regard to those factors that may affect the construct being measured or assessed. In the present study, extensive matching was not a tenable option. As a result, the researcher was unable to control for differences in the participant's prior exposure to more formal schooling (i.e., preschool, ECS), parental education level, and the primary language used within the home.

These additional demographic variables may have had an impact on the children's narrative performance. This difficulty is readily resolved with the use of larger samples sizes and random stratified sampling. However, large numbers of participants is not always a feasible option when examining children's storytelling because of the extensive and time-intensive analyses that are used. This dilemma is not easily resolved and has caused a great deal of consternation and debate among researchers, particularly those who address more qualitative aspects of human behavior. Sound judgment based upon careful consideration of the purpose of the study, the specific needs of the researcher (or other stakeholders), and the statistical analyses one intends to employ, are necessary requisites in designing and implementing meaningful research studies that result in statistically powerful findings.

In addition to the questionable representativeness of the participants used in the present study, the setting selection procedure may have introduced some additional differences that limit the generality of its results. It was possible that the inclusion criteria used by the researcher in selecting the child-care centers to participate in the study screened out centers that were more representative of child-care in general. For example, the centers that agreed to participate in the study may have been more progressive with regard to the value and utility of education and research. In fact, many of the centers that were selected to be in the present study had participated in previous research projects and were in the process of actively training post-secondary students for careers in child development and child-care. Thus, it was plausible that the level of staff training and the care extended to the children in these particular facilities were of a different quality and

caliber than that typically extended to children in other child-care facilities, thus reducing the representativeness of the participants further. This study requires replication in other settings before one can more confidently generalize the findings to other children who attend child-care programs.

Implications and Suggestions for Future Research

This study was conducted to fill a theoretical gap in our knowledge of how young children use the various means available to them to actively organize and integrate their knowledge and experiences, and then convey this interiorized, personalized view to others. Both storytelling and fantasy play are universal, representational forums that children use to express themselves (Piaget, 1962; Bruner, 1974; Vygotsky, 1978). This study attempted to clarify and explore the structural parallels and disparities that exist between these two meaning-making activities. In addition, it attempted to delineate developmental differences with respect to how 4- and 6-year-old children use the detailing within a given task as a guide or scaffold for their performance.

The findings of this study suggested that different aged children may use the means that are available to them to make sense of their experiences in very different ways. A more complete understanding of the developmental distinctions in the way young children construct and reconstruct their worlds through storytelling, and the process by which children interpret contextually available information and communicate their views to others, is fundamental to providing adequate and competent service to children.

Although this study provided a better understanding of how children go about interpreting their world, it was limited in that the participants were primarily from

Caucasian, middle- to upper-middle socio-economic backgrounds. It is inadvisable to conclude that all children perceive the world in a similar fashion. More research is required comparing children from various ethnic, cultural, and socioeconomic backgrounds. There are many questions that remain unanswered such as: (a) How do children from different experiential backgrounds establish a common frame of reference? and (b) Are there certain contextual cues (i.e., toys) or social circumstances that facilitate this process more than others? These are particularly pertinent questions considering the number of ethnically and culturally diverse ESL children who attend our child-care programs, pre-schools, and schools.

In a similar vein, future studies need to address the substantial and reciprocal influence of peers, parents, and service providers (i.e., educators, child-care providers, mental health practitioners) on why, what, and how children use the resources available to them to make meaning. Informal observations during the course of the present study seemed to suggest that the more cooperative and interactive play dyads produced more elaborate, creative, and complex stories than those dyads that had one or both partners that were less socially adept. This raises the following questions: (a) Are there differences in the way socially cognizant children interpret and communicate their experiences to others? and (b) Do the stories of these children show a heightened awareness of and sensitivity to the internal states motivating their characters actions?

Implied within the preceding questions is the conceptual notion of social cognition. One aspect of social cognition involves the ability to recognize the needs of others as separate and distinct from one's own (i.e., perspective taking). The use of

decontextualized, explicit language (narrator voice), which characterizes more formal or literate forms of storytelling, suggests that this ability is intact. Children use more explicit language when they begin to see the world through others' eyes and realize that these perceptions may not necessarily be consistent with their own. Thus, the dawning awareness of others' perspectives as separate and unique from ones' own may correspond with children's increasing use of more explicit language to ensure that their message (or story) is interpreted in an accurate manner. This introduces the following questions: (a) Do more socially adept children use more decontextualized language than their less socially competent peers? and (b) Are there certain contexts that facilitate this explicit language use more than others? The present study suggested that children's dyadic fantasy play, which comprised a large amount of stage management narrative clauses, may be such a context because clear and explicit language conveying one's needs and intent was necessary as each play partner actively negotiated a common frame of reference.

The preceding point suggests that the configuration of narrative voices the children use in their stories may somehow be linked to the plot level of the story. For example, suggestions from a play partner may contribute ideas to a story theme that the other child may not have considered; thus, those stories that contain both stage management and narrative clauses may have more advanced plot levels than a story that contains primarily one or the other voice. Future studies need to examine plot structure in conjunction with narrative voice to further explicate this potential connection.

Lastly, the themes the children incorporate into their stories in terms of the topics and character roles they use tells a great deal about how they conceive of others and the

world around them. Illustrative questions such as: (a) Are the themes driven by common, familiar experiences or do they originate from the world of ideas (Piaget, 1962; Vygotsky, 1978; Matthews, 1977)? (b) Is there a developmental component to the themes the children use in there stories, as previous authors have suggested (Seidman, 1983; Nelson & Seidman, 1984)? and (c) Are these themes affected by contextual (i.e., toys, task), and social (i.e., peers, families, communities, cultures) variants? These questions, and those cited previously, continue to be pertinent and necessary in deepening both the scientific and professional communities understanding of the dynamic, multi-faceted nature of children's meaning-making activities.

Summary

The purpose of the current developmental study was to examine and compare those contexts that support the emergence of storytelling in 4- and 6-year-old children and to identify and clarify structural consistencies that may exist within children's meaning-making activities. The results of the structural analyses of the children's narrative productions suggested developmental differences in children's use of various contextual cues. Generally, there appeared to be a shift from contextualized (i.e., dependent on context) to more decontextualized (i.e., independent of context) action and language with increasing age, an increasingly differentiated conceptual understanding of narrative and what it entails, and a greater awareness of those activities that were appropriate and acceptable narrative contexts. Unfortunately, this study was unable to address many other factors such as social, motivational, historical, and experiential components that may contribute to the way children make sense of their world. These factors, and the

limitations cited within the present chapter, may account for the large amount of individual variation within both groups of children. Future studies need to address these various intra- and inter-individual factors to provide additional insight on the process by which young children form, modify, and express their unique perspective of the world, and their role within it.

References

Benson, M. (1993). The structure of four- and five-year-olds' narratives in pretend play and storytelling. First Language, 13 (38), 203-223.

Black, B. (1992). Negotiating social pretend play: Communication differences related to social status and sex. Merrill-Palmer Quarterly, 38 (2), 212-232.

Blishen, B.R., Carroll, W.K., & Moore, K. (1987). The 1981 socioeconomic index for occupations in Canada. Canadian Review of Sociology and Anthropology, 24, 465-488.

Bloom, (1988). What is language? In M. Lahey (Ed.), Language disorders and language development (pp. 1-19). New York, NY: Macmillan Publishing Co.

Botvin, G., & Sutton-Smith, B. (1977). The development of structural complexity in children's fantasy narratives. Developmental Psychology, 13 (4), 377-388.

Britton, J. (1982). Spectator role and the beginnings of writing. In M. Nystrand (Ed.), What writers know. New York: Academic.

Bruner, J. S. (1974). The ontogenesis of speech acts. Journal of Child Language, 2, 1-19.

Bruner, J. S. (1986a). Play, thought, and language. Prospects, 16 (1), 77-83.

Bruner, J. S. (1986b). Actual minds, possible worlds. Cambridge, MA: Harvard University Press.

Bruner, J. (1988). Research currents: Life as narrative. Language Arts, 65 (6), 574-583.

Bruner, J. (1990a). Acts of meaning. Cambridge, MA: Harvard University Press.

Bruner, J. (1990b). Culture and human development: A new look. Human Development, 33, 344-355.

Bruner, J. (1992). The narrative construction of reality. In H. Beilin & B. Pufall (Eds.), Piaget's theory: Prospects and possibilities (pp. 229-248). Hillsdale, NJ: Lawrence Erlbaum.

Burroughs, E., & Murray, S. (1992). The influence of play material on discourse during play. Journal of Childhood Communication Disorders, 14 (2), 119-128.

Case, R. (1991). The mind's staircase: Exploring the conceptual underpinnings of children's thought and knowledge. Hillsdale, NJ: Lawrence Erlbaum.

Chafe, W. (1990). Some things that narrative tells us about the mind. In B. K. Britton, & A. D. Pellegrini (Eds.), Narrative thought and narrative language (pp. 79-98). Hillsdale, NJ: Lawrence Erlbaum.

Cole, D., & LaVoie, J. (1985). Fantasy play and related cognitive development in 2- to 6-year-olds. Developmental Psychology, 21 (2), 233-240.

Cook-Gumperz, J., & Cusaro, W. A. (1977). Social-ecological contraints on children's communicative strategies. Sociology, 11, 411-434.

Davis, L. (1992). A developmental analysis of the narrative of verbally talented children. Unpublished master's thesis, University of Calgary, Calgary, Alberta.

Doyle, A., & Connolly, J. (1989). Negotiation and enactment in social pretend play: Relations to social acceptance and social cognition. Early Childhood Research Quarterly, 4, 289-302.

Dyson, A. Haas (1991). The roots of literacy development: Play, pictures, and peers. In B. Scales, M. Almy, A. Nicolopoulou, & S. Ervin-Tripp (Eds.), Play and the social context of development in early care and education (pp. 84-97). New York, NY: Teachers College Press.

Eckler, J., & Weininger, O. (1989). Structural parallels between pretend play and narratives. Developmental Psychology, 25 (5), 736-743.

Ervin-Tripp, S. (1991). Play in language development. In B. Scales, M. Almy, A. Nicolopoulou, & S. Ervin-Tripp (Eds.), Play and the social context of development in early care and education (pp. 84-97). New York, NY: Teachers College Press.

Field, T., DeStefano, L., & Koewler, J. H. (1982). Fantasy play of toddlers and preschoolers. Developmental Psychology, 18 (4), 503-508.

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

French, L. A., Lucariello, J., Seidman, S., & Nelson, K. (1985). In L. Galda, & A. D. Pellegrini (Eds.), Play, language, and stories: The development of children's literate behavior (pp. 1-27). Norwood, NJ: Ablex.

Garvey, C. (1982). Communication and the development of social role play. In D. Forbes & M. T. Greenberg (Eds.) New directions for child development: Children's planning strategies, No. 18 (pp. 81-101). San Francisco, CA: Jossey-Bass.

Golomb, C., & Cornelius, C. Brandt (1977). Symbolic play and its cognitive significance. Developmental Psychology, 13 (3), 246-252.

Guttman, M., & Frederiksen, C. H. (1985). Preschool children's narratives: Linking story comprehension, production, and play discourse. In L. Galda, & A. D. Pellegrini (Eds.), Play, language and stories: The development of children's literate behavior (pp. 99-128). Norwood, NJ: Ablex.

Hall, N. (1991). Play and the emergence of literacy. In J.F. Christie (Ed.), Play and early literacy development (pp. 3-25). Albany, NY: State University of New York Press.

Hicks, D., & Wolf, D. (1988). Texts within texts: A developmental study of children's play narratives. Papers and Reports on Child Language Development, 27, 55-62.

Howard, N. M. (1994). Conceptual knowledge of ESL students. Unpublished master's thesis, University of Calgary, Calgary, Alberta, Canada.

Johnson, J., Christie, J., & Yawkey, T. (1987). Play and early childhood development. Glenview, IL: Scott, Foresman and Company.

Kelly-Byrne, D. (1984). Text and context: Fabling in a relationship. In F. Kessel & Goncu, A (Eds.), New directions for child development: Analyzing children's play dialogues, No. 25 (pp. 27-51). San Francisco, CA: Jossey-Bass.

Kemper, S. (1984). The development of narrative skills: Explanations and entertainments. In S. Kuczaj (II) (Ed.), Discourse development: Progress in cognitive development research (pp. 99-124). New York, NY: Springer Verlag.

Kernan, K. (1977). Semantic and Expressive Elaboration in Children's Narratives. In S. Ervin-Tripp, & C. Mitchell-Kernan (Eds.), Language, thought and culture: Advances in the study of cognition (pp. 91-102). New York, NY: Academic Press.

McLoyd, V. (1983). The effects of the structure of play objects on the pretend play of low-income preschool children. Child Development, 54, 626-635.

McLoyd, V. C., Warren, D., & Thomas, E. A. (1984). Anticipatory and fantastic role enactment in preschool triads. Developmental Psychology, 20 (5), 807-814.

Mead, G. H. (1934). Mind, self, and society. Chicago: University of Chicago Press.

Miller, P. J. (1993, March). Confessions of an interpretist: Promise and peril in the comparative study of children's narratives. Paper presented at the Society for Research in Child Development, New Orleans, LA M.

Nelson, K., & Seidman, S. (1984). Playing with scripts. In I. Bretherton (Ed.), Symbolic play: The development of social understanding (pp. 45-71). Orlando, FL: Academic Press.

Neumann, E. (1971). The elements of play. New York, NY: MSS Information Corporation.

Nicolopoulou, A. (1993). Children and narratives: Toward an interpretive and sociocultural approach. In M. Bamberg (Ed.), Narrative development: Six approaches. Hillsdale, NJ: Lawrence Erlbaum.

Olson, D. R. (1990). Thinking about narrative. In B.K. Britton, & A. D. Pellegrini (Eds.), Narrative thought and narrative language (pp. 99-111). Hillsdale, NJ: Lawrence Erlbaum.

Olszewski, P. (1987). Individual differences in preschool children's production of verbal fantasy play. Merrill-Palmer Quarterly, 33, 69-86.

Olszewski, P., & Fuson, K. (1982). Verbally expressed fantasy play of preschoolers as a function of toy structure. Developmental Psychology, 18, 57-61.

Paley, V. (1990). The boy who would be a helicopter: The uses of storytelling in the classroom. Cambridge, MA: Harvard University Press.

Partington, J., & Grant, C. (1984). Imaginary playmates and other useful fantasies. In P. Smith (Ed.), Play in animals and humans (pp. 217-239). New York: Basil Blackwell.

Pellegrini, A. D. (1982). The construction of cohesive text by preschoolers in two play contexts. Discourse Processes, 5, 101-108.

Pellegrini, A. D. (1983). Sociolinguistic contexts of the preschool. Journal of Applied Developmental Psychology, 4, 389-397.

Pellegrini, A. D. (1984). The effect of dramatic play on children's generation of cohesive text. Discourse Processes, 7, 57-67.

Pellegrini, A. D. (1985). The relations between symbolic play and literate behavior: A review and critique of the empirical literature. Review of Educational Research, 55 (1), 107-121.

Pellegrini, A. D. (1986). Play centers and the production of imaginative language. Discourse Processes, 9, 115-125.

Pellegrini, A. D., & Cramer, S. E. (1983). Effects of play contexts on children's production of text. Perceptual and Motor Skills, 57, 1093-1094.

Pellegrini, A. D., & Perlmutter, J. C. (1989). Classroom contextual effects on children's play. Developmental Psychology, 25 (2), 289-296.

Pellegrini, A. D., & Galda, L. (1993). Ten years after: A reexamination of symbolic play and literacy research. Reading Research Quarterly, 28, 163-175.

Peterson, C. (1994). Narrative skills and social class. Canadian Journal of Education, 19 (3), 251-269.

Peterson, C., & McCabe, A. (1991). On the threshold of the storyrealm: Semantic versus pragmatic use of connectives in narratives. Merrill-Palmer Quarterly, 37 (3), 445-464.

Piaget, J. (1962). Play, dreams and imitation in childhood. New York, NY: Norton.

Piaget, J. (1976). Symbolic play. In J. S. Bruner, A. Jolly, & K. Sylva (Eds.), Play: It's role in development and evolution (pp. 555-569). Middlesex, England: Hazell, Watson & Viney.

Polanyi, L. (1982). Linguistic and social constraints on storytelling. Journal of Pragmatics, 6, 509-524.

Pulaski, M. A. (1973). Toys and imaginative play. In J. L. Singer (Ed.), The child's world of make-believe: Experimental studies of imaginative play (pp. 74-103). New York, NY: Academic Press.

Reifel, S., & Yeatman, J. (1991). Action, talk, and thought in block play. In B. Scales, M. Almy, A. Nicolopoulou, & S. Ervin-Tripp (Eds.), Play and the social context of development in early care and education (pp. 156-172). New York, NY: Teachers College Press.

Rogoff, B. (1988). Commentary. Human Development, 31, 346-348.

Roskos, K. (1990). A taxonomic view of pretend play activity among 4- and 5-year-old children. Early Childhood Research Quarterly, 5, 495-512.

Rumelhart, D.E. (1977). Understanding and summarizing brief stories. In D. Laberge, & S. Jay Samuels (Eds.), Basic processes in reading: Perception and comprehensions (pp. 265-303). Hillsdale, NJ: Lawrence Erlbaum.

Sachs, J., Goldman, J., & Chaille, C. (1985). Narratives in preschoolers' sociodramatic play: The role of knowledge and communicative competence. In L. Galda, & A. D. Pellegrini (Eds.), Play, language and stories: The development of children's literate behavior (pp. 45-61). Norwood, NJ: Ablex.

Scarlett, W. G., & Wolf, D. (1979). When it's only make-believe: The construction of a boundary between fantasy and reality in storytelling. New Directions for Child Development, 6, 29-40.

Seidman, S. (1983). Eventful play: Preschooler's scripts for pretense. Paper presented at the biennial meeting of the Society for Research in Child Development, Detroit, MI. (ERIC Document Reproduction Service No. ED 299 173).

Shapiro, L., & Hudson, J. (1991). Tell me a make-believe story: Coherence and cohesion in young children's picture-elicited narratives. Developmental Psychology, 27 (6), 960-974.

Soderbergh, R. (1980). Storytelling, dramatic role play and displaced speech in play with dolls. First Language, 1 (3), 209-222.

Sutton-Smith, B., Botvin, G., & Mahoney, D. (1976). Developmental structures in fantasy narratives. Human Development, 19, 1-13.

Sutton-Smith, B. (1979). Play and learning. New York, NY: Teachers College Press.

Thorndyke, P. (1977). Cognitive structures in comprehension and memory of narrative discourse. Cognitive Psychology, 9, 77-110.

Tizard, B., Philps, J., & Plewis, I. (1976). Play in pre-school centers-II. Effects on play of the child's social class and of the educational orientation of the center. Journal of Child Psychology and Psychiatry, 17, 265-274.

Udwin, O., & Shmukler, D. (1981). The influence of sociocultural, economic and home background factors on children's ability to engage in imaginative play. Developmental Psychology, 17 (1), 66-72.

Umiker-Sebeok, D.J. (1977). Preschool children's intraconversational narratives. Journal of Child Language, 6, 91-109.

Vygotsky, L. S. (1966). Play and its role in the mental development of the child. Soviet Psychology, 5 (3), 6-18.

Vygotsky, L.S. (1978). Mind in society: The development of higher psychological processes (M.Cole, V John-Steiner, S. Scribner, E. Souberman, Eds.). Cambridge, MA: Harvard University Press.

Wanska, G. S., & Krantz, M. (1981). The effects of preferred play partnership on communication adequacy. Journal of Psychology, 109, 245-253.

Weininger, O., & Daniel, S. (1992). Playing to learn: The young child, the teacher and the classroom. Springfield, IL: Charles C. Thomas.

Wechsler, D. (1967). Manual for the Wechsler Preschool and Primary Scale of Intelligence. San Antonio, TX: The Psychological Corporation.

Wolf, D. (1984). Repertoire, style, and format: Notions worth borrowing from children's play. In P. Smith (Ed.), Play in animals and humans (pp. 175-191). New York, NY: Basil Blackwell.

Wolf, D., & Grollman, S. (1982). Ways of playing: Individual differences in imaginative style. In D. J. Pepler & K.H. Rubin (Eds.), Contributions to human development - the play of children: Current theory and research (pp. 46-63). Basel, NY: Karger.

Wolf, D. P., & Pusch, J. (1985). The origins of autonomous texts in play boundaries. In L. Galda, & Pellegrini, A. D. (Eds.), Play, language and stories: The development of children's literate behavior (pp. 63-77). Norwood, NJ: Ablex.

Wolf, D., & Hicks, D. (1989). The voices within narratives: The development of intertextuality in young children's stories. Discourse Processes, 12, 329-351.

Wolf, D. P., Rygh, J., & Altshuler, J. (1984). Agency and experience: Actions and states in play narratives. In I. Bretherton (Ed.), The development of social understanding (pp. 195-217). Orlando, FL: Academic Press Inc.

Yawkey, T. D., & Blohm, P. J. (1977). Imaginative play of the young child in home and school settings. Paper presented at the Seventh Annual International Interdisciplinary Conference on "Piaget and the helping professions," Los Angeles, CA. (ERIC Document Reproduction Service No. ED 134 337).

Appendix A
Letter of Information

Dear Parent/Guardian,

My name is Shelley Bergman and I am a graduate student in the Department of Educational Psychology at the University of Calgary. Under the supervision of Dr. Anne McKeough and as a requirement of the M.Sc. program I will be conducting a research project entitled "A Developmental Analysis of 4 and 6-Year-Old's Fantasy Narratives: A Comparison of Formal Storytelling Contexts to Structured and Unstructured Play Centres." Your childcare facility has agreed to participate in this study.

We tell stories to entertain others as well as let others know about our life experiences. Young children are no exception. The purpose of this study is to understand what contexts facilitate storytelling in young children and how the stories produced in various situations (i.e., unstructured play, structured play and formal storytelling) differ. I am requesting your permission for your child to participate in this study. This participation entails videotaping your child once a week over two to three consecutive weeks playing with a peer using pre-selected toys within his/her daycare setting. Each videotaped play session will be approximately 15 minutes long.

Initially, I will require some information on the nature of each parent's occupation. As well, I will be completing a brief assessment of your child's verbal abilities. To assure you and your child's anonymity, he or she will be assigned an identification number which will be used to identify all testing materials, videotapes, transcripts and parental occupation information. The master list of corresponding names and identification numbers will be available only to myself or my supervisor. Along with the master list, all records will be stored in a locked filing cabinet within my home. Segments of videotaped storytelling may be used to present these findings to professional and academic groups. Although the children may address each other on a first name basis during the videotaping, all other identifying information will be confidential and will not be released without your prior knowledge and written consent. Feedback from myself concerning the results of this study will be available at the completion of the study. Lastly, all records will be destroyed upon completion of the analyses.

Participation in this study is voluntary so you or your child are free to withdraw from the study at any time without penalty. You should also know that I will discontinue your child's involvement in the study should I feel it is not in their best interests to continue to participate and the reason for his or her termination will be conveyed to you. However, possible risk factors from your child's participation are no greater than those experienced in his or her daily activities.

If you have any questions please feel free to contact myself (276-9134), my supervisor, Dr. Anne McKeough at 220-5723, the Office of the Chair, Faculty of Education Joint Ethics Committee at 220-5626, or the Office of the Vice-President (Research) at 220-3381. Two copies of the consent form are provided. Please return one signed copy to your child's daycare by _____ and retain the other copy for your records.

Thank-you for your cooperation.

Sincerely,

Appendix B

Consent for Research Participants

I/We, the undesigned, hereby give my/our consent for _____ to participate in a research project entitled "A Developmental Analysis of 4 and 6-Year-Old's Fantasy Narratives: A Comparison of Formal Storytelling Contexts to Structured and Unstructured Play Centres".

I/We understand that such consent means that my child will be videotaped in a formal storytelling, unstructured and structured play situation. The study will take place at my child's daycare and will take approximately 15 minutes each week for three weeks. Prior to the start of the study, infomation on my/our occupation will be obtained and a brief assessment of my/our child's verbal abilities will be administered.

I/We understand that participation in this study may be terminated at any time by my/our request, or of the investigators. Participation in this project and/or withdrawal will not affect my/our request or receipt of other services from the daycare or the university.

I/We understand that this study will not involve any greater risks than those ordinarily occurring in daily life.

I/We understand that the all the data collected will be labeled according to my child's assigned personal identification number to maintain anonymity and this personal identification number, along with the corresponding master list of names, will be kept in strictest confidence.

I/We understand that some segments of videotaped storytelling may be used to present these findings to professional and academic groups.

I/We understand that, although my/our child may be addressed by his/her first name within the videotape, all other identifying information will be kept confidential and will not be released without my/our prior knowledge and written consent.

I/ We understand that all test scores, videotapes and transcripts on my child will be kept in locked file cabinets and destroyed upon completion of the analyses.

I/We have received a copy of this consent form for my/our records. I/we understand that if I have a question at any time, I can contact the researcher at 276-9134, her supervisor, Dr. Anne McKeough at 220-5723, the Office of the Chair, Faculty of Education Joint Ethics Committee, at 220-5626, or the Office of the Vice-President (Research) at 220-3381.

_____	_____
Signature of Parent/Guardian	Signature of Parent/Guardian
_____	_____
Date	Date

Appendix C

Parental Occupation Information Form

Please return form by _____

Child-care Facility- _____

Child's Name- _____ **Date of Birth-** _____

Parent/Guardian Name (print) *Parent/Guardian Name* (print)

_____ _____

_____ _____

Occupational Title Occupational Title

For After School Programs only:

I would be willing to pick up my child later (at 5:30 p.m.) on the weekday he or she is involved in the study: _____ ***Yes***

_____ ***No***

KI#_____ (office use only)

Appendix D

Matthews (1977) Transformational Modes

Material Modes:

(1) Substitution. (cf. Piaget, 1946/62, Type IIA). The attribution of an entirely new identity to a referent. For example, a box takes on the new identity of an oven.

(2) Attribution of function. The ascription of a functional property to a referent that does not actually possess that property. For example, pretending to take a picture with a toy camera.

(3) Animation. (cf. Fein, 1975). The attribution of human or living characteristics or functions to an inanimate object. For example, addressing a play block as "Charlie Brown".

Ideational Modes:

(4) Insubstantial material attribution. Reference to materials that do not actually exist at least not in the present playroom situation. For example, referring to magic.

(5) Insubstantial situation attribution. Reference to situational factors not actually existing in the context of the playroom and play session. For example, announcing that fireworks will occur.

(6) Character attribution. (cf. Piaget, 1946/1962, Type IIB). Portrayal of the qualities of a character by active representation. For example, telling another "Let's pretend I'm a doctor" and then enacting that role.

Appendix E

Order of Treatment Presentation

Daycare #1 - Monday

4 Year Olds

WEEK 1:

KI#**01**	04	Toy Condition: Dr.
02	05	**Storytelling**: Boy/Wolf, Anything
03	06	

WEEK 2:

KI#01	**04**	Toy Condition: Blocks
02	**05**	**Storytelling**: Anything, Boy/Wolf
03	**06**	

WEEK 3: make-ups

Daycare #2 - Tuesday

4 Year Olds:

WEEK 1:

KI#**07**	09	Toy Condition: Blocks
08	10	**Storytelling**: Anything, Boy/Wolf
pm **11**	12	-extra KI#13

WEEK 2:

KI#07	**09**	Toy Condition: Dr.
08	**10**	**Storytelling**: Boy/Wolf, Anything
pm 11	**13**	-extra KI#12

WEEK 3: make-ups

6 Year Olds:

WEEK 1:

KI#**25**	27	Toy Condition: Blocks
26	28	**Storytelling**: Anything, Boy/Wolf

WEEK 2:

KI#25	**27**	Toy Condition: Dr.
26	**28**	**Storytelling**: Boy/Wolf, Anything

WEEK 3: make-ups

Daycare #3 - Wednesday

4 Year Olds

WEEK 1:

KI#**14**	17	Toy Condition: Dr.
15	18	**Storytelling**: Boy/Wolf, Anything
16	19	

WEEK 2:

KI#14	**17**	Toy Condition: Blocks
15	**18**	**Storytelling**: Anything, Boy/Wolf
16	**19**	

Appendix E (cont. 2)

Daycare #3 (cont.)

WEEK 3: make-ups

6 Year Olds

WEEK 1:

KI#**32**	30	Toy Condition: Dr.
31	**29**	**Storytelling**: Boy/Wolf, Anything

WEEK 2:

KI#**31**	32	Toy Condition: Blocks
30	29	**Storytelling**: Anything, Boy/Wolf

WEEK 3: make-ups

Daycare #4 - Thursday/Friday

4 Year Olds

WEEK 1:

KI#**20**	22	Toy Condition: Blocks
21	23	**Storytelling**: Anything, Boy/Wolf -extra KI#24

WEEK 2:

KI#21	**23**	Toy Condition: Dr.
22	**24**	**Storytelling**: Boy/Wolf, Anything -extra KI#20

WEEK 3: make-ups

6 Year Olds

WEEK 1:

KI#**33**	35	Toy Condition: Blocks **Storytelling**: Anything, Boy/Wolf -extra KI#34

WEEK 2:

KI#34	**35**	Toy Condition: Dr. **Storytelling**: Boy/Wolf, Anything -extra KI#33

WEEK 3: make-ups

Daycare #5 - Tuesday, Thursday

6 Year Olds

WEEK 1:

KI#**36**	37	Toy Condition: Dr.
38	39	**Storytelling**: Boy/Wolf, Anything

WEEK 2:

KI#36	**37**	Toy Condition: Blocks
38	**39**	**Storytelling**: Anything, Boy/Wolf

Appendix E (cont. 3)

Daycare #6 - Wednesday, Friday

6 Year Olds

WEEK 1:

KI#**41**	43	Toy Condition: Blocks
40	44	**Storytelling**: Anything, Boy/Wolf
42	45	

WEEK 2:

KI#41	**43**	Toy Condition: Dr.
40	**44**	**Storytelling**: Boy/Wolf, Anything
42	**45**	

Appendix F

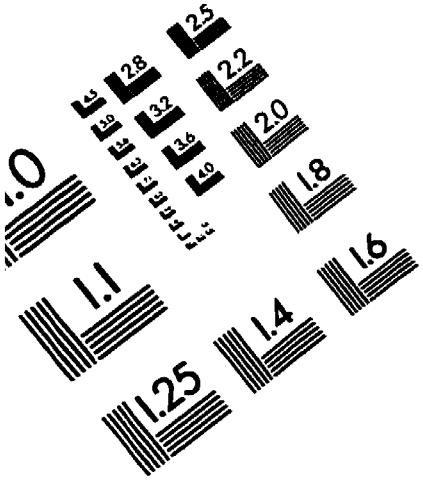
Scoring Protocol For Inter-textual Clauses
(adapted from Wolf & Hicks, 1989)

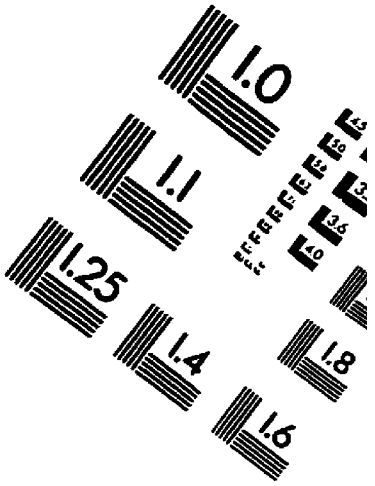
Dyad: _____

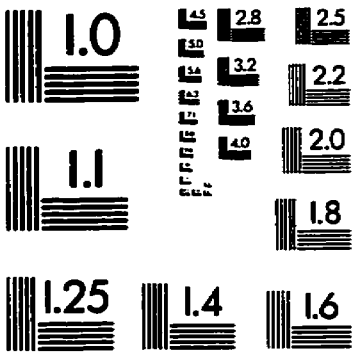
Narrative	*Level*	*Voice**		
		SM	**DI**	**NA**

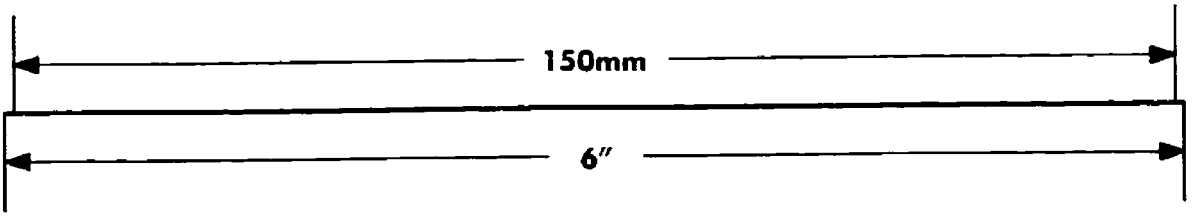
Legend: *Voice–SM=stage managing, DI=dialogue, NA=narrative

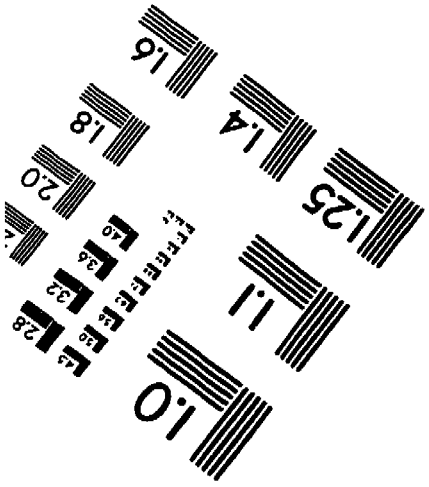
IMAGE EVALUATION TEST TARGET (QA-3)











APPLIED IMAGE, Inc
1653 East Main Street
Rochester, NY 14609 USA
Phone: 716/482-0300
Fax: 716/288-5989